

**Small and Medium-Sized Enterprises in Britain and West
Germany and Their Pursuit of Industrial
Competitiveness, c.1949-c.1979**

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Preface

This dissertation is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the Preface and specified in the text.

It is not substantially the same as any that I have submitted, or, is being concurrently submitted for a degree or diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text. I further state that no substantial part of my dissertation has already been submitted, or, is being concurrently submitted for any such degree, diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text.

It does not exceed the prescribed word limit for the History Degree Committee.

Abstract

This thesis examines the culture and conduct of small and medium-sized, family-owned or -controlled enterprises (SMEs) in the West Midlands of England and the Stuttgart region of Baden-Württemberg in West Germany in the period between 1949 and 1979, examining the histories of six companies in depth.

The German companies studied formed part of the *Mittelstand*, the sector which is unique to German-speaking countries. *Mittelstand* companies are said to operate according to well-defined principles, including the emotional attachment of their owning family, which seeks generational continuity to ensure the company remains in family hands; an identification with and attachment to the surrounding region; a patriarchal culture, which seeks to respect individuals within the business and offer them long-term employment within a ‘family’ atmosphere; an independent mindset; and the development of high-quality, niche products that achieve market-winning positions at home and abroad as part of a focused, long-term strategy. The British SMEs are examined to understand whether, in contrast to *Mittelstand* companies in similar industries, they were short-term in their outlook and sought profit over sustainability. We will also consider whether the British firms operated within a less supportive external operating environment than that experienced by their German peers.

Given their apparently different philosophical underpinnings, some consideration is given to the way in which each type of business accords with their respective identification within the Liberal Market Economies and Coordinated Market Economies definitions of the Varieties of Capitalism literature.

The work is organised in this way: in Chapter 1, the Introduction considers the treatment of the *Mittelstand* in literature and reviews the definitions which help us to identify it and understand its principles. It also considers scholarship on the Varieties of Capitalism. Chapter 2 examines the Contexts within which SMEs in the UK and West Germany operated in this period. It focuses on the training and qualifications of technical staffs, companies’ respective value systems, and on banking arrangements. Chapters 3, 4 and 5 each deal with a pair of companies, linked by common industry or business interest, one from each country. Chapter 6 provides some concluding thoughts, and asserts the value of the *Mittelstand* business model not only as demonstrated in these historical case studies, but also as a template for twenty-first century business success.

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Within the academic community, I have received tremendously kind support from lots of people. Professor Alan Cassels of McMaster University taught me history and supported my doctoral plans, as did the late, great Robert Johnston. I began my first PhD study at Harvard University a long time ago. Charles Maier of Harvard very kindly offered me his support on restarting it at Cambridge, as did former Harvard colleague Frank Trentmann. Kevin Cramer has been an inspiration since we started together there. At Cambridge, William Brown of Darwin College responded to my first email enquiry with a helpful meeting, and an introduction to Paul Ryan, who was a huge help in getting started. I have also been assisted by Adrian Williamson, Adrian Leonard, Tae-Hoon Kim, and especially by Duncan Needham. Alessa Witt of Edinburgh University aided me on my Mittelstand thinking, as did Jeff Fear, Hartmut Berghoff and Lutz Raphael. Lucy Newton and Peter Scott of Reading, and John Wilson, now of Northumbria, and Anna Tilba, now of Durham, kindly offered me teaching experience and general support. Martin Daunton has been the most supportive and patient doctoral supervisor imaginable; I cannot thank him enough.

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Chapter 1: Introduction and Literature Review

Introduction

This thesis examines German and British business culture from around the foundation of West Germany until the end of the 1970s, to understand how small- and medium-sized, family-controlled businesses in specific industries in each country approached the challenge of achieving sustainable business growth. In the German context, it will concentrate on companies which defined themselves as part of the *Mittelstand*. These companies are said to exemplify a long-term approach to business which is perceived to have differed from that of many of their British counterparts. Their experienced, long-term leaders are seen to have sustained their commitment to *Made In Germany* quality (a commitment so ubiquitous that its consequence, intended or not, has been to create a national “brand”) by continual investment in technical sales and product design excellence. In contrast, British companies’ managers, supposedly more short-lived and with less technical expertise, are assumed to have concentrated on limiting such expenditure in the name of maximising short-term profits.

Although doubts have been expressed about the continuing relevance of the *Mittelstand* model since Germany’s post-unification economic challenges of the 1990s,¹ historic as well as current views and economic data substantiate its importance, not only as the chief driver of Germany’s economy but also as an economic model which other countries should emulate if they too want to become “hidden champions”:² in 2012, *Mittelstand* firms led 1307 world niche markets; British firms led 67.³ British politicians have been fascinated by it. In 2014, for example, Britain’s Trade Minister opened a conference to which business leaders had been invited to come and “Meet the *Mittelstand*”, telling his audience about “the importance of a strong UK

¹ See for example Herbert Giersch, Karl-Heinz Paqué, and Holger Schmiedling, *The Fading Miracle: Four Decades of Market Economy in Germany* (Cambridge: Cambridge University Press, 1992); Stephen Broadberry and Mary O’Mahony, ‘Britain’s Productivity Gap with the United States and Europe: A Historical Perspective’, *National Institute Economic Review*, 189 (2004), p. 80.

² See for example Herman Simon, “‘You Don’t Have To Be German To Be A ‘Hidden Champion’”, *Business Strategy Review*, 7.2 (1996); Brian Blackstone and Vanessa Fuhrmans, ‘The Engines of Growth: Forget the Familiar Big Global Brands. Germany’s Economy Is Powered by a Legion of Smaller Companies.’, *Wall Street Journal*, 27 June 2011; ‘Business: Beating China; Germany’s *Mittelstand*’, *The Economist (US)*, 400.8744 (2011), 59; Olaf Storbeck Waldachtal, ‘*Mittelstand* Celebrated as Hidden Champions’, *The Financial Times* (London, 17 October 2018), p. 13.

³ Federal Ministry for Economics Affairs and Energy, *The German Mittelstand: Engine of the German Economy* (Berlin: Federal Ministry of Economics and Technology (BMWi), 2014), p. 8

<<https://www.bmwi.de/Redaktion/EN/Publikationen/wirtschaftsmotor-mittelstand-zahlen-und-fakten-zu-den-deutschen-kmu.html>> Data drawn from the Deutsche Weltmarktführer database 2.3.1, survey of 29.06.2012.

Mittelstand in rebalancing the UK economy.”⁴ Michael Heseltine’s *No Stone Unturned in Pursuit of Growth* highlighted features of the German economic model as examples which British managers and policymakers should follow.⁵ Labour Party leader Jeremy Corbyn wanted “to see a new, co-operatively owned ‘British Mittelstand’ created: high-investment, high-productivity smaller firms that provide high-quality employment in those sectors where we have the greatest potential: digital technology, healthcare, high-value added manufacturing.”⁶ The Confederation of British Industry’s (CBI) leader “want[ed] the UK to have its own version of the German ‘Mittelstand’ – a backbone of medium-sized firms which export, innovate and generate growth.”⁷ At a regional level, Steven McCabe has called for “a version of what the Germans refer to as the Mittelstand” as the solution to the economic woes of the West Midlands.⁸ To Britain’s mid-size company owners, the Mittelstand is presented as the source of “secrets of growth”.⁹

Definitions

Given both its apparent global pre-eminence and the interest expressed by British decision-makers in copying it, it makes sense to review the origins of the Mittelstand’s particular characteristics, and to use them as a lens through which to view both Mittelstand firms themselves and the British companies with which we are comparing them. We should therefore begin with an understanding of what constitutes the Mittelstand and how it should be defined. Originally referring to a middling class of the self-employed, entrepreneurs and owners of small businesses, the term Mittelstand is now understood to refer to a specific section of German (as well as Austrian and Swiss) business, made up mostly of small- and medium-sized enterprises (hereafter, SMEs) which have remained in private ownership. The European Union

⁴ ‘Meet the Mittelstand: How German Mid-Sized Companies Went Global | All-Party Parliamentary Manufacturing Group’ <<https://www.policyconnect.org.uk/apmg/events/meet-mittelstand-how-german-mid-sized-companies-went-global>> [accessed 16 February 2019].

⁵ Michael Heseltine, *No Stone Unturned In Pursuit of Growth* (London: Department for Business, Innovation and Skills, October 2012).

⁶ Jeremy Corbyn, ‘Reckless Tories Wandered into Brexit - Now They Are Scurrying Away from the Mess’, *LabourList*, 2016 <<https://labourlist.org/2016/09/jeremy-corbyn-reckless-tories-wandered-into-brexit-now-they-are-scurrying-away-from-the-mess/>> [accessed 31 July 2019].

⁷ Helen Power, ‘Britain’s Forgotten Army of Firms Must March like the Germans, Says Cridland’, *The Times*, 24 October 2011, p. 47, The Times Digital Archive.

⁸ Steven McCabe, ‘Exploring the Realities of Manufacturing in Birmingham’, *Birmingham Post* (Birmingham, 3 February 2014), Online edition <<https://www.birminghampost.co.uk/business/business-opinion/steven-mccabe-exploring-realities-manufacturing-6663271>> [accessed 16 February 2019].

⁹ Marion Dakers, ‘Secrets of Growth: The Power of Germany’s Mittelstand’, *The Telegraph*, 11 May 2017 <<https://www.telegraph.co.uk/connect/small-business/driving-growth/secrets-growth-power-of-germany-mittelstand/>> [accessed 15 February 2019]; also cited in: ‘Diagnose Mittelstand - Winter 2018’ (Finanzgruppe Deutscher Sparkassen- und Giroverband, 2018), p. 16 <<https://www.dsgv.de/sparkassen-finanzgruppe/publikationen/diagnose-mittelstand.html>> [accessed 14 February 2019].

has a specific definition of SMEs: they are companies with fewer than 250 employees, less than 50 million Euros in turnover, and with an annual balance sheet value of less than 43 million Euros.¹⁰ The Institute for Mittelstand Research (IfM) in Bonn had a longstanding definition of a Mittelstand SME, allowing up to 500 employees and 50 millions Euros in turnover.¹¹

I will not be restricted to these definitions, however, even though the companies I will study would have been included within them at some, or every, point in their history. Instead I will include companies which either define themselves as Mittelstand, or which exhibit some of the characteristics, as opposed to quantitative dimensions, associated with the Mittelstand; characteristics which are in fact somewhat intangible. In its own definition, the IFM cited Ludwig Erhard, speaking in 1954, who insisted that the Mittelstand was not something which could easily be defined in material terms. It was, rather, something to be understood by reference to its members' ethos, attitudes, and mindset.¹² For Susanne Ensser, the Mittelstand is "a phenomenon without definition", that nevertheless has distinctive attributes - such as creativity, independence, a willingness to take risks and to put company owners' own capital at risk - which are widely understood by all political, economic and institutional actors in Germany.¹³

A more complete summary of historic Mittelstand characteristics is offered by Jeffrey Fear, who identifies the emotional commitment to the business of the owning family, an attachment to their region, a patriarchal culture that enables a sense of independence and 'family', and a commitment to achieving excellence in particular niche products.¹⁴ In addition to these characteristics, Hartmut Berghoff has identified a commitment to focused, long-term strategies, to generational continuity, and to independence.¹⁵ Both authors' definitions are echoed and validated in recent publications by the national Sparkasse (savings banks) organisation, principal bankers for decades to the Mittelstand, which consists of "enterprises that are

¹⁰ Article 2 of the Annex of Recommendation 2003/361/EC, in: European Commission, *The New SME Definition: User Guide and Model Declaration*. (European Commission, 2005)
<http://ec.europa.eu/enterprise/policies/sme/files/sme_definition/sme_user_guide_en.pdf> [accessed 16 February 2014].

¹¹ 'IfM Bonn: KMU Definition Des IfM Bonn' (Institut für Mittelstandsforschung, 2014) <, <http://www.ifm-bonn.org/mittelstandsdefinition/definition-kmu-des-ifm-bonn/>> [accessed 16 February 2014].

¹² 'IfM Bonn: Mittelstandsdefinition Des IfM Bonn' (Institut für Mittelstandsforschung, 2019)
<<https://www.ifm-bonn.org/definitionen/mittelstandsdefinition-des-ifm-bonn/>> [accessed 14 February 2019].

¹³ Susanne Ensser, *Die Bedeutung Der Treuhandanstalt Fuer Die Wiederbelebung Des Industriellen Mittelstandes in Den Neuen Bundeslaendern: Eine Ordnungspolitische Betrachtung*, Schriften Zur Wirtschafts- Und Sozialgeschichte (Berlin: Duncker und Humblot, 1998), BAND 53, pp. 34–36.

¹⁴ Jeffrey Fear, 'Straight Outta Oberberg: Transforming Mid-Sized Family Firms Into Global Champions 1970-2010', *Jahrbuch Fuer Wirtschaftsgeschichte*, 2012.1 (2012), 125–68 (p. 129).

¹⁵ Hartmut Berghoff, 'The End of Family Business? The Mittelstand and German Capitalism in Transition, 1949-2000.', *Business History Review*, 80.Summer 2006 (2006), 263–95 (pp. 272–75).

characterised, on the one hand, by close ties to their region and their employees and, on the other hand, by high-quality, competitive goods produced for the world market. These enterprises provide local training and employment opportunities and, at the same time, global sources of income.”¹⁶ I will use these attributes as benchmarks against which I can evaluate my subject companies.

It is important to note that those attitudes persisted even as those companies increased their sales and their employee headcount: there are many Mittelstand companies which outgrew definitions based on business size but remained members of the Mittelstand because their founding mentality and attitude persisted, as I will claim with Keiper-Recaro below. Indeed, the IfM has recently changed its definition: a Mittelstand company is now one in which up to two living people or members of their family own, directly or indirectly, at least 50% of the shares, and participate in its management. Consequently, “the meanings of Mittelstand, family business, owner-managed business, and family-managed business are, according to the IfM’s definition, to be seen as synonyms.”¹⁷ This is an important correction. After all, a company which has been owned and operated by the same family according to the same philosophy since its inception cannot become ‘another kind’ of company simply by growing: if an owner-manager believes that the “task I took over from my father is to successfully prepare the company for the future, to secure existing jobs and create new ones” and he “counts in decades rather than quarters”, then his remains a Mittelstand company, even when it has 5,000 staff and revenues of €800million.¹⁸

Research Questions

I investigate how the Mittelstand’s approach differed from (or resembled) that of small- and medium-sized businesses in Britain, reviewing their business philosophies and the commercial practices which encapsulated them during three post-war decades. The historiography of relative macroeconomic change is well developed,¹⁹ as is that of labour relations, skills

¹⁶ Finanzgruppe Deutscher Sparkassen- und Giroverband, p. 16. Also published as ‘SME Diagnosis’, in which all page and paragraph locations and URL are identical.

¹⁷ ‘IfM Bonn: Mittelstandsdefinition Des IfM Bonn’.

¹⁸ Olaf Storbeck Waldachtal; the article refers to Fischer: ‘Fischer Group’, 2019 <<https://www.fischer.group/de-de>> [accessed 16 February 2019].

¹⁹ See, for example: Alan Booth, ‘The Manufacturing Failure Hypothesis and the Performance of British Industry during the Long Boom’, *Economic History Review*, LVI.1 (2003), 1–33; Stephen Broadberry, ‘The Performance of Manufacturing’, in *The Cambridge Economic History of Modern Britain, Vol. III, Structural Change and Growth, 1939-2000*, ed. by Roderick Floud and Paul Johnson (Cambridge: Cambridge University Press, 2004); Michael Kitson, ‘Failure Followed by Success or Success Followed by Failure? A Re-Examination of British Economic Growth since 1949’, in *The Cambridge Economic History of Modern Britain, Vol. III, Structural Change and Growth, 1939-2000*, ed. by Roderick Floud and Paul Johnson (Cambridge: Cambridge

training, and labour productivity in big business. But less attention has been paid to the commercial culture and managerial competence within individual industrial companies which either enabled or prevented their growth and survival. I wish to understand the culture of such companies, and the values and strategic vision which motivated their leaders. In doing so I will address several critical questions:

1. What did the managers of Mittelstand companies actually do to make their companies a success, or failure?
2. What was the external context in which they did it? What bearing did this context have on the Mittelstand's success?
3. How did the performance of their British counterparts compare with the Mittelstand approach?
4. How was British companies' performance affected by the context in which they operated?

Having analysed companies' and managers' performance, I should be in a position to answer these additional questions:

5. To what extent can the "Mittelstand model" be shown to have been a formula for long-term sustainable business success within companies?
6. Is the "Mittelstand model" a way of living and working which is achievable only in Germany, or does history show that British companies can achieve similar results by conducting themselves in a similar manner?

These questions are not only intrinsically important; they address a gap in the scholarly literature. The historiography of this period's economic and institutional developments is comprehensive. But there is little detailed analysis of the ways in which smaller companies in either Britain or Germany actually operated on a daily basis. In other words, historians have felt able to draw generalised conclusions about economies' performance without understanding

University Press, 2004); Nick Crafts, 'Competition Cured the "British Disease"', *VoxEU.Org* <<http://www.voxeu.org/article/competition-cured-british-disease>> [accessed 5 February 2015]; Michael Kitson and Jonathan Michie, 'The Deindustrial Revolution: The Rise and Fall of UK Manufacturing, 1870-2010', in *The Cambridge Economic History of Modern Britain: Volume 2*, ed. by Roderick Floud and Paul Johnson, 2012 <<https://michaelkitson.files.wordpress.com/2013/02/kitson-and-michie-the-deindustrial-revolution-oct-20121.pdf>> [accessed 13 May 2016]; Stephen N. Broadberry and Karin Wagner, 'Human Capital and Productivity in Manufacturing during the Twentieth Century: Britain, Germany and the United States', *Quantitative Aspects of Post-War European Economic Growth*, 1997 <<https://doi.org/10.1017/CBO9780511599255.007>>; Stephen Broadberry and Nick Crafts, 'UK Productivity Performance from 1950 to 1979: A Restatement of the Broadberry-Crafts View', *Economic History Review*, LVI.4 (2003).

the internal dynamics of companies which actually constitute those economies. William Brown has written extensively on labour relations and management practices in the West Midlands, but is surprised by the continued lack of academic attention to the way in which managers have functioned, despite having himself witnessed “breathtaking” managerial incompetence.²⁰ In relation to the following review of Mittelstand management practices, Hartmut Berghoff, himself the author of important scholarship on the Mittelstand, says that “there is much to say about this kind of firms. Empirically based research is very rare indeed.”²¹ In this empirical approach, I pay particular attention to factors which were decisive in the development of business in each country: firms’ investment in human capital, the nature of their family ownership, their financial relations, and the quality of their management. Some of these factors are dealt with separately in a review of the contexts within which each firm operated.

Methodology

Approach The thesis contains detailed case studies on six companies, two per chapter linked by a common industry. Each is in either the West Midlands or the Stuttgart region of Baden-Württemberg.²² Though my choice of companies was limited by the paucity of records for SMEs, I matched each UK firm with a business in Germany which served the same or related markets. The industries included are Paper (papermaking equipment manufactures Chr. Wandel & Co. KG of Reutlingen, and printers and stationery manufacturers Kenrick & Jefferson Ltd (K&J) of West Bromwich);²³ Automotive (coachbuilders and seat manufacturers Karosseriewerk Reutter and its successors of Stuttgart, and coachbuilders and luxury car makers Jensen Motors Ltd of West Bromwich); and Steel (steel fabricators Julius Schneider KG of Ludwigsburg, and Braithwaite & Co. Engineers Ltd of London, Newport and West Bromwich). Supplementary analysis is provided on several other companies from each region, to illuminate particular points.

Sources For each business, a comprehensive review of available primary archival materials was undertaken. The company-related research was conducted in regional business

²⁰ Interview with Professor William Brown, Darwin College, Cambridge, 13 June 2012.

²¹ In an email to the author, 9 October 2012.

²² West Germany, or the Federal Republic of Germany (FRG) during the period under investigation.

²³ Regrettably the archives of stationery manufacturer Louis Leitz at WABW were not made available to me, preventing a more appropriate match with the history of K&J.

archives in the West Midlands and Baden-Württemberg.²⁴ Additional research was undertaken in external archives, such as those of banks and regional universities, to provide context for each company's operations and to assess the validity of source materials uncovered at the company level.²⁵

Following Scranton and Fridenson's advice to investigate multiple "memory phenomena" inside and outside the firm²⁶ is often not possible for smaller companies active several decades ago. Employees are – with few exceptions – dead or impossible to locate. Records are fragmented, incomplete, and inconsistent within themselves, let alone in comparison with those of other companies. In general, of course, small firms simply have fewer documents to study than do corporations. Firms which are still active present the challenge of gaining information about their past performance, relating it to present outcomes, and respecting the current desire for confidentiality. In short, both reader and researcher must remain aware of Decker's health warning in relation to the review which follows: "Like all reconstruction, it suffers from uneven, complex and confusing evidence, multiple explanations, the eventual choice to prioritize one account over another, the bias inherent in the intellectual framework of the researcher, and the fundamental silence of some historical sources".²⁷

The availability of primary sources on each company was as shown below. Those sources were of variable quality and scope, which has complicated the analysis.

²⁴ The principal company-related archives for the companies listed are at the Wirtschaftsarchiv Baden-Württemberg in Stuttgart (WABW), Sandwell Community History and Archives Service in Smethwick (Sandwell), and the Modern Records Centre, University of Warwick (MRC).

²⁵ Stephanie Decker, 'The Silence of the Archives: Business History, Post-Colonialism and Archival Ethnography', *Management & Organizational History*, 8.2 (2013), 155–73 (p. 165); Matthias Kipping, R. Daniel Wadhwani, and Marcelo Bucheli, 'Analyzing and Interpreting Historical Sources: A Basic Methodology', in *Organizations in Time: History, Theory, Methods*, ed. by R. Daniel Wadhwani and Marcelo Bucheli (Oxford: Oxford University Press, 2014), pp. 305–29 (pp. 316–19).

²⁶ Philip Scranton and Patrick Fridenson, *Reimagining Business History* (Baltimore: The Johns Hopkins University Press, 2013), p. 215.

²⁷ Decker, pp. 160–61.

Availability of Archival Materials Relating to Cited Companies				Board / Management Minutes	Governance Documents	Internal Memos & Letters	Statutory Accounts	Management Accounts	Customer Correspondence	Supplier Correspondence	Marketing Materials	Sales Force Documentation	Personnel Records	Company History	Company "Philosophy"	Staff Magazines etc.	Oral Testimony
Case-Study Companies	Industry	Extant	Loc														
J.Schneider & Co KG	Structural Steel	No	FRG														
Chr. Wandel & Co KG	Paper-Making Machines	No	FRG														
RECARO GmbH	Coachbuilding, Seating	Yes	FRG														
Kenrick & Jefferson Ltd	Stationery Manfrs, Printers	No	UK														
Braithwaite & Co Engineers Ltd	Structural Steel	No	UK														
Jensen Motors Ltd	Luxury Cars, Car Bodies	No	UK														
Secondary Companies																	
Ph. Mueller GmbH & Co	Water Systems Engineers	Yes	FRG														
Gebr. Rauch GmbH	Paper Wholesalers	Yes	FRG														
C.F. Dreyspring GmbH	Packaging & Printing	Yes	FRG														
W. & J. Linney Ltd	Printing	Yes	UK														
Alfred Herbert Ltd	Machine Tool Manfrs	No	UK														
Chance Brothers Ltd	Glass Makers	No	UK														
Extensive																	
Partial																	
Not Available																	
Not Yet Known																	

In view of these disparities, the arrangement of each chapter differs according to the availability of material related to specific areas of interest.

Framework Conducting a comparative historical analysis by reference to Mittelstand characteristics raises inevitable concerns about symmetry and hermeneutic neutrality. On the face of it, judging British and German firms according to characteristics derived from German firms is likely to result in judgements which favour the German firms. Yet there are two reasons to conduct the analysis in this way. First, it is impossible to evaluate the appropriateness of calls for a "British Mittelstand" unless one conducts an analysis of the German one and measures the British equivalent against it. Second, an evaluation of Mittelstand firms' culture and practice per se will in any case be part of this analysis; using the Mittelstand as a framework is not an assertion of its innate superiority, as examples of better British practice in the cases below demonstrate. To add non-partisan objectivity, I utilise Hall and Soskice's categorisation of business characteristics in the Summary to each chapter.²⁸

Literature Review

In reviewing relevant scholarship, I pay particular attention to writing on factors forming the main themes of the dissertation: human capital, family ownership, banking, and management. In this section, I review literature relating to the nature of the Mittelstand and its place within

²⁸ See n.74, this chapter.

the debate on the varieties of capitalism which have differentiated Britain from Germany in the postwar period. Scholarship relating to the aforementioned factors governing company development is dealt with in Chapter 2 and at relevant points within each case study.

The Nature of the Mittelstand. Whether the “Mighty *Mittelstand*”²⁹ of small- and medium-sized businesses is viewed by the business press as “an endangered species”,³⁰ a “booming” powerhouse growing faster than China’s economy,³¹ or as “the *Wunder* in Germany’s post-war *Wirtschaftswunder*”;³² or whether indeed it is being viewed as a potential weakness in the German economy because of firms’ succession worries³³ and their inability to agree to cooperate with each other in the face of strengthening external competition³⁴ even while they are facing “the Grim Reaper”,³⁵ the *Mittelstand*’s ongoing contribution has been critical to Germany’s postwar economic success. What is surprising is that such an essential element of Germany’s economic vitality, accounting in 2019 for 99.6% of companies, 82.2% of trainees, 59.4% of jobs and 36.8% of total corporate turnover³⁶ has been relatively little studied by historians, even those most interested in business and the economy.

There are exceptions. In 1992, Hermann Simon brought lessons from Germany’s “hidden champions” to a wider audience.³⁷ His *Harvard Business Review* article was based on research he conducted among 39 Mittelstand companies, which he says share five common practices: strategic focus combined with geographic diversity; an emphasis on customer value; a reliance on their own technical competence; blending technology with closeness to customers; and creating mutual interdependence between the company and its employees.³⁸ Simon demonstrates that a commitment to product quality, innovation and investment in staff capability had made it possible for almost all of the 39 firms to achieve first place in world rankings in their own niche industry. Despite his very positive views on the value of the

²⁹ Wsj.com, *The Engines of Growth*, 27 June 2011

³⁰ Deutsche Bank Research, *Germany’s Mittelstand – an endangered species?*, 2007

³¹ The Economist, *Germany’s Mittelstand – Beating China*, 30 July 2011, accessed 4 December 2011

³² The Economist, *Mittelstand or Mittelfall?*, 17 October 1998, referenced in Entrepreneurship and Innovation course notes, Judge School of Business, 2011, accessed 4 November 2012.

³³ Deutsche Bank Research, *Germany’s Mittelstand – an endangered species?*, 2007

³⁴ Philip Cooke, Kevin Morgan and Adam Price, *The Future of the Mittelstand: Collaboration versus Competition*, (Cardiff, 1993), p. 2

³⁵ The Economist, 16 December 1995, pp 57-58, cited in Harmut Berghoff, ‘The End of Family Business The Mittelstand and German Capitalism in Transition, 1949-2000’, *Business History Review*, 80/2, June 2006, p. 264

³⁶ ‘The German Mittelstand: Facts and Figures about German SMEs’ (Federal Ministry for Economics Affairs and Energy, 2019) <https://www.bmwi.de/Redaktion/EN/Publikationen/wirtschaftsmotor-mittelstand-zahlen-und-fakten-zu-den-deutschen-kmu.pdf?__blob=publicationFile&v=4> [accessed 20 February 2019]. Data refers to companies with fewer than 500 employees only.

³⁷ Hermann Simon, ‘Lessons from Germany’s Midsize Giants’, *Harvard Business Review*, March-April 1992, 115-123.

³⁸ Simon, ‘Lessons’, p. 116.

Mittelstand model, Simon ends with a caution on the limitations of the Mittelstand approach to marketing and a need for their owners to re-evaluate their corporate culture and their resistance to hiring outside managers.³⁹

This caution is echoed by Hartmut Berghoff. In ‘The End of Family Business? The Mittelstand and German Capitalism in Transition, 1949-2000’⁴⁰ Berghoff reviews the importance of the Mittelstand to Germany’s post-war economic development. Like Simon, he reviews the distinctive elements of Mittelstand companies. But in considering the impact of the evolving global economy on them, he argues that “the classic Mittelstand was suffering from a number of limitations that are often drowned out by the chorus of praise to its achievements.”⁴¹ Markets were changing in the 1970s, as were social norms, affecting traditional family and career patterns. Companies faced internal and external challenges: involving external managers, changing financing, increasing international engagements, managing family succession. Mittelstand values remained fundamentally important, but adaptation was required to effect the transition from “classic to modern Mittelstand”.⁴²

In summarising the importance of the Mittelstand in Germany’s economic development from the mid-19th century onwards, Berghoff underscores the importance of my own project, as he calls for a new approach to economic history: “Rather than concentrate on large-scale corporatism and its role in the governance structure at the national political level, the new approach would focus on the regional arena and undertake micro level case studies. Detailed analyses of individual Mittelstand firms, especially their networks – their relations to each other and to larger corporates – are badly needed.”⁴³ Having made the case for detailed company research, Berghoff also insists that the Mittelstand be treated with objectivity. His warning is repeated by Christian Homburg, who argues that “the English language literature on Mittelstand companies consists of a remarkable mixture of war stories and pep talks with a very limited amount of reliable information. Many authors’ attitude towards Mittelstand companies in Germany may be characterized as a rather uninformed naive admiration.”⁴⁴ More

³⁹ Simon, ‘Lessons’, pp. 122-123.

⁴⁰ Hartmut Berghoff, ‘The End of Family Business? The Mittelstand and German Capitalism in Transition, 1949-2000. *Business History Review*, 80, 2006, pp 263-295.

⁴¹ Berghoff, ‘The End of Family Business? The Mittelstand and German Capitalism in Transition, 1949-2000.’, p. 282.

⁴² Berghoff, ‘The End of Family Business? The Mittelstand and German Capitalism in Transition, 1949-2000.’, pp. 285-95.

⁴³ Berghoff, ‘Family Business’, p. 293.

⁴⁴ Christian Homburg, *Structure and Dynamics of the German Mittelstand*, (Heidelberg, 1999), p. v.

succinctly, Armin Grünbacher warns against *Mittelstandsromantik*.⁴⁵ In investigating Mittelstand histories, then, the researcher has to be sure not to lose objectivity, becoming persuaded of the Mittelstand's infallibility while giving insufficient credence to the potential of British companies to compete effectively against it.

Mittelstand As System In his important work on “the sources of Germany's industrial power”, Gary Herrigel seeks to redraw the classic interpretations of German economic history by placing “dynamic regional systems” of SMEs in their rightful position at its centre, alongside the great industrial concerns. Herrigel identifies the Mittelstand as the “decentralized form of industrial order”, initially thriving in parallel with larger companies rather than being subordinate to them.⁴⁶ He depicts a dense network of relationships between small enterprises that grew out of a tradition of independent smallholder property and craft skills, financed by locally funded savings banks, and centred on particular regions including Baden-Württemberg.⁴⁷ The other pattern is what Herrigel calls the “autarkic form of industrial order”, typically located in different regions, within which enterprises that could not draw on the support of local SMEs became very large by virtue of needing to incorporate most of the stages of manufacture under their own control. Consequently, they developed close relationships to major national “universal” banks in order to fund primary industry's huge capital investments.⁴⁸ In so developing, these major ‘concerns’ appeared to Chandler and other historians to embody “virtually the culminating development of 20th century capitalism”,⁴⁹ a conclusion Herrigel rejects.⁵⁰

Baden-Württemberg and its SMEs have been extraordinarily successful thanks to their high levels of flexibility and specialisation, utilising new technologies to produce high quality, specialised products. They co-exist with larger, mass-production companies in the region in symbiotic relationships thanks to “a clear set of institutional arrangements, both in the

⁴⁵ ‘The romanticization of small and medium-sized owner-run businesses’: Armin Grünbacher, *West German Industrialists and the Making of the Economic Miracle: A History of Mentality and Recovery* (London: Bloomsbury Academic, 2017), p. 175 <https://cam.idls.org.uk/vdc_100045788920.0x000001> [accessed 11 October 2018].

⁴⁶ Gary Herrigel, *Industrial Constructions: The Sources of German Industrial Power* (Cambridge: Cambridge University Press, 1996), pp. 19–20.

⁴⁷ Also examined, with reference to Herrigel, by Francesca Carnevali, *Europe's Advantage: Banks and Small Firms in Britain, France, Germany, and Italy Since 1918* (Oxford: Oxford Scholarship Online, 2005), pp. 41–42 <<http://www.oxfordscholarship.com/view/10.1093/0199257396.001.0001/acprof-9780199257393>> [accessed 15 February 2014].

⁴⁸ Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, pp. 20–21.

⁴⁹ Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, p. 27. For an analysis of and counterargument to Chandler's views, see below in this chapter.

⁵⁰ See below for Herrigel's commentary on Chandler.

government and in society, that bring order to their mutual relations.”⁵¹ Those arrangements allow small firms⁵² to benefit from the socialisation of risk. Herrigel argues that educational institutions – from technical universities to *Fachhochschulen* (local technical colleges) to *Berufsschulen* (vocational training schools) – are closely tied into surrounding industry through informal and formal arrangements.⁵³ Business associations provide information on markets and support programmes, and coordinate technical standards, a “practice of using collusion to further the competitive character of the industry” unknown to Anglo-American firms who “invariably find their stable intermingling difficult to grasp.”⁵⁴

Mittelstand firms are funded by local banks, whose boards include local entrepreneurs and are therefore able to encourage good practice and make informed investment decisions.⁵⁵ The regional government offers support through the Steinbeis Foundation, linking businesses to education, and provides additional funding. The IHK (*Industrie- und Handelskammer* (Chambers of Commerce)) play a critical coordinating and enforcing role. This complex of supporting institutions underpins the practice of ‘collaborative subcontracting’, where firms pool resources and know-how to make more rapid technological advances in dynamic, fast-changing markets.⁵⁶ There is a spirit of openness between firms and institutions, buttressed by mutual trust.⁵⁷ In short, Herrigel’s thesis is that one cannot look only at the firms themselves to understand their operations, “one has to view the system as a whole. It is much greater than the sum of its parts.”

The other, critical element of the Baden-Württemberg Mittelstand’s operating system, Herrigel argues, is its relationship with the region’s large firms. He offers a case study of the ascent of Daimler Benz and its gradual subsumption of processes previously completed by specialist

⁵¹ Gary Herrigel, ‘Large Firms, Small Firms, and the Governance of Flexible Specialization: The Case of Baden-Württemberg and Socialized Risk’, in *Country Competitiveness: Technology and the Organizing of Work*, ed. by Bruce Kogut (Oxford; New York: Oxford University Press, 1993), pp. 15–35 (p. 15).

⁵² Herrigel seldom uses the word Mittelstand in this or other works, other than to refer to “the industrial Mittelstand” as an aggregate concept.

⁵³ Herrigel, ‘Large Firms, Small Firms, and the Governance of Flexible Specialization: The Case of Baden-Württemberg and Socialized Risk’, pp. 17–18.

⁵⁴ Herrigel, ‘Large Firms, Small Firms, and the Governance of Flexible Specialization: The Case of Baden-Württemberg and Socialized Risk’, p. 19.

⁵⁵ Herrigel, ‘Large Firms, Small Firms, and the Governance of Flexible Specialization: The Case of Baden-Württemberg and Socialized Risk’, p. 19.

⁵⁶ In one study specifically focused on these networks, though, it is argued that business owners were much less willing to cooperate with competitors; joint development was more likely in this view to have occurred with customers and suppliers: Reinhold Grotz and Boris Braun, ‘Territorial or Trans-Territorial Networking: Spatial Aspects of Technology-Oriented Co-Operation within the German Mechanical Engineering Industry’, *Regional Studies*, 31.6 (1997), 545–57.

⁵⁷ Herrigel, ‘Large Firms, Small Firms, and the Governance of Flexible Specialization: The Case of Baden-Württemberg and Socialized Risk’, pp. 19–21.

Mittelstand suppliers;⁵⁸ we will see evidence of their hardening attitude in the study of Reutter below. But Herrigel also explains how the Mittelstand, even if it only occupied the so-called *verlängerte Werkbank* (extended workbench), remained indispensable to Daimler Benz: as its growth accelerated, Mittelstand subcontractors provided particular expertise, or more production capacity, or optimised production flows.⁵⁹

Herrigel posits a world in which Mittelstand specialists gradually lost their independence as producers of end products during the era of mass-production the 1960s, and those in the decentralised order who survived did so mostly as subcontractors to the large manufacturers.⁶⁰ However, their use of skilled workers, adoption of new technologies, and ongoing participation in their particular institutional framework brought them new importance during the 1980s as the large manufacturers began to feel overwhelmed by new technologies and new market entrants from Asia and a revived USA.⁶¹ And yet by the end of that decade, Herrigel claims, the very structures which provided the hitherto valued specialisation and flexibility were in danger of becoming a straitjacket for Germany and its manufacturers in a world of ever-accelerating technological change, as German unions and skills training stifled responsiveness. In this environment, the decentralised Mittelstand firms will only survive, he predicts, if they can reinvent themselves to produce “the same kind of low-inventory, low-cost, high-quality manufacturing as their competitors”.⁶²

Herrigel’s basic thesis is sound. As this dissertation will show, the Mittelstand did draw its strength from the context in which it operated. But his arguments are unnecessarily negative in some respects. Reutter, for example, did become increasingly driven by Porsche’s unceasing growth, as Herrigel suggests such firms did. But it did not lose its autonomy, or its creativity. It did not become servile; indeed, it created new technologies of its own. Customer relationships were robust but not always, as Herrigel implies, choking. Wandel and firms like it were never dependent on “autarkic” giants. If Mittelstand firms really had “wallowed in a marginal backwater of inefficiency”,⁶³ how would any of them have survived? How would so many have flourished in the export markets identified by Simon? Herrigel’s work is tremendously comprehensive and in many ways persuasive, but Mittelstand firms in Baden-

⁵⁸ Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, pp. 149–63.

⁵⁹ Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, pp. 153–55.

⁶⁰ Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, pp. 176–80.

⁶¹ Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, pp. 186–93.

⁶² Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, pp. 193–203; 204.

⁶³ Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, p. 182.

Württemberg and elsewhere are seen only as elements in a system rather than as individual entities with horizons beyond their region.

Herrigel's scepticism is contradicted by Christel Lane. She reviews contemporary studies by German organisation scholars to understand the Mittelstand's efforts during the 1980s to become more competitive through 'flexible specialisation'.⁶⁴ Staff skills were turned to new challenges, unions generally supported job enrichment activities, and managers were competent to anticipate and deliver the necessary changes.⁶⁵ Lane's study is particularly relevant to our own review, because it contrasts the German approach to an increasingly competitive and testing manufacturing market with that of British firms: "Such energetic technological innovation requires not only the commitment of considerable financial resources but also a high level of technical expertise among management and support staff at all levels. Neither precondition typically exist[ed] in British industrial organisations"⁶⁶ of the 1980s, a situation whose roots we will discern below.

Political and Social Standing Francesca Carnevali identifies another key difference between British small business and the Mittelstand: their respective political influence. In the political turmoil of interwar Germany, the Mittelstand "were able to achieve an identity as a group, to make their voices heard, by associating at a national, regional, and sectoral level."⁶⁷ In Britain, in contrast, the SME sector was undervalued by successive governments⁶⁸ – in fact, "Labour's attitude towards small firms was a fundamentally hostile one"⁶⁹ – from which the banks took their cue for the indifference we will see in Chapter 2 below. It was the Mittelstand's ability to organise and engender mutual respect which underpinned the regional networks and relationships identified by Herrigel and Varieties of Capitalism (VoC) scholars. For Carnevali, its importance was exceptional: "The Mittelstand could be all things to all people, both in economic and social terms: a more humane version of capitalism, a symbol of the values and aspiration of good German citizens".⁷⁰ In Britain, in contrast, the small-business sector saw its influence – and the number of firms – decline as successive British governments

⁶⁴ An approach identified by Charles F. Sabel and Michael J. Piore, *The Second Industrial Divide - Possibilities for Prosperity* (New York: Basic Books, 1984).

⁶⁵ Christel Lane, 'Industrial Change in Europe: The Pursuit of Flexible Specialisation in Britain and West Germany', *Work, Employment and Society*, 2.2 (1988), 141–68 (pp. 143–58) <<https://doi.org/10.1177/0950017088002002002>>.

⁶⁶ Lane, 'Industrial Change in Europe', p. 160.

⁶⁷ Carnevali, p. 46.

⁶⁸ Carnevali, chap. 6 'The Demise of Small Firms in Britain'.

⁶⁹ Carnevali, p. 91.

⁷⁰ Carnevali, p. 137.

pushed for American-style consolidation and mass-production practices, despite their unsuitability for the smaller markets served by British firms that demanded greater product flexibility.⁷¹

Varieties of Capitalism. In exploring the context in which the Mittelstand and British firms operated, the VoC debate, initiated by Hall and Soskice and their collaborators in 2001, has deeply influenced scholarship on comparative political economy. It is relevant to my own research because Britain, which they define as a Liberal Market Economy (LME), and Germany, a so-called Coordinated Market Economy (CME), are seen to embody two very different arrangements of economic and social institutions which sustain dissimilar approaches to business. It is therefore appropriate when considering the contexts⁷² within which the case study companies below operated to see them in the light of the distinctions proposed by VoC scholars. In the following section I will first review key concepts in the original VoC literature and subsequent derivations, and criticisms, of it, and later show how this dissertation contributes to the VoC debate.

Hall and Soskice identify five principal “spheres” which are decisive for the conduct of business: industrial relations; vocational training and education; corporate governance and its relationship to funding and investment; inter-firm relationships, especially those with suppliers and clients; and an enterprise’s employees and their knowledge and commitment.⁷³ Relationships within those five spheres are critical to firms’ exploitation of their core competencies and dynamic capabilities, but the nature of relationships is fundamentally dissimilar. In LMEs like Britain and the USA, firms coordinate activities through hierarchies and market arrangements, often transactional in nature, whereas in CMEs like Germany, non-market, longer-term relationships are fostered.⁷⁴ These differences in approach and in the nature of institutions which frame them generate systematic differences in firms’ strategy⁷⁵ and entrepreneurial behaviour: within CMEs, incremental innovation is the norm, whereas LME entrepreneurial activity favours radical innovation.⁷⁶ In Germany, firms are willing to invest

⁷¹ Carnevali, pp. 86–91.

⁷² In Chapter 2 below.

⁷³ Peter A. Hall and David Soskice, ‘An Introduction to Varieties of Capitalism’, in *Varieties of Capitalism* (Oxford: Oxford University Press, 2001), pp. 6–8 <<https://doi.org/10.1093/0199247757.003.0001>> Their ‘spheres’ and my themes overlap; common areas are explored in Chapter 2 below.

⁷⁴ Hall and Soskice, pp. 8–9.

⁷⁵ Hall and Soskice, p. 16.

⁷⁶ Hall and Soskice, pp. 37–38; See also the analysis of differences between present-day entrepreneurial approaches in André Pahnke and Friederike Welter, ‘The German Mittelstand: Antithesis to Silicon Valley Entrepreneurship?’, *Small Business Economics*, 2018, 1–14 <<https://doi.org/10.1007/s11187-018-0095-4>> in Chapter 6 below ; and also the analysis of Andrea Herrmann, ‘A Plea for Varieties of Entrepreneurship’, *Small*

in the development of high skills that enable long-term, incremental innovation because institutional arrangements – such as the vocational education system, trade associations, and chambers of commerce – encourage a widespread commitment to skills development.⁷⁷ The investment in skills is further validated by a CME-specific approach to funding, whereby “patient capital” is invested by long-term funders able to monitor firms’ performance and reputation through mutual participation in those institutions.⁷⁸ In LMEs, by contrast, institutions are arranged to facilitate rapid engagement and dismissal of staff, and financial market structures facilitate short-term investment in riskier ventures. For Hall and Soskice, the differences in political economic structure and business practices derived from them are encapsulated in the concept of “comparative institutional advantage”;⁷⁹ competitive success is achieved in areas of business which are best enabled by the prevailing institutional arrangements.

Sigurt Vitols develops the principles set out by Hall and Soskice. His analysis is based largely on very large firms,⁸⁰ but can, *mutatis mutandis*, be applied to small ones too. Liberal Market Economies (LME) like Britain focus on returns to the shareholder, and Coordinated Market Economies (CME) like Germany are committed to the wellbeing of all stakeholders.⁸¹ In daily business, these differences manifest themselves in distinct ways. German companies have few shareholders and practice consensual leadership in support of diverse corporate goals including employee welfare, competing not on price but on quality in the marketplace; we will see this at Reutter. In Britain, decisions are made from the top down by the CEO, responding to the demands of increasingly exigent, diverse shareholders to maximise profit, sometimes competing on price and other times willing to make risky investments in radical innovation; this is what happened at Jensen and K&J.⁸² Typifying the VoC argument that change in institutions is mostly incremental, Mittelstand companies “remain embedded in ‘relational networks’”; most, for example, remain customers of the publicly owned *Sparkasse* savings bank network.⁸³ German banks were willing to commit to long-term lending and to forgo the

Business Economics, 52.2 (2019), 331–343 <<https://doi.org/10.1007/s11187-018-0093-6>> reviewed in this chapter.

⁷⁷ Hall and Soskice, pp. 24–25.

⁷⁸ Hall and Soskice, p. 22.

⁷⁹ Hall and Soskice, p. 36.

⁸⁰ Sigurt Vitols, ‘Varieties of Corporate Governance: Comparing Germany and the UK’ in Peter A. Hall and David Soskice, *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. (Oxford Scholarship Online, November 2003, originally published 2001), pp. 1–26.

⁸¹ Vitols, ‘Varieties’, p. 2.

⁸² Vitols, ‘Varieties’, table 10.1.

⁸³ Vitols, ‘Varieties’, pp. 10, 12.

maximisation of bank profits as an end in itself, thereby ensuring stability within the bank-firm relationship.⁸⁴ Activity in product markets is determined in the UK by a CEO who is rewarded by stock options and thus seeks rapid and significant returns from radical innovation, and who can easily dismiss employees if things go wrong. In Germany, in contrast, managers do not seek rapid personal returns and their companies invest for the long-term in ways which guarantee the “build-up of firm-specific human capital”.⁸⁵

VOC’s Critics The original VoC scholarship attracted criticism from numerous quarters.⁸⁶ Allen, for example, suggests that Hall and Soskice are guilty of over-generalisation; differences of approach to innovation are as prevalent within countries as between them. He contends that many of the claims outlined above in the original VoC literature are vitiated by evidence that some businesses do not comply exactly with the relevant institutional relationship suggested.⁸⁷ His arguments are self-evident in the sense that it is unlikely that two, let alone many, companies can be identical in outlook and approach. They are also inappropriate in that Hall and Soskice sought only to suggest generalisations which would initiate a debate, not to create inviolable models which would be universally applicable to all enterprises and institutions.⁸⁸ Others are also critical of VoC. Piore argues that VoC theory has “considerable limits”, because it misreads the postwar American economy and fails to convince him that the institutions discussed constituted a system.⁸⁹ Streeck condemns VoC’s failure to allow for growth and change, and dismisses it as “the static-functionalist legacy of twentieth-century social science.”⁹⁰

Herrigel and Zeitlin note that research since Hall and Soskice first published their work “has revealed such significant theoretical and empirical lacunae and cul-de-sacs in the VoC paradigm as to make the framework of limited value even as a heuristic” because it is

⁸⁴ Vitols, ‘Varieties’, pp. 17-19.

⁸⁵ Vitols, ‘Varieties’, p. 16.

⁸⁶ Bob Hancké, Martin Rhodes, and Mark Thatcher, ‘Introduction: Beyond Varieties of Capitalism’, in *Beyond Varieties of Capitalism: Conflict, Contradictions, and Complementarities in the European Economy*, ed. by Bob Hancké, Martin Rhodes, and Mark Thatcher (Oxford Scholarship Online: Oxford University Press, 2008), pp. 6–7 <<https://www-oxfordscholarship-com.ezp.lib.cam.ac.uk/view/10.1093/acprof:oso/9780199206483.001.0001/acprof-9780199206483-chapter-1>> [accessed 3 June 2019].

⁸⁷ Matthew M.C. Allen, *The Varieties of Capitalism Paradigm. Explaining Germany’s Competitive Advantage?* (Basingstoke: Palgrave Macmillan, 2006) passim, but especially pp. 138-149.

⁸⁸ Hall and Soskice, p. 65; See also the defence of Hall and Soskice and their original claims in Hancké, Rhodes, and Thatcher, pp. 7, 39.

⁸⁹ Michael J. Piore, ‘Varieties of Capitalism Theory: Its Considerable Limits*’, *Politics & Society*, 44.2 (2016), 237–41 (p. 239) <<https://doi.org/10.1177/0032329216638059>>.

⁹⁰ Wolfgang Streeck, ‘Varieties of Varieties: “VoC” and the Growth Models*’, *Politics & Society*, 44.2 (2016), 243–47 (pp. 244–45) <<https://doi.org/10.1177/0032329216638060>>.

“fundamentally static and structuralist”⁹¹ and its “original formulations have great difficulty in accounting for change within systems.”⁹² In highlighting criticisms of VoC’s original claims about complementary institutional systems, path dependencies, and comparative advantages,⁹³ they point out that more recent scholarship has demonstrated sectoral and regional differences as well as “the remarkable heterogeneity over time in firm strategies, organizational forms, and modes of governance at play within individual political economies.”⁹⁴ While they are right to emphasise the constantly shifting nature of institutional relationships over time, their criticisms seem misdirected: VoC reinforces Herrigel’s own arguments about institutional arrangements, and does not insist on their immutability.

VOC’s Defenders Others see continuing value in the original conception of VoC, as well as in the scholarship which has built upon it. Hall and Soskice’s original work has been defended by Hancké et al, who argue that “institutional complementarities deliver different kinds of firm behaviour and investment patterns”, such as long-term employment, patient capital investment, and incremental innovation.⁹⁵ They claim that “cross-class coalitions” bring labour and management to agreement on shaping – rather than accepting - institutional arrangements which favour both.⁹⁶ The differing contexts of these coalitions lend themselves to CME firms following a high-value, high-quality product strategy, and LME firms a lower-cost, lower-price strategy.⁹⁷

William Lazonick also sees Germany as the “high-quality, high-cost producer” and Britain the “low-quality, high-cost producer” among leading Western industrial nations. If Germany has fared better, it is because for it and other countries like it, “the interaction between the innovative enterprise and the developmental state” has been of critical importance: companies innovate and perform, but they do so in an environment in which government plays an active role in creating and sustaining enabling institutions.⁹⁸ The British business elite of the early 20th century rejected technical education for themselves.⁹⁹ (Geoffrey Jones finds similar prejudices in Britain’s trading companies, whose selection policies followed “the general

⁹¹ Gary Herrigel and Jonathan Zeitlin, ‘Alternatives to Varieties of Capitalism’, *The Business History Review*, 84.4 (2010), 667–74 (p. 668).

⁹² Herrigel and Zeitlin, p. 671.

⁹³ Herrigel and Zeitlin, pp. 668–70.

⁹⁴ Herrigel and Zeitlin, p. 672.

⁹⁵ Hancké, Rhodes, and Thatcher, p. 4.

⁹⁶ Hancké, Rhodes, and Thatcher, pp. 20–23.

⁹⁷ Hancké, Rhodes, and Thatcher, p. 34.

⁹⁸ William Lazonick, ‘Varieties of Capitalism and Innovative Enterprise’, *Comparative Social Research*, 24 (2007), 21–69 (pp. 18–19).

⁹⁹ Lazonick, pp. 18–19.

British preference for ‘character’ and social skills as the main qualification for management.”¹⁰⁰) In Germany, however, top executives were scientists or engineers who had risen through the company. Since then, German companies have flourished by the inculcation of technical skills and the advancement of technical experts into management positions.

Institutional differences also affect “varieties of entrepreneurship”, Andrea Herrmann argues: “the regulated institutional environment is at the basis of the success of Germany’s *Mittelstand* and its core export industries. A highly qualified workforce with firm-specific skills is essential for incremental innovations and, thus, for the development of sophisticated high-quality products, which are so typical of Germany’s engineering and metal-working industries.”¹⁰¹ Herrmann also counters a criticism of VoC: VoC’s acknowledgement of the different innovation paradigms is not the assertion of a universal constraint, as Herrigel and Zeitlin and others suggest: entrepreneurs everywhere may, and do, innovate as they wish.

Chandler The distinction between German and British business organisation and performance is most famously made by Alfred D. Chandler in his seminal *Scale and Scope: The Dynamics of Industrial Capitalism*. Analysing the evolution of managerial capitalism and the modern industrial enterprise in both countries and the United States after 1870, Chandler argues that economies of scale allowed large organisations to produce ever-increasing amounts of product at ever-reducing cost, affording them the opportunity to exploit economies of scope to market and distribute different products through the same facilities.¹⁰² He examines the generic approach of each country as well as specific performance in several key industries, concluding that success was derived from a “three-pronged investment” by entrepreneurs in manufacturing, marketing, and management.¹⁰³

Chandler criticises British business performance, which was limited by the persistence of what he calls “personal capitalism.”¹⁰⁴ Unlike German and American enterprises, most British companies failed to make adequate “three-pronged” investments and failed to install adequate management organisations, preferring to retain family control.¹⁰⁵ They were motivated by a

¹⁰⁰ Geoffrey Jones, *Merchants to Multinationals, British Trading companies in the Nineteenth and Twentieth Centuries*, (Oxford, 2000), p. 208.

¹⁰¹ Herrmann, p. 340.

¹⁰² Alfred D Chandler, *Scale and Scope: The Dynamics of Industrial Capitalism* (Cambridge, Mass.: Belknap Press of Harvard University Press, 1994) See chapter 2, ‘Scale, Scope, and Organizational Capabilities’, especially p. 31.

¹⁰³ Alfred D Chandler, *Scale and Scope: The Dynamics of Industrial Capitalism*, p. 8.

¹⁰⁴ Alfred D Chandler, *Scale and Scope: The Dynamics of Industrial Capitalism*, pp. 235–37.

¹⁰⁵ See for example, Alfred D Chandler, *Scale and Scope: The Dynamics of Industrial Capitalism*, pp. 262, 273, 275.

desire to preserve “a steady flow of cash to owners” and “a large and stable income for the family” rather than committing, as their American counterparts did, to “long-term profit and growth.”¹⁰⁶ In Germany, entrepreneurs behaved differently. They quickly recruited professional managers and also made early investments in manufacturing and marketing, in what Chandler calls “cooperative managerial capitalism”. From the outset, German manufacturers differentiated themselves from the Americans by concentrating on manufacturing products for producers rather than for consumers. They aligned themselves with Germany’s universities and technical schools, far more advanced than those in Britain, and involved financial institutions from the beginning in their determination to invest in the appropriate asset base.

Chandler’s work has dominated subsequent debate, attracting praise¹⁰⁷ and criticism.¹⁰⁸ For the purposes of my own study, it offers useful guidance for investigation: the “three-pronged investment” is necessary in any industrial business, for example. But in comparing British SMEs and the Mittelstand, accepting that Chandler’s conclusions have universal validity is problematic. He analyses only the largest 200 manufacturing firms in core industries in each country;¹⁰⁹ we are concerned only with much smaller firms. Doubts that his conclusions regarding the top 200 firms in each country are necessarily valid for our study are reinforced by his own judgement that “managerial enterprise was not inevitable”, for “in nearly all industries the technical skills required by the processes of production and distribution were simple enough and the capital need was small enough to be met by one or two entrepreneurs, their families, and a small number of investors. (Such industries continued to flourish throughout the twentieth century.)”¹¹⁰

¹⁰⁶ Alfred D Chandler, *Scale and Scope: The Dynamics of Industrial Capitalism*, p. 390.

¹⁰⁷ For example, David Teece argues that Scale and Scope ‘ought to influence, if not shape, the research agenda for work in business history, industrial organization, the theory of the firm, and economic change for decades to come’: David J. Teece, ‘The Dynamics of Industrial Capitalism: Perspectives on Alfred Chandler’s Scale and Scope’, in *Management Innovation: Essays in the Spirit of Alfred D. Chandler, Jr.*, ed. by William Lazonick and David J. Teece (Oxford: Oxford University Press, 2012), p. 30 <<https://www-oxfordscholarship-com.ezp.lib.cam.ac.uk/view/10.1093/acprof:oso/9780199695683.001.0001/acprof-9780199695683-chapter-2>> [accessed 23 July 2019].

¹⁰⁸ In Herrigel and Zeitlin, p. 667, the authors call for a move away from Chandler’s thinking: “to contribute fruitfully to the understanding of the variety-producing dynamics of capitalist development, business historians need to shed – if they have not done so already – the old Chandlerian paradigm of a teleological hierarchy among global business systems, where the best and most competitive paths lead in the direction that the United States has already traversed.”

¹⁰⁹ Alfred D Chandler, *Scale and Scope: The Dynamics of Industrial Capitalism*, p. 10.

¹¹⁰ Alfred D Chandler, ‘Managers, Families, and Financiers’, in *Development of Managerial Enterprise*, ed. by Kesaji Kobayashi and Hidemasa Morikawa, The International Library of Critical Writings in Business History (Tokyo: University of Tokyo Press, 1986), pp. 35–63 (p. 60).

Scale and Scope is US-centric; it focuses exclusively on huge corporations; it is dismissive of personal capitalism within family-managed firms. Nevertheless, the weight of Chandler's authority and the widespread acceptance of his conclusions demands consideration of his arguments. In the analysis which follows I argue that our smaller firms did make the appropriate "three-pronged investments", and show that while Chandler's concerns about personal capitalism are valid in some instances, they are an inappropriate summary of the family-dominated organisations we will review.

Contribution

This thesis contributes to the literature on postwar business history in several ways. It is comparative, allowing an understanding of the relative evolution of what might be termed the great winner, West Germany, and the great loser, Britain, of the postwar European economy. It offers that understanding through the eyes of business participants who were actively involved in shaping the economic outcomes of each country. By focusing on SMEs rather than on the corporations which are the usual domain of business history scholars, it facilitates an understanding of the lived experience of each country's business community that has hitherto been largely unavailable.

While it is not confined to the considerations rehearsed in the VoC debate, it also contributes to VoC scholarship. Allen argues that the VoC approach should be complemented by firm-level analysis, and that "it might be more important to examine the *varieties of firms* and the *varieties of strategies* they adopt", as "the ability of actors to shape outcomes is much greater than it is assumed to be within much of the varieties of capitalism literature."¹¹¹ In the following study, I provide this firm-level analysis. I also contextualise each of the case study companies' histories, paying particular attention to several key themes which emerged as being essential to understand the performance of each company and the differences between British and German business, namely differing levels of investment in human capital; the relationship between SMEs and their banks; and the varying quality of management. These themes recall the five spheres identified by Hall and Soskice,¹¹² to the extent that they are applicable to each company and that archival evidence was available.

Evidence was scarce on individual firms' industrial relations and relationships with external institutions such as chambers of commerce, thus my treatment of them is correspondingly

¹¹¹ Allen, pp. 93, 148.

¹¹² Hall and Soskice, pp. 6–8.

limited. But detailed examinations of vocational training and education and of banks and funding are in Chapter 2, as well as within individual case studies. For each business, I address inter-firm relationships and examine each company's employees and their knowledge and commitment. In so doing, I provide examples of the ways in which the conduct of capitalism varied within each national economy at the SME/Mittelstand level, applying the VoC framework to company practice in a hitherto unprecedented way.¹¹³

Organisation of the Thesis

Following **Chapter 1, *Introduction and Literature Review*** the thesis is organised as follows:

Chapter 2, *Contexts*, provides a detailed insight, incorporating both primary and secondary research, into those areas of the operating contexts which had the most important influence on the businesses operating within them. Without understanding these contexts, the actions of the companies in each case study cannot be fully appreciated.

Chapters 3, 4, and 5, *Case Studies*, review the performance of the paired companies connected by their common interests in Paper, Automotive, and Steel respectively.

Chapter 6 is a **Summary and Conclusion**.

¹¹³ Herrmann, p. 332 n. 1 perceptively observes that the VoC literature has been written by scholars from many disciplines excepting business and management.

Chapter 2: Contexts and Capabilities

In this chapter, I examine in detail two of the areas which are held by VoC scholars to be fundamental to the difference between German and British ways of doing business, namely how firms were funded, and how they found and trained technically capable engineers and first-line managers. First, though, I consider their networks, values, and efforts to achieve generational continuity, to the extent that they provide an insight into the motivations and capacities of those conducting the businesses we are examining. Methodologically, each section combines a review of significant scholarship, supplemented where relevant by primary research, and completed by the addition of examples from our case study companies.

Culture, Community, And Continuity

This section assesses cultural and environmental influences on businesses and their leaders, and positions firms within their local networks. It also considers the challenge of succession, critical to the generational continuity that has been identified as a core element of Mittelstand and family-business values.

Regions, Clusters and Networks

In a study which examines activity in two distinct regions, it makes sense to understand what impact location and surrounding business ecosystems had on the conduct of business. It is beyond the scope of this thesis to consider in detail scholarship on local political economies. For the West Midlands in particular, scholars have sought to understand reasons for the region's economic decline and approaches to reviving its fortunes. A more extensive study which embeds operating businesses into their social, political and economic milieus in each country would be very valuable.¹ For now, an overview of both locations must suffice.

¹ See, for example, over a forty-year timescale, works like David B. Audretsch and Erik E. Lehmann, 'Small Is Beautiful', in *The Seven Secrets of Germany: Economic Resilience in an Era of Global Turbulence* (Oxford Scholarship Online: Oxford University Press, 2015) <<https://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780190258696.001.0001/acprof-9780190258696-chapter-2>> [accessed 31 May 2019] for considerations of modern-day regional investment; Both David Keeble, *Industrial Location and Planning in the United Kingdom* (London: Methuen, 1976); and Andrew K.G. Hidreth, 'In Search of Profits: An Investigation Into the Manufacturing Locational Shift From the West Midlands Conurbation 1880-1986' (unpublished PhD thesis, University of Cambridge, 1991) for considerations of planning and location; N. Flynn and A. Taylor, 'Inside the Rust Belt: An Analysis of the Decline of the West Midlands Economy. 2: Corporate Strategies and Economic Change', *Environment and Planning A*, 18.8 (1986), 999–1028 <<https://doi.org/10.1068/a180999>> on considerations of regional decline; *De-Industrialisation and New Industrialisation in Britain and Germany*, ed. by Trevor Wild and Philip Jones

From the Industrial Revolution until the industrial decline which accelerated under the Thatcher government, the West Midlands was extraordinarily dynamic. Carnevali gives the example of the MP for Wednesbury, close to our case-study businesses, who in 1955 urged the government not to impose credit controls which would hurt the 10,000 small manufacturing businesses in the Black Country.² Baden-Württemberg likewise sustained high levels of Mittelstand activity. Alfred Marshall argues that businesses stay where their “good work is rightly appreciated”, new ideas are shared and improved, and subsidiary trades support further business development.³ There is ready availability of skilled labour: in regions where industries are the same or similar, businesses will cluster together where they think there are skilled staff wanting to join them, and skilled staff will use improving transportation to wherever there are most employment opportunities. Marshall cautions, however, against over-specialisation within a single district, which invites companies there to fall victim to any disruption to supply or demand.⁴ By the 1980s and 90s, this is what had befallen Wandel and its competitors in Reutlingen, and metal-working automotive suppliers in the West Midlands.

Michael Porter sees the physical manifestation of the value placed on networks in the emergence of industrial “clusters.” In *The Competitive Advantage of Nations*, he argues that world-leading industrial competitiveness is enabled by companies clustering together where they become mutually reinforcing. Often there are distinct clusters of companies from a specific industry in one particular location.⁵ Companies derive benefits from their own locations, including the availability of specialised employees, who are incentivised to stay in the area where their skills will be most valued; expert local suppliers; access to specialised information through local networks; a more reactive supply chain; local educational and training infrastructure and other institutions; and investment by regional and national governments.⁶

Stephen Roper argues that this characterised the Baden-Württemberg Mittelstand’s situation. In his review of comparative innovation practices in the early 1990s, British firms were more informally organised and more focused on responding rapidly to changing market demands, whereas Mittelstand firms were innovating strategically, with a stronger technological

(London: Anglo-German Foundation for the Study of Industrial Society, 1991) for comparative analysis of regional transformations.

² Carnevali, pp. 94–95.

³ Alfred Marshall, *Principles of Economics*, 8th edn (London: Macmillan, 1920), p. 156.

⁴ Marshall, pp. 157–58.

⁵ Michael E Porter, *The Competitive Advantage of Nations* (Basingstoke [u.a.]: Macmillan, 1998), pp. 148–59.

⁶ Michael Porter, ‘Clusters and the New Economics of Competition’, *Harvard Business Review*, November–December, 1998, 77–90 (pp. 77–90).

orientation, skilled in-house staffs, and external mutual network mechanisms.⁷ That intra-firm knowledge, which differentiated Reutter and made them able quickly to reinvent themselves as a market-defining seating company in the 1960s, is identified as a key asset by Grotz and Braun, who also accentuate the importance placed by Mittelstand firms on working with their customers in product development.⁸ But while Martin Heidenreich sees the advantages to Baden-Württemberg of “industrial districts characterised by cooperative industrial networks and a supportive institutional environment”,⁹ he also warns that there can in principle be advantages and disadvantages to regional location, with a risk of “lock-in effects, path dependencies, and technological trajectories.”¹⁰ This risk seems to have been manifested by Wandel, and to a lesser extent by Schneider, in our case studies: Wandel in particular remained committed to its expertise in ageing technology and an unsuitable location, as we will see below.

Our Mittelstand businesses were also members of their respective trade association, and of their local Chamber of Industry and Commerce (IHK), which had an immediate impact in 1945 and afterwards in representing local business interests.¹¹ Gary Herrigel offers an example of how the textile machinery industry was restored through IHK and trade association coordination between 1945-52,¹² and explains how IHKs “provided firms with information about changing government regulations, markets, technology, and organization at the same time that they provided regional authorities with information on the changing needs of local industry” as well as overseeing vocational training standards,¹³ as we have seen above. The various IHKs actively promoted Mittelstand growth¹⁴ and facilitated financial support.¹⁵ While each case-study company’s archive says little about its regular interactions with its trade association or IHK, association and IHK representatives attended their key events and celebrations, emphasising the bond between institutions and firms.

⁷ Stephen Roper, *Product Innovation and Small Business Growth: A Comparison of the Strategies of German, UK and Irish Companies* (Belfast: Northern Ireland Economic Research Centre, 1996), pp. 14–15.

⁸ Grotz and Braun.

⁹ Martin Heidenreich, ‘Beyond Flexible Specialization: The Rearrangement of Regional Production Orders in Emilia-Romagna and Baden-Wuerttemberg’, *European Planning Studies*, 4 (1996), 401–19 (p. 410).

¹⁰ Heidenreich, p. 412.

¹¹ Rainer Schulze, ‘Representation of Interests and Recruitment of Elites. The Role of the Industrie- Und Handelskammern in German Politics After the End of the Second World War’, *German History*, 7.1 (1989), 71–91.

¹² Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, pp. 166–68.

¹³ Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, p. 169.

¹⁴ See, for example, documentation on support programmes in ‘Correspondence on “Mittelstandsprogramm”, June 1976 - August 1977’ (Industrie- und Handelskammer Stuttgart, 1977), WABW A16/ Bü 87.

¹⁵ ‘Closed Files Relating to Ongoing Subsidy and Support Programmes for Mittelstand Businesses’ (IHK Ostwürttemberg, 1988), WABW A15/ Bü 263, 264, 266, 271, 289, 318.

Values and Motivations

In Britain, the mediating role of formal institutions was less apparent. Networking activity was nevertheless important. Pearson and others have shown that in early 19th century British cities, there was value in networks of “businessmen associating, often publicly, to pool resources, to share information, to spread risk, to investigate investment opportunities, to expand their local infrastructure, and to reduce distribution and service costs in their core trades.”¹⁶ These relations developed through the 19th century, in many cases becoming a feature of business owners’ participation in civic affairs, as E.P. Hennock has shown in his study of participation in Birmingham city politics.¹⁷ Though strong claims are made by Robert Bennett for the importance of Chambers of Commerce in Britain,¹⁸ there is no evidence of their involvement with our case study businesses, possibly because these were not required, as their Baden-Württemberg counterparts were, to join their local Chamber.

Instead, business-related networking may have been conducted through philanthropic or religious engagement. The Kenrick family, Unitarians like the Jeffersons, were engaged in all areas of Birmingham and West Bromwich civic life:¹⁹ Frederick Jefferson was Treasurer of the local hospital, as his son was, a Justice of the Peace, and a Liberal political activist.²⁰ James Hulse Humphryes, born and apprenticed in Wednesbury, later chairman and majority shareholder of Braithwaite & Co. Engineers, shared his business neighbours’ sense of obligation: in his will in 1927, he left £4000 to be shared between four hospitals, including the West Bromwich District Hospital.²¹ It seems likely that the Jeffersons and the Kenricks shared with Humphryes a sense of moral obligation to the community, whether for religious or secular reasons. This may have brought them into contact with each other in this early manifestation of corporate, as well as family, social responsibility. Unfortunately there is no archival evidence to enable the recreation of our owners’ networks, or to understand whether the

¹⁶ R. Pearson and D. Richardson, ‘Business Networking in the Industrial Revolution- Riposte to Some Comments’, *Economic History Review*, LVI (2), 2003, p. 366. See also: R. Pearson and D. Richardson, ‘Business Networking in the Industrial Revolution’, *Economic History Review*, LIV (4), 2001
John F. Wilson and A. Popp, ‘Business Networking in the Industrial Revolution – Some Comments’, *Economic History Review*, LVI (2), 2003.

¹⁷ E.P. Hennock, *Fit and proper persons : ideal and reality in nineteenth-century urban government*. (London, 1973).

¹⁸ R. J Bennett, *Local Business Voice: The History of Chambers of Commerce in Britain, Ireland, and Revolutionary America, 1760-2011* (Oxford; New York: Oxford University Press, 2011).

¹⁹ R.A. Church, *Kenricks in Hardware – A Family Business 1791-1966* (Newton Abbot: David & Charles, 1969), p. 228.

²⁰ Kenrick & Jefferson, ‘Their Work Shall Endure’ (Kenrick & Jefferson, 1934), p. 5, Sandwell, BS/KJ/5/4/1.

²¹ ‘RECENT WILLS - James Hulse Humphryes’, *The Manchester Guardian* (Manchester, 8 November 1927), p. 8.

changes in civic engagement noted by Hennock might in any way have attenuated their influence.²²

We will see in the individual case studies below how working culture evolved over the decades following the Second World War. The prevalent sense is of complacency among British workers, either exhausted by the war or made arrogant by victory and now maintaining a sense of entitlement.²³ In contrast, in his 1946 analysis of ‘The German Question’ and his consideration of the postwar reordering of Germany, Wilhelm Röpke saw work, founded in the values learned through religious faith, as the means by which many Germans might seek to distance themselves from their recent past.²⁴ German workers were not merely diligent in their work, they immersed themselves in it in a spirit of social conscience and personal consolation. While Grünbacher has shown that ‘merchant’s honour’, a term first used in Hanseatic trade, standing among one’s peers, and the maintenance of bourgeois values were all important elements of the conduct and self-image of the Ruhr’s postwar industrial elite,²⁵ thrift and hard work were central to the self-perception and conduct of the Swabian Mittelstand of Baden-Württemberg.

The small city of Reutlingen, home of Chr. Wandel, provides evidence of this mindset. A 1959 regional industrial history, written to introduce young workers to Reutlingen’s principal companies and industries, drew attention to “the spirit which produced this industry, and which sustains it... What it has become, it has become through sacrifice and tenacity, hard work and capability, the guiding lights of our future fate.”²⁶ Wandel explained to the world in 1958 that global demand for their products had been supplied by their factory, rebuilt after the war “with true Swabian graft” (*Fleiss*).²⁷ This word is repeated in a guide, published a quarter of a century later, to Reutlingen as an industrial location that “lies in the middle of the industrial region, known for Swabian initiative and Swabian industriousness (*Fleiss*), at the foot of the

²² E. P. Hennock, *Fit and Proper Persons : Ideal and Reality in Nineteenth-Century Urban Government*, Studies in Urban History, 2 (London: Edward Arnold, 1973), pp. 323–24.

²³ David W. Paulson, ‘British and German SMEs and the Memory of War: A Comparative Approach’, *Management & Organizational History*, 2018, 1–26 <<https://doi.org/10.1080/17449359.2018.1550425>> reviews evidence of these attitudes among West Midlands’ businesses .

²⁴ Wilhelm Röpke, *The German Question*, trans. by E.W. Dicks (London: George Allen & Unwin, 1946), p. 125 <<https://mises.org/sites/default/files/The%20German%20Question.pdf>> [accessed 25 March 2017].

²⁵ Armin Grünbacher, “‘Honourable Men’: West German Industrialists and the Role of Honour and Honour Courts in the Adenauer Era”, *Contemporary European History*; Cambridge, 22.2 (2013), 233–52 (p. 236); See also Grünbacher, *West German Industrialists and the Making of the Economic Miracle*, chap. 5.

²⁶ ‘Vorwort’ to Adolf Reitz, *Werke Und Kopfe: Aufstieg Und Bedeutung Der Südwestdeutschen Industrie: Leistung Und Auftrag* (Reutlingen: Oertel und Spörer, 1959), Stadtbibliothek Reutlingen.

²⁷ Fachgemeinschaft Druck- und Papiermaschinen, ‘Der Maschineningenieur: Im Papierherstellungsmaschinenbau Und Papierverarbeitungsmaschinenbau’ (VDMA Fachgemeinschaft Druck- und Papiermaschinen, 1958), p. 37, WABW B79/Bü9.

Swabian Alps in the heart of Württemberg.”²⁸ In his speech at Julius Schneider’s 50th anniversary celebrations, the company’s owner Rolf Walz refers seven times to “Fleiss”, the industriousness of Schneider workers past, present and future.²⁹

What were the origins of this regional culture? In a 2016 *Stuttgarter Zeitung* article on the ‘Mentality of the Württemberger’, Werner Birkenmaier explores the origins of “Swabian Respectability” and present-day values.³⁰ A meritocratic mentality, implanted by competition to enter prestigious church schools, combined with the Swabian attributes of industriousness (*Fleiss*, again), thrift and orderliness, have been reinforced by centuries of secular and religious authority. The impact of religious faith on working life in Baden-Württemberg was strong, perhaps strongest among Pietists like the Reutter family.³¹

Reutter’s competitor and eventual acquirer, Keiper, was not overtly religious in its culture. But the value system which underpinned the business reflected the beliefs and practices of its founding family. The most obvious value was industry. Founder Fritz Keiper was, like his brothers, apprenticed to his blacksmith father. Their workday was from 6am to 8pm, and on four days each week they also went to apprentice school (*Fortbildungsschule*) from 8-9pm. They went to apprentice school again on Sundays from 8.30-9.30am, after they had cleaned the forge between 7-8am, and before they went to church.³² Their father “fulfilled various honorary offices and until his death the religious office (*das kirchliche Amt*) of a Presbyterian.”³³ There is no recorded evidence of religious practice by Fritz Keiper or his family, but subsequent developments in the Keiper business, even under the youthful, hard-driving Putsch brothers³⁴ in the 1960s and 1970s, appear to have been characterised by respectful and humane treatment of the company’s workforce and the continuation of a locally based, family-business culture, suggesting that their grandfather’s values had been retained. No matter what their motivation, it was consistent with widely understood Mittelstand values which are socially constructed and codified into German law: “The traditional model of the

²⁸ Stadt Reutlingen, *Industriestandort Reutlingen* (Reutlingen: Stadt Reutlingen, 1984), p. 3, Stadtbibliothek Reutlingen.

²⁹ Rolf Walz, ‘Speech by Rolf Walz for 50th Anniversary Celebrations’, 1960, WABW B4/Bu3.

³⁰ Werner Birkenmaier, ‘Mentalität der Württemberger: Die schwäbische Ehrbarkeit’, *stuttgarter-zeitung.de* (Stuttgart, 17 March 2016), Online edition <<https://www.stuttgarter-zeitung.de/inhalt.mentalitaet-der-wuerttemberger-die-schwaebische-ehrbarkheit.46062bea-1ae5-46e2-8015-302849383ff8.html>> [accessed 11 December 2018].

³¹ See Chapter 5 below.

³² Fritz Keiper, ‘Mein Weg’ (Unpublished typed manuscript, 1939), pp. 33–34, Provided by Herr Frank Jung, Head of Tradition, RECARO Holding GmbH.

³³ Keiper, p. 45.

³⁴ The sons of Keiper’s daughter, who became joint Managing Directors of the family business: see Chapter 5.

German mid-sized business is based on a long-term approach, in which ownership and the resulting responsibility are paramount. This is entirely in line with Article 14 of Germany's Constitution, which reads: 'Ownership of property comes with responsibility. Its use shall also serve the common good.'³⁵

Succession and Governance

That long-term approach requires continuity in ownership and leadership. But as Martin Daunton has shown, inadequate planning for succession can destroy companies and the wealth of their shareholding families.³⁶ Christensen argues that anointing a next-generation family member as the new business leader is risky: "Such a practice restricts the opportunities that can be offered to nonfamily management talent, and places the company at a disadvantage in respect to competitors who can draw upon wider markets for their leaders."³⁷ This suggests a tension in Mittelstand firms pursuing generational continuity, though as Berghoff demonstrates, this eventuality may not even arise when owners refuse to retire or cannot find a replacement.³⁸ The preoccupation of Mittelstand, indeed all, family firms with succession planning is therefore not surprising. Between 2004-2009, 354,000 German family firms faced a succession issue; 8% of them closed down for want of a successor, in the opinion of Stamm et al threatening not only jobs and productivity but also the principle of respectable capitalism.³⁹

Lubinski tells us that 90% of all German firms are not held in diffuse ownership, in contrast to the United Kingdom where 60% are.⁴⁰ Analysing data on 310 German firms from 1960, she shows how family ownership "was not only highly concentrated but was also understood to be a long-term commitment" by families which continued to prefer private legal forms of ownership.⁴¹ Closed forms of governance enable owner families to operate in a context of stability, remaining focused on their strategy, with a commitment to long-term investment and

³⁵ Cited in: Finanzgruppe Deutscher Sparkassen- und Giroverband, p. 16.

³⁶ Martin Daunton, "Inheritance and Succession in the City of London in the Nineteenth Century". *Business History* 30/3, 1988, pp. 269-286.

³⁷ C. Roland Christensen, *Management Succession in Small and Growing Enterprises* (Boston: Harvard Business School, 1953), p. 168.

³⁸ Berghoff, 'The End of Family Business? The Mittelstand and German Capitalism in Transition, 1949-2000.', pp. 286-93.

³⁹ Susanne Hilger and others, 'Von Generation zu Generation: der Nachfolgerprozess in Familienunternehmen', in *Familienunternehmen im Rheinland im 19. und 20. Jahrhundert: Netzwerke, Nachfolge, soziales Kapital*, Schriften zur rheinisch-westfälischen Wirtschaftsgeschichte ; Bd. 47 (Köln: Stiftung Rheinisch-Westfälisches Wirtschaftsarchiv, 2009), pp. 177-87 (p. 177).

⁴⁰ Lubinski, 'Path Dependency', p. 705.

⁴¹ Lubinski, 'Path Dependency', p. 712.

to training managers who are often drawn from within the family.⁴² What Lubinski does not explain is how they were able to find new ideas and maximise management inventiveness, nor how they ensured that managers were adequately trained to meet the company's future needs. The notion of entrepreneurial talent and energy not reaching the third generation is commonplace in Britain⁴³ and in the case studies below we will see whether family firms in both countries were able to continue operating effectively during succeeding generations.

Successful Mittelstand firms have been shown to take pragmatic responses to succession crises. Fear demonstrates how Stihl and Siegwark Druckfarben chose to recruit external CEOs when their strategies demanded a supplement to their family gene pool. Berthold Leibinger was able to avoid this and pass the leadership of Trumpf to his daughter,⁴⁴ though Leibinger himself had been chosen as the business heir of Christian Trumpf not only for his ability (and his willingness to buy equity), but also because he was Frau Trumpf's godson.⁴⁵ Such strategies demonstrate the need for flexibility if family firms are to prosper and survive. Research by Scholl et al on intra-family succession in Mittelstand firms highlights, in addition, the requirement to sustain external social capital during any transfer to the next generation:⁴⁶ as Berghoff suggests, a refusal of a business owner to concede his dominant position – and by extension share his networks – can have fatal consequences.⁴⁷ The case-study firms faced similar options, and failure rates. As we will see, Braithwaites, though a public company, contrived to pass their chairmanship from father to son, but the Humphryes family then bowed out. K&J suffered for their insistence on having only family Managing Directors, and Recaro, Wandel and Schneider all expired or were taken over because of their failure to find an heir or appoint a competent outsider.

Before examining their histories, we examine two critical aspects of their business operations.

⁴² Lubinski, 'Path Dependency', p. 716.

⁴³ As examined by, for example, Tom Nicholas, 'Clogs to Clogs in Three Generations? Explaining Entrepreneurial Performance in Britain since 1850', *Journal of Economic History*, 59 (1999), 688–713.

⁴⁴ Fear, pp. 144–49.

⁴⁵ Berthold Leibinger, *Wer wollte eine andere Zeit als diese: Ein Lebensbericht*, 2. (Hamburg: Murmann Verlag, 2011), secs 798, 1469.

⁴⁶ Sabrina Schell, Miriam Hiepler, and Petra Moog, 'It's All about Who You Know: The Role of Social Networks in Intra-Family Succession in Small and Medium-Sized Firms', *Journal of Family Business Strategy*, 9.4 (2018), 311–325 (p. 321) <<https://doi.org/10.1016/j.jfbs.2018.08.003>>.

⁴⁷ Berghoff, 'The End of Family Business? The Mittelstand and German Capitalism in Transition, 1949–2000.', pp. 292–93.

Banking

As we have seen in the Varieties of Capitalism discussion, one fundamental difference between Britain and West Germany was supposedly the relationships between companies and their banks. To test this argument, I review relevant literature on banking for SMEs in each country, the results of primary research in British banking sources, and the relationship of our case study companies to their own banks.

I undertook research in the archives of Lloyds Bank and HSBC with two objectives. First, to understand the reality of the banks' strategies towards SMEs. Second, to understand whether banks' appraisals of their SME customers could be used as an objective determinant of SME manager quality. This approach was inspired by Lucy Newton's study of banks' 'character books', which reveal how the banks gathered information on their customers to mitigate risk.⁴⁸ As bank records are less widely available for the second half of the 20th century, owing to business reorganisations and the move to computerised systems, one interview was also conducted with a former bank manager to support archival findings.

Regrettably, German archivists advised that a similar review would be problematic in the archives of Baden-Württemberg's banks, so the same exercise has not been conducted there, creating an inevitable inconsistency in the comparative analysis below.

Introduction

Wendy Carlin identifies business-bank relationships as one of the critical elements in comparative German economic success, along with vocational education and industrial relations.⁴⁹ Received wisdom, originating in the work of Gerschenkron, states that German industrialisation was uniquely shaped by the active involvement of great universal banks in the affairs of major companies.⁵⁰ Herrigel argues that in fact a distinctive three-pillar system of national, local and cooperative banks emerged to serve the different needs of different business

⁴⁸ Lucy Newton, 'Trust and Virtue in English Banking: The Assessment of Borrowers by Bank Managements at the Turn of the Nineteenth Century', *Financial History Review*, 7.2 (2000), 177–99 <<https://doi.org/10.1017/S096856500000010X>>; see also Victoria Barnes and Lucy Newton, 'Constructing Corporate Identity before the Corporation: Fashioning the Face of the First English Joint Stock Banking Companies through Portraiture', *Enterprise & Society*, 18.3 (2017), 678–720 <<https://doi.org/10.1017/eso.2016.90>> for commentary on the presentation of the branch manager as a figure in local society.

⁴⁹ Wendy Carlin, 'West German Growth and Institutions, 1945–90', *Economic Growth in Europe since 1945*, 1996, pp. 484, 487–89 <<https://doi.org/10.1017/CBO9780511758683.016>>.

⁵⁰ Understanding of this structure has been reassessed by historians, See Jeffrey Fear and Christopher Kobrak, 'Banks on Board: German and American Corporate Governance, 1870–1914', *The Business History Review*, 84.4 (2010), 703–36 (p. 705).

types.⁵¹ Scholarship on Germany's banking system tends to reinforce the sense of its distinctiveness. Though Edwards and Fischer argue that special relationships between big companies and their *Hausbanken* (House Banks) were not so special or different,⁵² Vitols insists German banks *were* different, evolving after the Second World War to provide long-term debt funding, especially to smaller firms, within a stable financial system that permitted banks to provide consistent support. That system relied on prudent regulation and a "federalist form of corporatism", which allowed smaller, regional institutions to modernise and develop in support of the SME sector, funded by savers.⁵³ In her comparative analysis of the evolution of SME and banking relationships in Britain, France, Italy and Germany, Francesca Carnevali shows that as British SMEs increasingly struggled, Mittelstand companies continued to thrive into and beyond the 1970s, with bank support being fundamental to their success.⁵⁴ For Carnevali, "the much larger number of small firms in Germany is both a function of the more segmented banking system and a consequence of it".⁵⁵ Small firms were further supported by public policies to strengthen their position in postwar West German society, including tax concessions, low interest funds, and support for trade associations, chambers of commerce, and professional quality standards; financial support was strengthened after the economic crises of the 1970s.⁵⁶

All of this was made possible by state support for "long-term, stable relationships with banks, so that firms could pursue long-term objectives" such as the R&D and training necessary to deliver diversified quality production.⁵⁷ In comparison to Britain, the German banking system was less concentrated and had many more banks. Close relationships between larger firms and national "universal" banks, offering a range of advisory services and embedded in firms' strategic decision-making, continued in the postwar period. By the 1970s, the national banks

⁵¹ Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, pp. 20–22. See pp. 158–159 for his analysis of the way Deutsche Bank's relationship with Daimler Benz worked; See Alex Brunner and others, *Germany's Three-Pillar Banking System: Cross-Country Perspectives in Europe*, Occasional Papers (Washington, D.C.: International Monetary Fund, 2004) for an appraisal of this system by the International Monetary Fund.

⁵² Jeremy Edwards and Klaus Fischer, *Banks, Finance and Investment in Germany* (Cambridge: Cambridge University Press, 1994). Their work exhibits two major drawbacks: they are using aggregate data on the economy and the banking system, rather than reviewing firms' funding; and they look only at major and quoted firms. It is possible that their claims on the overstatement of Germany's banking success would be modified if they were reviewing Mittelstand businesses instead.

⁵³ Sigurt Vitols, 'Are German Banks Different?', *Small Business Economics*, 10 (1998), 79–91 (pp. 79–80).

⁵⁴ Carnevali, pp. 133ff, 140. She shows that there were many more SMEs in Germany. In 1963, for example, there were 366,000 small manufacturing firms in West Germany versus 31,000 in Britain.

⁵⁵ Carnevali, p. 146.

⁵⁶ Carnevali, pp. 141–42, 147–48.

⁵⁷ Carnevali, p. 142.

were also pursuing Mittelstand business, adding to the options available to Mittelstand leaders.⁵⁸ But the market share of locally focused *Sparkassen* (savings banks owned by local governments) and cooperatives increased at commercial banks' expense. Local focus was decisive according to Carnevali and other commentators, for unless banks have knowledge to manage risk they are reluctant to lend: "information asymmetries are the core of the problem of the supply of finance to small firms and ultimately of the existence of barriers to their growth. In Britain these information asymmetries are the result of the concentrated nature of British banking that...has its origins in the 1920s."⁵⁹

British bankers were conscious of the different provision for SMEs in each country. Timothy Bevan, later Chairman of Barclays Bank, analysed the West German system in a Cambridge development seminar for British bankers. His description sets the scene. Each of the 11 Länder (states) had credit guarantee companies dealing with SMEs. They were backed by the state, institutions, and various chambers of trade, and were (in 1978) able to provide funds at up to 2% below market rates. This system was also supported by the decentralised network of savings and local co-operative banks, lending long-term funds to SMEs with state guarantees. Other institutions supporting SMEs were the reconstruction bank Kreditanstalt für Wiederaufbau (KfW) and the Industriekreditbank AG – Deutsche Industriebank, the latter providing 8- to 15-year term loans. Bevan's summary was: "The German approach to small business has been very methodical; not only has the sector been encouraged by cheap finance, it has also benefited from the various policies and programmes that have been introduced by the government over the years."⁶⁰ In Britain, there were no provisions for subsidized bank lending to small firms and no systems which would have allowed local bank branches to control it. Instead, Britain's five major clearing banks operated a centralised model to which SMEs were of relatively little importance. When the British Government finally became interested in

⁵⁸ Carnevali, pp. 143–44 tables 8.2 and 8.3; For examples of the increasing interest of national banks in the Mittelstand, see also Ralf Ahrens, *Die Dresdner Bank 1945-1957: Konsequenzen Und Kontinuitäten Nach Dem Ende Des NS-Regimes* (Munich: Oldenbourg, 2007), p. 266; 'Geschäftsbericht Für Das Jahr 1964' (Commerzbank AG, 1964), p. 26

<https://www.commerzbank.com/media/de/konzern_1/geschichte/download_8/geschaeftsbericht_1964.pdf> [accessed 2 February 2019] and.

⁵⁹ Carnevali, p. 8; Others concerned with information asymmetries in these relationships include: Newton; Timothy W. Guinnane, 'Delegated Monitors, Large and Small: Germany's Banking System, 1800–1914', *Journal of Economic Literature*, 40.1 (2002), 73–124 <<https://doi.org/10.1257/0022051026985>>; Timothy W. Guinnane, 'Cooperatives as Information Machines: German Rural Credit Cooperatives, 1883-1914', *The Journal of Economic History*, 61.2 (2001), 366–389 <<https://doi.org/10.1017/S0022050701028042>>; Martin Binks and Christine Ennew, 'The Relationship between U.K. Banks and Their Small Business Customers', *Small Business Economics*, 9.2 (1997), 167–78.

⁶⁰ Timothy H. Bevan, 'British Banks and Small Businesses', in *The Banks and Small Businesses. Cambridge Seminar 1978*. (London: The Institute of Bankers, 1978), pp. 29–52 (p. 47).

SMEs in the late 1970s, its free-market stance persuaded it only “to remove, or compensate for, market imperfections”.⁶¹ In West Germany, however, support for SMEs had been an integral part of economic policy for both national and regional (a tier missing altogether in Britain) governments since 1945. In both countries, banking arrangements have reflected political will. Germany’s arrangements have been contested: the ongoing existence of state guarantees for both Landesbanken and Sparkassen means, in the eyes of competitors and the European Union, that both types of institution were receiving illegitimate state aid.⁶² But the German way has worked, and we will see below the consequences for small businesses of these differing approaches.

West Germany

Lubinski suggests the differing approaches reflect a difference of business cultures. Whereas in Britain the average time for companies to move from foundation to an initial public offering was 8 years, for German companies it was 55 years.⁶³ Consequently, Mittelstand businesses valued close relationships with their *Hausbank*.⁶⁴ Deeg argues that bank support was fundamental, enabling Mittelstand firms to make extended commitments to R&D and high-quality products⁶⁵ as “the extensive provision of loan and equity capital and comprehensive business information by banks to firms creates a close, long-term relationship between banks and SMEs.”⁶⁶ The evolution of those relationships is traced by Guinnane, who explores the development from the mid-19th century of credit cooperatives, which still exist today, notably in the form of Raiffeisen banks. They offered both short- and long-term loans, in some cases of 20 years or more, and did not always demand collateral, relying instead of their knowledge of the borrower and co-signer.⁶⁷ Guinnane concludes that they “succeeded in large part because of their ability to capitalize on the information and enforcement capabilities implicit in their small size and local organization.”⁶⁸ In the interwar period, provincial private bankers also

⁶¹ Carnevali, p. 150.

⁶² Guinnane, ‘Delegated Monitors, Large and Small’, p. 92 and p. 92 n. 25.

⁶³ Christina Lubinski, ‘Path Dependency and Governance in German Family Firms’, *Business History Review*, 85, Winter 2011, 699–724 (p. 716).

⁶⁴ Christina Lubinski, *Familienunternehmen in Westdeutschland. Corporate Governance Und Gesellschafterkultur Seit Den 1960er Jahren* (Munich: C.H. Beck, 2010), p. 47.

⁶⁵ Richard Deeg, ‘What Makes German Banks Different’, *Small Business Economics*, 10 (1998), 93–101 (p. 94).

⁶⁶ Deeg, p. 98.

⁶⁷ Guinnane, ‘Delegated Monitors, Large and Small’, pp. 379–80.

⁶⁸ Guinnane, ‘Delegated Monitors, Large and Small’, p. 386.

funded industrial SMEs; here too, local networks and local knowledge were fundamental to the lender-borrower relationship.⁶⁹

Relationships with local Sparkassen have been particularly significant for Mittelstand companies. Burhop et al review their early history. Originally intended to help the poor to save, Sparkassen had restrictions on their asset holdings, but also guarantees from their chartering entities. Having initially only played an indirect role in industrial development through the funding of urban infrastructure projects,⁷⁰ Sparkassen became more active following legislation that allowed them to offer chequing accounts and underwrite securities by 1921.⁷¹ Their position was further strengthened through arrangements made with state-owned *Landesbanken* and state governments to back their liquidity,⁷² and by the establishment of *Gironzentrale*, regional coordinating bodies which enabled transfers between Sparkassen based in separate regions. As inflation hurt regional economies in the interwar years, the federal states permitted local banks to lend to local Mittelstand firms, thereby easing local hardships and consolidating the Mittelstand's politically influential position.⁷³

Sparkasse funding continued after the Second World War, but profligacy was avoided and business prudence reinforced. Despite the good will of the Adenauer government, whose tax policy was very pro-Mittelstand (*mittelstandsfreundlich*), Mittelstand companies were initially able to carry out only limited and inadequate investments for want of funds.⁷⁴ Partly this was due to cultural resistance to borrowing among entrepreneurs, as among all members of the community, but external funding in the late 1940s and early 1950s was scarce anyway. Medium- and long-term credit was barely available, so business owners had recourse mostly to short-term loans and overdrafts even for longer-term investments in plant that should have been funded by more appropriate arrangements. In the Rhineland, 80% of all short-term

⁶⁹ Harald Wixforth and Dieter Ziegler, 'The Niche in the Universal Banking System: The Role and Significance of Private Bankers within German Industry, 1900–1933', *Financial History Review*, 1.2 (1994), 99–119 (pp. 116–17) <<https://doi.org/10.1017/S096856500001074>>; a finding echoed by Carsten Burhop, Timothy W. Guinnane, and Richard Tilly, 'The Financial System in Germany, 1800–1914', in *Handbook of Finance and Development*, ed. by Thorsten Beck and Ross Levin (Cheltenham, UK: Edward Elgar Publishing, 2018), pp. 154–55.

⁷⁰ Burhop, Guinnane, and Tilly, pp. 160–61; This point is made in Hans Pohl, *Die Rheinischen Sparkassen. Entwicklung Und Bedeutung Für Wirtschaft Und Gesellschaft von Den Anfängen Bis 1990* (Stuttgart: Fritz Steiner Verlag GmbH, 2001), p. 103; Guinnane, 'Delegated Monitors, Large and Small', pp. 86–88 reflects more widely on the early history of the Sparkassen and develops this theme.

⁷¹ Guinnane, 'Delegated Monitors, Large and Small', pp. 88–89.

⁷² The origin of other EU countries' concerns about unfair state support.

⁷³ Carnevali, pp. 34–38.

⁷⁴ Hans Pohl, Bernd Rudolph, and Guenter Schulz, *Wirtschafts- Und Sozialgeschichte Der Deutschen Sparkassen Im 20. Jahrhundert* (Stuttgart: Deutscher Sparkassen Verlag GmbH, 2005), pp. 274–76.

Sparkasse loans went to Mittelstand companies between the Currency Reform and 1957.⁷⁵ In Baden-Württemberg severely limited funding opportunities and financial burdens on SMEs eased as local institutions' lending capability was boosted by the high savings rates of the thrifty Swabians.⁷⁶ Security demands on the Mittelstand from the risk-averse Sparkassen remained stringent, however, and eased only from the early 1960s as company credit (*Wirtschaftskredit*) as opposed to collateral-based credit (*Beleihungskredit*) gained in importance. Local knowledge and a similar mentality to their customers allowed the Sparkassen to resist national banks⁷⁷ - most businesses were close to one of 17,794 Sparkasse branches⁷⁸ - and by 1986, total Sparkasse lending to Mittelstand companies was DM86billion.⁷⁹

For Harald Wixforth, the Sparkasse business model has been economically more beneficial than that of the national banks, as it is not concerned with profit maximisation or trading its customers' debt.⁸⁰ The model is explained by Eloy: a Sparkasse is "married" to its locality, and must therefore do all it can for it. This means that a Sparkasse in a predominantly agrarian area may have nothing to do with export trade, whereas one in an area specialising in the production of machine tools "will develop all the competences necessary to accompany its clients to the end of the world"; if it has difficulties doing so, its regional Landesbank will provide the missing resources. Mittelstand entrepreneurs are matched with Sparkasse leaders who are themselves local entrepreneurs, mix in the same social circles as their clients, and know them well enough to trust them to manage through economically difficult periods: "This is what a *Hausbank* is".⁸¹ The essential element of trust, identified by Guinnane, has remained critical to Mittelstand-banker relationships, as "in credit relationships where trust is high, banks are less likely to pursue a fully-fledged instrumental risk approach but instead tend to incorporate parts of a social risk evaluation, with relationship managers gathering soft information by integrating entrepreneurs' social networks." A 2018 study shows the length of

⁷⁵ Pohl, Rudolph, and Schulz, p. 275.

⁷⁶ Willi Boelcke, *Wirtschaftsgeschichte Baden-Wuerttembergs von Den Roemern Bis Heute* (Stuttgart: Theiss, 1987), pp. 560–62.

⁷⁷ Pohl, Rudolph, and Schulz, p. 366.

⁷⁸ Pohl, Rudolph, and Schulz, p. 419, table 7.

⁷⁹ Pohl, Rudolph, and Schulz, p. 365.

⁸⁰ Harald Wixforth, 'Das Universalbanksystem – Ein Erfolgsmodell Auf Den Finanzmärkten?', *Jahrbuch Für Wirtschaftsgeschichte / Economic History Yearbook*, 58.2 (2017), 583–612 (pp. 610–11) <<https://doi.org/10.1515/jbwg-2017-0021>>.

⁸¹ Frank Eloy, 'Le rôle des banques régionales dans le financement de l'économie allemande', *Réalités Industrielles*, 2013, 56–60 (p. 58) Eloy was at the time of writing the director of a Sparkasse in the Saar responsible for the French market.

credit relationship with Mittelstand customers averages 18 years.⁸² Bank-company social networks are considered to be the most important social capital element in any inter-generational transfer of Mittelstand company leadership.⁸³

Boelcke's 125-year history of the Baden-Württembergische Bank shows how such long-term relationships, founded on trust and local knowledge and maintained by regional banks as well as Sparkassen, have always supported Mittelstand growth. BWB's strongpoint was its focus on Mittelstand needs. Though it did not ignore opportunities to work with larger firms, it was able to maintain profitable short- and medium-term lending with smaller producing businesses for which they could offer a "home advantage." To do this, BWB counted on "intensive care of customer relationships in the region and on the individualisation of advisory functions" such that "the customer must be convinced that the banker makes the worries, problems, and interests of the customer his own"⁸⁴ and will stand by the company even in difficult times when the bank's risk increases.⁸⁵

BWB's governance structure illustrates how the bank's directors understood its customers, and how Mittelstand networks were interlocked by shared knowledge and experience. For over 30 years, Klaus Scheufelen was a member of BWB's supervisory board. He was the owner of a paper company, whose website shows them using products made by Chr. Wandel or its competitors. Scheufelen was also a director of a machinery company. Wandel, or any other company working in a paper- or machinery-related industry, could therefore be confident that at least one person in the bank's senior management understood intimately their needs.⁸⁶ Though no related material remains in Wandel's archive, it is also possible BWB provided it with the support it needed for its export programme. In this environment, "the firms themselves still concentrate[d] on their rightly focused product development and innovation but a network

⁸² Bernhard Hirsch, Christian Nitzl, and Matthias Schoen, 'Interorganizational Trust and Agency Costs in Credit Relationships between Savings Banks and SMEs', *Journal of Banking & Finance*, 97 (2018), 37–50 (pp. 48, 46) <<https://doi.org/10.1016/j.jbankfin.2018.09.017>>.

⁸³ Schell, Hiepler, and Moog, pp. 320–21.

⁸⁴ Willi A. Boelcke, *125 Jahre Baden-Württembergische Bank* (Stuttgart: Kohlhammer, 1996), p. 178, wording which recalls Eloy's portrayal of Sparkasse-customer relations in 2013.

⁸⁵ Willi A. Boelcke, p. 179.

⁸⁶ 'Klaus Scheufelen', *Wikipedia*, 2018

<https://de.wikipedia.org/w/index.php?title=Klaus_Scheufelen&oldid=177045753> [accessed 5 February 2019]; Willi A. Boelcke, p. 207; 'Über Uns - Papierfabrik Scheufelen <' <<http://www.scheufelen.com/unternehmen/ueber-uns/>> [accessed 5 August 2017].

of supporting institutions [including their bank] provide[d] the necessary knowledge and financing to go global”.⁸⁷

Additional facilities were available to local businesses. For example, support for the Mittelstand had been a specific part of the *Kreditanstalt Für Wiederaufbau*’s remit since it was established in 1948. Support came with fixed interest rates – which the KfW ensured were no less favourable than those which large companies could negotiate on the financial markets - for extended periods. For export activities, the bank offered extended, fixed terms to allow investment in the machinery and equipment required to deliver the borrower’s international business plan. In a later period, a key element of the KfW’s post-reunification activity was support for the emerging, or redeveloping, Mittelstand in the new states, targeting DM18billion in 1993 (approximately £7.6million at 1993 rates) in support.⁸⁸

Thus Baden-Württemberg’s Mittelstand was offered support from a variety of financial institutions, all of which actively sought knowledge of their clients’ business to be able to contribute long-term funding and advice.

Case Studies Though no bank-company documentation is available, the general nature of relationships between our case-study companies and their banks can be discerned. For example, Chr. Wandel seems, from the limited available evidence, to have received sympathetic support from its banks over decades. In 1955, just after its new factory had been built, it had loans from two banks (one local, one the Industrie Kredit-Bank AG) totalling DM331,000. During the year it repaid DM28,000 and paid loan interest of DM20,000, or 5.8%.⁸⁹ This seems to have been a generous level of support when profits were DM258,000. Over the next 14 years, the requirement for accounts at four different banks - Württembergische Bank, LZB, Deutsche Bank, and Dresdner Bank – perhaps tells its own story of the difficulties in sustaining a business which had long machinery delivery lead times, significant export business, and high wage bills.⁹⁰ For example, though Wandel’s order book at 28.2.1969 stood at DM952,000, and they had received DM380,000 in cash in the previous four weeks, account

⁸⁷ Jeffrey Fear, ‘Straight Outta Oberberg: Transforming Mid-Sized Family Firms Into Global Champions 1970-2010’, *Jahrbuch Fuer Wirtschaftsgeschichte*, 2012.1 (2012), 125–68 (p. 152).

⁸⁸ Gert Vogt, ‘Die Kreditanstalt Für Wiederaufbau: Ein Unternehmensexport’, *Zeitschrift Für Öffentliche Und Gemeinwirtschaftliche Unternehmen*, 17.3 (1994), 373–78.

⁸⁹ ‘Accounts Ledger, Showing Activa + Passiva, with Profit and Loss Calculations and Profit Shares, 1940-55’ (Chr. Wandel, 1955), WABW B79/Bü233.

⁹⁰ In fact, by 1997 Mittelstand firms typically had 2-4 banks, securing multiple financing offers, dependent on company turnover. This suggests either that Wandel’s relationships were normal, or that mid-1990s Mittelstand firms felt as financially constrained as Wandel had done earlier. See: Ulrich Hommel and Hilmar Schneider, ‘Financing the German Mittelstand’, *EIB Papers*, 8.2 (2003), 53–90 (p. 64), table 7.

balances in their four banks were already down to DM13,000, DM1,200, DM11,000 and DM0, respectively.⁹¹ The previous month cash receipts were DM500,000, but again the bank accounts held between DM10,000-11,000.⁹² When Wandel eventually closed its doors in 1995, it claimed it was because “the bank stopped everything.”⁹³ Wandel’s elderly owner could not understand “the men from the bank” any longer: though Wandel’s assets were far more valuable than its debts Deutsche Bank had terminated its credit and made it impossible to pay the wages.⁹⁴ As Wandel’s competitors were failing in a shrinking industry, and it was in financial difficulties itself, the bank’s response was surely just prudent after 25 years of support.

Reutter appeared to be using financing strategically, rather than out of a need for support to fund daily operations. Clearly a rapidly growing business with significant needs, even if its

⁹² 'Aktennotiz, Auftragsbestand und – Eingang Weberei/Maschinenfabrik, 14.2.69' in Chr. Wandel.

⁹⁴ 'Trauerspiel Um Traditionsbetrieb', *Reutlinger Nachrichten* (Reutlingen, 15 March 1995), WABW A7/Bü Fi L/1997 Wandel, Chr., A7/Bü Fi L/1997 Wandel, Chr.

⁹⁶ Jung and Jung, p. 211.

preference was to fund its own capital expenditure, could turn to local banks familiar with both Reutter and Porsche.

Britain

The situation in Britain in relation to SMEs was fundamentally different throughout the postwar period from that in West Germany. Carnevali traces “the demise of small firms in Britain”⁹⁸ to several factors. Successive postwar governments favoured US-style consolidation through mergers (including those in the steel industry which adversely affected supplies to Braithwaites and others, as we shall see in Chapter 4), disdaining the small-business sector.⁹⁹ SMEs also faced extreme funding difficulties thanks to government and bank policies. Banks were concentrated in a centralised system that suited relations with big business but was physically and mentally distant from the smaller firms the banks were also supposed to serve. The inconsistency of government approaches to credit controls caused ruinous uncertainty among SMEs, to which lending fell by 40% between 1951-58. A 1956 survey showed that SME growth and innovation depended on the availability of funding, and Carnevali argues that not only was funding scarce thanks to government monetary policy, its unpredictability made it impossible for firms to invest in change and innovation.¹⁰⁰

As Carnevali points out, providing data which shows the damaging effect on business output of the limits imposed,¹⁰¹ academics have failed to note that restrictions were biased against SMEs, because only they had no recourse to other funding besides that provided by the now-restricted banks. Her summary of the situation is persuasive and supported by her evidence: failures to support SMEs “were the direct consequence of the structure of the banking system...The near absence of local or regional banks meant that there were no institutions whose economic interests rested with small firms and who could soften the blow of credit restrictions.”¹⁰² The absence of any political desire to help small business meant that there was no pressure applied to banks to make this change, and the banks themselves would have resisted any effort to make them more competitive.¹⁰³

⁹⁸ Carnevali, chap. 6.

⁹⁹ Carnevali, pp. 88–90.

¹⁰⁰ Carnevali, pp. 92–95.

¹⁰¹ Carnevali, pp. 95–97.

¹⁰² Carnevali, p. 127.

¹⁰³ Carnevali, p. 129.

How did this situation come about? Best and Humphries argue that British banking changed for the worst between the mid-19th century and the interwar period. Given the participation of industrialists in local banking who “possess[ed] intimate knowledge of industrial circumstance and personalities, mid-nineteenth-century local banks were willing to advance a certain amount of long-term as well as short-term capital to industry.”¹⁰⁴ But they were also exposed to any downturn in the concentrated local industry they served, and found it difficult to continue serving expanding businesses with increasing capital requirements. Accordingly, consolidation followed until five major clearing banks dominated. The effect was to reduce bank risk by diversifying portfolios, but also to reduce local knowledge and shorten lending periods.¹⁰⁵ The consequence was that at “a time when substantial new long-term investment in British industry was necessary to match international competition, the clearing banks sought to sever any long-term commitment to industry.”¹⁰⁶

Scott and Newton also trace the lack of commitment to the interwar decades. Bank decisions on lending were taken centrally, without the benefit of local knowledge, emphasising short-term lending and high collateral.¹⁰⁷ The banks were already suspected of operating interest rate cartels, and had made it clear that their goal was not to make steady income through the long-term support of SMEs, but to maximise profits through support for companies which they considered big enough to seek an early IPO.¹⁰⁸ They show how Credit for Industry, a private enterprise in which the Bank of England was a 50% shareholder, was prevented from making a significant impact by the clearing banks’ tactics and determination to preserve the “super-normal profits” they earned from smaller firms.¹⁰⁹

In the postwar period Baker and Collins describe British banks as operating an “arms-length approach to corporate finance”.¹¹⁰ Banks’ insistence on protection against all lending risks made for enviable stability across the banking system by international standards, but required the banks to take no active interest in their clients’ business. Baker and Collins suggest that the clearing bankers’ “Victorian” mental model, which insisted on this arms-length approach,

¹⁰⁴ Michael Best and Jane Humphries, ‘The City and Industrial Decline’, in *The Decline of the British Economy*, ed. by Bernard Elbaum and William Lazonick (Oxford: Clarendon Press, 1986), pp. 222–39 (p. 227).

¹⁰⁵ Best and Humphries, p. 228.

¹⁰⁶ Best and Humphries, p. 230.

¹⁰⁷ Peter Scott and Lucy Newton, ‘Jealous Monopolists? British Banks and Responses to the Macmillan Gap during the 1930s.’, *Enterprise and Society*, 8.4 (2007), 881–919 (p. 892).

¹⁰⁸ Scott and Newton, pp. 900–908.

¹⁰⁹ Scott and Newton, pp. 913–14.

¹¹⁰ Mae Baker and Michael Collins, ‘English Commercial Banks and Organizational Inertia: The Financing of SMEs, 1944-1960’, *Enterprise and Society*, 11.1 (2010), 65–97 (p. 66).

might have been partly responsible for Britain's slow postwar growth.¹¹¹ Their analysis of banks' internal documentation helps them make a persuasive case for "the cognitive inertia that limited [banks'] strategic possibilities and commercial potential"¹¹² but it does not shed any light on the practice of bank-SME relationships.

Those relationships were reviewed in a 1988 study by Binks et al on behalf of business groups.¹¹³ They conclude that SMEs faced high interest rates and charges, unreasonable demands for security, and a lack of understanding by banks of their business. Banks' ignorance and risk aversion forced companies to use overdrafts to finance long-term growth, which banks were not keen to fund or would do only if offered punitive personal guarantees.¹¹⁴ Keasey and Watson's contradictory study argues that banks were reasonable in their concerns about risk, particularly among the large number of poorly managed new SMEs which had sprung up under the Thatcher government.¹¹⁵ In accepting some of these arguments, Binks and Ennew reconsidered their earlier study, now supporting the need for improved relationships and information sharing between banks and those SME customers requiring their support.¹¹⁶ In all of these areas, the company-bank relationship in the UK appeared to differ from closer Mittelstand-bank relations.

Differences had in fact widened as earlier restrictions on funding were compounded by the constant pursuit of mergers and consolidations among banks. By 1977 there were only five clearing banks left, among which Barclays and National Westminster accounted for 60% of total liabilities. In contrast, European countries had continued with a system in which the size of a bank matched the size of its commercial customers, and enabled it to reduce transaction costs through knowledge of customers' businesses. Carnevali identifies the transaction cost issue, borne out of information asymmetries, as being key to the difference between British and German banking provision. The Bolton Committee in 1969 concluded that they were a "fact of life" and were unavoidable. Carnevali rejects this argument completely: "Transaction costs might have been a 'fact of life' for small firms, but this was a direct consequence of the

¹¹¹ Baker and Collins, pp. 93–95.

¹¹² Baker and Collins, p. 94.

¹¹³ Martin Binks, Christine Ennew, and Geoffrey Reed, *The Survey By The Forum of Private Business on Banks and Small Firms. Report to the Forum of Private Business* (Nottingham: University of Nottingham, 12 July 1988); see also Graham Bannock and E. Victor Morgan, *Banks and Small Business: An International Perspective* (London: Graham Bannock & Partners Ltd, 10 August 1988).

¹¹⁴ Binks, Ennew, and Reed, pp. 74–80.

¹¹⁵ Kevin Keasey and Robert Watson, 'The Bank Financing of Small Firms in UK: Issues and Evidence', *Small Business Economics*, 6 (1994), 349–62.

¹¹⁶ Binks and Ennew.

internal structure of the banks, rather than the nature of small firms themselves...one of the consequences of banking concentration was to create larger, more centralized organizations. The hypothesis made here is that this increased the distance between the banker and the borrower.”¹¹⁷ Consequently, British bankers had little knowledge of industrial SMEs’ business or management, unlike their German counterparts.

She shows how this manifested itself at Midland Bank,¹¹⁸ whose performance in the Midlands is reviewed below. Carnevali cleverly introduces data on the purchase prices of machine tools, which she then links to the very low number of advances of similar values to conclude that innovative SME manufacturers were being underfunded. This demonstrates that the well-publicised introduction of term loans was not actually supported, compounding the failure of Midland to support those customers.¹¹⁹ However, her appraisal of Barclays’ decentralised operations, in which the Birmingham Local Board consisted of three local businessmen as well as a banker, links the autonomy and local knowledge of that Board to the tremendous success of Barclays Birmingham operation,¹²⁰ hinting at the possibility that British banks *could* have adopted the approaches which their German counterparts were using so successfully. In practice, they had little incentive to do so. Lloyds Bank, for example, was flourishing financially in the late 1950s,¹²¹ even though advances to some business borrowers fell by 40 per cent while advances as a whole fell by 18 per cent. Reducing advances to smaller customers was, the chairman of Lloyds Sir Oliver Franks candidly admitted, much easier than denying credit to larger, corporate businesses.¹²²

Primary Evidence Research within the banks’ own archives reinforces Carnevali’s conclusions. We see that local bank managers and their SME clients faced frustratingly inconsistent policies, often driven by banks’ corporate reactions to Government policy swings, but also that their own systems were set against supporting SMEs. In 1951, for example, Lloyds’ branch managers were instructed to restrict lending to all but farmers and exporters as

¹¹⁷ Carnevali, pp. 112–13.

¹¹⁸ Carnevali, pp. 113–17.

¹¹⁹ Carnevali, pp. 124–26.

¹²⁰ Carnevali, pp. 116–22.

¹²¹ J.R. Winton, *Lloyds Bank 1918-1969* (Oxford & New York: Oxford University Press, 1982), p. 157.

¹²² Carnevali, p. 94; Sir Oliver Franks, establishment figure and former British Ambassador to Washington. He found Lloyds conservative and somnolent. He himself, however, had no training in economics, like many professional bankers; nor did he have any experience of running a bank. But he concluded that “If you can run an Oxford college you can run anything”: Alex Danchev, *Oliver Franks, Founding Father* (Oxford: Clarendon Press, 1993), p. 143.

part of “ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED].¹²⁴ In response to a statement from the Chancellor in the Commons in July 1955 on the need for a [REDACTED] reduction in lending, flexibility disappeared: if any company owner saw growth opportunities or a requirement to compete against German businesses with their newer equipment, [REDACTED]
[REDACTED]
[REDACTED]¹²⁵

Inconsistencies continued during the following decade. Midland Bank responded to the easing of credit restrictions with [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] In this period, then, any entrepreneur or existing business could have felt reasonably confident of the support of their Midland branch manager in pursuing their growth plans. Within 15 months, [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] In fact, the Chief General Manager thought it important to

¹²³ Letter from Chief General Manager to branch managers, 5.12.1951, in ‘File of Manager’s “Confidential Letters”, Lloyds Bank, Sparkbrook Branch, 1948-72’ (Lloyds Bank), Lloyds Banking Group Archives, B/1307/a/2.

¹²⁴ Letter from Chief General Manager, 26.1.1953, in ‘File of Manager’s “Confidential Letters”, Lloyds Bank, Sparkbrook Branch, 1948-72’.

¹²⁵ ‘Circular S. 180/1955, Memorandum to Branch Managers Re: Credit Restriction’ (Midland Bank, 1955), HSBC Group Archives, UK/0193/0004/0002.

¹²⁶ ‘Circular S. 163/1959, Memorandum to Branch Managers Re: Lending Policy’ (Midland Bank, 1959), HSBC Group Archives, UK/0200/0074b.

¹²⁷ ‘Circular S.C. 236/1960, Memorandum to Branch Managers Re: Credit Conditions’ (Midland Bank, 1960), HSBC Group Archives, UK/0200/0074b.

[REDACTED]¹³³ [REDACTED]
[REDACTED]¹³⁴ One
perspective on this record is that in order to protect the bank's business, [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]. [REDACTED]
[REDACTED]
[REDACTED]

This was not always true. Branches could also be called upon to assist with due diligence on behalf of other branches' customers. Lloyds [REDACTED]'s manager was asked by his counterpart in [REDACTED]

[REDACTED]
[REDACTED]¹³⁵ In his reply, [REDACTED]
[REDACTED]¹³⁶

Over the course of the next month, [REDACTED]
[REDACTED]
[REDACTED]¹³⁷ In this situation, branch staff show knowledge of their customers' businesses and are willing to take actions which will advance the customers' position: this is much more like the "all-finance" relationship between Mittelstand firms and their "house banks".

Provincial managers' freedoms in the immediate post-war years were possibly limited by their personal origins. In the post-war decade mechanisms existed within Barclays to advance competent "singled-out" men of talent up to local and national director level. They had to compete against "special entry" recruits from the forces or universities, who were required to demonstrate social skills and qualities of character and leadership. On neither career path were branch management or banking examinations initially stipulated.¹³⁸ It is difficult to imagine such men adding much value to a local entrepreneur or growing engineering business. At

¹³³ Removed here to prevent identification of the family.

¹³⁴ Entry for 3/5/47, 'Private Memoranda Book, Alcester Branch, 1919-49' (Lloyds Bank), Lloyds Banking Group Archives, B/19/a/1.

¹³⁵ 'Private Memoranda Book, Brierley Hill Branch, 1914-49' (Lloyds Bank), Lloyds Banking Group Archives, B/186/a/4, memo dated 2.3.1949.

¹³⁶ 'Private Memoranda Book, Brierley Hill Branch, 1914-49', memo dated 4.3.1949.

¹³⁷ 'Private Memoranda Book, Brierley Hill Branch, 1914-49', memos of May 1949.

¹³⁸ Margaret Ackrill and Leslie Hannah, *Barclays. The Business of Banking 1690-1996* (Cambridge: Cambridge University Press, 2001), pp. 127-29.

Barclays, “local directors and branch managers continued to make shrewd lending decisions, but had no desire to be involved in details of company management. They backed horses, not courses” and “still had few technical, scientific or production skills.”¹³⁹

¹⁴⁰ One recruit was John Saynor, who joined Lloyds in 1960, having left school aged 15. His experience during the 1960s and 1970s in the East and West Midlands offers an insight into the bank’s culture and the reality of branch relationships with local businesses.¹⁴¹ His initial posting in a small mining town encompassed a 6-week introductory course, which included coaching on dress and deportment. In addition to training in the bank’s systems, a proper understanding of SME financing was also an element of bank managers’ education. The Institute of Banking’s 1964 examination in banking practice required candidates to assess several SME-related problems, such as an overdraft (but not a long-term funding) request from a manufacturing company wanting to buy plant and extend its factory.¹⁴² The Lloyds’ 6-week Senior Course also included instruction on how to appraise and assess businesses.

Engagement in community activities was important. Lloyds expected their managers to become members of associations such as Rotary Clubs and the Chamber of Trade;¹⁴³ in other words, to do what their German counterparts had been doing for decades, and ironically what they themselves had practised during the 19th century. As branch manager at Burslem in 1979, Saynor recalls that working with SMEs, such as pottery manufacturers, was the most important part of his job. He personally visited all of his SME clients to judge their dependability. The chief criteria for assessing customers remained “Character (the primary determinant)”, “Capability”, and “Capital” (whether they owned their own home and business property). But managers were trained to look at clients’ balance sheets and take a view over three years, looking at control of stock and debtors, movements in sales and working capital, and key ratios relevant to their industry; in the labour-intensive potteries, these would include labour costs to sales. Saynor also recalls working with start-ups. Managers were tasked with building their branches, with their personal rewards being promotion or increased status.

¹³⁹ Ackrill and Hannah, pp. 142–46, 147.

¹⁴⁰ Letter to Managers of Branches and Heads of Departments, ‘Staff Recruitment and Training’, 21.9.1949, in ‘File of Manager’s “Confidential Letters”, Lloyds Bank, Sparkbrook Branch, 1948-72’.

¹⁴¹ David Paulson, ‘Interview with John Saynor, Retired Senior Manager, Newcastle-under-Lyme Group, Lloyds Bank’.

¹⁴² ‘The Institute of Bankers: Banking Diploma Examination, Part II. “The Practice of Banking”, September 17, 1964’ (Institute of Bankers, 1964), Private collection, J. Saynor.

¹⁴³ As was the case for Barclays’ branch managers: Ackrill and Hannah, p. 159.

Saynor's experience was reflected in the Institute of Banking's management development seminar at Christ's College, Cambridge in 1978 on dealing with SMEs. Students were aged 30 to 40 and selected to participate.¹⁴⁴ They were taught by John Bolton, recent chairman of the Parliamentary report on small businesses,¹⁴⁵ and Timothy Bevan, subsequently chairman of Barclays Bank, his family's business. Bevan reviewed various challenges facing SMEs, including the relationships with local branch managers, the recent transition by banks to medium-term lending, services such as leasing and HP, support for exporting. Seminar students then worked on case studies, including a small manufacturing company with limited resources, and on a discussion syllabus, which included considerations of the burden of increased legislation.¹⁴⁶ The seminar's approach was commendable, but the focus on small businesses was unique to 1978, and one may ask in any case whether professional bankers approaching the age of 40 should have been introduced to basic discussions of SMEs only at this stage of their career.

Image A here © The Economist Historical Archive	Image B here © The Economist Historical Archive

¹⁴⁴ Edwin Green, *Debtors to Their Profession: A History of the Institute of Bankers 1879-1979* (Routledge, 2012), p. 175.

¹⁴⁵ J.E. Bolton, 'The Financial Needs of the Small Firm', in *The Banks and Small Businesses. Cambridge Seminar 1978*. (London: The Institute of Bankers, 1978), pp. 1–28; J.E. Bolton, *Report of the Committee of Enquiry into Small Firms* (London: H.M. Stationery Office, 1971).

¹⁴⁶ *The Banks and Small Businesses. Cambridge Seminar 1978*. (London: The Institute of Bankers, 1978).

Their training, advertising, and the professional orientation of their branch managers showed British banks at last taking a serious interest in SME development.¹⁴⁷ Their apparent commitment, however, lasted for a very brief period in postwar British banking history. Saynor recalls that “the best years were when the branch manager was involved hands-on with the customers”, but by the 1990s, the job had become “more of a sales role”. He was retired at age 57 because senior managers were no longer required in branches. His disappointment in the underlying cultural and strategic shifts is echoed in Vik’s review of the changes to branch banking. Managers had been principally focused on lending to businesses, seeing themselves “as autonomous and authoritative craftsmen”.¹⁴⁸ But a three-fold transformation marked the end of the branch manager careers enjoyed by Saynor and Vik’s interviewees, and also marked a deterioration in those SME relationships which had been fostered: the banks moved lending to central branches or processing centres, which depersonalised SME relationships; introduced business credit scoring, which undermined managers’ knowledge of the client SME; and became increasingly focused on sales and targets, reflecting the banks’ preoccupation with their own growth rather than their clients’.¹⁴⁹ British banks’ emerging profit orientation contrasted with the IMF’s finding that in the so-called three-pillar banking system in Germany, in which commercial banks sat alongside public-sector banks and cooperatives whose mandate was to serve the interests of the local public – “profit maximization is not the primary motivation”.¹⁵⁰

Case Studies In practice, how did these bank attitudes manifest themselves in the funding of the companies reviewed in this thesis? Unfortunately no company’s archive contains much material on bank relationships, but it is evident that all the companies got access to finance. For example, Jensen Motors Ltd. met Barclays Bank in 1947. The loan amount requested was £20-30,000. With assets of £192,000, an additional £60,000 of capital available within six months, and estimated profits of £115,000 over the next three years, the bank still required a debenture.¹⁵¹ Details of the final arrangement are not known, but future accounts show secured

¹⁴⁷ As these contemporary advertisements confirm: ‘Westminster Bank Advertisement: “How to Make a Little Business into a Big One”’, *The Economist*, 30 September 1967, p. 1158, The Economist Historical Archive; ‘Lloyds Bank Advertisement: “When You’ve Got the Idea, Here’s How to Get the Money”’, *The Economist*, 4 August 1979, p. 14, The Economist Historical Archive.

¹⁴⁸ Pal Vik, “‘The Computer Says No’: The Demise of the Traditional Bank Manager and the Depersonalisation of British Banking, 1960–2010”, *Business History*, 2016, p. 14
<<https://doi.org/10.1080/00076791.2016.1177024>>.

¹⁴⁹ Vik, pp. 11–13; [REDACTED]

¹⁵⁰ Brunner and others, p. 1.

¹⁵¹ ‘Handwritten Duplicate Book’ (Jensen Motors Ltd., 1942), pp. 36–37, Modern Records Centre, MSS 215/6/1.

loans of £20,800 in 1949 increasing to £85,000 in 1959¹⁵². In 1951/52, total bank and debenture charges amounted to 8.7% of the average outstanding loan.¹⁵³ Though these costs were substantial, it does not appear that its bankers failed to support Jensen through this final period under family ownership, though as with the other British businesses below, there is no evidence of any additional support or strategic advice.

Braithwaite & Co. Engineers Ltd. depended on Lloyds Bank's support in the form of an overdraft, for which they were ultimately offered a £600,000 facility. Originally they were supported by the West Bromwich branch, but the larger facility later came from Lloyds' head office. There are no records of long-term lending, but the continuing overdraft met their needs. Braithwaites became a public company in 1927 – a model which would automatically have endeared it to British banks¹⁵⁴ - even though it remained under the control of the Humphryes family. It had the option of generating funds through stock issues,¹⁵⁵ meaning that the overdraft sufficed for all day-to-day management. Braithwaites' relationship with Lloyds may have been further secured by the "character" of its public-school educated chairmen.

K&J also banked with Lloyds, of which the Kenrick family had been directors. Its relationship with its bankers changed over time. It was a cash-rich company throughout its early life: in 1950, after a rewarding war, K&J had £205,000 in their Lloyds deposit account.¹⁵⁶ By the end of the 1970s, K&J's shareholders were prospering while the overdraft had risen from zero to £587,000, and their Managing Director was warning divisional managers of deteriorating profitability and dependence on overdrafts. By the early 1990s, when its position was more precarious, K&J apparently relied on five different banks.¹⁵⁷

¹⁵² 'Jensen Motors Limited: Summary of Accounts, 1949-58' (Blakemore, Elgar & Co., 1958), Modern Records Centre, MSS 215/2/10.

¹⁵³ 'Handwritten Profit and Loss Account Summary, 1951/52 to 1955/56' (Jensen Motors Ltd., 1954), Modern Records Centre, MSS 215/3/, author's calculations.

¹⁵⁴ Midland, for one, was much more interested in SMEs with plans to float than in others requiring ongoing support: A.R. Holmes and Edwin Green, *Midland: 150 Years of Banking Business* (London: Batsford, 1986), p. 241.

¹⁵⁵ 'Resolution of Braithwaite & Co Engineers, 21/9/1972 Re: Increase in Capital and Sale of Shares' (Companies House, 1949), Companies House, archive disk '00175912-03; 'Special Resolution of Braithwaite & Co Engineers, 24/12/1949 Re: Borrowing and Issue of Securities' (Companies House, 1949), Companies House, archive disk '00175912-03.

¹⁵⁶ Kenrick & Jefferson, 'K&J Cash Ledger', 1935, Sandwell, BS/KJ1/2/11, entry for 30/6/1950. Ledger records of their Lloyds deposit account continue to 1963, but there is no correspondence.

¹⁵⁷ Kenrick & Jefferson, 'Company Brochure' (Kenrick & Jefferson, 1990), Sandwell, BS/KJ2/5/26.

Conclusion

Unfortunately, archival evidence is insufficient for a detailed understanding of bank-company relationships in either country. But the evidence from the banks' archives and our companies seems to contradict the suggestion that British banks were not willing to lend money. It is clear that for individual managers like John Saynor, supporting local SMEs was important. But interest in client businesses seems to have related to specific lending opportunities rather than to ongoing relationships in which wider advice and support were provided. In any case, the window in which they seem to have been offered valuable, local assistance closed very quickly after it had been opened. In contrast, the Sparkassen and other local banks appear to have offered consistent support throughout the lives of their Mittelstand customers. The value of that broad support was also acknowledged by Midland Bank in its 1994 report into *The Mittelstand, the German Model, and the UK*. Its authors found fundamental differences which went beyond banking: "the provision of finance must be put in the wider context of a more restrained and thoughtful business culture, moving away from the "lifestyle" company approach, a more developed training ethos for all sections of the economy both initially and on a continuing basis, together with (most importantly) greater overall economic stability."¹⁵⁸

Ironically, financial innovation *was* present in this period in the shape of Britain's building societies, which stimulated both house-ownership and house-building.¹⁵⁹ It is paradoxical that 80 years ago, Britain, like Germany, possessed a network of locally owned financial institutions, which drew on local savers' deposits to make loans which boosted the local economy. Like Germany today, Britain still has that network. Unfortunately, then as now, the German variant was Sparkassen that have been committed to boosting local industry whereas British building societies have restricted their activities to consumer-lending for house purchase.

¹⁵⁸ Midland Bank PLC Corporate Finance Department, *The Mittelstand. The German Model & the UK* (London: Midland Bank PLC, September 1994). Quotation from p. 2.

¹⁵⁹ Best and Humphries, pp. 234–36.

Training And Recruitment Of Staff

Funding was of no value to a company unless it had adequate staff. For some observers, the quality of available staff has been the key differentiator between British and German business performance. In a 1988 report the Confederation of British Industry concluded that British companies were less productive than the similar German companies which they investigated. They found, however, that R&D expenditure was not significantly less than in Germany; plant and machines were no older; product design was not noticeably inferior. Instead, the CBI concluded that “the only area where our West German companies retain a clear-cut advantage is in the educational level attained by their employees.” Whereas 52% of German workers had a post-secondary education, only 18% of their British counterparts had; to make matters worse, the British workers had “had an inferior secondary education in the first place, particularly in subjects of a technical nature.” Furthermore, “not to be outdone by their workers, UK managers are also less qualified than their German counterparts.”¹⁶⁰

Chandler argues that German universities and technical education were a key enabling factor in Germany’s economic development from the beginning of the 20th century, “providing the best technical and scientific training in the world”, which “pioneered in institutionalizing the acquisition and transfer of knowledge.” Whereas in Britain in 1913 there were only 1,129 students of engineering in all English and Welsh universities, there were 16,568 German engineering students just in *Technische Hochschulen*.¹⁶¹ In international trade, for all Britain’s success over centuries, “it was generally believed that German commercial education was superior to that available in Britain”: embarrassingly, “Anglo-German merchants were in the vanguard of the movement to improve technical education in England.”¹⁶²

Michael Sanderson sees evidence of educational failings across all areas of business in *Education and Economic Decline in Britain, 1870 to the 1990s*. He argues that there was no sustained success in any educational initiative after 1914 which effectively allowed Britain to compete comprehensively against Germany and other leading economies. In particular, he identifies the “neglect and demise of the Secondary Technical School [as] one of the most harmful educational developments of the post-war years” which, combined with the decline in apprenticeships from the 1960s, reduced the supply to British industry of skilled labour of the

¹⁶⁰ Confederation of British Industry, *Tales of Two Companies : A Comparison of Industrial Performance in the UK and West Germany* (London, 1988), pp. 28–29, West Room.

¹⁶¹ Alfred D Chandler, *Scale and Scope: The Dynamics of Industrial Capitalism*, p. 425.

¹⁶² Stanley Chapman, *Merchant Enterprise in Britain From the Industrial Revolution to World War I* (Cambridge: Cambridge University Press, 1992), pp. 288–89.

future, particularly in comparison with German industry.¹⁶³ Christel Lane analyses the system of vocational education and training which existed in both countries during the 1980s, concluding that “in Germany industrial training [was] regarded as a matter of public interest and as a valuable societal resource”. British training, however, lacked rigour and structure at the post-secondary level for the third of British teenagers offered any vocational training before entering employment, and offered minimal opportunity for older workers to upgrade their skills.¹⁶⁴

Given the challenges facing postwar business in terms initially of scarce resources of materials and skills, and then of growing international competition and quickening technological change, human factors counted: skilled, motivated workers were needed in the right numbers, and leadership needed to be applied where it could be most influential. In this section I do not consider apprenticeships or management education.¹⁶⁵ My contention is that supervisory management and a supply of well-qualified engineering talent were critical differentiators between the two countries’ approach to manufacturing, and have been analysed in insufficient detail in relation to SMEs. I review the approach in each country and, to the extent that evidence is available, within the case-study businesses.

Britain

The notion of the first-line supervisor and his¹⁶⁶ role being problematic is commonplace in the contemporary literature, beginning with Roethlisberger’s widely cited 1945 analysis of the American foreman as a man with increased responsibility and decreased status.¹⁶⁷ In the British historiography. Peter Lawrence talks of the “foreman’s predicament”, his loss of authority, the diminishing distinctiveness of his expertise, and – in Britain – the precariousness of his class

¹⁶³ Michael Sanderson, *Education and Economic Decline in Britain, 1870 to the 1990s* (Cambridge: Cambridge University Press, 1999), pp. 81, 83–90.

¹⁶⁴ Christel Lane, ‘Vocational Training and New Production Concepts in Germany: Some Lessons for Britain’, *Industrial Relations Journal*, 21.4 (1990), 247–59 (pp. 62–85) <<https://doi.org/10.1111/j.1468-2338.1990.tb00609.x>>; for a detailed study of comparative developments, see Kathleen Thelen, *How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States, and Japan* (Cambridge: Cambridge University Press, 2004).

¹⁶⁵ Thelen reviews the German approach to apprenticeships in the postwar period. It was notable for the coalition of stakeholders, including unions, which affirmed their importance and facilitated the ‘dual system’ that combined workplace and classroom training: Thelen, pp. 240–53.

¹⁶⁶ “His” is used in this section to reflect the overwhelming predominance on men in foremen/*Meister* roles.

¹⁶⁷ F. J. Roethlisberger, ‘The Foreman: Master and Victim of Double Talk’, *Harvard Business Review*, September 1965, 1965 <<https://hbr.org/1965/09/the-foreman-master-and-victim-of-double-talk>> [accessed 9 February 2019].

status. He compares him unfavourably to his German counterpart.¹⁶⁸ Child and Partridge, in a study in two Birmingham manufacturing plants, argue that the ‘problem’ lay in the decline in status and responsibility over 100 years, exacerbated by the increasing educational accomplishments of postwar management, which effectively formed a social and professional barrier to the advancement of supervisors who had often not even served an apprenticeship.¹⁶⁹ Thurley and Wirdenius ask, “Why is supervision a problem?”, common to “all organizations.”¹⁷⁰ For them, the British conception of a foreman was someone whose responsibility was to put into operation innovations produced by management, who frequently found him either incompetent or not committed to implementing them, hence the ‘problem’.¹⁷¹ In fact, they counter, studies show “the most critical aspects” of foremen’s roles “were the responses made to contingencies or unanticipated events”.¹⁷²

Supervisors themselves argued that the ‘problem’ was in their being given insufficient authority and not being considered by management to be part of management. Dickinson agreed. His 1967 work places the foreman within the context of industrial relations in the motor industry, arguing that “slackness” by managers and foremen, and the limited responsiveness of the former to the latter, was leading to the shop steward becoming more influential. To avert the industrial relations problems which might ensue, “the foreman must be given his proper place and status as a member of line management”, responsible for negotiating on management’s behalf with the unions’ shop stewards.¹⁷³ The analysis by McKinlay and Melling of the engineering industry suggests that it was already too late to make these changes, as foremen’s authority was gradually usurped during the 1950s by the increasing power of the shop steward. Opportunities to advance a company by appointing technical specialists to foreman positions were precluded by unions’ insistence that “only tradesmen could supervise other tradesmen.” Notwithstanding his tradesman’s credibility, the foreman’s

¹⁶⁸ Peter Lawrence, *Managers and Management in West Germany* (London: Croom Helm, 1980), pp. 154–55.

¹⁶⁹ John Child and Bruce Partridge, *Lost Managers: Supervisors in Industry and Society* (Cambridge: Cambridge University Press, 1982), pp. 3–31; 10.

¹⁷⁰ Keith Thurley and Hans Wirdenius, *Supervision: A Reappraisal* (London: Heinemann in conjunction with The Swedish Council for Personnel Administration, 1973), p. 217; Keith Thurley and Hans Wirdenius, *Approaches to Supervisory Development* (London: Institute of Personnel Management, 1973), p. 83.

¹⁷¹ Thurley and Wirdenius, *Supervision: A Reappraisal*, p. 216.

¹⁷² Thurley and Wirdenius, *Supervision: A Reappraisal*, p. 217; an argument they repeat in their analysis of development opportunities: Thurley and Wirdenius, *Approaches to Supervisory Development*, p. 14. Curiously, to modern observers familiar with Japanese and derivative management philosophies, not to mention contemporaneous German approaches, they do not seem to conclude that companies would be better reducing the occurrence of unforeseen problems.

¹⁷³ A.W. Dickinson, *Industrial Relations in Supervisory Management* (London: Nelson, 1967), pp. 8, 2. Dickinson had first-hand knowledge of his subject and its inherent frustrations; he was the Training Services Manager of the British Motor Corporation.

authority, which in any case rested on “the reciprocal exchange of ‘gifts’ between the foreman and his shop workers”¹⁷⁴ (which does not sound like a position of strength) was remorselessly undermined by shop stewards’ efforts to change the politics of production.¹⁷⁵ Behind these deteriorating circumstances, though, lay the strong opposition of the EEF¹⁷⁶ and its member firms to any inclusion of workforce representatives in production planning.¹⁷⁷ Even in enlightened West Midlands firms like Cadburys, it is not clear that foremen were consulted much before the 1980s.¹⁷⁸ Clearly the foreman occupied a difficult place. His tenure was the result of his craft experience but his position in the workplace was compromised by the attitudes of those above and below him. In consequence he was unlikely, even if he had been motivated to do so, to have much positive effect on the development of his company.

During and before the Second World War, however, some efforts were being made to raise the profile and productive potential of foremen. Much the most interesting thinker on the subject was A.P. Young, works manager of engineers British Thomson-Houston in Rugby, who saw foremen as the “backbone of industry”.¹⁷⁹ In 1949, in a speech to the Institute of Industrial Supervisors, he argued:

Every Works Manager, if he is doing his job in the right way, has to depend increasingly on the work done by the foreman, a line of leadership that bears directly on the workers...If we could only inculcate the feeling that they were called to a great task ...to radiate the human principles of management and thus cause the team spirit to blossom, what a transformation scene would we witness in British industry.

Foremen were complimented in the same year by Coventry machine tool manufacturer Sir Alfred Herbert, as “a body of men for whom I have great respect and with whom I have very

¹⁷⁴ Alan McKinlay and Joseph Melling, ‘The Shop Floor Politics of Productivity: Power and Authority Relations in British Engineering, c.1945-1957’, in *British Trade Unions and Industrial Politics 1945-1978: Vol. I, the Post-War Compromise, 1945-1964*, ed. by Alan Campbell, Nina Fishman, and John McIlroy (Aldershot: Ashgate Publishing Limited, 1999), p. 232.

¹⁷⁵ McKinlay and Melling, pp. 237–39; see also Joseph Melling, “‘Non-Commissioned Officers’: British Employers and Their Supervisory Workers, 1880-1920”, *Social History*, 5.2 (1980), 183–221 for an exploration of the changing nature of the foreman’s role in earlier decades.

¹⁷⁶ Engineering Employers’ Federation.

¹⁷⁷ McKinlay and Melling, pp. 228–29.

¹⁷⁸ Chris Smith, John Child, and Michael Rowlinson, *Reshaping Work: The Cadbury Experience* (Cambridge: Cambridge University Press, 1990), pp. 146, 174.

¹⁷⁹ A.P. Young, ‘Unpublished Manuscript: My Thoughts on Management’, ND, Modern Records Centre, MSS.242/MP/4/18.

real sympathy in the difficult and exacting duties they have to perform in their position as buffers between management and workers.” Though Sir Alfred “wonder[ed] if they fully realise the great extent of their influence”¹⁸⁰ being a “buffer” does not seem to be the best use of experienced men. Herbert’s Managing Director Colonel Clark reiterated his Chairman’s conception, patronisingly telling the company’s foremen: “[You] occupy a position between Management and Labour and are apt on occasion to be damned by both. But, we understand your difficulties, arising largely from the changed conditions in Industry to-day, and we admire the cheerful way you tackle and dispose of them.”¹⁸¹ The foremen saw qualities in themselves - “diplomacy, tact, psychology, discipline, salesmanship and above all a good knowledge of human nature” - which suggested they could offer more than this.¹⁸² Five years later, Herbert’s foremen had perhaps grown tired of being a “buffer” and being “damned”, with their qualities under-appreciated: the earlier speaker’s foreman colleague bemoaned the “couldn’t care less” attitude which now prevailed among them.¹⁸³

Given postwar industry’s demands, with increasing competition and limited availability of skilled resources, what efforts were being made to follow Young’s endorsement of the transformative potential of supervisory workers, and to build on the qualities Herbert’s foremen saw in themselves? As Thurley and Wirddenius observe, “traditionally supervisors [had] been left very much to run their own shops and [had] picked the job up by observation of other foremen and by learning from their own mistakes”.¹⁸⁴ With this unsystematic approach, it would have been rational for progressive companies, especially any reflecting on the approach taken in Germany (from where Herbert saw increasing competition¹⁸⁵), to have considered investing in the development of their foremen as business became more difficult. Before investigating the strategies of our case study companies, and then drawing comparisons with our German businesses, it is instructive to see how foremen were treated and trained in other West Midlands businesses. The first issue to note is the extreme paucity of any information, in any company archives, of relevant material on foremen or supervisors as a group, let alone

¹⁸⁰ Sir Alfred Herbert, ‘Speech to BTH (Rugby) Foremen’s Association’, 1949, Modern Records Centre, MSS.242/BT/15.

¹⁸¹ C.W. Clark, ‘Speech to Alfred Herbert Ltd. Annual Foremen’s Dinner, 1949’, 1949, Coventry History Centre, PA1270/23/8.

¹⁸² ‘Speech to Foremen’s Annual Dinner 1948’, *The Alfred Herbert News*, October 1948, 66–69, Coventry History Centre, JN621.9.

¹⁸³ ‘Speech to Foremen’s Annual Dinner 1953’, *The Alfred Herbert News*, December 1953, 183–84, Coventry History Centre.

¹⁸⁴ Thurley and Wirddenius, *Approaches to Supervisory Development*, p. 14.

¹⁸⁵ ‘German Competition in Machine Tools’, *The Alfred Herbert News*, December 1952, 159, Coventry History Centre; Sir Alfred Herbert, ‘German and Continental Competition’, *The Alfred Herbert News*, August 1952, 86, Coventry History Centre.

on efforts to develop them (there are no development materials in the Herbert archive, for example); the second is that only large-company information was found. But it is reasonable to conclude that the material reviewed is representative of a general prevailing culture. It does not paint a convincing picture of company responses to the potential seen by Young or the approach of German competitors.

One example: in 1962, the Humber motor company in Coventry introduced training for “The Foreman in the Modern Technological World”, asserting that the “new technologies demand that the foreman be an organiser skilled in the art of man management” and confirming that “modern progressive industrialists recognise his status as that of a ‘Junior Executive’”. This enthusiasm sounds convincing. In fact, the training was concerned mainly with the industrial relations difficulties the company was facing. Three hours’ training was provided for 137 candidates. An external organisation, the Industrial Welfare Society, was engaged to run residential weekends for small groups. Their purpose was, as one participant reported to management, “to bring Shop Stewards and Foremen together in an attempt to promote better relations and understanding at shop floor level...Some useful advice was also given on ways of dealing with coloured employees, young lads just out of school, and older men approaching retirement”. No further technical or commercial training appears to have been offered.¹⁸⁶

While this lack of effort by employers seems troubling, it should be related to the attitudes and background of foremen themselves. Musgrave’s study of the steel industry in 1966 reveals that one British company had 243 foremen, of whom 6 had basic skills qualifications, 2 had lower-level college certificates, 5 higher-level certificates, and one a professional certificate; in the other company, 124 foremen had 3, 3, 1 and 0 respectively. The steel companies did in fact offer foreman’s courses; unusually for British industry, some foremen attended more than one.¹⁸⁷ The lack of provision and qualification seems alarming. For foremen in the Birmingham manufacturing plans reviewed by Child and Partridge, however, foremen’s “attitude to training, given that a majority had not received any training for the job, suggests that they consider personal qualities and experience to be of greater importance in carrying out their work.”¹⁸⁸

¹⁸⁶ ‘Internal Correspondence: Humber and Rootes Training for Foremen’ (Rootes Group, 1962), Coventry History Centre, Rootes Archive, 1690/1/16/52.

¹⁸⁷ P.W. Musgrave, *Technical Change: The Labour Force and Education*. (London: Pergamon, 1967), pp. 211–12. The qualifications referred to here were, in order, City & Guilds; O.N.C.; H.N.C.; and A.R.T.C. (Glasgow).

¹⁸⁸ Child and Partridge, p. 98.

At K&J, supervisors and foremen had to retrain veterans or induct recruits. They were all enrolled in instructor courses in 1947, as “a sure and dependable method of passing on to others the skills we have learnt in our particular trades or professions”. Management hoped to put all supervisors onto these courses, which ran for 2 hours per day for one week. The course was “not concerned in any way with those actual skills, but it does show us how to instruct others in acquiring them”, raising the question of how supervisors had been passing on their learning to their staff and apprentices until this point.¹⁸⁹ In common with other British companies, and unlike their German counterparts, they required their apprentices to endure an extended apprenticeship which did not, as it did in West Germany, result in a certificated qualification or guarantee of high-quality training:¹⁹⁰ K&J veteran Ivan Walker joined in 1932 for a seven-year apprenticeship, assigned to a journeyman. When he himself was appointed supervisor of the new greetings card department in the 1960s, with 200 outworkers, he was just “thrown in at the deep end.”¹⁹¹

Although K&J’s training of recruits apparently improved, such that commercial apprentices joining in the 1960s were offered a good, all-round training,¹⁹² the development of senior staff appears to have lagged behind. In 1968, K&J’s Board announced a scheme of Management and Supervisory Development for all managers and supervisors. The training offered seems not have been particularly constructive or focused. Chairman Peter Kenrick was at pains to point out that no criticism of their current performance was implied: “For the most part the training will take place on the job and basically will consist of making sure that each one of knows what our jobs involve, what our strengths and weaknesses are and then endeavour to help where help is required”. The extent to which they were divorced from the need for development can be gauged from their statement that even for such an apparently superficial commitment, “it [had] taken the Board some time to crystallise its ideas on what is very big subject indeed.”¹⁹³ It is not clear how the company expected its first-line managers, without any preparation other than experience with the status quo, to initiate new products and processes or ensure consistent product quality.

The approach to training seems to have changed over the following decade, but the developments can perhaps be seen as a metaphor for a changing business philosophy. K&J’s

¹⁸⁹ “‘TWI’ Training Within Industry’, *K&J News*, 31 January 1947, p. 1, Sandwell Archive, BS/KJ4/1/18.

¹⁹⁰ Thelen, pp. 114–15.

¹⁹¹ David Paulson, Interview with Ivan Walker, former production supervisor K&J, 2013.

¹⁹² David Paulson, Interview with Jeremy Plimmer, former Business Development Manager, K&J, 2014.

¹⁹³ ‘Management & Supervisory Development Programme’, *K&J News*, 28 June 1968, p. 1, Sandwell Archive, BS/KJ4/1/18.

new Training Manager, the equivalent of the Apprentice *Meister*, Joe Webb had been with the company for 44 years, steadily progressing from a seven-year apprenticeship through supervisor and manager roles, with experience as a union representative. The policy by 1977 was “more and more to reduce the period of apprenticeship”. Webb’s explanation that “training is a continuous operation. With changing technology we have to be on our toes to make sure that our people have proper re-training. This has been most marked in composing, but we have found it necessary to re-train in other areas too” does not sound like K&J fully endorsed the learning culture of their German counterparts.¹⁹⁴

West Germany

How did the German system of developing and employing first-line managers work in comparison? As Prais and Wagner ask, to what extent were the higher productivity and smoother operation of German plants attributable to the skills of first-line management?¹⁹⁵ Is Lane correct to argue that *Meister* (master craftsmen) made a decisive difference to productivity, adaptability, and quality?¹⁹⁶ In their own analysis, Prais and Wagner reviewed the differences between foremen and *Meister* prevailing in the 1980s. In the analysis that follows, we will look at the training offered to *Meister* in Baden-Württemberg from the 1950s onwards as part of an overall review of the relative importance of foremen and *Meister*, nominally at the same level within their organisations, to the companies reviewed in this thesis and to industry more widely.

The *Meister* system dates back to medieval guilds. Some scholars trace the origins of Mittelstand companies in the 19th century to the continuation of master-journeymen-apprentice relationships within small, family-owned businesses:¹⁹⁷ those origins are evident in Fritz Keiper’s personal progression from blacksmith’s son to *Meister* to factory owner. Keiper epitomises the classic Mittelstand entrepreneur: humble beginnings with a strong work ethic; manual work and training leading to a *Meister* qualification, engendering a high level of technical skills; a decision to commercialise those skills; and the establishment of his own

¹⁹⁴ ‘New Jobs for New and Old Stagers’, *K&J News*, Summer 1977, p. 1, Sandwell Archive, BS/KJ4/1/31.

¹⁹⁵ S.J. Prais and Karin Wagner, ‘Productivity and Management: The Training of Foremen in Britain and Germany’, *National Institute Economic Review*, 123.1 (1988), 34–46 (p. 1) <<https://doi.org/10.1177/002795018812300104>>.

¹⁹⁶ See Christel Lane, *Management and Labour in Europe: The Industrial Enterprise in Germany, Britain and France* (Aldershot: Edward Elgar, 1989), pp. 45–46 for a very clear explanation of the relative advantages of the *Meister* system.

¹⁹⁷ Marcel Hoogenboom and others, ‘Guilds in the Transition to Modernity: The Cases of Germany, United Kingdom, and the Netherlands’, *Theory and Society*, 47.3 (2018), 255–91 (p. 272) <<https://doi.org/10.1007/s11186-018-9316-8>>.

company, in which he took personal financial risks to enable heavy investment in innovative, patentable products.¹⁹⁸ Likewise, Wilhelm Reutter was a *Meister* in another coachworks before setting up his own business and following a similar path to high quality, patentable innovation.

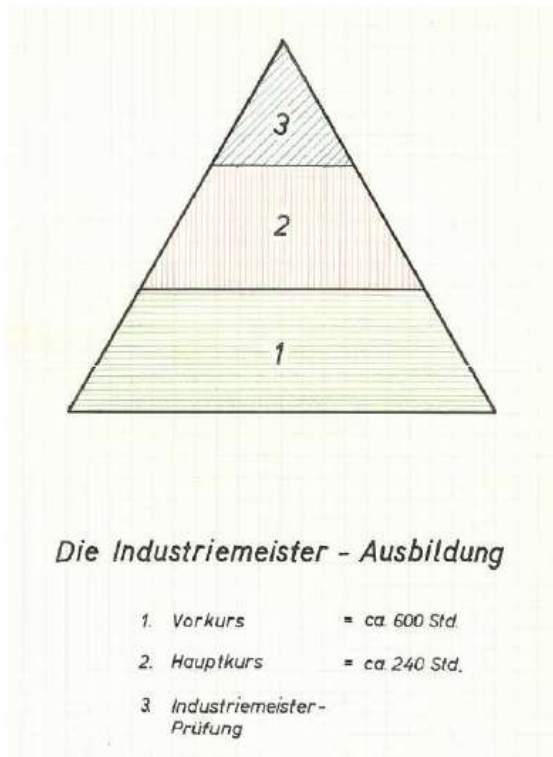
Before considering the importance of *Meister* to each of our case study businesses, we will consider the institutional engagement with the standing of *Meister* within Baden-Württemberg. As we have seen, *Meister* had been central to the conception of craft organisation for centuries. After the war, with a need to fill the gap in industry made by the loss of so many young men, it was deemed critical to Germany's recovery to educate successors to the *Meister* already in industry, who were now 50-60 years old. Qualified craftsmen were invited to apply for a new *Meister* training programme: "the ability of 'Made in Germany' to stand for German quality once more depends on the capability, knowledge and experience of the *Meister*".¹⁹⁹

The programme was to be run by the IHK Karlsruhe, which in 1950 circulated a suggested outline from the Handelskammer Nürnberg for a preparatory course for the *WerkMeister* examination:²⁰⁰

¹⁹⁸ Keiper, pp. 125–39.

¹⁹⁹ 'Berufsausbildung Für Industrie-Facharbeiter', *Ettinger Zeitung*, 19 October 1950, Ettingen edition, WABW A16/ Bü 850, Bd. I.

²⁰⁰ Industrie- und Handelskammer Karlsruhe, 'Vorbereitungskurs Für Werkmasterprüfung' (Industrie- und Handelskammer Karlsruhe, 1950), WABW A16/ Bü 850; Illustration taken from Appendix to letter: Industrie- und Handelskammer Karlsruhe, 'Skizze: Industriemeister Ausbildung' (Industrie- und Handelskammer Karlsruhe, 1950), WABW A16/ Bü 852, Bd. III.



A. Die Ausbildung zum Industriemeister erfolgt nach folgendem Plan:

1. Vorkurs mit ca.	600 Stunden
2. Hauptkurs mit ca.	240 "
3. Industriemeisterprüfung	

1. Der Vorkurs:

1.01 Dauer: 5 Semester	
1 "	= 20 Wochen/Halbjahr
1.02 Gesamtzahl der Stdn=	ca. 600 Stunden
1.03 Stoffgebiete:	

Arithmetik	Techn. Zeichnen
Physik	Fachkunde
Werkstoffprüfung	Deutsch
Werkstoffkunde	Wirtschafts-Grundlagen
Chemie	Rechts-Grundlagen
Elektrotechnik	Staatskunde-Grundlagen
Geometrie	Betriebslehre-Grundlagen
Trigonometrie	

(Siehe hierzu die Anlage ⁴¹²)

2. Der Hauptkurs:

2.01 Dauer: 2 Semester	
1 "	= 20 Wochen/Halbjahr
2.02 Gesamtzahl d. Stdn.	= 240 Stunden
2.03 Unterrichtsgebiete:	

a) Methodik der Menschenerziehung
b) Arbeits- und Betriebskunde
c) Wirtschafts- und Sozialkunde
d) Besichtigungen und praktische Übungen
e) Fachtheoretischen Vortragsstoff zur Vorbereitung auf die Prüfung und Zwischenprüfungen in den Stoffgebieten a - d (Anlage S. 16 u. 17)

Anmerkung:
Einzelheiten sind aus der Anlage "Lehrplan" zu entnehmen.

The preparatory and full courses would comprise 600 and 240 hours respectively, covering basic science, mathematics, electronics, geometry and trigonometry, technical drawing and commercial subjects including law and economics. They would culminate in the *IndustrieMeister* examination. Though this approach would form the basis of future training,²⁰¹ it was elaborated in considerably more detail by IHK Frankfurt, which shared it with IHK Stuttgart in 1956.²⁰² It is worth reviewing in detail, to illustrate the professional rigour expected of all aspiring *Meister*; and to highlight the contrast with English foremen, who Prais and Wagner found in 1988 (still, two decades after Musgrave's findings) would typically not be qualified craftsmen, whether time-served or examined, and not have any type of examined supervisory qualification.²⁰³

²⁰¹ Passauer neue Presse Niederbayerische Zeitung, 'Industriemeister - Ein Aufstieg Für Facharbeiter', *Passauer Neue Presse Niederbayerische Zeitung* (Passau, 30 July 1965), 173 edition <http://digipress-beta.digitale-sammlungen.de/de/fs1/calendar/0-0-0.all/bsb00051146_00459.html?spellcheck=true&qt=dismax&hl=true&mode=comfort&fulltext=industriemeister&zoom=1.0> [accessed 19 September 2017].

²⁰² Both institutions thereby playing the critical coordinating role identified by Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, pp. 169–70.

²⁰³ Prais and Wagner, p. 41.

One clear philosophical distinction from the prevailing British view of foremen's place in the hierarchy is immediately evident: the overall purpose of the training was "to entrust the *Meister* with the latest and most successful methods of handling and leading people, to develop him into a valued member of the organisation's leadership level."²⁰⁴ Participants had to be certified craftsmen aged 24 or over, with a good educational grounding in mathematics and writing and five years' experience after an approved apprenticeship. The example training plan for *Meister* in metalwork industries covers a comprehensive range of topics, and was intended to last for ten months, with participants attending for two hours a day after work, four days a week. The work was broken down as follows:

- **58 hours of Management**, including:
 - Organisational development
 - Accounting
 - Planning and Calculations (*Arbeitsvorbereitung*)
 - Rationalisation, including REFA techniques
 - Pay and rewards
 - Health and Safety
 - Training and education

- **40 Hours of Personnel Management**, including:
 - The enterprise as living space (*der Betrieb als Lebensraum*)
 - Care of the company atmosphere, introduction of newcomers
 - Aptitude testing
 - Differences in human relationships as individuals, in groups, and en masse
 - Treatment of colleagues
 - Job instruction

²⁰⁴ Industrie- und Handelskammer Frankfurt am Main, 'Letter to Dr. Steuer, IHK Stuttgart Re: "Industriemeisterausbildung"', 25 September 1956, WABW A16/ Bü 1299.

- The *Meister* as teacher and educator
- **242 Hours of Technical Training**, including:
 - Technical calculations, 40 hours
 - Basics of electronics, 20 hours
 - Technical drawing, 42 hours
 - Materials science, 20 hours
 - Mechanics, 20 hours (taught by a university lecturer)
 - Machine tools, measurement and testing, and machines in the workplace, 80 hours (taught by an engineer from Opel)
- **Discussion evenings**, 10 hours

All *Meister* training was to end with examinations, and “in view of the high demands which must be placed on an *IndustrieMeister* in metalworking” the following marking scale was applied.²⁰⁵

“Below 70	not passed
70-80	successfully passed
81-88	satisfactory performance
89-95	good performance
95-100	very good performance”

Thus the bar was set very high: *Meister* were required to have an extremely high standard of knowledge across all areas on the course, with an examination that tested that knowledge rigorously.

²⁰⁵ ‘Bewertungsschlüssel Für Der Ergebnisse Aus Den Industriemeisterprüfungen Metall’ (Industrie- und Handelskammer Region Stuttgart, 1956), WABW A16/ Bü 1299, underlining in the original.

This outcome can be compared with the situation in Britain 25 years later, where Prais found it had

not been possible to obtain an entirely satisfactory estimate of the proportion of those classified as ‘skilled’ in Britain who have passed any examination whatsoever (the lack of statistics on this matter is in itself a sad reflection on an entrenched distrust of ‘book-learning’); but it seems likely that the majority have never passed any written examination, and that only a small proportion have undergone a series of tests comparable to those of the German *Facharbeiter*.²⁰⁶

Nor did the education of *Meister* necessarily stop here: Armin Grünbacher has shown that *Meister* participated in the management training of the *Bad Harzburger Akademie für Führungskräfte der Wirtschaft*, a favoured destination for tens of thousands of German junior- and middle managers which taught the principles of devolved authority and bottom-up management.²⁰⁷

Were there any disadvantages to the deployment of the *Meister*? Bargmann asks whether their influence could effectively act as a brake on innovation in firms where a *Meister* might feel that his status would be undermined by the adoption of new technology and processes, or a move to group working.²⁰⁸ While we have no explicit evidence of resistance to change happening among our companies’ *Meister*, it is conceivable that reluctance among Wandel’s *Meister*, for instance, might have impeded the move from steel to plastic weaving. At Schneider, the company’s all-steel structures were gradually superseded by steel-reinforced concrete.²⁰⁹ It is similarly conceivable that Schneider’s steel-trained *Meister* might have been unenthusiastic about mastering the new technology. Mason’s comparative study of automotive component and machinery factories in the 1990s, however, found that while there was *some*

²⁰⁶ S.J. Prais, *Productivity and Industrial Structure: A Statistical Study of Manufacturing Industry in Britain, Germany and the United States* (Cambridge: Cambridge University Press, 1981), p. 181: A ‘Facharbeiter’ was a skilled worker below the level of *Meister*.

²⁰⁷ Grünbacher, *West German Industrialists and the Making of the Economic Miracle*, pp. 104–9; Keiper adopted the Harzburger model in 1967 to foster ‘competence, individual initiative, and self-management by the employee’: *In Bewegung. Der Automobilzulieferer Keiper: Geschichte Und Geschichten Aus Den Jahren 1920 Bis 2011*, ed. by Ulrich Putsch and Martin Putsch (Kaiserslautern: Ulrich und Martin Putsch, 2011), p. 168.

²⁰⁸ Holger Bargmann, ‘Innovationshemmnis Industriemeister?’, *Zeitschrift für Soziologie*, 13.1 (1984), 45–59 <<https://doi.org/10.1515/zfsoz-1984-0103>>; for a consideration of the consequences of omitting foremen/supervisors/*Meister* from the consideration of workplace changes affecting their future status, see Muriel Ray, ‘Les équipes semi-autonomes et la maîtrise: Le cas d’un atelier de bobinage’, *Revue française de sociologie*, 20.3 (1979), 590–604 (pp. 601–5) <<https://doi.org/10.2307/3320764>>; Ogilvie argues that guilds often opposed innovations that threatened their present situation: Sheilagh Ogilvie, ‘The Economics of Guilds’, *Journal of Economic Perspectives*, 28.4 (2014), 169–92 (pp. 183–84).

²⁰⁹ Kurt Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’ (Privately printed, 1977), pp. 73–74, WABW B4/Bu1.

resistance to the introduction of team working, *Meister* in the German plants continued to be better qualified than their British counterparts, adapted their leadership approach to suit new team-working regimes, and continued to add value in the workplace.²¹⁰

Notwithstanding the theoretical possibility of occasional intransigence, the contribution of their *Meister* to our German companies seems to have been fundamental to business success. As we have seen, both Keiper and Reutter were founded by former *Meister*, whose values permeated their businesses and offered an honourable route to career advancement: Theo Wolff began his career at Keiper as an apprentice toolmaker, becoming in the 1960s a *Maschinenbau-Meister*, a master machine-builder. He retired as Keiper's director of production.²¹¹ *Meister* occupy an important place in the collective memories of Reutter and Keiper. In both firms, specifically dedicated *Meister* were responsible for leading the apprentice training schools. Reutter's company histories highlight their central importance to the effective operation of the key areas of production and development.²¹²

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²¹⁰ Geoff Mason, 'Production Supervisors in Britain, Germany and the United States: Back from the Dead Again?', *Work, Employment & Society*, 14.4 (2000), 625–645 (p. 640) <<https://doi.org/10.1177/09500170022118653>>.

²¹¹ Putsch and Putsch, p. 181.

²¹² Photographs of Reutter work teams with their respective '*Meister*' from Frank Jung, *Porsche 356 Made by Reutter* (Bielefeld: Delius Klasing Verlag, 2011).

2 images © Frank Jung

At Schneider, the *Meister* are all named at various points in the company's history, including the eight master-riggers on site and the two *BetriebsMeister*, identified in 1951 as members of the company's leadership team.²¹³ At Wandel, the company's core product was shown to be so complicated that it had to be produced by a *Meister*,²¹⁴ and Wandel's seven *Meister* managed

²¹³ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', pp. 44, 38.

²¹⁴ 'Reutlinger Metalltücher Gehen in Alle Welt', *Reutlinger General-Anzeiger*, 14 March 1953, p. 216, WABW B79/Bü10.

86 production staff.²¹⁵ At Philipp Müller, efforts were made to persuade *Richtmeister* Hans Gress to join the company in 1954, their letter highlighting their esteem for him. His personal file contains his ‘German Engineer’s Calendar’ of 340 pages of analytical geometry, mechanics, chemistry, into which he has pasted 20 pages of handwritten tables and formulae: Gress was ‘only’ an on-site foreman, but it is evident that his technical education and expectations of himself were both considerable.²¹⁶

The capabilities of *Meister* benefited their employers, and the wider Baden-Württemberg economy, in several ways. They educated the next generation of technical workers, and provided a role model for them. They ensured the highest standards of product quality that allowed Mittelstand businesses to produce niche products to world-class quality standards. They ran factories efficiently. They provided an additional level of management strength which allowed for flatter hierarchies, within a leadership structure that combined technically qualified business leaders with technically qualified engineering managers and them as superbly qualified foremen. And when the company needed to change direction, the *Meister* offered the capabilities required to implement new products, materials or processes. Few or any of these advantages were available to British counterparts whose largely amateur management (who had quite possibly had less formal business education than the *Meister*) struggled with craft demarcation and the limited flexibility of poorly educated first-line supervisors and workers. They also struggled to find appropriately qualified engineering talent.

Engineers

Critical to the Mittelstand’s development of niche products of the highest quality was the interplay, in their development and manufacture, between a *Meister* and his company’s engineers. To evaluate the assumption that differences in the availability and technical competence of young engineers were factors in the comparative development of companies in the two regions, I undertook primary research to understand the constraints and opportunities available to would-be employers of graduate engineers in the West Midlands and Baden-Württemberg. Future research would be beneficial in local technical colleges in both localities.

²¹⁵ ‘Monatlicher Stand Der Betriebsangehörigen Vom 1 Okt 1962 Bis 31 Okt 1966’ (Chr. Wandel, 1962), WABW B79/Bü40.

²¹⁶ Deutscher Ingenieur Kalendar in: ‘Personal Folder of Hans Gress’ (Firma Philipp Müller Nachf. Eugen Bucher GmbH & Co), WABW B38/ Bü190.

The shortcomings in British engineering training have been highlighted by Chandler and others. But over time, Braithwaites and their neighbours could draw on an expanding regional pool of graduates to help them grow. Michael Finn has [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]²¹⁷ Finn argues

[REDACTED]
[REDACTED]²¹⁸ It was in this environment that
Birmingham University's Science faculty [REDACTED]

[REDACTED]
[REDACTED]²¹⁹ Aston

University now also began to develop along with Warwick and Loughborough, so that by 1971 a West Midlands company could in principle recruit students from one of eleven universities or polytechnics within a 50-mile radius.²²⁰ Unfortunately, as the analysis below shows, whereas a local firm could choose from one of 48 Birmingham University graduates in Electrical or Mechanical Engineering in 1956, their counterparts in Baden-Württemberg could recruit one of the 3,197 students who enrolled in the *Technische Hochschulen* at Stuttgart or Karlsruhe in the same subjects:²²¹

²¹⁷ M.T.F. Finn, 'The Political Economy of Higher Education in England, c. 1944-1974' (unpublished PhD thesis, University of Cambridge, 2009), pp. 21, 34.

²¹⁸ Finn, p. 170.

²¹⁹ Analysis by the author, from: University of Birmingham, *The University of Birmingham Calendar for the Session 1950-51* (Birmingham: Cornish Brothers, 1950); University of Birmingham, *The University of Birmingham Calendar for the Session 1960-61* (Birmingham: Cornish Brothers, 1960); University of Birmingham, *The University of Birmingham Calendar for the Session 1970-71* (Birmingham: Cornish Brothers, 1970); University of Birmingham, *The University of Birmingham Calendar for the Session 1979-80* (Birmingham: Cornish Brothers, 1979), courtesy of the Cadbury Research Library, University of Birmingham.

²²⁰ Regrettably, Aston University refused permission for me to view their archives, preventing a comparison with Birmingham University and an aggregate comparison with their Baden-Württemberg counterparts.

²²¹ Table compiled by the author from: University of Birmingham, *The University of Birmingham Calendar for the Session 1956-57* (Birmingham: Cornish Brothers, 1956); Statistisches Landesamt Baden-Wuerttemberg, 'Statistische Bericht B I 3 und 4: die Studierenden an den wissenschaftlichen Hochschulen und Kunsthochschulen im Wintersemester 1956/57 und Sommersemester 1957' (Statistisches Landesamt Baden-Wuerttemberg, 1957)

<https://www.destatis.de/GPStatistik/servlets/MCRFileNodeServlet/BWHeft_derivate_00003819/BIII_j_WS56_57_SS57.pdf> [accessed 24 April 2016].

Summer 1957 Enrolments							University of Birmingham Graduates, 1956
Subject	Technische Hochschulen			Universities			
	Karlsruhe	Stuttgart	Mannheim	Heidelberg	Tuebingen	Freiburg	
Physics	190	291		167	745	169	31
Chemistry	355	411		399	255	235	49
Architecture	368	432					
Civil Engineering	616	451					31
Surveying	52	60					
Machine/Mechanical Engineering	1,017	1,135					22
Electrical Engineering	534	511					26
Business Studies			1,061				34
All Subjects	4,238	4,049	1,089	6,393	6,533	7,000	
"Industry-Relevant" Subjects	3,132	3,291	1,061	566	1,000	404	
Total Enrolled Students - Baden-Württemberg							27,270
Total "Industry-Relevant" Students - Baden-Württemberg							9,454
Subject Studied At Birmingham Only							
Chemical Engineering							35
Petroleum Production Engineering							2
Metallurgy							17
Total "Industry-Relevant" Graduates - Birmingham							247
Total Science Undergraduates - Birmingham, 1960							1772

It was not only a question of quantity, but of quality. Below is the Civil Engineering curriculum at *Technische Hochschule* (TH) Stuttgart in 1910, which was followed by Karl Walz prior to joining Julius Schneider. Students were required to have a minimum of one year's work in a workshop and a thorough ability in calculation, scientific knowledge, technical drawing and visualisation before enrolment in the programme. Teaching comprised a heavy hourly load each week in practical elements of engineering.²²²

²²² Technische Hochschule Stuttgart, *Programm Der Koeniglich Wuerttembergischen Technischen Hochschule in Stuttgart Fuer Das Studienjahr 1910-1911* (Stuttgart: J.B. Metzlersche Buchdruckerei, 1910) <http://www.uni-stuttgart.de/archiv/vorlesungsverzeichnisse/Programm_1910-1911.pdf> [accessed 17 April 2016].

Verl.- Verz. Nr.		Wöchentliche Stunden			
		im Winter.		im Sommer.	
		Vortrag.	Übun- gen.	Vortrag.	Übun- gen.
Zweites Jahr.					
25. 27	Praktische Geometrie I	3	2	—	4
26. 27	„ „ II	—	—	5	4*)
126	Maschinenkunde	4	—	—	—
186	Übungen in der Materialprüfungsanstalt	—	3**)	—	—
183	Graphische Statik der Brückenkonstruktionen	2	2	—	—
184	Anal.Theorie der Ingenieurkonstruktionen	4	4	4	4
186	Baukonstruktionslehre II	4	4	—	5
187	„ „ III	—	—	2	—
195	Straßenbau	—	—	2	—
201	Wasserbau I	3	—	—	—
203	Wasserversorgung	—	—	3	—
207	Städtekanalisation	—	—	3	—
210	Eisenhüttenkunde für Bauingenieure	1	—	—	—
		21	15	19	17
Drittes Jahr.					
24	Ansarbeiten geod. Aufnahmen	—	2	—	—
179	Grundzüge der Elektrotechnik	2	—	—	—
187	Baukonstruktionslehre III	—	4	—	—
188. 191	Brückenbau I	3	6	4	7
190	Gründung der Bauwerke	1	—	1	—
193	Erdbau	2	—	—	—
194	Trassierung	—	—	2	—
196. 198	Eisenbahnbau I	4	—	4	6
199. 200	Eisenbahnhochbau I	2	—	—	4
204	Stauanlagen	1	—	—	—
205	Wasserkraftanlagen	1	—	—	—
206	Mehrerationswesen	2	—	—	—
202	Wasserbau II	2	—	—	—
208	Übungen im Wasserbau	—	4	—	4
259	Rechtskunde	—	—	2	—
		20	16	13	21
Siebentes Semester.					
189. 192	Brückenbau II und Tunnelbau	3	6	—	—
197	Eisenbahnbau II	2	—	—	—
198	Übungen im Eisenbahn- und Strassenbau	—	8	—	—
200	Eisenbahnhochbau II	—	4	—	—
208	Übungen im Wasserbau	—	4	—	—
258	Verwaltungskunde	2	—	—	—
260	Volkswirtschaftslehre	3	—	—	—
		10	22	—	—

Sources: *Programm der Koeniglich Wuerttembergischen Technischen Hochschule in Stuttgart für das Studienjahr 1910-1911*, http://www.uni-stuttgart.de/archiv/vorlesungsverzeichnisse/Programm_1910-1911.pdf

The interruption of the Second World War and the exigencies of reconstruction did not ease the demands on students. The 1948 Study Plan for Machine Engineering, which would have been identical to the programme followed by Berthold Leibinger before joining Trumpf, and Rolf Walz before joining Schneider, was comprehensive, practically orientated (with a heavy emphasis on practical exercises), but intellectually extremely demanding.²²³

²²³ Technische Hochschule Stuttgart, 'Programm der Technischen Hochschule Stuttgart fuer das Sommersemester 1948' (Technische Hochschule Stuttgart, 1948) <http://www.uni-stuttgart.de/archiv/vorlesungsverzeichnisse/Programm_1948.pdf> [accessed 17 April 2016].

III. Fakultät für Maschinenwesen I. Abteilung für Maschinenbau

	Stundenzahl			
	Vortrag	Seminar	Übungen	
2. Semester:				
Höhere Mathematik II, Darstell. Geometrie B II, Experimentalphysik II siehe unter I, 1. Chemie siehe unter I, 2.				
Technische Mechanik II (für Maschinen- und Elektroingenieure sowie für Mathematiker und Physiker)	3	2	—	Grammel
Mechanische Technologie II	2	—	3	Gottwein
Gefügelehre	2	—	1	Wellinger
Einführung in den Maschinenbau II	1	—	4	Ehrhardt
Einführung in die Elektrotechnik	2	—	—	Wolman
4. Semester:				
Höhere Mathematik IV, graph. und numer. Methoden siehe unter I, 1.				
Technische Mechanik IV (für Maschineningenieure, Mathematiker und Physiker)	3	2	—	Grammel
Technische Wärmelehre	3	1	—	Grammel
Maschinenelemente II	3	—	6	Rembold
Maschinenlaboratorium I	—	—	3	N. N.
6. Semester:				
Kolbenmaschinen II	2	1	6	Rembold
Strömungslehre II	2	1	—	Weise
Wasserkraftmaschinen II	2	—	6	Braun
Dampf- und Gasturbinen	3	1	6	Jansen
Fördertechnik II	2	1	6	Müller
Werkzeugmaschinen II	2	1	6	Ehrhardt
Sonderlaboratorium im Institut für Werkzeugmaschinen	—	—	4	Ehrhardt
Fabrikbetriebslehre I	2	2	6	Gottwein
Eisenbahnfahrzeuge I	2	—	—	Hiller
Kraftfahrzeuge	2	1	6	Riekert, Eisele
Werkstoff-Mechanik	2	—	1	Siebel
Angewandte Festigkeitslehre	2	—	1	Siebel
Elastizitätstheorie (Höh. Dynamik)	3	1	—	Kauderer
Getriebelehre	3	—	—	Widmaier
Feinmechanik des Instrumentenbaus II	1	—	6	Keil
Automatentechnik	2	—	—	Kniel

Leibinger remembers the demands placed on students: “I had to exert myself to manage it...mastering a Mechanical Engineering course is hard graft.” The large lecture theatre, with 500 seats, was “always overflowing” and the “tempo in the lectures, for example in Higher Mathematics, was breathtaking.”²²⁴

At Birmingham, [REDACTED]

[REDACTED]

[REDACTED].”²²⁵ But it seems reasonable to suggest that [REDACTED]

[REDACTED]

[REDACTED],²²⁶ might have taxed Leibinger and Ulrich Putsch of Keiper less than their own final examinations in machine engineering at TH Stuttgart and TH Karlsruhe respectively.

While acknowledging its contribution to narrowing the “gap between the requirements of industrial progress, and teaching and research of the highest standard”,²²⁷ the limitations of

²²⁴ Leibinger, sec. 707.

²²⁵ University of Birmingham, *University of Birmingham Syllabuses 1960-1961* (Birmingham: University of Birmingham, 1960), p. 155, Cadbury Memorial Library.

²²⁶ Birmingham University, *University of Birmingham Examination Papers 1960 - Medicine and Science* (Birmingham: University of Birmingham, 1960).

²²⁷ Prais, p. 184.

Birmingham University as a potential talent pool for regional SMEs was further limited by the chosen career paths of its graduates. As the analysis below shows, only 27 of 43 science and engineering graduates from 1950, who might have become the business leaders of the 1960s, are identifiable and/or remained in the UK. Of them, only one was working in an SME eight years after graduation, and only eight remained in the Midlands:²²⁸

Table compiled by author incorporating data from internal publications © Cadbury Research Library, University of Birmingham

Additional research would be beneficial to understand the destinations and eventual career achievements of TH Stuttgart and Karlsruhe graduates, privacy laws and available data permitting, to allow a full and comparative understanding of all institutions' contribution to regional business. In considering these two institutions, it is important to remember that they form just two parts of an intensive research infrastructure which is in place today for Baden-Württemberg and was available, if not always on the same scale, to Mittelstand businesses during the period under review: numerous research institutes, 11 Max Planck Institutes, 13

²²⁸ Table compiled by the author from: University of Birmingham, *The University of Birmingham Calendar for the Session 1950-51*; Guild of Graduates of the University of Birmingham, *The University of Birmingham Register of Graduates Up to December 1957, With a Supplementary List of Those Who Graduated in July 1958*, 6th edn (Birmingham: Guild of Graduates of the University of Birmingham, 1958).

institutes of the Fraunhofer-Gesellschaft, 10 industrial joint research institutes, and eight contract research institutions, plus 7 other universities and 19 technical colleges (Fachhochschulen), with relationships between business and academia all facilitated by the Steinbeis Foundation.²²⁹

Conclusion

West Midlands businesses were at a significant disadvantage compared to their Baden-Württemberg counterparts in the number and quality of engineers available to them, and the competence and motivation of first-line managers able to turn the engineers' creations into products of the highest quality. The combination of both these sources of talent made a decisive difference between the ability of Mittelstand businesses to create excellent, niche products, and their British counterparts' efforts to do the same.

Epilogue

It would be anachronistic to factor into the above analysis changes which transpired two decades after the end of the period covered by this dissertation. But the collection of essays edited by Culpepper and Finegold stands as a potential corrective to my earlier conclusions and is therefore considered briefly here.²³⁰ Herrigel and Sabel advance the thesis that the mentality and methods of training described above, once ideally suited to the demand for flexibly produced, customised goods, was inappropriate in the rapidly changing working environments of the 1990s. Difficulties in adjustment are bringing "extremely dramatic and pervasive social transformation" to Germany.²³¹ Industries and companies are threatened with extinction.

They show that piecemeal attempts to introduce team-based working in Baden-Württemberg firms are failing, but see some cause for optimism within businesses where change has been embraced. Although the restructuring process is "difficult and treacherous", however, the continuation of the external institutions which helped deliver the Mittelstand's previous high

²²⁹ Guenter von Alberti, *Steinbeis 1971-1991*, 2nd edn (Stuttgart: Steinbeis Edition, 2010), p. 46; 'Steinbeis-at-a-Glance' (Steinbeis Foundation, 2019) <<https://www.steinbeis.de/fileadmin/content/Publikationen/unternehmenspublikationen/Publication-Steinbeis-at-a-glance.pdf>> [accessed 17 February 2019]; see also Roper for an assessment of the way firms in each country approached innovation and utilised networks and institutional resources.

²³⁰ *The German Skills Machine: Sustaining Competitive Advantage in a Global Economy*, ed. by Pepper D. Culpepper and David Finegold (New York and Oxford: Berghahn Books, 1999).

²³¹ Gary Herrigel and Charles F. Sabel, 'Craft Production in Crisis: Industrial Restructuring in Germany during the 1990s', in *The German Skills Machine: Sustaining Competitive Advantage in a Global Economy*, ed. by Pepper D. Culpepper and David Finegold (New York and Oxford: Berghahn Books, 1999), pp. 77–114 (pp. 78–81, 94).

standards offers a “ray of hope”.²³² Wagner argues that adaptation of the dual system will be required, but that the *Meister* qualification will remain important to developing businesses²³³ as *Meister* aid restructuring efforts.²³⁴ Finegold cautions that *Meister* training must be continually updated to reflect their evolving responsibilities, which he suggests should include the maintenance of high-quality apprentice training within firms.²³⁵

Advancing another twenty years, it appears that changes have transpired. Recaro Aircraft Seating, now a €600M per annum business,²³⁶ still recruits engineers through its dual-study programme.²³⁷ It still employs as a Module Engineer an individual who completed his apprenticeship with the firm in 1988, was retained and sponsored through a degree programme throughout the crisis described by Herrigel and Sabel, and advanced through various team leader roles in the intervening two decades.²³⁸ Only Recaro remains of our German case-study companies. But a twelfth-generation Swabian Mittelstand engineering company still recruits *Stahlbaumeister* in the same way that Schneider did fifty years ago, and with them continues to win global contracts in niche markets.²³⁹ It is beyond the scope of this thesis to address workplace developments in Germany since 1979, but it would appear that traditional conceptions of skills and workplace management are, *mutatis mutandis*, still valid.

²³² Herrigel and Sabel, pp. 112–14.

²³³ Karin Wagner, ‘The German Apprenticeship System Under Strain’, in *The German Skills Machine: Sustaining Competitive Advantage in a Global Economy*, ed. by Pepper D. Culpepper and David Finegold (New York and Oxford: Berghahn Books, 1999), pp. 37–76 (pp. 68–70, 76).

²³⁴ David Finegold and Karin Wagner, ‘The German Skill-Creation System and Team-Based Production: Competitive Asset or Liability?’, in *The German Skills Machine: Sustaining Competitive Advantage in a Global Economy*, ed. by Pepper D. Culpepper and David Finegold (New York and Oxford: Berghahn Books, 1999), pp. 115–55 (p. 153).

²³⁵ David Finegold, ‘The Future of the German Skill-Creation System: Conclusions and Policy Options’, in *The German Skills Machine: Sustaining Competitive Advantage in a Global Economy*, ed. by Pepper D. Culpepper and David Finegold (New York and Oxford: Berghahn Books, 1999), pp. 403–30 (pp. 416, 424).

²³⁶ UKi Media & Events, ‘Recaro “Pulverized” Previous Revenue Records in 2018’, *Aircraft Interiors International*, 2019 <<https://www.aircraftinteriorsinternational.com/news/industry-news/recaro-pulverized-previous-revenue-records-in-2018.html>> [accessed 29 April 2019].

²³⁷ ‘DH-Student (m/w/d) Maschinenbau - Produktionstechnik - Beginn 2020 - RECARO Aircraft Seating’ <<https://www.recaro-as.de/de/job-karriere/jobs/details/dh-student-m-w-d-maschinenbau-produktionstechnik-beginn-2020-22853.html>> [accessed 4 August 2019].

²³⁸ ‘Klaus Wieland | LinkedIn’ <<https://www.linkedin.com/in/klaus-wieland-30329282/>> [accessed 4 August 2019].

²³⁹ ‘Meister Produktion Stahlbau (m/w/d) | PFEIFER Group | LinkedIn’ <<https://www.linkedin.com/jobs/view/meister-produktion-stahlbau-m-w-d-at-pfeifer-group-1299032574/?originalSubdomain=de>> [accessed 4 August 2019]; ‘PFEIFER Group of Companies’ <<https://www.pfeifer.info/en/pfeifer-group/company/pfeifer-group-of-companies/>> [accessed 4 August 2019].

Chapter 3: Case Studies - Paper

Introduction

This chapter contrasts the histories of two family companies which were indirectly connected through the paper industry. They shared some similarities: both remained attached to their original location, both shared a patriarchal culture and remained independent across changing generations. Both also ultimately declined, after the end of our period, when they proved unable to master changing business environments.

The first, Chr. Wandel KG of Reutlingen, was a specialist manufacturer of equipment used in paper-making. Founded in 1869, it was owned and managed by its founding family throughout its existence, until insolvency in 1995. In many ways the quintessential, small Mittelstand company, it rebuilt itself after near-destruction in the Second World War, regaining a large export market. It also suffered from the characteristic limitations identified by Berghoff¹ which led to its gradual decline and failure. Though Wandel remained competitive for several decades, its history is interesting because of the extent to which management failings are obvious in its documentary record, providing a valuable corrective to stereotypical assumptions of Mittelstand managerial infallibility.

Kenrick & Jefferson Ltd. (K&J)² of West Bromwich was a user of paper, as a specialist printer and stationery manufacturer. Founded nine years after Wandel, it was owned by its founding families throughout its existence. It became a powerhouse in the first half of the 20th century, employing over 1000 people (almost ten times more than Wandel), though at any given point it could itself have reasonably been described as a British Mittelstand company, driven by hands-on owners pursuing excellence in specialist, niche products. After the Second World War, though, it struggled to regain its prewar glory, despite having itself suffered no damage and prospered financially during and after the war. Though dissimilar in many ways, it shared with Wandel the committed family ownership that was resistant to outside managerial

¹ Berghoff, 'The End of Family Business? The Mittelstand and German Capitalism in Transition, 1949-2000.'

² I have dealt with K&J's history up to 1940 here: David Paulson, 'The Professionalisation of Selling and the Transformation of a Family Business: Kenrick & Jefferson, 1878-1940', *Business History*, 0.0 (2018), 1-31 <<https://doi.org/10.1080/00076791.2018.1426749>>. For postwar history, archival research was supplemented by personal interviews with Hugh Jefferson, former senior director and shareholder, who spent his entire career in the company; Ivan Walker, a 47-year veteran of the company who joined it in the 1930s and retired as a factory supervisor; and Jeremy Plimmer, who joined as an apprentice in the 1960s and left as its Business Development Director in 1994. All were able to offer perspectives into business life at different levels, which usefully supplements the available documentary evidence.

influence and declined, albeit from a greater height and within a different industry, for similar reasons.

Chr. Wandel KG, Reutlingen

In March 1953, the local newspaper in the town of Reutlingen, 30km south of Stuttgart, celebrated the success of one of the town's specialist industries, the weaving of fine metal cloth or mesh utilised in the production of paper, which had once again reach production levels not seen since before "the war we lost" (*"dem verlorenen Krieg"*).³ The four competitors in the town produced what had become a Reutlingen speciality, manufacturing between them 60% of total German production: those in Reutlingen could quite easily cover the whole German requirement and still have capacity to export. Reutlingen was renowned for its textile trade, and the metal-cloth manufacturers drew on its traditional expertise in weaving. Threads 0.07mm thick were produced, and a *Meister* would take up to two weeks to prepare them. They were then woven on huge looms up to 8.5m wide which could produce cloths of up to 240m² for use in paper-making machines: the paper pulp mixture was run along the fine mesh, and the liquids all drained through it while the paper dried out on top of it. As the machines used in mesh manufacture were so sophisticated, the industry employed relatively little labour, but those it did employ had to be all the more skilled. According to the newspaper, "this precision work demand[ed] long experience, a very sure hand, very good eyes, and complete attention in every second."⁴ The Reutlingen metal cloth trade, in other words, embodied the precision manufacturing within a clustered niche industry by which Mittelstand businesses had been differentiating themselves from their competitors outside Germany for decades.

Company and Industry Developments, 1860-1945

The smallest of the four competitors was the family-owned Christian Wandel, founded in 1869. It is worth reviewing in some detail the history of the business up to 1945,⁵ because it shows the way in which expertise was accumulated, family members' own destinies were tied into the business, and future path dependencies were created. Christian Wandel himself had been the seventh child of a sieve-maker, whose family had been in the Reutlingen region since 1494, a century after Ulman Stromer had founded the first German paper mill near Nuremberg: a

³ 'Reutlinger Metalltücher Gehen in Alle Welt'.

⁴ 'Reutlinger Metalltücher Gehen in Alle Welt'.

⁵ '100-Jähriges Firmenjubiläum' (Chr. Wandel, 1969), WABW B79/Bü11.

“sieve” (subsequently to become wire cloth) was always necessary for the production of paper. His journey to becoming an independent entrepreneur was, like that of engineer Karl Walz in the following century, a long one, in which extensive experience was accumulated and refined. In 1836 Christian was apprenticed to a sieve-maker at Reutlingen, but soon departed on an international tour to learn more about the paper-making industry. He spent the following decades acquiring technical expertise and manufacturing experience, developing customer relationships around Europe, and winning plaudits for his products.⁶ After periods in partnership with others, in 1869 Christian Wandel became sole owner of his factory at the age of forty-eight, having recently been awarded a silver medal at the Paris world exhibition. Wandel’s was not the story of a young entrepreneur launching a new business idea: he took his time and built funds and expertise and reputation and chose not to go it alone until he had spent over thirty years at his trade.

Once in control, he patented an important new machine that transformed the industry, and with his three sons developed business with Russia and the USA as well as throughout Europe. The business continued to be successful and grew steadily. But when Robert Wandel, by then running the company alone, died in 1913, the third generation had to assume control “at the most unfortunate point possible.” Nevertheless, Erich and Hugo, Robert’s nephews, took over “and set new standards in the production of the factory.” New looms were built which were nearly twice as fast, and fine seams, which had previously depended on a woman’s hand, were now welded. When in the 1930s the paper industry began using beech pulp, Wandel began building new machines with additional condensing equipment which were still an important product line in the late 1960s.⁷

Reutlingen and Chr. Wandel KG, 1945-1954

There is no archival record of the company’s activities during World War II,⁸ but Reutlingen’s industry was in a difficult state at the war’s end. Allied bombing had damaged infrastructure, including 164 industrial buildings, 57 of which - including three-quarters of Wandel’s own buildings - were totally destroyed.⁹ Under French occupation Reutlingers were subsisting on

⁶ See Jürgen Kocka, *Unternehmer in Der Deutschen Industrialisierung* (Göttingen: Vandenhoeck & Ruprecht, 1975), pp. 59–62 for a discussion of the way in which foreign travel informed the professional development of many 19th century German entrepreneurs.

⁷ ‘100-Jähriges Firmenjubiläum’.

⁸ Or acknowledgement of the war and its impact in later recollections. See David W. Paulson.

⁹ Gerhard Junger, *Schicksale 1945: Das Ende Des 2. Weltkrieges Im Kreis Reutlingen* (Reutlingen: Oertel + Spörer, 1991), p. 310.

a ration of 669 calories per day.¹⁰ Road transport was difficult on damaged or unmaintained roads, though the French restored the rail connection to Strasbourg and some other services. Only one twentieth of pre-war electricity provision was available at the war's end, and some 7500-8000 workers were without homes.¹¹ Looting was rife: one French observer noted, "Since 15 June there has been no order in the district."¹²

It was this situation that Erich Wandel faced in 1945 as he "stood with a few of his workers next to the pile of smoking rubble that had once been his factory." As his nephew Kurt recalled at the centenary celebrations in 1969, "it really needed an unshakeable belief in the future to not give into despair in this situation." The bad situation worsened: "To cap it all, they then had to drag the few recoverable looms and machines out of the rubble and deliver them to the victorious powers. It was Zero Hour (*Es war die Stunde Null*)."¹³ Wandel and his staff had their smallest loom running again in March 1946, but shortly afterwards a French requisition team took away the two newest metal-cloth looms, the newest lathe, and several tons of metal wire. This was a "really costly takeover" which was made worse when the firm found itself in 1947 on the "dreaded" dismantling list.¹⁴ One member of the economic section of the French occupation force wished to "reduce Reutlingen to the level of a colony or a third-world country" by allowing its world-class manufacturers (including those in the metal-cloth industry) to manufacture only basic goods required for the survival of the German people, and to permit what the Minister-President of the American zone termed in 1947 "the intellectual robbery of German industry by the representatives of foreign firms."¹⁵ Although all removal of machines was required to cease by edict of the Allied Control Council on 15 June 1946, the French "kept that date secret" and continued to remove machines and materials from Reutlingen until 1949.¹⁶ Wandel and its competitors were in a fortunate position insofar as the strong demand for paper in the post-war economy had to be fulfilled and both this and the undamaged condition of the French metal-cloth trade did not make their "dismantling" a priority.¹⁷ But realising that removing machines did not also transmit the know-how required

¹⁰ Junger, pp. 299, 301-309. Junger's data is drawn from a mixture of contemporary submissions to local authorities and reports written by French officials.

¹¹ Junger, pp. 399-402.

¹² Junger, p. 455.

¹³ Kurt Wandel, 'Speech at 100th Anniversary Celebrations' (Chr. Wandel, 1969), WABW B79/Bü11.

¹⁴ 'Jubiläen 85 Jahre Chr. Wandel Reutlingen', *Wochenblatt Für Papierfabrikation*, 1957, 2nd edition, WABW B79/Bü10.

¹⁵ Junger, pp. 452-53; Hans-Georg Wehling, 'Reutlingen - Kontinuität Und Bruch Nach 1945', in *Die Zeit Nach Dem Krieg: Städte Im Wiederaufbau*, ed. by Karl Moersch and Reinhold Weber (Stuttgart: W. Kohlhammer, 2008), pp. 311-38 (pp. 325-26).

¹⁶ Wehling, p. 325.

¹⁷ Junger, p. 450.

to operate them, the French authorities insisted the industry act as “compensation businesses”; the reparations demanded were so significant that the city of Reutlingen established a Compensation Office and arranged for the Chamber of Commerce to act as mediator and broker.¹⁸

Following his brother’s death in captivity, Erich Wandel did everything possible to prevent the *Totaldemontage* but then died, aged 61, in November 1949. The company was run by its *Prokuristen*,¹⁹ Alfred Maier and Arthur Maurer, both of whom had joined as apprentices,²⁰ until at the beginning of 1951 Erich’s daughter Dr Erna Wandel and Hugo’s son Kurt Wandel took over.²¹ In Kurt’s words, “like our fathers my cousin and I, without having the ability to draw on the experience of the previous generation, were put in the difficult position of needing to drive the continuation of the firm forwards by all means.”²² Given the presence of experienced managers in situ, it is not clear why Erna and Kurt chose to assume daily control of the business. Erna Wandel was a chemist with a doctorate, and could presumably have continued in her chosen profession. But their fathers also took over at an unpropitious time, and perhaps Erna and Kurt felt that they consequently had no excuse not to do the same. The business was paternalistic, providing a sickness fund and family holiday trips,²³ which added perhaps a further sense of obligation. They might also have felt that they held some sort of covenant, a responsibility to their families both alive and dead: in the company’s 85th anniversary history, published in 1954, their roots are traced to Hans Wandel, the first sieve-maker in 1626. In a very conscious and public statement of their link to the past, Erna and Kurt asserted: “The history of the Wandel company is the history of the performance of a family. The deeds of the fathers thereby provide an example for all those currently employed in the factory they founded.”²⁴ More prosaically, Christina Lubinski has argued that many family firms continued in this way because “the ideal of preserving the family fortune for current and

¹⁸ Wehling, pp. 325–26.

¹⁹ ‘The position of Prokurist carries considerable prestige in Germany and is often used to reward employees without actually appointing them as managing directors’: Baker & McKenzie, ‘Doing Business in Germany’ (Baker & McKenzie, 2015), sec. 3.2.2 <https://www.bakermckenzie.com/-/media/files/insight/publications/2015/05/doing-business-in-germany/doing_business_in_germany_29april2015.pdf?la=en> [accessed 19 August 2019] The Prokurist at Wandel and in the other businesses reviewed held signatory powers and was effectively the second-in-command to the company’s owner/Managing Director.

²⁰ Robert Oberhauser, *85 Jahre Chr. Wandel Metalltuch- Und Maschinenfabrik Reutlingen* (Darmstadt: Archiv für Wirtschaftskunde, 1954), p. 26, Stadtbibliothek Reutlingen.

²¹ ‘Jubiläen 85 Jahre Chr. Wandel Reutlingen’.

²² Kurt Wandel.

²³ Oberhauser, pp. 29–31.

²⁴ Oberhauser, p. 5.

future generations not only influenced the choice of legal form [in Germany] but [was] also a fundamental principle in German inheritance law.” After generations of family ownership, in other words, the next generation often felt they had no choice but to accept that their fate was decided, dictated by an ineluctable path dependency and validated by securing the family’s finances.²⁵

Though the Wandel cousins might have been accused of looking too much to the past rather than the future, they benefited from present circumstances: “the reconstruction of the entire German economy brought us advantages too. Productivity grew across the board”,²⁶ to such an extent that they were able to invest in a new factory building. In December 1953, the local newspaper reported on the opening ceremony for the new Wandel factory. “For various reasons rebuilding had been slow, but it [had] recently picked up pace” and would now open for business early in 1954. The new building was substantial: 2500m² of new workspace plus 1200m² of new warehousing. Prominently positioned on its original site at a road junction in the restored town, the external aspect of the new Wandel works would “give a peacetime feel to the location” as well.²⁷ It would also constrain the company’s future development and illustrate another example of path dependency: in apparently wanting to honour their legacy by rebuilding on the historic site at the crossroads, the Wandels invested in a facility whose prominent position would allow drivers and pedestrians in the city centre to respect the Wandel name, but whose shape and boundaries would soon inhibit essential productivity improvements.²⁸

Their decision and its ramifications stood in contrast to their competitors Bruderhaus, whose extensive works were built on the edge of the town and were updated and improved after the war with added training space for apprentices,²⁹ and to the machine-tool manufacturer Burckhardt & Weber, which by this time was celebrating not the provision of staff lavatories but the implementation of an innovative, highly automated modular-production process in the

²⁵ Lubinski, ‘Path Dependency and Governance in German Family Firms’, p. 710.

²⁶ Kurt Wandel.

²⁷ ‘Am Montag Richtfest Bei Chr. Wandel’, *Reutlinger General-Anzeiger*, 19 December 1953, p. 216, WABW B79/Bü10.

²⁸ Schwäbische Treuhand AG Wirtschaftsprüfungsgesellschaft, ‘Bericht Über Die Untersuchung Der Betriebsorganisation Der Firma Chr. Wandel, Metalltuch- Und Maschinenfabrik, Reutlingen’ (Schwäbische Treuhand – Aktiengesellschaft, 1959), p. 3, WABW B79/Bü25.

²⁹ *100 Jahre Maschinenfabrik Zum Bruderhaus: Maschinen Für Die Papier-, Pappen- Und Zellstoffherstellung, Eisen- Und Metallgiesserei* (Reutlingen: Maschinenfabrik zum Bruderhaus, 1951), p. 21, Stadtbibliothek Reutlingen; Dr. Martina Schroeder, ‘Nicht Ein Stein Ist Übrig’, *Reutlinger General-Anzeiger* (Reutlingen, 16 September 2009)

<<http://www.gea.de/region+reutlingen/reutlingen/nicht+ein+stein+ist+uebrig.163534.htm>> [accessed 23 February 2017].

factory which it had built just outside the town, allowing for steady expansion, in the 1930s.³⁰ Despite this and other manifestations of their inexperience (or arrogance), however, Erna and Kurt began to build on promising growth at Wandel. This was reflected in industry data held by the Chamber of Commerce on the four players in the Reutlingen metal-cloth industry, all of which could point to increasing sales, improving manpower productivity, and strong exports – and to the Chamber’s active monitoring of its members’ businesses.³¹

The *Stuttgarter Nachrichten* newspaper reported that the four Reutlingen firms had 60% of the total West German metal-cloth industry, but capacity was too high in West Germany, hence the need to export 50% of their production. Output was now back to 1938 levels, though prices were 2.3 times higher than then. The companies’ key concerns were the very high tax burden and the uncertainty of export trade, the risks of which they now sought to reduce.³² The Chamber of Commerce’s data shows that they were much more active in exporting than their peers in other iron- and metalwork industries. For example, in January 1948 their turnover was only 8% of the whole Reutlingen metalwork industry’s, yet they were shipping 26% of its total exports.³³

Of the four companies, Wandel was the smallest, and its performance lagged the others’. The next largest company had between 11% and 17% more staff, but 21% to 80% higher turnover, dependent on which month’s data is measured. Their largest competitor, Wangner had no more than three times as many staff, but up to five times the monthly turnover.³⁴ Nevertheless, achievements were real enough to encourage the boast made in a 1958 trade publication: at Wandel “we started our rebuilding without delay and with true Swabian hard work” and now had a factory that was “capable of meeting the great demand for Wandel products which came right after the war from all corners of the world.”³⁵ There was little sense, within a decade, of the Wandels or their industry peers losing the war; its outcome seems only to have inspired them to get better. Their financial results seem to bear this out. Wandel was profitable each year after 1948’s turbulence, though profit levels varied. Sales trended steadily upwards,

³⁰ *Vielspindlig Denken: Eine Festschrift Zum 75-Jaehrigen Bestehen Der Firma Burckhardt & Weber*, ed. by Karl Langebacher (Reutlingen: Burckhardt & Weber KG, 1963), Stadtbibliothek Reutlingen.

³¹ ‘Die Metalltuchindustrie Reutlingen’ (IHK Reutlingen, 1950), WABW A16/Bü563.

³² ‘Metalltuch-Industrie Wieder Voll Beschäftigt’, *Stuttgarter Nachrichten*, 15 March 1953, WABW A16/Bü563.

³³ ‘Die Metalltuchindustrie Reutlingen’.

³⁴ ‘Die Metalltuchindustrie Reutlingen’.

³⁵ Fachgemeinschaft Druck- und Papiermaschinen, p. 37.

though with some variability that may have reflected some inconsistencies in management or product availability.³⁶

It is important to note that while they were personally committed, both in terms of their careers and of their personal liability (Chr. Wandel was, like Julius Schneider, a *Kommanditgesellschaft* in which Kurt and Erna bore personal liability), each of the four shareholding members of the Wandel family benefitted financially from the growth of the business. Profit shares for 1954 and 1955, for example, were DM37,082 and DM65,448 each, while Erna and Kurt also took DM12,000 each in annual salary.³⁷ Other company owners might have chosen to take less out, and it is possible that they were more motivated to maintain the social standing which had been achieved through the company's past achievements than they were to maximise its future potential by investing in new technologies. But it has not been possible to find details of their personal lives to corroborate this suggestion.

Sales and Business Development, 1950 – 1970

Market Context

Wandel entered the 1950s as niche participants within a booming wider paper processing industry that grew by an average of 8.2% per year between 1951-62.³⁸ When at the end of the decade the Industry Association for Printing- and Papermaking Machinery launched a specialist training programme in Munich for engineers and apprentices, they reviewed West Germany's position in global markets in which increasing wealth and literacy were bringing ever-growing demand for paper. Only a handful of countries boasted expertise, and among them West German firms were producing around 40% of paper-making machinery and almost 50% of paper-processing machinery (*Papierverarbeitungsmaschinen*). These two branches were among the most export-intensive of German machine-building branches: 55-60% of manufacturing machines and 75-80% of processing machines were by then being exported to 121 different countries, the two complementary segments growing sales by 40% to DM380million between 1954-56 alone.³⁹ The 36 firms producing paper-manufacturing machines employed 10,000 staff in West Germany in enterprises ranging from 50 to 5000

³⁶ 'Accounts Ledger, Showing Activa + Passiva, with Profit and Loss Calculations and Profit Shares, 1940-55'; Chr. Wandel.

³⁷ 'Accounts Ledger, Showing Activa + Passiva, with Profit and Loss Calculations and Profit Shares, 1940-55', pp. 175, 185, 204, 219.

³⁸ Heinz Schmidt-Bachem, *Aus Papier, Eine Kultur- und Wirtschaftsgeschichte der Papier verarbeitenden Industrie in Deutschland* (Berlin, Boston: De Gruyter Saur, 2011), p. 355
<<https://doi.org/10.1515/9783110236088>>.

³⁹ Fachgemeinschaft Druck- und Papiermaschinen, pp. 5, 7.

employees. As every paper-making factory had its own characteristics and needs, and produced so many different kinds of paper for such varied applications, the industry offered an ideal world for the machine manufacturers: the huge variety of papers “meant in practice that every single paper machine has to be custom-built – a manufacturer’s dream.”⁴⁰ This was, in other words, a perfect *Mittelstand* industry: high skill levels, high demand at home and abroad, and all products specialised and different.

Within the paper-processing equipment branch, where the products of companies like Wandel complemented those of the manufacturing-machine producers, there were 100 firms employing 12,000 staff in West Germany. Here, the industry was very varied. Some of the machines were mass-produced (*Serienbau*) with the most modern production methods and highest quality, securing a world-leading position. Individually produced machines also held what the Association called a first-rate position. Such complicated machines could however “only be economically produced if a capable sales force [made] it possible for them to be produced in increasing volumes”,⁴¹ which meant Wandel and other German firms had to be active on world markets and needed to recruit and direct capable, motivated, and ambitious sales people.

Sales Culture

Erich Wandel and his brother had monitored competitive information as it was received from the marketplace over several decades.⁴² But to be able to resurrect his business immediately after the end of the war, Erich needed to restore his selling capability. He made strenuous efforts to secure the release from custody of his pre-war *Prokurist* Karl Schlegel. His request was resisted, implying that Schlegel had been an active Nazi.⁴³ By April 1951, though, Schlegel had been released, and was attending a sales meeting with Wandel’s other representatives.⁴⁴ The meeting was taking place shortly after the appointment of Kurt and Erna Wandel, both present at the meeting, and it is clear from the minutes that the six salesmen were committed but insistent on the need for improvements. They expressed concern that the increase in manufacturing capacity had seemed also to cause an increase in lead times for delivery, making it impossible to win new contracts before existing contracts had been fulfilled;

⁴⁰ Fachgemeinschaft Druck- und Papiermaschinen, p. 6.

⁴¹ Fachgemeinschaft Druck- und Papiermaschinen, p. 7.

⁴² ‘Sales-Related Record Book’ (Chr. Wandel, 1955), p. 13, WABW B79/Bü202.

⁴³ It is not clear whether Schlegel and other salesmen like him benefited from postwar commercial relationships among erstwhile Nazis. See Pamela E. Swett, *Selling Under the Swastika: Advertising and Commercial Culture in Nazi Germany* (Stanford: Stanford University Press, 2014), pp. 139; 162ff for an analysis of their work during the regime. Swett was not able to provide information on postwar selling (email to author, 23/2/2017).

⁴⁴ ‘Memo: Besprechung Mit Den Vertretern Bei Uns’ (Chr. Wandel, 1951), WABW B79/Bü195.

they urged the directors to begin manufacture of a cardboard-making machine; they demanded action on the loss of sales commissions when sieves were sold to a machine manufacturer rather than to the end-user; they called for the recruitment of a technical specialist with knowledge of the paper industry who could accompany them on sales visits; and they insisted that aggressive action should not be taken against late-paying customers. This would seem to have been a capable and experienced team, the “battle-hardened sales force” that Norbert Helmes of Recaro thought was so essential to business success,⁴⁵ but their observations on Wandel’s shortcomings should have been a concern to the directors.

The sales team’s coverage of the German and neighbouring markets was matched by an extensive network of foreign representatives: the list of representative agents and distributors outside West Germany, dating from the mid-1950s, covers 22 countries including several in South America; the Italian distributor had represented Wandel since 1906, and all but one representative had worked for Wandel since before the war.⁴⁶ Their relationships were required to be formalised through the grant of a Representation Authorisation, issued by the regional government.⁴⁷ Many of Wandel’s international representatives participated in a sales conference in March 1956.⁴⁸ Subsequent records suggest they were active and successful, selling for example 469 units of one type of machine into 33 countries between 1955 and 1984.⁴⁹ This is borne out by the files on individual representatives, maintained by Erna. For example, her very detailed file on relations with her Cape Town representative demonstrate, like her other records, comprehensive market knowledge, formally noted, detailed.⁵⁰

There are many of these memos spread across various folders in the archive. Relationships were clearly friendly and caring, occasionally paternalistic: gifts were sent each Christmas and New Year, and wives and daughters were invited to stay with the representatives in the hotel for each sales conference. Though friendly, relations were apparently also businesslike and professional. Dr. Wandel’s notes from the September 1962 sales meeting (“Vertretertag”) are very detailed, covering many points. Representatives were asking for improved marketing

⁴⁵ Norbert Helmes, *RECARO – unternehmenspolitische Entscheidungen 1969 und ihre Konsequenzen* (Leonberg, 1 August 1977), p. 19 (p. 7), Jung Family Archive.

⁴⁶ ‘Vertreterverzeichnis’ (Chr. Wandel, ND), WABW B79/Bü195.

⁴⁷ ‘Allgemeine Vertretergenehmigung: Ing. Anton Wultech’ (Land Württemberg-Hohenzollern, Wirtschaftsministerium, 1951), WABW B79/Bü195.

⁴⁸ ‘File on 8-9 March 1956 Sales Conference’ (Chr. Wandel, 1956), WABW B79/Bü195. Unfortunately no meeting minutes survive.

⁴⁹ ‘Analysis Sheets: Gelieferte Zylinder 1955-85, Werkstatistik 1975-84, Export 1976-1982’ (Chr. Wandel, 1985), WABW B79/Bü190.

⁵⁰ ‘Folder of Correspondence with Representatives L-Z’ (Chr. Wandel, ND), WABW B79/Bü198.

material, especially individual specification sheets for specific products. They discussed Christmas gifts for customers in some detail. She seems to be constructive, happy for them to be generous to the customer, but also conscious of the costs, which are all meticulously recorded. In fact, as we shall see, although she was a scrupulous manager of detail, there is a sense as the company's history unfolds that Erna Wandel could often not see the wood for the trees.

There followed a detailed discussion on commissions, which again appears to have produced a constructive and amicable solution. It is notable in this instance that the representatives were apparently well rewarded for a successful deal, with agreement on a 6% sales commission being paid on machines costing DM75,000.⁵¹ The salesmen's report on their visit to the fourth International Textile Machine Show in Hannover in September 1963, following which they give extremely detailed reports of conversations with nine different firms on the show, confirms their professionalism.⁵² There is a suggestion at one point in the archive that Wandel defined 'professionalism' quite broadly and was not above offering incentives to employees of a potential customer to facilitate attractive deals: a memo from March 1966 reports that a long-time Wandel representative had paid a cash commission of 2% of the contract value to a named individual at one of Wandel's largest customers, who had helped the company sell a machine to his colleagues at another company location. The memo records no negative comment on this transaction, matter-of-factly mentioning only that the manager in question had promised to reserve in Wandel's name any future requirement for metal cloths.⁵³ In the handwritten accounts ledger for each year between 1950-55, there is an entry for "extraordinary expenses" (*ausserordentliche Aufwendung*) which averages over DM40,000 per year.⁵⁴ In such a very comprehensive series of itemised expense lines, it is possible that these *were* just "extraordinary" expenses. But the lack of detail, in an environment in which Dr. Erna Wandel kept the receipts for hosted restaurant meals for thirty years, suggests the possibility that this was money used for facilitation payments or other, possibly dubious, means of influencing customers.

Dr. Wandel kept a detailed analysis of sales. On the face of it, Chr. Wandel performed well for most of the period, achieving an average of 10% annual sales growth over the period in

⁵¹ 'Notes from "Vertretertag", 11 September 1962' (Chr. Wandel, 1962), WABW B79/Bü198.

⁵² 'Report of Visit to 4th Internationale Textilmaschinen-Ausstellung in Hannover, September 1963' (Chr. Wandel, 1963), WABW B79/Bü197.

⁵³ 'Memo: Telephone Conversation between Dr. Wandel and Herr Grashof' (Chr. Wandel, 1966), WABW B79/Bü197.

⁵⁴ 'Accounts Ledger, Showing Activa + Passiva, with Profit and Loss Calculations and Profit Shares, 1940-55'.

current prices, in many years growing faster than the West German economy as a whole, and at all points maintaining an impressive export output as part of the booming paper-equipment industry.⁵⁵

Chr. Wandel KG	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
Weaving sales	499,360	640,616	917,833	839,644	830,734	1,119,613	1,508,782	1,431,785	1,598,880	1,592,896	1,814,196
Home											
Export											
Machinery sales	672,678	1,041,885	1,348,650	1,871,093	1,080,672	1,351,740	1,622,745	1,832,346	2,400,013	2,223,169	1,927,516
Home											
Export											
Total sales	1,172,038	1,682,601	2,266,483	2,710,736	1,911,406	2,471,353	3,131,528	3,264,132	3,998,894	3,816,066	3,741,712
Inland	922,840	1,206,776	1,656,952	1,759,346	1,525,528	1,502,003	2,072,392	2,178,516	2,987,248	2,859,688	2,679,151
Export	249,148	475,825	609,530	951,390	385,877	969,350	1,059,136	1,085,615	1,011,645	956,378	1,062,561
% Export	21%	28%	27%	35%	20%	39%	34%	33%	25%	25%	28%
Sales Growth vs Prior Year		44%	35%	20%	-29%	29%	27%	4%	23%	-5%	-2%
Germany: GDP Growth			9.7%	9.3%	8.9%	7.8%	12.1%	7.7%	6.1%	4.5%	7.9%
Germany: Industrial Prices (2010=100)							32.1	32.6	33.2	33.0	32.8
Germany: Consumer Prices											
Chr. Wandel KG	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Weaving sales	2,075,542	2,312,736	2,063,662	1,926,236	1,660,391	1,843,176	1,953,758	1,631,207	1,629,000	1,697,061	1,380,133
Home		1,659,932	1,539,368	1,433,206	1,295,292	1,292,308	1,377,929	1,098,478	1,152,890	1,211,123	1,191,519
Export		652,804	524,293	493,030	365,099	550,867	575,828	532,729	476,110	485,937	188,613
Machinery sales	2,150,405	3,234,941	2,855,654	2,253,917	2,420,908	2,199,558	2,463,436	2,600,945	2,027,455	2,582,232	3,228,096
Home		2,174,477	1,871,628	1,119,014	1,329,700	1,336,608	1,314,036	1,334,643	1,258,435	1,670,024	2,281,243
Export		1,060,014	984,026	1,134,902	1,091,207	862,950	1,129,400	1,266,301	769,020	912,207	946,852
Total sales	4,225,948	5,547,677	4,919,316	4,644,387	4,693,117	6,717,379	5,353,652	5,300,920	4,819,471	5,582,312	6,477,169
Inland	3,032,142	3,834,409	3,410,996	2,833,844	3,048,796	4,388,603	3,220,318	3,040,345	3,027,313	3,594,878	4,251,298
Export	1,193,805	1,712,818	1,508,319	1,810,563	1,644,319	2,337,775	2,113,333	2,260,574	1,792,157	1,987,432	2,225,868
% Export	28%	31%	31%	39%	35%	35%	39%	43%	37%	36%	34%
Sales Growth vs Prior Year	13%	31%	-11%	-6%	1%	43%	-20%	-1%	-9%	16%	16%
Germany: GDP Growth	8.6%	4.6%	4.7%	2.8%	6.7%	5.4%	2.8%	-0.3%	5.5%	7.5%	5.0%
Germany: Industrial Prices (2010=100)	33.2	33.7	33.9	34.1	34.6	35.4	35.9	35.5	35.4	36.0	39.4
Germany: Consumer Prices				3.0%	2.3%	3.2%	3.3%	1.9%	1.6%	1.8%	3.6%

These summary records were reinforced by detailed analyses, of which the following samples give a sense of their apparent attention to performance. At all points, a distinction is made between woven products and machinery sales, and from 1962 onwards, sales are further broken down to show which proportion of sales originated from a new subsidiary site in the nearby town of Öschingen. The analysis for machinery sales by foreign country for 1963,⁵⁶ for example, shows total foreign sales of DM1.1million, 52% in Europe; a protective spread of business across several markets shows that Wandel's representatives were active, and its

⁵⁵ Table compiled by author, based on Chr. Wandel, 'Analysis Sheets: Annual Turnover by Product and Country' (Chr. Wandel, 1955), WABW B79/Bü191; 'Publikation - Preise - Preise Und Preisindizes Für Gewerbliche Produkte (Erzeugerpreise) - Statistisches Bundesamt (Destatis)', 2017 <https://www.destatis.de/DE/Publikationen/Thematisch/Preise/Erzeugerpreise/ErzeugerpreiseXLS/Erzeugerpreise2170200161125.xls?__blob=publicationFile> [accessed 27 January 2017]; 'Publikation - Preise - Verbraucherpreisindex Für Deutschland - Lange Reihen Ab 1948 - Statistisches Bundesamt (Destatis)' <<https://www.destatis.de/DE/Publikationen/Thematisch/Preise/Verbraucherpreise/VerbraucherpreisindexLangeReihen.html>> [accessed 27 January 2017]; 'Gesamtwirtschaft & Umwelt - Inlandsprodukt - Bruttoinlandsprodukt, Bruttonationaleinkommen, Volkseinkommen - Statistisches Bundesamt (Destatis)', 2017 <https://www.destatis.de/DE/ZahlenFakten/GesamtwirtschaftUmwelt/VGR/Inlandsprodukt/Tabellen/Volkseinkommen1925_xls.html> [accessed 27 January 2017].

⁵⁶ „Maschinenfabrik: Aufteilung des Auslandversandes nach Ländern“ in Chr. Wandel dated 25.6.1964.

products saleable. Sales outside Europe are to ten countries in the Middle East (Egypt, Lebanon, Morocco), Asia (only India), North and South America, and South Africa. The biggest market outside Europe is the USA with sales of DM 345,904, implying a serious presence in that market. The analysis for woven-product sales in 1966⁵⁷ shows total foreign sales of DM980,000, 61% in Europe but with significant sales to 13 countries across Asia and the Middle East and South Africa.

These levels of performance appear, without being able to analyse the comparative performance of its three Reutlingen-based competitors, to indicate a business which was well managed and competitive on home, European, and world markets. But negative sales growth in several years, notably in 1966-68 (when there were admittedly general economic difficulties, faced by Julius Schneider and Recaro too) suggest the possibility that all was not entirely well at Chr. Wandel. This impression is reinforced by a note in the sales file analysing the sales position at the end of February 1969.⁵⁸ Again, initial impressions are positive: the order book on 28 February stood at DM925,000, of which DM356,000 was from abroad. The order intake in March to date is DM140,000, and turnover DM70,000. The unidentified writer then itemises key products and order values, and concludes that the total order book currently stands at around DM1million, which means with current capacity lead times will be at least six months. The writer then goes on to review where this leaves Chr. Wandel with some customers and products vis-à-vis the competition. One customer is demanding machine performance that Wandel cannot meet, and the order might therefore be lost. Other machines are available immediately from competitors, but not from Wandel, which had only managed to produce 1.5 machines per month over the past year and had shown itself to be incapable of mass production. The writer's analysis and prognosis are interesting: on the face of it, Chr. Wandel are doing well, but this is a very competitive market and they appear incapable of changing their business model or production processes, or making model variations, to meet demand. It is not clear who wrote the report and for whom, but this seems to be a culture of plain-speaking. Unfortunately, as the following review of the company's operations and management will reveal, acknowledgement of the facts in 1969 came long after weaknesses outside the sales area had been identified; the lead-time problem had first been identified at the 1951 sales meeting referred to above. There is a discernible difference in the underlying sentiments in this file note, and the words (which were understandably positive, given the occasion) of Kurt

⁵⁷ „Weberei: Aufteilung des Auslandversandes nach Ländern“ in Chr. Wandel dated 6.1.1967.

⁵⁸ Aktennotiz, Auftragsbestand und – Eingang Maschinenbau in Chr. Wandel, p. 2.

Wandel at the company's centenary celebrations later in 1969. Chr. Wandel could attribute its success over a century, three wars, inflation and numerous crises to "the unrelenting initiative, unbelievable courage to take on risks, to industry and to frugality, as well as the clear recognition of the constant need to properly appreciate economic opportunities and necessities."⁵⁹ The following review of the company's operational performance since 1950, and of his and his cousin's management abilities, will enable us to evaluate the accuracy of Wandel's words.

Operations and Company Management, 1950-1970

The motivation for the establishment of the paper-machinery engineering course in Munich had been the requirement for specialists who could respond to the paper-manufacturing industry's global needs. All this demanded, in the words of the Industry Association for Printing- and Papermaking Machinery, a great deal of engineers. They needed to have a "gift for construction", but also "empathy for the technical needs of machines" whose development was "in permanent movement."⁶⁰ It was in this environment that Wandel proclaimed their own competence, with their new factory "ready to meet the great demand for Wandel products which grew right after the end of the war."⁶¹ In fact, contemporaneous events were showing that while the company may have been satisfying international customers, it was facing a crisis within. In October 1959, a management consultancy which had been brought in by the Wandels (to their credit) issued a damning report on their business. The consultants began with the observation that the factory's position on the crossroads in town militated against the necessary reorganisation of production flows, with inefficient organisation of tasks limiting the output of metal cloth and producing significant tensions within the workforce:

Given the acute shortage of skilled labour and the tendency towards decreasing work hours it is urgently necessary to find a form of organisation which secures the orderly cooperation of all employees, promotes initiative and drive, and creates the bases of good human relationships.⁶²

⁵⁹ Kurt Wandel.

⁶⁰ Fachgemeinschaft Druck- und Papiermaschinen, p. 7.

⁶¹ Fachgemeinschaft Druck- und Papiermaschinen, p. 37.

⁶² Schwäbische Treuhand AG Wirtschaftsprüfungsgesellschaft, 'Bericht Über Die Untersuchung Der Betriebsorganisation Der Firma Chr. Wandel, Metalltuch- Und Maschinenfabrik, Reutlingen', p. 3.

Having started on the shop floor, the consultants progressed to the leadership of the business. Its leaders were supported by two *Prokuristen*, but there was no clear division of tasks. In consequence the interests of the machine-building division and all its development, construction, sales, purchasing and production had been taken on by the factory manager (*Betriebsleiter*), while the interests of the weaving mills and its purchasing, sales, production, despatch and bookkeeping were represented by the commercial manager (*Kaufmännischer Leiter*); it is implied, but not stated, that these positions were held by the respective *Prokurists*. This division did not follow industry best practice and frequently caused friction. As the two *Prokurists* were longstanding employees but were younger than the company's directors, there frequently arose differences of opinion which disrupted the whole flow of the business. At a personal level, it appeared that both Kurt and Dr. Erna Wandel were simply not competent as directors of the company:

We recommend the leadership of the business to take its control more firmly in hand and to secure the future of the business through constant improvements to the existing fabrication programme and further new-product manufacturing. Every hold-up is dangerous today.⁶³

Their detailed and wide-ranging report went on to identify significant failings in every area of the company. They recommended that a qualified engineer be appointed to take care of the technical office, hitherto the responsibility of the overburdened factory manager. Procurement must be controlled by one leader, and access to the warehouse must be strictly controlled (loose control of stores being then, as now, a standard indicator of lax management), as must the issue of tools. In the machine-production area, workflow was too slow, machines were old and hindered the workflow and needed replacement, staff were unsupervised and not required to clock in or out. The company's *Meister* were not working effectively and in the weaving mill entire shifts often worked without supervision. Identifying a current practice that serves as a metaphor for the company's mindset, the consultants urged that "beer sales should be moved out of the warehouse and only permitted on special occasions." The recommendations continued, covering everything from the urgent need for a new machine park to the adoption

⁶³ Schwäbische Treuhand AG Wirtschaftsprüfungsgesellschaft, 'Bericht Über Die Untersuchung Der Betriebsorganisation Der Firma Chr. Wandel, Metalltuch- Und Maschinenfabrik, Reutlingen', p. 4.

of card systems in the office and a reorganisation of office staff. There was, however, one predominant problem; the absence of leadership and control:

All these organisational measures will not bring the desired progress unless at the same time the personnel situation is sorted out...tight, controlling management is the precondition for better performance and will be respected by the staff...workers who disrupt the business with their negative comments should be sacked...We are now at the point where the future of the company is at stake. Success can only be achieved through the combined efforts of both leaders and workers.⁶⁴

There is a sense that, in this era of almost insatiable demand for both consumer goods and, from Wandel and others, the machinery that produced them, Wandel's boat was rising with the tide. But this was also a time of full employment, and satisfactory sales revenues, notably those earned overseas, masked a state of crisis within the business. It was occasioned by staff who if they were competent lacked commitment, and by directors who may have been committed but were not apparently competent. In an environment in which the technical expertise of the *Mittelstand* was revered, Wandel's managerial ability was worryingly deficient: staff did not know how to organise themselves, had distant leaders, saw friction between the *Prokuristen* who were responsible for the day-to-day management of the business. This account should also cause us to question clichés about the *Wirtschaftswunder*-era German worker. He or she was not socially programmed to work only to world-class standards, to be self-disciplined enough to need no supervision, to never question authority. Instead, he or she required leadership and proper management at all levels within a structured way of working. It is the perhaps surprising absence of those things from Wandel that reaffirms the excellence of their daily practice – by *Meister* as well as by managers and directors – at Reutter and other high-performing *Mittelstand* businesses. The *Treuhand*'s report usefully serves as a detailed template for best practices elsewhere.

It was to this environment that the consultants returned, six months after their initial review. They had been asked to implement the changes they recommended in the previous November's report – a request which would seem to reinforce the sense that Kurt and Erna Wandel were

⁶⁴ Schwäbische Treuhand AG Wirtschaftsprüfungsgesellschaft, 'Bericht Über Die Untersuchung Der Betriebsorganisation Der Firma Chr. Wandel, Metalltuch- Und Maschinenfabrik, Reutlingen', pp. 5–7.

incapable of being the hands-on, directive leaders which the company needed. (A contrasting example of the necessary leadership – and the background which enabled it – was being experienced at this time by the staff of neighbouring machine-tool builder Burkhardt & Weber, whose own Managing Director Louis Weber had spent over 40 years in charge following a four-year spell in the United States learning every technical detail “from the ground up” of the machine-tool industry, and personifying a mindset of constantly evolving operational and technical improvements which persists today.⁶⁵) The consultants’ report was comprehensive and divided into a series of separate instructions, arranged by functional area. The first action was telling: “The leadership and direction of the business will be taken in hand by the two personally liable shareholders, Herr Kurt Wandel and Dr. Erna Wandel.”⁶⁶ Their respective tasks were to be divided, with Kurt responsible for all aspects of sales, distribution, development and construction, while his cousin was to look after workshops including buildings, all HR and pay matters, work preparation, purchasing and accounts. Rather embarrassingly for the cousins, the report went on to suggest that “the works council should help the directors to learn about processes and measures in the personnel area. Close human relations will underpin the solution of given tasks in the interest of the business.” This statement raises questions over the quality of personal relationships within the firm, and between the cousins, given that their responsibilities had to be spelt out in this way. It also calls into doubt their innate capabilities as leaders and businesspeople: *surely* these things were obvious? The fact that they were not allows us to discard another Mittelstand cliché, namely that Swabian family firms in this era benefited from a succession of excellent leaders whose natural flair for tight management was genetic. Again, the absence of high-quality leadership from Wandel throws into useful relief its presence at Burckhardt & Weber, Reutter, and elsewhere.

Other functional managers’ responsibilities are set out in the report in great detail, the numerous overlaps with the Wandels’ stated responsibilities suggesting that the two cousins would fulfil roles which oversaw the activities of their more technically competent managers rather than directly managing operational staff themselves. The two *Prokurists*’ responsibilities are particularly emphasised, with Arthur Maurer, the Commercial Leader, being provided with two pages of single-spaced instructions on the necessity of working tightly together with the

⁶⁵ Langebacher, pp. 13–14; BURKHARDT+WEBER, ‘Geschichte’, *BURKHARDT+WEBER*, 2015 <<http://burkhardt-weber.de/unternehmen/geschichte/>> [accessed 23 February 2017].

⁶⁶ ‘Procedure 1’ in ‘Organisationsplan’ (Schwäbische Treuhand – Aktiengesellschaft, 1960), WABW B79/Bü25.

Technical Leader in a constructive, results-oriented fashion. Maurer's responsibilities were to include "creating sufficient sales and selling the products profitably", "remaining in tight contact with the sales representatives through ongoing communication and demanding thorough reporting", and "overseeing, directing, and facilitating the activities of the sales team" – in addition to many other specified tasks, demonstrating his own initiative and reading of the situation, and maintaining close relations with the joint Managing Directors.⁶⁷ Fundamental improvements were to be implemented across the business, with instructions provided on areas such as cost-management, production-planning, technical compliance and contract management, all of which were to be run from new or reorganised offices. In August 1960, a summary progress report was provided by the consultants, who noted that new machines and handling equipment had been purchased and security had been improved in the stores, but there was still insufficient progress on workflow, although the engagement of staff was seen to be good and full results would in any case be seen only after a year. However, they felt constrained to mention yet again their concerns about the Wandels' personal engagement: "We recommend the company's directors put man-management first, sharing the responsibility [for it] with those below them, but maintaining the leadership of the business tightly in their own hands": only in this way would previous costly mistakes, arising from the over-burdening of managers, be avoided.⁶⁸ Now it seemed not only that the Wandels lacked innate leadership qualities or management acumen, but also that they were unable or unwilling to act when things were spelled out to them.

Whether Arthur Maurer was one of the managers who felt "over-burdened" is not known. We only know that he had spent all his career at this point within Chr. Wandel, and that the consultants' recommendations conferred on him complete responsibility for all market-knowledge and customer-management activities. We also know that in 1962, one Arthur Maurer (whose provenance cannot be confirmed) founded a competing manufacturer of metal cloth in Reutlingen, a company which claims to have had a history of relentless operational innovation until the present day, and which in 1995 bought out of bankruptcy all that remained of Chr. Wandel.⁶⁹ The archive contains no mention of Maurer's departure from Chr. Wandel nor of any changes in his disposition towards the company, but it can be imagined that his must

⁶⁷ Schwäbische Treuhand AG Wirtschaftsprüfungsgesellschaft, 'Organisationsplan'.

⁶⁸ Schwäbische Treuhand AG Wirtschaftsprüfungsgesellschaft, 'Aktenvermerk' (Schwäbische Treuhand – Aktiengesellschaft, 1960), WABW B79/Bü25.

⁶⁹ SIEBFABRIK Arthur Maurer GmbH & Co KG, 'Eine Geschichte Mit Zukunft' <<http://www.siebfabrik.de/de/unternehmen/geschichte/>> [accessed 23 February 2017].

have been a frustrating job. Originally identified as a problem in 1951, machine lead-times were still highly unsatisfactory in 1962. A file memo shows that Wandel's most rapidly produced machine would not be delivered in less than 17 weeks from order; spare parts would take 10 weeks; one machine would take 49 weeks. Confirming an average lead time for their whole range of machines which exceeded 31 weeks, there are no negative comments in the memo: this seems to have been what they had always been used to.⁷⁰ But with 1962 machinery sales exceeding DM2.8million,⁷¹ achieving a 10-week lead time would have generated over DM1million of additional cash flow through the business annually. We see no evidence of action to address this in the archives, even though by 1969 the company's liquidity still appeared to be very constrained, with the largest of their four bank accounts holding only DM11,000 out of gross cash receipts of DM500,000.⁷²

In the only remaining Works Council (*Betriebsrat*) minutes, from 1962, instead of constructive discussions on productivity or falling sales in the metal-cloth division, we find numerous personnel-related disagreements and a difficult relationship between Erna Wandel and the chairman of the Works Council and his colleagues. At various points in the minutes (written in the first person by Erna) we see evidence of disagreements over pay and working hours, unhappiness with the new piecework bonus programme (which had been approved 18 months earlier by a Works Council containing several different members, suggesting some turnover in membership),⁷³ an "energetic resistance" by Erna to the suggestion by another Council member that foreign workers were being given privileged treatment by being allowed to work for an extra hour each day, and Erna "allowing herself to appear amused by the concerns shown by the Council members." In addition to the evidently acrimonious relationships between the Managing Director and her key staff members, there is evidence of substantive problems in the workplace: "no sooner do we succeed in employing a new turner or fitter than he's gone again", a problem which the Council members blame on the poor pay for new starters, a view which Erna again contests.⁷⁴ The minutes reveal a company leader who does not appear to have the confidence of her staff, or vice versa. The situation at Chr. Wandel in this period resembles that at Julius Schneider in this respect: the idealised Mittelstand family firm was being shown not to work without clear and qualified leadership, and thorough organisation of motivated,

⁷⁰ 'Arbeitsanweisung Nr. 6' (Chr. Wandel, 1962), WABW B79/Bü26.

⁷¹ Chr. Wandel.

⁷² Aktennotiz, Auftragsbestand und – Eingang Weberei/Maschinenfabrik, dated 14.2.69, in Chr. Wandel.

⁷³ 'Board Minute: "Einführung Neuer Vorgabezeiten in Der Weberei"' (Chr. Wandel, 1962), WABW, B79/Bü53.

⁷⁴ Dr. Erna Wandel, 'Protokoll Der Betriebsratssitzung Am 28.9.1962' (Chr. Wandel, 1962), WABW, B79/Bü53.

directed staff at all levels; neither Rolf Walz's passion for his father's company nor Erna Wandel's strong intellect and commitment to her inheritance were automatic guarantors of employee respect or essential technical change. But the available evidence suggests that Walz more clearly recognised his own limitations and, without in any way resiling from his obligations to the company, sought assistance with its management. He was, moreover, *obsessively* committed to Schneider's success. In contrast, it may be reasonable to wonder whether either Wandel's heart was in the business in quite the same way, or whether they were there to honour their family and its legacy.

Despite its owners' shortcomings, however, the flourishing economy ensured that the business continued to grow. Although orders for the loom shop were down 6.9% in 1962, the increase in machinery orders outweighed the loss by over DM0.5million, with export orders 118% higher.⁷⁵ Staff numbers increased as well, and recruitment difficulties were eased by the decision to set up the plant at Öschingen. Records were meticulously maintained, as ever, and showed a high point of 133 staff in 1964, which was reduced to 125 in 1966. Nine of the staff were *Meister*, and the company maintained a high level of trained staff: 19% of its workforce were unskilled helpers in 1966, but 22% were highly skilled and a further 30% semi-skilled,⁷⁶ characteristic of the *Mittelstand*'s high-skill industrial culture. Over the course of the decade, shortages of staff appear to have been addressed by recruiting increasing numbers of foreign workers: a review of the reports on employee numbers submitted to the authorities shows an increase from 10% to 21% of the unskilled and semi-skilled workforce who were "guest workers".⁷⁷

By the end of the decade, Chr. Wandel confidently celebrated its centenary with the good wishes of all its major competitors,⁷⁸ with the presence of many guests entertained for expensive dinners and given specially designed gifts, and with the confidence of Kurt Wandel in his company's ability "always to make good judgements on economic opportunities and necessities."⁷⁹ In the new decade, that confidence slowly began to appear misplaced.

⁷⁵ Auftragsbestandvergleich, 31. Dez 1961 und 28. Dez. 1962 in Chr. Wandel.

⁷⁶ Figures for 31.10.1966 in 'Monatlicher Stand Der Betriebsangehörigen Vom 1 Okt 1962 Bis 31 Okt 1966'.

⁷⁷ Workers with non-German names identified by the author and assumed to be immigrant workers, taken from 'Aufteilung Für Industriebericht' (Chr. Wandel, 1960), WABW B79/Bü39.

⁷⁸ 'Letter of Heartfelt Congratulation' (Treuhandstelle der Metalltuch-Industrie, 1969), WABW B79/Bü11.

⁷⁹ Kurt Wandel.

The Long Decline of Chr. Wandel, 1970-1995

It appeared that Chr. Wandel had prospered during the 1960s. Total sales had grown from DM4.2million to DM6.5million. Export sales had grown by 86% to DM2.2million. But West Germany's economy had grown too, and in real terms Chr. Wandel's performance had not kept pace.⁸⁰ In the first year of the new decade, internal sales reports showed foreign machine sales of DM946,000. While the company's achievement in spreading its sales exposure across eleven European countries and five continents was laudable, sales had actually declined by DM320,000 in current prices over two years.⁸¹ As the decade unfolded, the situation worsened. The archive holds no sales records for the period 1971-74, and the sales values held on file for 1975 onwards appear to be contradicted by a report in the local newspaper in December 1976, entitled 'Wandel is still behind 1974'. In it, the company reported that 1976 sales were better than the "very bad" 1975, in which Julius Schneider and other businesses experienced difficulties and the whole West German economy contracted by 2.7%,⁸² but were very variable by month. The company's shipper had refused to hold any finished stocks, which had constrained capacity, and Wandel's capital investment was lower than the annual depreciation charge. Profitability had fallen in comparison with earlier years, driven by the increasingly high personnel charges; foreign competitors, who were very active, did not face these costs and could therefore sell more cheaply. Available contracts now had short delivery lead times, which had reduced the size of Wandel's order book, and foreign trade was made more challenging by slow cash receipts from overseas, frequently accompanied by substantial foreign exchange losses.⁸³ Although there is no archival record of the challenges presented by changes in the Deutsche Mark's international value, it seems likely that the decline in the US Dollar's value against it must have caused Chr. Wandel either to lose international market share, or to reduce its prices in order to maintain it, during a period when its internal, DM-denominated costs continued to rise following the oil-shock crisis and the Schmidt Government's reforms.⁸⁴

⁸⁰ Chr. Wandel; 'Historic Inflation Germany – Historic CPI Inflation Germany' <<http://www.inflation.eu/inflation-rates/germany/historic-inflation/cpi-inflation-germany.aspx>> [accessed 23 February 2017]; Volker R. Berghahn, *Modern Germany: Society, Economics and Politics in the Twentieth Century*, Second edition (Cambridge: Cambridge University Press, 1987), p. 280, Table 12.

⁸¹ 'Maschinenfabrik - Aufteilung des Auslandversandes nach Ländern', for 1967 and 1970 in Chr. Wandel dated 16 January 1969 and 19 April 1971.

⁸² Berghahn, p. 280, Table 12.

⁸³ 'Wandel Liegt Noch Hinter 1974 Zurück: Auftragseingang Hat Sich 1976 Gegenüber Vorjahr Verbessert', *Reutlinger General-Anzeiger* (Reutlingen, 22 December 1976), WABW A7/Bü Fi L/1997 Wandel, Chr.

⁸⁴ DM to US\$ conversion, 1960-75, at 'Historical Exchange Rates from 1953 with Graph and Charts'

<<http://fxtop.com/en/historical-exchange-rates.php?A=100&C1=DEM&C2=USD&YA=1&DD1=01&MM1=01&YYYY1=1960&B=1&P=&I=1&DD2=>

In fact, sales fell steadily in real terms over the decade. Though the West German economy was no longer the powerhouse of the *Wirtschaftswunder* years, it grew by an average of 2.28% between 1976-1983. Chr. Wandel's sales did not match it. Unfortunately the archival records contain no sales data after 1984, though later meeting notes suggest that the downward trend continued and the positive performance of 1983 itself did not mark the beginning of a turnaround.⁸⁵

	1975	1976	1977	1978	1979	1980	1981	1982	1983
Weaving sales DM	3,636,803	4,003,983	3,668,733	3,291,254	3,059,753	3,005,280	3,071,201	2,649,010	2,367,078
Machinery sales DM	5,484,641	4,262,269	4,890,827	3,915,771	3,801,223	3,742,685	3,478,707	3,946,025	5,928,437
Total sales DM	9,121,444	8,266,252	8,559,560	7,207,395	6,868,976	6,747,965	6,549,908	6,595,035	8,295,515
Export DM	ND	1,508,319	1,644,319	2,113,333	1,792,157	2,225,868	ND	ND	ND
% Export	ND	66%	50%	63%	66%	75%	ND	ND	ND
Sales Growth, 2 Years	ND	-9%	4%	-16%	-5%	-2%	-3%	1%	26%
Inflation, FRG		3.69%	3.41%	2.54%	5.40%	5.54%	6.69%	4.55%	2.71%
Economic Growth, FRG Annually		5.80%	2.70%	3.30%	4.50%	1.80%	-0.20%	-1.00%	1.30%
Net Real Sales Growth		-15.18%	0.85%	-19.10%	-9.20%	-3.56%	-2.74%	1.69%	24.48%
Economic Growth, FRG 1975-83									19.50%
Net Real Sales AAGR, 1976-83									-20.07%
Sources:	ND = No Data in Archive								
	http://www.inflation.eu/inflation-rates/germany/historic-inflation/cpi-inflation-germany.aspx accessed 23.2.2017								
	V.R.Berghahn, <i>Modern Germany</i> , 2nd Edn, 1987, p. 280, Table 12.								

The company's log of products sold shows this decline at the product level. One item continued to sell well after 1975, but it had been introduced only in 1968. The other two mainstays of the cylinder product line had been on sale since 1955 (and may well have been modified in the interim, though there is no record of any changes in the archive) and their sales dropped alarmingly from the mid-1970s onwards.⁸⁶

In the absence of explicit internal documentation or external correspondence, it is difficult to explain why the business was unable to reverse its incipient decline. Hints may be found in a detailed survey document, sent by the Baden-Württemberg Ministry for Work, Health and Social Order in 1973.⁸⁷ Wandel's response showed a decline in staff numbers over the previous seven years to 117. Wandel say that they are engaged in custom manufacture rather than series production. Worryingly, they then confirm that during the past 5 years they have not brought

01&MM2=01&YYYY2=1975&btnOK=Go%21> [accessed 24 February 2017]; Werner Abelshauser, *Deutsche Wirtschaftsgeschichte von 1945 bis zur Gegenwart*, 2nd edn (Munich: C.H. Beck, 2011), pp. 267–69.

⁸⁵ Chr. Wandel; Berghahn, p. 280, Table 12; 'Historic Inflation Germany – Historic CPI Inflation Germany'.

⁸⁶ 'Analysis Sheets: Gelieferte Zylinder 1955-85, Werkstatistik 1975-84, Export 1976-1982'.

⁸⁷ The following section is drawn from 'Response to State Ministerium Für Arbeit, Gesundheit Und Sozialordnung's "Untersuchung Der Qualitativen Auswirkungen Des Technischen Wandels Auf Die Arbeitskraefte"' (Chr. Wandel, 1973), WABW B79/Bü9.

in any significant technical innovations which “have had an impact on the number, the qualifications and/or the productivity of our workers.” The suspicion that they are not being sufficiently innovative appears to be confirmed in negative answers to questions on R&D. It may be that the lack of answers meant only that Wandel objected to the questionnaire (thereby living up to Mittelständlers’ reputation for secretiveness). But it is clear that the Ministry are genuinely engaged and it is possible, given the dearth of new products and the continuing challenges of internal organisation and productivity, that Chr. Wandel simply were not doing R&D. It is also apparent, from the final section of the questionnaire, that the business had continued to find it difficult to recruit staff locally, as over 13% of current employees were ‘guest workers’. Wandel’s answers suggest that the company sought to treat its workers fairly: its foreign employees did not “do tasks that German workers would do only unwillingly” and they would be dismissed only on performance grounds. It is clear that they were essential to the business’s future, even with its smaller workforce, because the company responded “No” to the question, “If all your foreign workers left, could you cover the reduction in workload by rationalisation or technical advancements?”, although their response may also be taken to mean that the business had no concept of opportunities for further automation or productivity enhancements.

Archival evidence is limited for the 1970s and later. A detailed review of the succeeding decades is anyway outside the scope of this thesis. But the records for annual sales conferences⁸⁸ reveal concerns among the sales force about responsiveness to technical demands. Someone asks where the focus of the company’s sales efforts should be, and how they should go about increasing sales revenues, suggesting there was either a lack of clarity in the management of sales or an unequal level of performance or commitment amongst the sales force. One of the company’s long-serving staff members was promoted to Deputy Managing Director on the 25th anniversary of his “tireless and selfless engagement.” The atmosphere was apparently cordial, as in previous sales conferences, but there is little sense of urgency on the part of Kurt Wandel. Although the following year’s conference⁸⁹ introduced a new Sales Manager to the team, the agenda is leisurely, despite there being explicit concerns about several of the company’s products. Once again, there is no sense in the extant archival material of any sense of alarm within the company’s leadership.

⁸⁸ ‘Notes from “Vertretertag”, 11-12 January 1984’ (Chr. Wandel, 1984), WABW B79/Bü196.

⁸⁹ ‘Notes from “VertreterKonferenz”, 2 May 1985’ (Chr. Wandel, 1985), WABW B79/Bü196.

By 1986, staff numbers had declined to 75, plus eleven apprentices.⁹⁰ The archive contains a file which is closed on data protection grounds, but is referred to in a memorandum from consultants requesting details of Wandel's staff, customer and supplier relationships, and manufacturing performance data. There are hints that the company was being prepared for sale.⁹¹ This was the only logical way forward. In 1981 Wandel's competitor Bruderhaus had gone into liquidation and had been restructured on a smaller scale by its acquirer. In a "metal-cloth industry in which the tendency for consolidation was clear and in progress", another competitor, Peter Villforth, had been acquired by the British giant Scapa PLC.⁹² Villforth itself, with 200 employees and DM25million in 1987 sales, was three times larger than Wandel, but was itself dwarfed by Scapa, with 100 business units and DM700million in annual sales. By now, "David was growing tired in his fight against Goliath"; development times had shortened dramatically and new products were being brought into the market at a rate decades faster than previous sieve-types had lasted. It was not surprising the "founder generation" of Mittelstand companies' owners, dependent for decades on their own capital but now faced with huge investment costs and price reductions if they were to survive, "were getting tired."⁹³

We have only newspaper records of Chr. Wandel's last days. Dr. Erna Wandel celebrated her 70th birthday, still in control of the company, in 1989.⁹⁴ How it struggled on for the following years is not clear, but in March 1995 it declared its insolvency. In the words of one newspaper, it had "Been on the pilot light for a long time." The Deputy Managing Director appointed in 1985 was still in place, and had hoped that the situation could be rescued, but they had been unable to pay February's wages. Surprisingly, the local manager of Deutsche Bank commented publicly on Wandel's financial problems.⁹⁵ The German paper industry had lost DM3billion in sales since 1991 with a 27% reduction in prices, and the Reutlingen metal-cloth makers were either already insolvent, forced into technical cooperation with each other, or facing a difficult battle with foreign competitors from Eastern and Northern Europe who enjoyed currency and

⁹⁰ 'Strukturdaten Über Die Firma' (Chr. Wandel, 1986), WABW B79/Bü12.

⁹¹ 'Data Analysis Completed by Wandel Management in Response to a Questionnaire from Dr. Ebner, Dr. Stolz & Partner, Wirtschaftsprüfer Und Steuerberater, Stuttgart.' (Chr. Wandel, 1986), WABW B79/Bü12.

⁹² Franz Pfluger, 'David Wird Im Kampf Gegen Goliath Müde', *Reutlinger General-Anzeiger* (Reutlingen, 31 December 1987), p. 10, WABW B79/Bü8, B79/Bü8.

⁹³ Pfluger.

⁹⁴ 'Birthday notice, Erna Wandel', in *Nachrichten aus Chemie, Technik und Laboratorium* (Verlag Chemie., 1989), p. 536.

⁹⁵ 'Schon Länger Auf Sparflamme. Sprecher Der Deutschen Bank: Kreditgewährung War Nicht Mehr Zu Vertreten', *Schwäbisches Tageblatt* (Reutlingen, 4 March 1995), WABW A7/Bü Fi L/1997 Wandel, Chr., A7/Bü Fi L/1997 Wandel, Chr.

cost advantages.⁹⁶ In the face of all these challenges, Dr. Erna Wandel seemed to be in denial. Now aged 75 and in control of her grandfather's business for 44 years, she "could not understand the world any more."⁹⁷ After a period in which contract wins were sluggish, the bank had withdrawn its financial support. Erna insisted that, with 50% of its sales still being exported, Chr. Wandel had been holding its own in the market until the "great breakdown" of the previous summer, but nevertheless the company's "numbers were not so dreadful." She now hoped that the workforce, only 50 strong, would not "be sold down the river" and could be taken on by a new buyer.⁹⁸ The buyer would be the firm founded by her former employee three decades earlier, by now run by a new management team following Arthur Maurer's withdrawal from day-to-day management in 1988.

Without the benefit of primary source material for its final decade, it is difficult to draw unequivocal conclusions about Chr. Wandel's fate. But it seems clear that its elderly owner, supported by an executive manager who had himself been in the business for over 35 years, had not had the energy or the desire to make the necessary radical changes which had originally been highlighted in the 1960s. Employee relations, at least with the foreign sales representatives, continued to be cordial. But longstanding problems with deliveries were not solved, new products were not introduced, new managers were not developed and given responsibility. An apparent attempt to find a trade buyer in the mid-1980s had foundered, and Dr. Erna Wandel had pushed on (the fate of her cousin is not known). In honouring her family's past, she had paid insufficient attention to their company's future needs, and placed herself at the centre of a business which she had never seemed fully competent to lead. With no family successors apparently available, she persisted, no doubt for honourable reasons, to lead the business to its inevitable fate.

⁹⁶ 'Chr. Wandel Beantragte Konkurs', *Reutlinger General-Anzeiger* (Reutlingen, 4 March 1995), p. 10, WABW A7/Bü Fi L/1997 Wandel, Chr.

⁹⁷ 'Bank Stoppte Alles'.

⁹⁸ 'Bank Stoppte Alles'.

Kenrick & Jefferson Ltd., West Bromwich

Kenrick & Jefferson was a British printer and stationery manufacturer, founded in West Bromwich in 1878 and remaining there until its closure in 2000. In the first half of its life, K&J was remarkably successful, delivering consistent sales growth with impressive rates of profitability.⁹⁹ It did so while continually investing in the business's technical capabilities and sustaining a performance culture among staff members who could be confident that consistent personal performance meant a job for life. After World War Two, K&J found circumstances more challenging. Despite managing to retain elements of its paternalistic ethos while simultaneously investing in new equipment and processes, the company struggled to sustain pre-war standards.¹⁰⁰ In this chapter, I analyse K&J's performance between 1949-79, assessing the importance of key elements of the business, most notably sales, innovation, and management. To reflect the main periods of change, and for ease of organisation, I examine these elements across three time periods: up to the mid-1950s; from 1955 to the late 1960s; and from 1970 to 1979. I identify those strengths which sustained K&J beyond its 100th anniversary, and the weaknesses which ultimately exceeded them and ensured its eventual demise twenty-one years later.

Management and Organisation to 1955

Between its foundation in 1878 and the end of the Second World War, K&J had retained a paternalistic culture in which both those who owned and led the business and those who worked in it frequently referred to their membership of the 'K&J Family'. 'Mr. Fred' Jefferson (members of the owning families were addressed in this style), second-generation Chairman and Joint Managing Director with his brother Edward, combined a focus on the company's performance with a commitment to its members' wellbeing. On his death in 1940, K&J was in good financial and operational condition. It prospered through the Second World War, producing ration books and similar government-procured products in huge quantities. The immediate postwar years had been prosperous too, but there were signs that this good fortune could not last, and that K&J was no longer the company it had been. On the eve of the company's 75th anniversary, the business boom of the immediate postwar years had passed;

⁹⁹ The company's early history, organisation, and performance are reviewed in David Paulson, 'The Professionalisation of Selling and the Transformation of a Family Business'. This article also reviews postwar sales performance until the 1960s, which therefore receives less attention in this chapter.

¹⁰⁰ The company's postwar attitudes are reviewed in David W. Paulson, pp. 10–11.

neighbouring countries, notably Germany, had begun to rebuild their economies; the future of trade with Britain's colonies was uncertain. "What of the future," asked one K&J staff member rhetorically in an article in *K&J News*, "Now that competition is with us once again and every order has to be fought for?"¹⁰¹.

The patronising tone of Chairman 'Mr. Edward's Christmas Message to the K&J Family' in December 1952 may have been appropriate in earlier decades – he himself had been with the company 47 years - but took no account of the gradual decline of earlier models of deference and institutional loyalty in the years after the 1945 election, or of the cultural changes occurring elsewhere in a fast-modernising business world. K&J's directors were doing too little to prepare for the future. Little thought was given to succession or to building organisational strength.¹⁰² Longevity of service was a source of great pride. The 75th anniversary booklet names each of the 525 staff members whose service exceeded ten years. The six directors, one by then non-executive, boasted 230 years' service between them. Among the sales force 68 men had been employed for more than ten years; the average tenure across this senior group was 32.2 years.¹⁰³ There was value in this foundation of enormous loyalty and experience, grounded in Fred Jefferson's obsession with quality and customer service. But there was also a risk of stasis: too many individuals stuck in their ways, not troubled by new ideas brought in by new thinkers.

The company's potential failings seemed to be personified by its directors, even the youngest ones. Though K&J were "always good nepotists",¹⁰⁴ welcoming any family member who wanted to join, they also insisted that they work their way up and quickly removed those who did not perform.¹⁰⁵ In this, K&J's owners appeared to have followed the "fundamental principle" identified by Martin Dauntton of "employing only those family members who were competent".¹⁰⁶ Peter Kenrick and Kenneth Jefferson, Hugh's father, both joined K&J in the 1930s, becoming directors in 1947. Both served overseas in the war, and neither had an agenda

¹⁰¹ Kenrick & Jefferson, 'A Few Memories', *K&J News*, 28 November 1952, Sandwell, BS/KJ4/1/21.

¹⁰² David Paulson, Interview with K. Hugh Jefferson, 2013. Hugh was the senior director of the company at the time of its closure in 2000 and the great-grandson of F.T. Jefferson.

¹⁰³ Walter H. Cartwright, *The House of K&J – a Booklet Issued to Celebrate the 75th Anniversary of Our Foundation in 1878 for Private Circulation Among Our Friends* (West Bromwich: Kenrick & Jefferson, 1953), Appendix.

¹⁰⁴ An expression which recalls Alfred Chandler's criticism that "in the United States, nepotism had a pejorative connotation. In Britain it was an accepted way of life." Alfred D Chandler, *Scale and Scope: The Dynamics of Industrial Capitalism*, p. 286; quoted by Brian R. Cheffins, *Corporate Ownership and Control: British Business Transformed* (Oxford: Oxford University Press, 2008), p. 223.

¹⁰⁵ David Paulson, 'Interview with K. Hugh Jefferson'.

¹⁰⁶ M.J. Dauntton, "Inheritance and Succession in the City of London in the Nineteenth Century", *Business History*, 30.3 (1988), 269–86 (pp. 275, 278).

for postwar change. They were, “after all, third generation”¹⁰⁷ and did not understand how much was changing outside K&J. They were “inhibited” and were “embedded in a certain tradition or way of life” which prevented them from seeing any need for change. Within the firm, there gradually dawned a sense that life under the third generation was not as dynamic as it had once been under their predecessors.¹⁰⁸ Ivan Walker, a 47-year veteran of the company who had joined it in 1932 under the dynamic ‘Mr. Fred’, felt that under his successors’ leadership it was no longer clear what its directors actually did.¹⁰⁹

Hugh Jefferson recalls that neither his father nor Peter Kenrick received much encouragement from K&J’s senior directors: the omission of both younger men, executive directors since 1947, from the directors’ portrait which was commissioned for the firm’s 75th anniversary in 1953 symbolised the older generation’s view of the younger.¹¹⁰ This is not to say that K&J had traditionally been a reactionary company, closed to ideas from outside the controlling families. Before 1940, it is possible to trace the ascent of men like James Reid Adam from sales representative to Sales Director over the course of thirty years.¹¹¹ General management and technical leadership were the domains of the Gifford family, who served K&J in senior positions for three generations. Unfortunately the archive holds records on only one of them. Dr. Randolph Gifford, who joined K&J in 1926 as Chief Engineer and held that position until he retired in 1954, was technically capable, with a D.Sc. from Birmingham University, and was prominent in developing new products and implementing new processes. His personal history can be interpreted positively: while K&J was dominated by its founding families, who sustained its culture of paternalism and emotional engagement with the business, they were not “personal capitalists” who were complacent and insular: they utilised their managers’ intellect and energy in the pursuit of growth.

But they did not then invite those managers to join the company’s board, to help deliver revolutionary changes. It seems neither the Kenricks nor the Jeffersons were urgently seeking the next management outsider keen to shake up their business. A more sceptical interpretation

¹⁰⁷ David Paulson, ‘Interview with K. Hugh Jefferson’. In fact Peter Kenrick appears to have been more of a change agent than Hugh Jefferson credited him with being, as we will see below. Criticism of third-generation family managers is in Nicholas.

¹⁰⁸ David Paulson, ‘Interview with K. Hugh Jefferson’.

¹⁰⁹ David Paulson, ‘Interview with Ivan Walker, Former Production Supervisor K&J’.

¹¹⁰ David Paulson, ‘Interview with K. Hugh Jefferson’; The portrait itself and the circumstances of its commissioning by K&J are reviewed in Marie Considine, ‘The Social, Political and Economic Determinants of a Modern Portrait Artist: Bernard Fleetwood-Walker (1893-1965)’ (unpublished PhD thesis, University of Birmingham, 2012) <<http://etheses.bham.ac.uk/3639/1/Considine12PhD.pdf>> [accessed 31 May 2014].

¹¹¹ David Paulson, ‘The Professionalisation of Selling and the Transformation of a Family Business’.

of their management resourcing approach may therefore be that the employment of three generations of the same family by three generations of two other families reflects the poverty of British management talent in the period, and that their domination of K&J reflects the persistence of barriers to “the flow of human capital (ideas *and* people)” that led to the “backwardness of British management” - at K&J as elsewhere.¹¹²

Sales to the mid-1950s

In 1958, K&J would remind their customers of what they themselves had believed and practised for over half a century: “Selling is as important and should be as scientific in operation as production...It is a fact that sufficient care, study and research are not given to the problem of selling by a big percentage of manufacturers.”¹¹³ A clear and consistent commitment to professional selling is observable throughout the company’s early history. They employed very capable sales leaders, most notably James Reid Adam, who was sales director for over 25 years until he retired in 1946, achieving exceptionally high standards and operating a sophisticated sales system. Strong management was complemented by a customer-focused attitude throughout the business.¹¹⁴ K&J’s sales team were the antithesis of stereotypical contemporary salesmen: unlike the Hoover sales force, for example, K&J’s men were few in number relative to sales achieved, long-serving, committed to the company, productive, and treated as professionals.¹¹⁵ In the pre-war period at least, they were one of K&J’s distinguishing strengths.

Having achieved so much before the war, the sales team’s perception of themselves in the postwar period remained positive. But photographs of them taken at contemporary meetings show avuncular figures, many of considerable seniority: two active members of the team each had 52 years’ service by 1953.¹¹⁶ It is probable that they achieved a reasonable sales performance (no records remain of individual targets or achievements) and were liked and appreciated by their customers, otherwise they would not have survived Reid Adam’s exacting standards. But it is likely that in a period of technological change and increasing competition,

¹¹² Leslie Hannah, ‘Scale and Scope: Towards a European Visible Hand?’, *Business History*, 33.2 (1991), 297–309 (pp. 301–2) <<https://doi.org/10.1080/00076799100000057>>; Alfred D Chandler, *Scale and Scope: The Dynamics of Industrial Capitalism* passim. Both Chandler and Hannah’s critique of his work are concerned primarily with larger companies than K&J, but their reservations and their negative comparisons of British managerial expertise with that of their German counterparts is a fair benchmark for K&J. .

¹¹³ Kenrick & Jefferson, ‘The K&J Direct Advertising Service’ (Kenrick & Jefferson, 1958), Sandwell, BS/KJ/2/2/10.

¹¹⁴ David Paulson, ‘The Professionalisation of Selling and the Transformation of a Family Business’, pp. 5–14.

¹¹⁵ Peter Scott, ‘Managing Door-to-Door Sales of Vacuum Cleaners in Interwar Britain’, *Business History Review*, 82.Winter 2008, 761–88.

¹¹⁶ Cartwright, Appendix.

K&J's future interests were not going to be best served by a team dominated by elderly gentlemen who had followed the same practices for decades.

Financial Results to the mid-1950s

Despite these concerns, K&J remained financially successful until the mid-1950s. In the year to 30 June 1939, it had returned a trading profit of £45,249 on sales of £454,860. In the corresponding twelve months to 30 June 1950, it had increased its profit and sales to £125,555 and £893,494 respectively. True to their custom, K&J had continued to re-invest profits in productive assets.¹¹⁷ Financial reports for the year ending 30 June 1955 showed continuing strong performance, albeit with a decline from the booming post-war years. Cash holdings were almost £131,000 and investments of £17,900 in new equipment exceeded depreciation by almost 35%. Profit for the year on the manufacturing and trading account had reached £108,000 on sales of £1.02 million, representing increases of 36% and 12% respectively versus the previous year.¹¹⁸

However, the extended Kenrick and Jefferson families were now very large. [REDACTED]

[REDACTED],¹¹⁹ the growing number of K&J shareholders increasingly offered an opportunity for conflicting expectations and shareholder unrest.

Management and Organisation, mid-1950s to late-1960s.

In 1955, Edward Jefferson died. In early archival material he is informal and humorous, in later life patrician and remote. It is possible that his own character symbolised the gradual change in K&J's culture. His father Frederick had become very wealthy from K&J and his other business interests. But Frederick had started K&J as its only employee, and he and his son Fred had been hands-on leaders who had seen the company grow without losing touch with its daily realities. The question was whether K&J had now changed fundamentally, from what might reasonably have been called a British Mittelstand company between the wars to an organisation whose wealthy leaders were increasingly distant from their organisation's needs.

¹¹⁷ , 1939, Sandwell, BS/KJ1/3/60/3; 'Notes to Accounts for Year Ending 30 June 1950' (Kenrick & Jefferson, 1950), Sandwell, BS-KJ1/3/80/2.

¹¹⁸ Kenrick & Jefferson, 'Financial Statements for the Year Ending 30 June 1955' (Kenrick & Jefferson, 1955), Sandwell, BS/KJ1/3/90.

¹¹⁹ Neil Rollings, 'The Dividend Prejudice in Postwar Britain' (presented at the Business History Conference, Unpublished, 1914).

The end of the 1950s marked a low point in K&J's fortunes. In his report to shareholders for the year ended 30 June 1959,¹²⁰ Wynn Kenrick informed them of the impact of the national printing strike which had also affected K&J between June and August. How could relations have gone from being so positive to this? Was this situation the consequence of a national decision by the unions of which K&J innocently bore the consequences? Or was its progression at K&J carried out in a way which suggests there were K&J problems too? As in our history of Jensen Motors Ltd. elsewhere in this thesis, a detailed review of industrial relations is out of scope. But it is important to consider their impact at K&J briefly in order to understand the challenges of managing British businesses in this environment.

The K&J archive contains no detailed records of company-union relations, or of the 1959 strike. We know it was a national issue, affecting all of the ten trade unions in the printing industry and its 120,000 workers. By 1959, K&J's workers apparently shared the national demand for a pay rise to be combined with a 40-hour week and what the unions termed "protective practices".¹²¹ Whether or not the strike was expected there, K&J was governed by complex, nationally negotiated wage settlements: the latest filled a 121-page folder marked "Wages Agreements 1956-1963".¹²² They are complicated and restrictive, and must have required an extraordinary amount of otherwise unnecessary bureaucracy. For example, in the letter on Revised Agreements for Bookbinders and Rulers and Semi-Skilled Men and Women Workers, there are 30 unique pay levels just for "Male Learners – Grade 2". Not one of those pay levels is repeated in the matching table for "Male Learners – Grade 1".¹²³ To add to the complications, there were separate instructions from each of the numerous unions representing each of the trades under K&J's roof. These differing interests complicated labour relations and internal administration, and increased costs, while the unions maintained both collective national strength and individual craft identities.¹²⁴ Moreover, these detailed documents did not only relate to the literally hundreds of different wage levels affecting the K&J factory.

¹²⁰ Kenrick & Jefferson, 'Report of the Directors for Year Ended 30 June 1959' (Kenrick & Jefferson, 1959), Sandwell, BS/KJ1/3/96/2.

¹²¹ Alf Robens MP in Hansard, *Printing Strike* (House of Commons, 6 July 1959); John Gennard and Peter Bain, *A History of the Society of Graphical and Allied Trades* (London: Routledge, 1995), pp. 452–57; Demands made at this time built on successes achieved in prewar disputes. See Jonathan Zeitlin, 'Craft Control and the Division of Labour: Engineers and Compositors in Britain 1890–1930', *Cambridge Journal of Economics*, 3.3 (1979), 263–74 <<https://doi.org/10.1093/oxfordjournals.cje.a035424>>.

¹²² Kenrick & Jefferson, 'Wages Agreements 1956-1963' (Kenrick & Jefferson, ND), Sandwell, BS/KJ3/3/3.

¹²³ British Federation of Master Printers, 'Revised Agreements for Bookbinders and Rulers and Semi-Skilled Men and Women Workers', 11 September 1956, Sandwell, BS/KJ3/3/3.

¹²⁴ F. Mitchell and S.P. Walker, 'Market Pressures and the Development of Costing Practice: The Emergence of Uniform Costing in the U.K. Printing Industry', *Management Accounting Research*, 8 (1997), 75–101 (p. 80).

They also set constraints on management action, such as restrictions on overtime, hugely complicating the challenge of running a business like K&J.

The strike was not the only worry for K&J's board: shareholders were unhappy too. In August 1959 K&J sold its 50% stake in office equipment manufacturer Kingfisher, delivering a significant gain.¹²⁵ Shareholders now demanded that the proceeds either be returned to them or be reinvested in another undertaking. Directors seemed to have no compelling long-term strategic plan that they were able to sell to the shareholders as the most appropriate and prudent use of their £212,000, and shareholders thought mostly of themselves. In 1961, Wynn Kenrick was less confident about the future. Shareholders had demanded, and got, an increase on the normal, generous 15% dividend. Management had made further concessions to unions with little confidence of any reciprocal commitment: "we shall be working a 40 hour week, and with the co-operation of our workpeople we have reason to believe that production will not suffer".¹²⁶ Having been a company whose owners had grown it by putting customers first, innovating constantly to meet their needs and paternalistically looking after the workers who met them, K&J's leaders now had strategy dictated to them by non-contributing shareholders and previously invisible unions.

Wynn Kenrick died unexpectedly in 1963. He was replaced as chairman by his brother Peter, an enthronement without any apparent reference to Peter's qualifications or suitability. Hugh Jefferson's negative view of his father and Peter Kenrick as the proverbially disappointing third generation has been discussed already. Recollections and written records held in the K&J archive suggest an urbane and cultivated man, widely respected as 'a gentleman'. This implies little of the concentrated dynamic leadership that the company had experienced throughout its history up to 1940 under Chairman Fred Jefferson, and needed now. In fact Peter Kenrick's tenure during the mid-1960s suggests that he was less patrician than Edward Jefferson had seemed, and more dynamic than Hugh Jefferson suggests. This was a period of extraordinary social change outside the company and within. The pre-war 'K&J Family' was in many respects no more: workers had been on strike; the social club and sports grounds which had been the centre of their employees' lives in the 1930s were no longer valued by staff who had televisions and cars.¹²⁷ The company itself had perhaps held on to its patriarchal culture for too

¹²⁵ Kenrick & Jefferson, 'Report of the Directors for Year Ended 30 June 1959'.

¹²⁶ Kenrick & Jefferson, 'Report of the Directors for Year Ended 30 June 1961' (Kenrick & Jefferson, 1961), Sandwell, BS/KJ1/3/98.

¹²⁷ 'Council May Consider Buying Playground', *Evening Mail* (Sandwell, 2 May 1968), p. 1, Sandwell, 35A/164.

long, retaining employees whose length of service meant that their learning had come from a bygone era.¹²⁸ In these circumstances, Kenrick faced difficult and fast-changing challenges.

Innovation between 1955 and late 1960s

There were two key challenges during this period, which had the potential to conflict with each other. In addition to managing union demands for different pay rates for different machines, K&J's directors had to worry about the machines themselves within an industry facing constant downward pricing pressures.¹²⁹ In October 1959, chairman Wynn and Peter Kenrick and General Manager Guthrie Gifford visited the USA, telling shareholders: "We went to investigate new processes and recent printing trends and it is hoped that in due course some applications of what we saw may be introduced here."¹³⁰ Twenty years earlier K&J had considered themselves to be world leaders, at least in relief stamping. While benchmarking can be seen as the positive action of a strong management team receptive to new thinking, this trip might also have been evidence that they no longer had world-class ideas themselves. To Hugh Jefferson's point, it is worth reflecting that the third generations of neither the owning families nor the Gifford managerial dynasty represented new blood or new thinking themselves.

In fact, innovation had continued during the late 1950s when K&J were granted two US patents: then, as before and afterwards, K&J remained committed to selling in the US.¹³¹ In the wider printing industry, K&J's directors were aware that technology was changing fast. In October 1961, Wynn Kenrick noted that: "owing to developments in our own trade it is becoming clear that further re-equipment will be required in both our lithography and composing departments."¹³² There is a sense in the following year's accounts of tension between directors, who saw the need to retain profits for investment in the business, and shareholders, who had used an EGM to demand that they be distributed.¹³³ Reinvestment

¹²⁸ F Jackson, 'Tribute to Bill Blake and Mr Pieters', *K&J News*, 23 June 1961, Sandwell, BS/KJ/4/1/22.

¹²⁹ Mitchell and Walker.

¹³⁰ Kenrick & Jefferson, 'Report of the Directors for Year Ended 30 June 1960' (Kenrick & Jefferson, 1960), Sandwell, BS/KJ1/3/97/1.

¹³¹ James Gibbon, 'Open Window Envelopes'

<<https://patents.google.com/patent/US2971689?q=inassignee%3AKenrick+%26+Jefferson+Ltd%22>> [accessed 1 June 2014]; James Gibbon, 'Method and Means of Feeding Window Envelopes to a Folding Machine'

<<https://patents.google.com/patent/US3037432?q=inassignee:%22Kenrick+%26+Jefferson+Ltd%22>> [accessed 1 June 2014].

¹³² Kenrick & Jefferson, 'Report of the Directors for Year Ended 30 June 1961'.

¹³³ Kenrick & Jefferson, 'Report of the Directors for Year Ended 30 June 1961'.

became an ongoing necessity, as Peter Kenrick pointed out to shareholders in October 1964.¹³⁴ He delivered it. By 1966, the book value of plant & equipment had risen to £382,000¹³⁵ representing almost £700,000 of investment in new machinery since 1944 and over £250,000 over the previous 36 months, with a further £53,000 of capital expenditure already committed. These investments appear to have been well targeted, the machinery and plant earning a return of over 31% against 1966 EBITD.¹³⁶

Peter Kenrick saw changes were required to more than machinery. On becoming chairman, he had indicated an awareness of his “responsibilities...at this particular time in the company’s history.” Having made a £13,000 loss on the year, the board had initiated “a complete reorganisation of the sales force”, “a number of major changes in factory management” which had delivered savings of £35,000, and “a complete overhaul” of company administration “with a view to greater efficiency and considerable economy.”¹³⁷ In 1963, a market research programme was initiated which lasted for four years. By the end of it, Kenrick had delivered “a switch from a production-orientated company to one that is concentrating emphasis on marketing” and growing sales.¹³⁸ Most significantly, he had brought Albert Smart onto the board as finance director and its first non-family director, albeit one with 40 years’ experience of K&J. Though Smart’s longevity was a potential impediment to change, the use of “modern marketing and ideas from all levels”¹³⁹ heralded a culture shift. That culture shift would actually be delivered during the following two decades by the second new appointee to the board, Tom Jefferson, appointed Joint Managing Director at the age of thirty-two to replace T. Jefferson Cottrell, retiring after “46 ½ years service”.¹⁴⁰

Kenrick was personally active himself, for example playing a key part in winning a significant export order to the US.¹⁴¹ Though by now in his fifties and already a wealthy man (the Kenrick family’s business interests included the nearby Kenricks hardware firm¹⁴² and directorships in

¹³⁴ Kenrick & Jefferson, ‘Report of the Directors for Year Ended 30 June 1964’ (Kenrick & Jefferson, 1964), Sandwell, BS/KJ1/3/101-2.

¹³⁵ Kenrick & Jefferson, ‘Balance Sheet for the Year Ending 30 June 1966’ (Kenrick & Jefferson, 1966), Sandwell, BS/KJ1/3/103.

¹³⁶ Kenrick & Jefferson, ‘Consolidated Profit & Loss Account for the Year Ending 30 June 1965’ (Kenrick & Jefferson, 1965), Sandwell, BS/KJ1/3/102.

¹³⁷ Kenrick & Jefferson, ‘Report of the Directors for Year Ended 30 June 1963’ (Kenrick & Jefferson, 1963), Sandwell, BS/KJ1/3/100.

¹³⁸ ‘New Talents Allied to Fresh Business Skills’, *Birmingham Post* (Birmingham, 12 April 1967), p. 1, Sandwell, 35A/131.

¹³⁹ ‘New Talents Allied to Fresh Business Skills’.

¹⁴⁰ Kenrick & Jefferson, ‘Report of the Directors for Year Ended 30 June 1966’ (Kenrick & Jefferson, 1966), Sandwell, BS/KJ1/3/103.

¹⁴¹ Anon, “‘A Pat on the Back.’”, *K&J News*, December 1966, Sandwell, BS-KJ4-1-27.

¹⁴² Church.

Lloyds Bank) who presumably had no need to work, Kenrick was and remained clearly focused on the long-term development of K&J. There is no sense in the company's financial record of directors favouring themselves over the company: total board remuneration was a fraction of the annual investment in new machines. And returning to Hugh Jefferson's rather negative evaluation of his father and Peter Kenrick, there is not much indication of what David Landes refer to as "the complacency of third-generation children of affluence going 'through the motions of entrepreneurship'".¹⁴³ On the contrary, there is strong evidence of a feeling of responsibility for their legacy and a commitment to modernise it in order to preserve it.

Peter Kenrick also appreciated the challenge of future markets. He had warned shareholders the company would be "moving into more specialised fields and away from the general jobbing printing which has been the mainstay of the Company for so long". This was necessary because of the arrival of " 'Do it yourself' installations and the better equipment and techniques available to the smaller printer."¹⁴⁴ With barriers to entry falling away for competitors (and soon for end-users themselves), it was necessary to start moving into new, more specialised markets. Investments in these new areas soon became visible: K&J's developing expertise in computer-related printing, for example, was reflected in the grant of a 1968 US patent for new methods of numbering documents.¹⁴⁵

Sales between 1955 and the late 1960s

K&J began the 1950s with a very large number of salesmen who had seen exceptional lengths of service with the company. Even as new staff arrived, though, products needed to change. K&J was now straddling the dividing line between leadership in old technology and the impending arrival of word processing and computing. To the extent that comprehensiveness was a virtue, K&J must have been distinctive, with their thousands of stationery products and hundreds of envelopes. Their organisation and discipline were admirable: with their Price Instruction Sheets and General Instructions, K&J in the 1960s were clearly operating at the levels of control sought by companies who seek accreditation to ISO-9001 and similar quality systems in the 21st century.¹⁴⁶ There is little sense that they were one of the firms identified in

¹⁴³ David S. Landes, 'Technological Change and Innovation in Western Europe 1750-1914', in *The Industrial Revolution and After: Incomes, Populations and Technological Change (I)*, ed. by H.J. Habbakuk and M. M. Postan, The Cambridge Economic History of Europe (Cambridge: Cambridge University Press, 1965), VI, pp. 463-64; quoted in Cheffins, p. 223.

¹⁴⁴ Kenrick & Jefferson, 'Report of the Directors for Year Ended 30 June 1963'.

¹⁴⁵ John F. Elsworth, 'Apparatus for Use in Sequentially Numbering Documents' <<https://patents.google.com/patent/US3603251?q=inassignee:%22Kenrick+%26+Jefferson+Ltd%22>> [accessed 1 June 2014].

¹⁴⁶ Kenrick & Jefferson, 'Price Book and Inserts' (Kenrick & Jefferson, 1966), Sandwell, BS/KJ2/2/10.

a 1961 report which felt that they could “muddle through and that professional sales training [was] something slick and not quite British.”¹⁴⁷ But it is difficult to avoid the conclusion that they sold lots of commodity items, humdrum daily products which might have been professionally offered, but which would not hold office automation at bay.

In terms of their printing business, though, K&J still considered that their expertise was of special value. They provided a range of training booklets on “Selling Print” published during the 1950s and 1960s, which explained how sales staff should seek to provide comprehensive support.¹⁴⁸ The company ethos which distinguished K&J’s sales staff in their prewar heyday is still emphasised, as the reader is urged to take responsibility for any problems which arise, rather than reprehensibly “seek[ing] business on the ground of the company’s good points, yet shrink[ing] from accepting responsibility for its shortcomings.” At the same time, it was made clear to the sales force that they were there for a purpose: “Persistently implant the thought that the order will be the natural outcome of your talk.”¹⁴⁹

A contemporaneous article addresses some of the issues facing K&J in the management of its sales force in the 1960s and 1970s. Whereas some companies were paying consultants to help them more aggressively inculcate competitiveness through ‘brainwashing’,¹⁵⁰ Leslie Dawson suggested that: “Aggressive sales management techniques may appear to boost short-run profit, but in the light of negative consequences on loyalty, enthusiasm, self-respect, and esprit-de-corps within the sales force, their affect on long-run profit can never be clear and may well be negative.”¹⁵¹ These negative approaches and their consequences seem to have been avoided by K&J’s plan for *Selling Print*. But only sales growth would confirm that plan’s effectiveness, which in turn would depend on its effective management by K&J’s leadership.

That is not to say that K&J were performing badly. In 1966, they celebrated sales success in several areas, winning prizes from the British Stationery Council and major export orders personally negotiated by Peter Kenrick on his visit to America.¹⁵² The original K&J export markets for print were “dwindling, as the countries to which this kind of commodity was originally exported move[d] into the technological era and [began] to make their own

¹⁴⁷ Anon, ‘British Salesmen Untrained and Inefficient’, *The Guardian* (London, 9 May 1961), p. 17.

¹⁴⁸ Kenrick & Jefferson, ‘Levels of Selling’, *Selling Print* (West Bromwich: Kenrick & Jefferson).

¹⁴⁹ Kenrick & Jefferson, ‘Closing the Sale’, *Selling Print* (West Bromwich: Kenrick & Jefferson).

¹⁵⁰ Eric Clark, ‘Big Sell for Salesmen’, *The Observer* (Manchester/London, 7 February 1965).

¹⁵¹ Leslie M. Dawson, ‘Toward a New Concept of Sales Management’, *Journal of Marketing*, 34.2 (1970), 33–38.

¹⁵² “‘A Pat on the Back.’”

products". But K&J were trying to keep "one step ahead" of developing countries, producing more sophisticated products than those they could yet produce themselves, as well as providing complete corporate branding.¹⁵³ They were, however, far behind their German counterparts in their commitment to winning export business.

K&J's directors now claimed a climate of open innovation. According to new joint managing director Tom Jefferson, "Once you get the sort of climate that fosters imaginative thinking then you get a staggering crop of ideas." Learning from their sales force, rather than from third-party market research, was viewed by the directors as a key strength.¹⁵⁴ It remained to be seen whether the new initiatives and reorganisations led by Peter Kenrick and Tom Jefferson would now bring the transformation that K&J appeared to need.

Financial Results between 1955 and late 1960s.

Archived records of detailed annual accounts run from 1935 to 1959 only. It is more likely that they are just missing from the archive than that K&J's management moved from granularity to generality in their financial reviews. But as research is also hampered by the lack of board minutes or intra-board correspondence, none of which survives from any period of the company's history, conclusions on financial strategy must be made with caution in the absence of contemporary commentary or explanation.

Surviving details show Peter Kenrick's urgency in reorganising the business was warranted. Performance had steadily declined on most axes since the end of the war. The lack of sales reporting in the archives makes it difficult to tell whether the fall in net sales in real terms (based on 1950) from £1.2million in 1952 to £873,000 by 1966 was due to the loss of government business (the end of wartime printing, ration cards, military documents) and the reversion to "normal" trading, or whether increasing competition and weakening K&J competitiveness were to blame. For those years in which detailed annual accounts remain, it is evident that sales were not able to keep pace with a concomitant increase in overheads in general, and remuneration in particular. In 1950, overheads were 32.3% of sales, and total pay, including production wages, 42.8%. By 1959, these costs had risen to 49.3% and 54.4% respectively - shortly in advance of the national printing strike which would drive wage costs further upwards. The consequence of this inability to match costs to sales was a decline in pre-

¹⁵³ 'When a Single Dot May Prove to Be a Costly Fault', *Evening Mail* (Sandwell, 28 July 1969), Sandwell, 35B/168.

¹⁵⁴ 'Smooth Reorganisation Gives West Bromwich Printers New Impetus', *Birmingham Post* (Birmingham, 12 April 1967), p. 1, Sandwell, 35A/131.

tax sales margin from 21% in 1950 to 3.8% in 1959.¹⁵⁵ By 1966, the published pre-tax profit appears to equate to only 1.4% of the net sales figure in the manuscript sales day book.¹⁵⁶ This was a very poor result compared to that achieved 15 years earlier, but an improvement from the end of Wynn Kenrick's tenure.

While heavy capital expenditure on new technology was seen by K&J's board as the best means of repositioning the company in competitive markets, a normalised evaluation of capital employed shows that in real terms the company had not actually increased its capital base appreciably. More importantly, it shows that the return on the capital which *was* invested declined progressively during the two decades.

Criticism of the margins, returns and growth achieved during this period do not mean that the directors can be accused more broadly of financial mismanagement or profligacy. As a measure of their prudence, revenue and capital reserves were increased by the board from £327,000 in 1955 to £795,000 in 1965, a real-terms increase of 65%,¹⁵⁷ with a further £151,000 held in cash and short-term deposits in 1965. While the outstanding financial results of the immediate postwar period were now a distant memory, this was a reasonably solid foundation on which to try to establish K&J's market leadership in new areas in the following decade.

Organisation and Management from the late 1960s to 1979

In 1967, Cyril Spector published his guide to *Management In The Printing Industry*. Having taught at the London College of Printing (where Tom Jefferson had studied)¹⁵⁸ until in 1966 he became Head of Department at Birmingham College of Commerce, Spector was well placed to advise the industry generally and to understand K&J's operating environment:

The industry is in a state of flux. The tremendous technical developments of the last ten years and the enormous increase in the demand for communications have forced on it a pattern of change which ensures that the industry will never be the same again. The technological pressures from within and the social pressures from without are producing a managerial revolution overnight. Concepts alien

¹⁵⁵ Sandwell, BS/KJ1/3/80/1, BS/KJ1/3/85/3, BS/KJ1/3/90, BS/KJ1/3/96/1, annual accounts for the years shown. All calculations are the author's.

¹⁵⁶ Sandwell, BS/KJ1/2/20, Sales Day Book, July 1943 to February 1973; BS/KJ1/3/103, consolidated accounts to 2 July 1966.

¹⁵⁷ Reserves figures drawn from published accounts, matching 1955 and 1965 nominal values and rebasing to 1955 via www.measuringworth.com/ukcompare/, accessed 7 September 2014.

¹⁵⁸ Interview with Hugh Jefferson, July 2013.

to a master craft printer only a decade ago, are considered commonplace by the progressive printing manager today...¹⁵⁹

K&J were one of only 60 printers in Great Britain, out of 6,600 firms, which employed more than 500 workers, and one of only 20 employing over one thousand.¹⁶⁰

Data table here © Cyril Spector

While its size may have given it some advantages of scale and scope, it must also have presented a growing management challenge: new technology was becoming more important, but had to be introduced by management to staff whose various unions had already demonstrated increasing national militancy. Although in the view of one Father of the Chapel K&J had a “young and enlightened management” it was also his view that “usually they manage to bring something controversial up”, implying that management meetings were not easy.¹⁶¹ Any changes also had to take account of greater competition from firms which were smaller, nimbler and hungrier.

An additional challenge was the desire until this point of its two founding families to retain management control. It was clear to objective contemporary observers like Spector that family companies in the printing industry would now require “trained and professional managers to help run a more complex organisation.”¹⁶² His comments reinforced those already made in the 1965 report of the National Board for Prices and Incomes on the printing industry, which noted “little evidence of recruitment to the ranks of top management either from the shop floor or from outside the industry.” They were also concerned that “opportunities for desirable

¹⁵⁹ Cyril Spector, *Management in the Printing Industry* (London, 1967), p. ix.

¹⁶⁰ Spector, *Management in the Printing Industry*, Figure 1.1, page 7. Data for 1960 extracted from The Printing Industries of Western Europe – The International Bulletin (June 1964).

¹⁶¹ Sandwell, BS/KJ4/1/31, “Bill’s secret of industrial harmony”, *K&J Group News*, January 1975.

¹⁶² Spector, *Management in the Printing Industry*, p. 314.

technical change are being lost by failure to use modern management techniques.”¹⁶³ We will now see whether changes implemented at K&J were an adequate response to the internal and external pressures identified by contemporary observers, to the demands of its shareholders, and to the constraints of its family-management traditions.

Changes to Financial Structure

To give context to any review of K&J’s management, it makes sense at this point to review the company’s financial and governance structures, which were changed frequently over the thirty years following the end of the Second World War, adding substantially to the burden on the company’s leaders. From the earliest days of K&J, the guiding principle had been the company’s stability and the maintenance of the families’ control,¹⁶⁴ with the emphasis on individuals’ service and commitment. This focus remained, even as changes to the capital base were implemented between the wars. Some minor changes effected prior to 1950 were designed to maintain stability and family control. It was from 1950 onwards that this stability began to be threatened.

Ross McKibbin has shown how the imposition of punitive tax rates on unearned income affected the wealth of Britain’s richest families in the postwar period.¹⁶⁵ It is likely that the prevailing political climate, as well as the pressure from shareholders among the extended families, forced the directors to reconsider the direction and structure of the company. The eventual outcome was the Special Resolution of May 1960, which declared K&J to be an unquoted public company, with the prevailing limitations on the number of shareholders being removed.¹⁶⁶ There is no explanation in the archive of this decision. Up to that point, shareholders had been treated well. Dividends were generous: UK government gilts¹⁶⁷ yielded returns which were significantly lower than anything received by the holders of K&J’s ordinary stock in the period. But from the directors’ perspective, the longstanding tensions which had recently culminated in arguments with the shareholders over the proceeds of the Kingfisher sale would keep resurfacing, and they would keep needing to worry about managing K&J’s

¹⁶³ Philip Sadler and Bernard Barry, *Organisational Development: Case studies in the printing industry*. London: Longmans, 1970, p. 3.

¹⁶⁴ Kenrick & Jefferson, ‘Memorandum of Association, Kenrick & Jefferson Ltd’ (Kenrick & Jefferson, 1900), Companies House, archive disk 00064701_1.

¹⁶⁵ Ross McKibbin, *Classes and Cultures: England 1918-1951* (Oxford: Oxford University Press, 1998), p. 41.

¹⁶⁶ Kenrick & Jefferson, ‘Special Resolution of 27 May 1960’ (Kenrick & Jefferson, 1960), Companies House, archive disk 00064711_82.

¹⁶⁷ ‘UK Government Gilt Returns’, *UK Government Debt Management Office* <http://www.dmo.gov.uk/rpt_parameters.aspx?rptCode=D4I&page=Annual_Yields> [accessed 7 September 2014].

financial structure rather than to driving forward new innovations. To an extent, this attitude was understandable: the shareholders were, after all, their relations and themselves. But the large size of each family (26 Jeffersons and 31 Kenricks making up the fourth generation of the founders' descendants)¹⁶⁸ and the dispersed holdings of shares among them suggested difficulties in maintaining shareholder satisfaction. For some shareholders, whose holdings had been passed down to them but who themselves had no interest or involvement in the company itself, the opportunity to create a market for their shares was preferable to staying locked into a K&J suffering the consequences of the national printing strike. Why not therefore offer shareholders the opportunity to cash out if they were dissatisfied with the company's direction, and allow other investors to take their place?

If relations between themselves and other shareholders were part of the directors' motivation, a more general explanation for the attention paid to financial restructuring might be found in Andrea Colli's argument that changes to the structure and governance of British family businesses were common after the war:

In Britain the inheritance tax fundamentally and permanently altered family firm behaviour. In 1949, for instance, a sharp rise in death duties to a top rate of 80 percent... encouraged some firms to abandon family control... the 1948 Companies Act helped to shift the balance of power in British business toward finance capital and the business corporation.¹⁶⁹

Effectively, this was the point at which family firms which might hitherto have had the internal characteristics of Mittelstand companies no longer found it viable to remain in that form. K&J were not alone: another West Bromwich company, George Salter, makers of springs and weighing equipment, became a public company in 1953 because of payment of death duties

¹⁶⁸ Kenrick & Jefferson, 'Family Tree of F.T. Jefferson' (Kenrick & Jefferson), Sandwell, BS/KJ5/1/12; 'Descendants of Archibald Kenrick (Nov 1760 – 16 Oct 1835)',

[Http://Www.Greycwall.Demon.Co.Uk/Genealogy/Wynnhall/Archy.html](http://www.greycwall.demon.co.uk/Genealogy/Wynnhall/Archy.html), 2014

<<http://www.greycwall.demon.co.uk/genealogy/wynnhall/archy.html>> [accessed 16 January 2014].

¹⁶⁹ Andrea Colli, Paloma Fernandez Perez, and Mary B. Rose, 'National Determinants of Family Firm Development? Family Firms in Britain, Spain, and Italy in the Nineteenth and Twentieth Centuries', *Enterprise & Society*, 4.1 (2003), 28–64 (pp. 28, 64).

and high taxation;¹⁷⁰ K&J's competitors in security printing, McCorquodale and Co, went public in 1961.¹⁷¹

Organisational and Governance Changes

They also made significant changes to K&J's governance. Until the mid-1960s, there was no director who was neither a Kenrick nor a Jefferson. This contrasted with the experience of their neighbours at Archibald Kenrick. After decades of poor performance, Kenricks had appointed John Donkin to their board in 1956 after he had delivered significant improvements since being recruited from GEC as works manager.¹⁷² Both Peter and Wynn Kenrick would have known about the good work being done by Donkin in their other family business, and Peter Kenrick promoted the Special Resolution that "a Director shall not be required to hold any share qualification",¹⁷³ enabling Albert Smart to become in 1966 the first director to be appointed from among the non-family employees.

Real change began after July 1971, when the 37-year old Tom Jefferson was made sole Managing Director. He was joined on the board by his cousin Hugh, hitherto Company Secretary and head of finance, who was appointed Production Director at the age of twenty-nine.¹⁷⁴ In the midst of all the changes to structure and governance, a sense of the way in which family members might still be appointed to positions for which they were not obviously qualified is conveyed in Hugh Jefferson's comment that his appointment "astounded everybody, not least myself", in view of his complete lack of production experience.¹⁷⁵ Thereafter several external directors were appointed, notably the 33-year old Simon Hodgson as marketing director in 1973¹⁷⁶ and Bertie Rose, a chartered accountant and serial director – neither with any experience of printing - in 1976.¹⁷⁷ Rose became the Chairman when Peter Kenrick eventually retired in 1978, 44 years after joining K&J.¹⁷⁸, presiding over the decision

¹⁷⁰ 'Engineers' Placing', *The Times*, 18 November 1953, p. 12, The Times Digital Archive, also cited at http://www.gracesguide.co.uk/George_Salter_and_Co.

¹⁷¹ 'McCorquodale Shares START Today', *The Times*, 13 June 1961, p. 17, The Times Digital Archive, also cited at http://www.gracesguide.co.uk/McCorquodale_and_Co#cite_note-1.

¹⁷² Church, pp. 242–62.

¹⁷³ Kenrick & Jefferson, 'Special Resolution of 19 November 1964' (Kenrick & Jefferson, 1964), Companies House, archive disk 00064711_102.

¹⁷⁴ Kenrick & Jefferson, 'Notification of Change of Directors Dated 19 July 1971' (Kenrick & Jefferson, 1971), Companies House, archive disk 00064711_120.

¹⁷⁵ David Paulson, 'Interview with K. Hugh Jefferson'.

¹⁷⁶ Kenrick & Jefferson, 'Notification of Change of Directors Dated 29 November 1973' (Kenrick & Jefferson, 1973), Companies House, archive disk 00064711_127.

¹⁷⁷ Kenrick & Jefferson, 'Notification of Change of Directors Dated 18 May 1976' (Kenrick & Jefferson, 1973), Companies House, archive disk 00064711_131.

¹⁷⁸ Kenrick & Jefferson, 'Notification of Change of Directors Dated 11 May 1979' (Kenrick & Jefferson, 1973), Companies House, archive disk 00064711_137.

not to re-register K&J as a public company in 1981.¹⁷⁹ The performance of some of these individuals is examined below, but it is striking how, over a period of five to ten years, the exclusive domination of the company's leadership positions by members of the Jefferson and Kenrick families was overturned, apparently of their own volition. What counted now would be the extent to which abandoning K&J's century-old controls would be validated by improvements in the company's performance and prospects.

Management During the 1970s

By far the most significant individual in the development of K&J after 1970 was Tom Jefferson. The grandson of Fred Jefferson, talismanic leader of K&J until 1940, Tom studied at the London College of Printing and was then sent to the United States for work experience. While his cousin Hugh, seven years younger, was learning about finance and administration through a combination of work experience and study at the Staffordshire College of Commerce (after a public school education at Cheltenham College), Tom was developing his understanding of the technical aspects of printing. By the time he became Managing Director Tom had accumulated considerable technical knowledge – including an appreciation of the developing market in computer-based materials - and was a capable marketer, having led the improvements to K&J's sales and marketing functions during the 1960s. He was also forceful and highly energetic. In these respects, he resembled a Mittelstand leader: hands-on, technically capable, emotionally committed. From the perspective of some on the shop floor, he was a positive force; Ivan Walker, by this time a K&J employee for well over 30 years, became the supervisor of the Greetings Cards division set up by Tom, which produced some two million cards per week for major retailers. In his eyes, Jefferson was “a non-stop goer”, a hands-on leader whom many employees feared. In Walker's view, the company had been “going downhill” before Tom took over, and his vitality was instrumental in “revolutionising” it.¹⁸⁰

Hugh Jefferson was his closest collaborator at director level. He has a similar perspective to Walker, but was better placed to see weaknesses as well as strengths. Tom was “a threatening person [who] had a lot of presence”, “a bit of a control freak” of the sort who only employ people less capable than themselves. On one occasion Peter Kenrick was forced to complain

¹⁷⁹ Kenrick & Jefferson, ‘Special Resolution of 11 November 1981’ (Kenrick & Jefferson, 1960), Companies House, archive disk 00064711_143.

¹⁸⁰ David Paulson, ‘Interview with Ivan Walker, Former Production Supervisor K&J’.

that managers could be found “quaking in their shoes” outside Tom’s office door.¹⁸¹ The evidence from the archives reinforces these impressions of a highly capable, driven leader who was also an autocrat. Paradoxically, it also hints at the Tom with whom Jeremy Plimmer worked closely: a leader of “terrific charisma”, great work ethic, and high intelligence, who was extremely forceful but also showed “unbelievable loyalty” to those who worked with him.¹⁸²

To understand the company’s financial situation as Tom Jefferson implemented his plans, we have the benefit of a 1974 study of the top 40 British printers by turnover.¹⁸³ It concluded that on average they generated “an entirely acceptable return” on capital employed while paying higher average wages than any other industry surveyed. K&J was ranked 22nd in turnover, 25th in return on capital employed, and 22nd in profitability (at 7.1% of sales). But with 830 people, K&J had the second-largest headcount, underlining its loss in productivity over the years and suggesting the difficulty of implementing new practices. The fact that K&J’s average pay was only 29th in the industry suggests that K&J’s staff were either competent but underpaid, and therefore unhappy and at risk of leaving; or adequately paid for low skills which might inhibit the productive implementation of new practices and technologies.¹⁸⁴ Whichever it was, K&J was concerned about its ability to attract and retain skilled staff, commissioning a substantial advertising campaign across local media “to enthuse existing employees about the company” and “produce applicants for specific vacancies” in the 1970s.¹⁸⁵

The company was effectively a pyramid, in which all important decisions were made by the Managing Director and Board. Hugh believed that the divisions should have been staffed by the most competent managers available and then cut free from headquarters, separately located and run as semi-autonomous strategic business units with the West Bromwich site sold off at a profit. Central coordination would have been achieved by a small corporate centre of perhaps six people, running an effective IT system. True to his character, Tom disagreed, in practice if not in principle, with the idea of greater autonomy. He went ahead with splitting the company into divisions, but archival evidence of his relationships with their leaders reveals the “control freak” of Hugh’s description. This was not necessarily due to any character defect; Hugh

¹⁸¹ David Paulson, ‘Interview with K. Hugh Jefferson’.

¹⁸² David Paulson, ‘Interview with Jeremy Plimmer, Former Business Development Manager, K&J’.

¹⁸³ Financial Analysis Group Ltd, *The British Printing Industry - a Financial Survey* (Winnersh, October 1974), Cambridge University Library, West Room.

¹⁸⁴ C.f. Chapter 2 above on the low postwar level of employee training at K&J.

¹⁸⁵ Kenrick & Jefferson, ‘Proposal for Advertising Campaign by Tom C. Gough & Partners’, ND, Sandwell, BS/KJ3/4/6.

suggests that Tom may have felt himself to be guided by a covenant, seeing himself as a steward of the families' company only for a period of time, and therefore feeling unable to relinquish control.¹⁸⁶ He also faced an enormous challenge in delivering cultural change. Jeremy Plimmer recalls a company which was "Victorian" when he joined as a commercial apprentice in 1964, where staff were required to call the "very posh, upper class" Peter Kenrick 'Mr. Peter' and the Jeffersons 'Mr. Hugh' and 'Mr. Tom', and the directors were waited on each lunch time in their formal dining room.¹⁸⁷

Innovation and Management in the 1970s

Jeremy Plimmer worked with Tom Jefferson to develop new business throughout the 1970s. He recalls K&J needing to "put lots of new ideas out" because they were losing business in their traditional markets, and because the 'K&J Family's' welfare provisions (which still included the ownership of houses rented out to employees such as sales staff) were so costly.¹⁸⁸ No matter what reservations some might have had at the time about Tom Jefferson's personal style, he pursued change energetically. His challenge was captured in the *K&J Group News* Centenary edition's headline in 1978: "Marrying yesterday's skills with tomorrow's technology."¹⁸⁹ The archive contains correspondence between computer companies and experts and internal memos to 'Mr. Tom', containing technical information on coding and numbering during the period 1965-69, showing Jefferson's personal commitment to understanding and developing the new computer-based technology.¹⁹⁰ From a 21st-century perspective it is easy to forget that these investments of time and money required vision and courage on his part: the *New Statesman* estimated that in 1965 there were still only 948 computer systems in use in the UK, with a potential market of 5,000 systems by the mid-1970s.¹⁹¹ During the mid-1970s, Jefferson also acquired a calendar manufacturer, launched K&J's Greeting Cards Division, bought a computer services company, and launched a market-changing computerised passbook for building societies.¹⁹² Some of the growth achieved was

¹⁸⁶ David Paulson, 'Interview with K. Hugh Jefferson'. In this respect, though the companies differed in size and industry, Tom seems to have resembled Rolf Walz at Julius Schneider, whose own sense of a covenant was similarly strong.

¹⁸⁷ David Paulson, 'Interview with Jeremy Plimmer, Former Business Development Manager, K&J'.

¹⁸⁸ David Paulson, 'Interview with Jeremy Plimmer, Former Business Development Manager, K&J'.

¹⁸⁹ 'Marrying Yesterday's Skills with Tomorrow's Technology', *K&J News*, 1978, Sandwell Archive, BS/KJ4/1/31.

¹⁹⁰ Kenrick & Jefferson, 'T. Jefferson, Ring Binder Containing Multiple Letters and Notes 1965-1970' (Kenrick & Jefferson, 1970), Sandwell, BS/KJ2/3/3.

¹⁹¹ Brian Murphy, *New Statesman*, June 1965, quoted in: Cyril Spector, *Management in the Printing Industry* (London: Longmans, 1967), p. 316.

¹⁹² 'K&J Help Launch a Revolution', *K&J News*, Easter 1978, Sandwell, BS/KJ4/1/31; 'Centenary Edition', *K&J News*, 1978, Sandwell Archive, BS/KJ4/1/31.

remarkable. Sales of greeting cards grew to £2m over seven years, with a 29% production increase to 135 million cards in 1977/78 and plans to increase output by a further 50% following an investment in a new press.¹⁹³

This extraordinarily energetic leadership and rapid pace of change concealed potential problems. First, the newly acquired subsidiary Wespac was active in the computer industry. But the intellectual capital was with other companies, to which Wespac was just providing a low-cost consumable refurbishment service. Second, a review of K&J's 88 patents indicates declining innovation.¹⁹⁴ Only 29 were granted between 1946-79, over half for improvements to envelopes, a commodity item which represented only a small part of K&J's revenues.¹⁹⁵ In the 30 years to 1979, there is little evidence of the inventiveness which broke new ground with free consultancy services in 1914, or office systems in the 1920s, or relief stamping in the 1930s, all excellent, niche products delivered as part of a focused, long-term, *Mittelstand*-style differentiation strategy.

Jefferson's hard driving was clearly bringing results, with nominal sales growth throughout this period exceeding 20% annually. He was making immense personal efforts to boost organic growth wherever possible; Jeremy Plimmer remembers how hard he pushed himself, working late every night and travelling economy class wherever he went to keep costs down.¹⁹⁶ But the third and most dangerous problem is exemplified in Tom's report of his United States trip in 1978.¹⁹⁷ He reports on the growth of the word processing market. He reviews various opportunities. He is clearly extremely energetic and very hands-on ("I always use services of the British Consulates now. They shorten my research time enormously"), but in a way which seems anomalous for a group CEO. It is commendable that he is pushing to get into new markets. But though he had teams of presumably competent people in senior positions,¹⁹⁸ he micromanaged everything. His approach risked making K&J increasingly vulnerable for the future, over-dependent for its ideas, energy, and strategic direction on Tom Jefferson. Jeremy Plimmer's recollections to some extent contradict the archival record, as he recalls Jefferson being not only loyal to his staff but also receptive to some of their ideas. But Plimmer also

¹⁹³ 'Service – the Key to Greeting Cards Success', *K&J News*, 1978, Sandwell Archive, BS/KJ4/1/31.

¹⁹⁴ 'K&J Patents, 1903-2000' <<http://worldwide.espacenet.com>> [accessed 1 June 2014]: The company was granted 88 patents in the period 1903-2000, 26 of them after 1979. .

¹⁹⁵ 'K&J Manufacturing & Trading Account at 30 June 1959', 1959, Sandwell, BS/KJ1/3/96/1.

¹⁹⁶ David Paulson, 'Interview with Jeremy Plimmer, Former Business Development Manager, K&J'.

¹⁹⁷ Kenrick & Jefferson, 'T. Jefferson, Notes on USA Visit, October 1978' (Kenrick & Jefferson, 1978), Sandwell, BS/KJ8/2/1.

¹⁹⁸ They were also highly regarded by his fellow director: David Paulson, 'Interview with K. Hugh Jefferson'.

recalls his “overpowering” personality and tendency to “walk all over” his subordinates,¹⁹⁹ which suggests that the free flow of ideas and of challenges to Tom’s thinking would have been as limited as the documentary evidence indicates.

The possible consequence of his approach is suggested by developments in the security printing market, a key area for expansion in which Jefferson had a deep interest. In 1986, one company larger than K&J had proposed to merge with an even larger one. K&J were consulted by the Competition Commission, and referred to themselves as a minnow confronted by whales.²⁰⁰ At one time, though, K&J had been much stronger than one of the merger parties, Norton Opax PLC, and as strong as the other. From 1923 until the 1960s, Norton and Wright Ltd had been a small family firm with no more than 30 staff in a single premises, producing lottery tickets and card games. By 1973, though, the Norton and Wright group was being floated on the Stock Exchange. It then continued to grow organically and by acquisition at home and overseas until by 1986 it had 22 companies in four operating areas. Significantly, it had grown by decentralising management to the heads of each operating company, who were free to set up their own incentive schemes and ran their operating business with an autonomous board. A small head office was responsible only for group strategy, marketing and finance.²⁰¹ The largest company, McCorquodale PLC, had also grown through a strategy of decentralised management,²⁰² the sort of small “centre” which Hugh Jefferson had wanted for K&J. It seems possible that K&J were left behind as “minnows” not because of a failure to make innovations in security printing in the 1980s but because of a failure to make innovations in management and leadership, supported by committed shareholders, in the 1960s and 70s.

Sales in the 1970s

The character and size of K&J’s sales force had begun to change during the 1960s. Tom Jefferson had concluded that the team, many of whom by that time had served the same customers for decades, were not developing new business but were simply “order takers”. He therefore “took a scythe to about 30% of the sales force” during a “night of the long

¹⁹⁹ David Paulson, ‘Interview with Jeremy Plimmer, Former Business Development Manager, K&J’.

²⁰⁰ Competition Commission, *Norton Opax PLC and McCorquodale PLC A Report on the Proposed Merger* (London: Competition Commission, 24 September 1986), para. 6.3

<http://webarchive.nationalarchives.gov.uk/20111203045905/http://www.competition-commission.org.uk/rep_pub/reports/1986/206norton_opax_mccorquodale_plc.htm> [accessed 30 November 2014].

²⁰¹ Competition Commission, chap. 3, Norton Opax PLC.

²⁰² Competition Commission, chap. 4: McCorquodale PLC.

knives.”²⁰³ As a result, by the beginning of the 1970s there were 35 representatives, based at their homes, and five managers across four regions, the largest of which was London with seventeen salesmen.²⁰⁴ Some of their ‘new’ approaches suggested that K&J’s competence in marketing had deteriorated over the course of forty years. For example, one meeting called for “centralised mailing list to be built up to be used for raising additional enquiries to those got by personal calls” as though this was a new idea; in fact, K&J had pioneered the use of mailing lists in the 1920s and 30s and had managed their use brilliantly.²⁰⁵

It is, however, clear that they were not operating in an easy sales environment. The industry’s trade body, the British Printing Industries Federation, warned that “competition continues to be fierce in many markets and prices remain too low” relative to the substantial general cost increases in the industry, up 458% between January 1962 and January 1978.²⁰⁶ Companies struggled to maintain their competitiveness when average annual inflation in the UK in 1977 was 15.89%.²⁰⁷ In West Germany, in contrast, average inflation in 1977 was 3.74%.²⁰⁸ In these circumstances, K&J’s push into European markets contrasted with the poor performance of other British firms which, according to the Institute of Export, were failing through inertia and incompetence, at a time when colleges were dropping export courses owing to a lack of demand from “apathetic industry”.²⁰⁹ The contrast, in performance and background environment, with Mittelstand exporters was stark.

K&J’s progress was more impressive. Over three years, exports doubled annually and K&J won a regional export prize.²¹⁰ But their market-positioning strategy, explained by export manager Mark Young, seems defective: “We have got to make it as natural in Oslo to regard us as local printers as it would be as if we were the printer round the corner.”²¹¹ For a company which had prided itself on innovative, value-added selling for the previous sixty years, this seems a limited strategy. If proximity (real or imagined) was supposed to be K&J’s greatest

²⁰³ David Paulson, ‘Interview with K. Hugh Jefferson’. The “long knives” description was also used by Jeremy Plimmer, interview, 21 November 2014, suggesting the event had lodged in K&J’s folk memory.

²⁰⁴ Kenrick & Jefferson, ‘Memorandum: ’ Sales Organization’ (Kenrick & Jefferson, 1971), Sandwell, BS/KJ2/3/10.

²⁰⁵ David Paulson, ‘The Professionalisation of Selling and the Transformation of a Family Business’, p. 12.

²⁰⁶ British Printing Industries Federation, ‘Editorial’, *Printing Industries*, February 1978, 85 (p. 85).

²⁰⁷ ‘Inflation, Great Britain, 1977’, *Inflation EU: Worldwide Inflation Data* <<http://www.inflation.eu/inflation-rates/great-britain/historic-inflation/cpi-inflation-great-britain-1977.aspx>> [accessed 15 November 2014].

²⁰⁸ ‘Inflation, West Germany, 1977’, *Inflation EU: Worldwide Inflation Data* <<http://www.inflation.eu/inflation-rates/germany/historic-inflation/cpi-inflation-germany-1977.aspx>> [accessed 15 November 2014].

²⁰⁹ ‘Salesmen “Hampering Exports”’, *The Guardian* (Manchester/London, 1 April 1974), p. 13.

²¹⁰ ‘K&J Wins Major Export Award’, *K&J News*, Easter 1978, Sandwell, BS/KJ4/1/31.

²¹¹ ‘K&J Must Be Europe’s Printer Round the Corner’, *K&J News*, Summer 1977, Sandwell Archive, BS/KJ4/1/31.

differentiator, how would they compete with someone who *was* around the corner? They appeared to be positioning themselves as a commodity supplier which turned orders round quickly, with little sense of any world-leading niche product or unique value proposition. An anecdote from the time serves as an appropriate metaphor for K&J, and indeed for the theme of the whole thesis. A group of German schoolchildren toured K&J as part of a schools exchange, and Mark Young took them round speaking German, in the view of *K&J Group News* “a performance that impressed the youngsters as much as the sight of so much German machinery in day-to-day use in the factory”. It is an unfortunate reflection on K&J’s and Britain’s position relative to German businesses that a British export manager speaking his customers’ language could be considered extraordinarily talented, while no concern was voiced that a British printer, whose growth strategy largely depended on quickly producing low-value printed commodities, depended for its existence on high-value machinery produced in Germany.²¹²

Ironically, as K&J was expounding its ‘local printer’ thinking and heralding the appointment of an aggressive new sales manager for its commodity calendars,²¹³ the BPIF²¹⁴ was asking its members, “Why don’t you have it die-stamped?”²¹⁵ Celebrating a resurgence in orders to a current level of twenty million impressions per week, the Federation offered instructions on how to sell the die-stamping work in which K&J had once dominated a world-leading niche position, and for which it had just won an international award. Now, though, the relief-stamping group was one of K&J’s smallest departments.²¹⁶ In the pursuit of volume, it appeared, K&J had failed over time to build upon the inimitable, high-profit skills which set it apart from national and international competitors – thereby meeting resource-based management theorists’ requirement that a company’s products must exhibit Value, Rarity, Inimitability and a supporting Organisation to achieve sustainable competitive advantage²¹⁷ – and had never yet found others to replace them.

²¹² ‘Impressing the Germans’, *K&J News*, Summer 1977, Sandwell Archive, BS/KJ4/1/31.

²¹³ ‘New Supremo at Lockwoods’, *K&J News*, Easter 1978, Sandwell, BS/KJ4/1/31.

²¹⁴ British Printing Industries Federation.

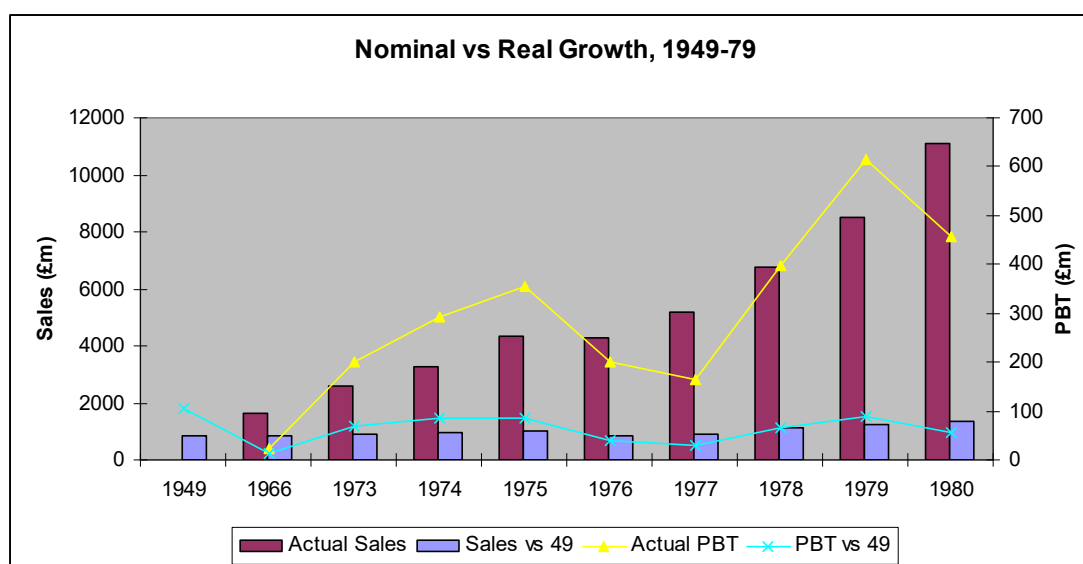
²¹⁵ British Printing Industries Federation, ‘Why Don’t You Have It Die-Stamped?’, *Printing Industries*, September 1978, 85. At K&J, die-stamping was traditionally known by its alternative name, relief-stamping.

²¹⁶ ‘Excellence Brings Its Own Great Reward’, *K&J News*, Easter 1978, Sandwell, BS/KJ4/1/31.

²¹⁷ Jay Barney, ‘Firm Resources and Sustained Competitive Advantage’, *Journal of Management*, 17.1 (1991), 99–120.

Financial Performance in the 1970s

Throughout the 1970s, K&J's revenues and profits appeared to grow in response to the efforts of Tom Jefferson and his team to develop new products and boost exports. By the end of the financial year 1979/80, record sales of almost £11.1 million showed a seven-fold increase over the period since Tom had become a director in 1966. Profits had grown even more dramatically, rising by over twenty times, and spoilt only by a decline in nominal terms of 26% between 1978/79 and 1979/80. The story appears to be one of continuing success. In reality, K&J's story between 1949-79 was one of minimal sales growth and declining profitability in real terms. The company's leadership failed to recapture the achievements of the pre- and immediate postwar years, apparently not finding contracts which were of equivalent volume and profitability to those it had enjoyed before and through the war and beyond it. None of Tom Jefferson's export growth, nor his new computer and Business Forms product lines, nor his remodelled envelope factory, though all showed nominal gains throughout the 1970s, was sufficient to enable the company to return to its past strengths, let alone to grow to the next level, as companies such as McCorquodale and Norton Opax were doing. In real terms, as the table below shows, both sales and profits actually remained flat in real terms over a 30-year period.²¹⁸



²¹⁸ Financial data from Sandwell, BS/KJ1/3/ sequence of annual accounts; Companies House files of 1970s accounts; normalised to 1949 based on <http://www.measuringworth.com/ukcompare/relativevalue.php> accessed 1.12.2014. Chart compiled by author.

This was despite the fact that the company continued to invest in technology and process improvements. During the 1970s investment in plant continued to outstrip depreciation each year. At almost £2.7m in 1979, K&J's fixed assets were worth in real terms almost 2.5 times what they had been in 1949,²¹⁹ but there was no concomitant real-terms increase in the company's profits.

We have seen how the board of directors were increasingly preoccupied with the concerns of the company's shareholders from 1950 onwards. Jeremy Plimmer recalls that Tom Jefferson was always nervous every September, in anticipation of "being beaten up" by shareholders at the AGM.²²⁰ We have also seen how, relative to the fortune of shareholders and holders of Government securities generally in the UK, K&J's shareholders were very well rewarded in the 1950s and 1960s. This continued during the 1970s. Between 1973-80, dividends per £1 share rose each year, from 11.63p to 25.0p. During the last five years of the decade, while the company's bank overdraft rose from nil to £587,000, gross dividends distributed amounted to £252,000 out of total after-tax profits of £1.3 million.²²¹ It may have been reasonable for its shareholders to contrast unfavourably K&J's performance in 1979 with that in 1949. But it is also reasonable to conclude that shareholders did exceptionally well out of investments which in most cases they had inherited. More modest demands and a more supportive, less short-term, attitude from shareholders might have permitted Tom Jefferson to deliver greater long-term returns through the focused, long-term, niche products strategy that his grandfather had pursued.

Conclusion: Kenrick and Jefferson, 1949-79.

K&J's immediate postwar history reveals a company which maintained many of its traditional virtues. It retained its staff and treated them well, even after paternalism had ceased to be fashionable; it cared deeply about its customers and their needs; it continued to invest in new equipment and to seek ways of working more productively and professionally. But within fifteen years of the war's conclusion, the company's future seemed imperilled, with long-serving staff and apparently uninspired directors failing to generate sufficient ideas or energy, and proliferating shareholders demanding short-term gains. Once the third generation of

²¹⁹ At £2.693 million versus £154, 437, adjusted by the real price index of 6.98.

²²⁰ Jeremy Plimmer, interview, 21 November 2014.

²²¹ Companies House, 6000 series of K&J annual accounts for the years ending 26/6/76, 2/7/77, 1/7/78, 30/6/79 and 28/6/80

owners had begun to fight back, however, a leader from the fourth generation took the company by the neck and dragged it forward. Tom Jefferson invested in new technology with an eye to the emerging computer age, purchased companies in new and complementary markets, and drove K&J's exports to extraordinary levels in a short time. Yet while his 1978 end-of-year report shows that the company paid attention to the age and remaining service of its most senior 34 managers, marking the eldest "for particular attention",²²² there is no mention anywhere of any succession plan for Jefferson himself. This was reasonable in as much as he was still in his forties, but it added to K&J's dependency on a figure who seems to have been completely dominant. Though Hugh Jefferson might have claimed ancestral entitlement to be considered the second-in-command, the archival and anecdotal evidence suggest that the company derived a disproportionate, and therefore highly risky, amount of its energy from one domineering individual.

No matter that he was motivated by a sense of moral obligation to his family, as his cousin Hugh claims; and was personally industrious and financially modest, as Jeremy Plimmer suggests; and that he had to manoeuvre around the excessive short-term demands of greedy shareholders throughout his tenure: Tom was a liability as well as an asset. His refusal to build a team of equals and his insistence on taking personal responsibility for all key initiatives rendered his company vulnerable to his own fallibility. Of course, any historian of the company must risk the accusation that their conclusions are shaped by the knowledge of Tom's early death a decade after the end of our period, and the terminal impact caused by the "huge vacuum" he left behind.²²³ But by the time that he took sole control of the business in 1971, K&J was over thirty years past its best days, and it was not possible for one man of Tom's character, no matter how committed or intelligent or visionary, to reverse its relative decline alone. It may have been his effort to do so that ultimately cost K&J its existence, despite the numerous successes under his leadership.

Summary

Wandel and K&J were very different in size, scope, and structure. How did they compare in terms of Hall and Soskice's five 'spheres'? There is little evidence relating to industrial

²²² Sandwell, BS/KJ8/2/1, T.F. Jefferson Annual Report, Annex K, 21 July 1978.

²²³ Jeremy Plimmer, interview, 21 November 2014.

relations at Wandel. But its approach to vocational training and education reflected its place in a specialist cluster in Reutlingen. It recruited a large number of apprentices, was part of an industry-wide talent programme, and remained committed to high skills. Its *Meister* helped it to maintain worldwide sales with two niche product lines that were difficult to make and complemented each other. Despite early problems, staff and management were apparently sufficiently capable and committed to enable the business to remain internationally competitive.

K&J's traditionally paternalistic industrial relations were made more difficult by the 1959 printing strike and contemporary social changes. Having achieved interwar success with internationally competitive niche products, the postwar workforce produced more mundane work than its predecessors. It struggled to recruit technical talent from a diminishing local pool, simplifying its apprentices' training. While there were some developments in skills like lithographic printing, there was no transformation in technology or approach that prevented it from being bypassed by its competitors.

Next, in its relations with other firms Wandel was internationally successful, despite its operational frustrations, exporting its specialised products through its well-managed representative network. K&J, in contrast, delivered a high level of operational capability from constantly updated equipment, but sold mostly commodity goods. Sales was an area of interwar brilliance which, notwithstanding friendly customer relations, was a relative failure for much of the postwar period, with export success coming only in the mid-1970s.

Finally, differences in governance are apparent. One example is evident in funding. Though liquidity was often strained, the stable Wandel family were clearly known, trusted and supported by their bankers. K&J's finances worsened as its sales grew, increasingly demanding shareholders causing it to become reliant on bank overdrafts while still paying large dividends. Leadership was a challenge for both companies that culminated after the end of this study. Erna Wandel was determined for reasons of familial obligation to retain her position for over 40 years. A more dynamic solution was necessary, but her weaknesses were mitigated by the supportive context in which her company operated. Tom Jefferson was, in contrast, highly dynamic. But when his fellow director Hugh Jefferson urged him to adopt a Chandler-esque management structure, employed by K&J's most successful competitors, he did not do so. His early death left a leadership vacuum from which K&J did not recover, in a context which was less supportive than that enjoyed by Wandel and by K&J's interwar forbears. In both cases,

well-intentioned family-centred governance structures were ultimately injurious to long-term continuity.

Chapter 4: Case Studies - Steel

Introduction

This chapter introduces two very different approaches to management, in businesses which also bear some strong similarities. Both manufactured and erected steel structures, but on different geographical scales. Both ran fabrication and contracting operations, but with a completely different philosophy of leadership engagement. Both were dominated by one family, but with completely different models of governance. Both were successful and became frustrated, leading to closure, but found some continuity within very different conceptions of capitalism.

Braithwaite & Co (Engineers) Ltd (Braithwaites) was established in 1884 in West Bromwich. It was eventually run as a public company,²²⁴ controlled and managed by one family,²²⁵ from head offices in London, then Surrey. It had factories in and West Bromwich, the latter making bridges and other steel structures, sold in Britain and overseas. This chapter deals primarily with the West Bromwich site, which was closed in 1979. The group was radically transformed in the 1980s through financial engineering, and its successor remains active - albeit it in unrecognisable form - today.

Julius Schneider Stahlbau und Verglasung (Schneider), based first in Stuttgart then in nearby Ludwigsburg, was a designed, producer and installer of steel-framed buildings and glass roofing. It celebrated its fiftieth anniversary in 1960 but by 1976 had closed its doors. Schneider's leadership passed from father to son. They were resilient and committed, and took pride in a paternalistic company culture which relished hard work in adverse conditions. But their single-minded commitment to family ownership ultimately deprived the company of the flexibility it required to survive.

²²⁴ Archival material for Braithwaites is limited. The dominance of meeting minutes offering 'official' views has added to the task of reconstruction, and required attention to Decker's concerns regarding evidence of this sort: Decker, pp. 161, 165.

²²⁵ The author's letters to the Chairman and a director of the company in 1979 and to the later purchaser of its Newport subsidiary were not acknowledged. The relevant professional archive does not contain information from the late 1970s, preventing a separate view of Braithwaites and/or its industry: 'Engineering Employers' Federation - Archives Hub' <<https://archiveshub.jisc.ac.uk/data/gb152-eef>> [accessed 10 January 2019].

Julius Schneider GmbH & Co. KG, Ludwigsburg

Early History 1902-45

Julius Schneider started a one-man technical services business in Stuttgart in 1902.²²⁶ Karl Walz, newly graduated in Mechanical Engineering from Technische Hochschule Stuttgart joined him, and in 1910 the business was established as *Julius Schneider Eisenkonstruktion und Glasdachbau* (ironwork and glazed roof manufacture). After difficult conditions during World War One, when Walz served at the front, they established relationships with firms such as Mercedes and Bosch which remained their customers until the 1970s. After setbacks during the difficult economy of the 1920s, Schneider began to focus on steelworks for buildings; ever larger constructions were manufactured and erected, including turbine halls and a rolling mill. Schneider improved and expanded its plant, albeit still using very primitive tools and machinery: the company history recalls the use of tree boughs as levers for lifting steelwork, the carriage of finished products on handcarts, and the use of city trams for deliveries, all of which created a culture of resilience. Having cut staff from 100 to six during the recession of the early 1930s, the building industry experienced such a sharp upswing under the Hitler regime's industrial policy²²⁷ that the works was soon overwhelmed. In response, the factory expanded, offices and workshops were updated, and the workforce expanded to 120 men.

From 1 January 1937 the single-owner firm (*Einzelfirma*) became a partnership (*offene Handelsgesellschaft*) between Julius Schneider and the by-now Senior Engineer ("Oberingenieur") Karl Walz. The elevation of the "trusted colleague",²²⁸ effectively a 28-year apprenticeship, illustrates a typical preference for expertise and experience over youth and energy in the selection of management, and indeed in individuals' decisions to seek management responsibility: Christian Wandel chose to start out on his own only at the age of 48, when he was fully confident in his own experience and ability. Walz became the sole owner in 1943 on Schneider's death, working at a relentless pace until he suffered a complete breakdown in autumn 1944. The successes in this period up to 1945 were later attributed by his son and successor Rolf Walz to "painstaking attention to detail", the "dogged work" of

²²⁶ This section based on Rolf Walz; and W. Zimmermann, 'Kurzer Abriss Der Betriebsgeschichte – Julius Schneider, Stahlbauten, Kittlose Glasdächer.' (Julius Schneider GmbH, 1962), WABW B4/Bu3.

²²⁷ Adam Tooze, *The Wages of Destruction: The Making and Breaking of the Nazi Economy* (Penguin, 2007), pp. 108–14.

²²⁸ IHK Ludwigsburg, 'Die Kammer beglückwünscht', *Mitteilungsblatt der Industrie- und Handelskammer Ludwigsburg*, November 1960, p. 163, WABW B4/Bu3.

“undemanding”, “industrious, capable workers”, and the “daring and capability” of the company’s leaders. Rolf’s nostalgic views of the early struggles of his father and the company’s workers are respectful to the point of uncritical reverence, suggesting even something of a reluctance to embrace new technology almost on moral grounds, and he subsequently “rejoice[d] in the fact that we are still a big organisation of craftsmen (“dass wir noch ein handwerklicher Grossbetrieb [sind]”).²²⁹ This early history demonstrates the accretion of culture and the accumulation of path dependencies.

At the war’s end, the imposition of denazification programmes meant a return to business leadership was prolonged, in some cases for several years.²³⁰ By December 1945, Karl Walz had himself still not been permitted to regain his former role at Julius Schneider.²³¹ Notwithstanding subsequent endeavours to distance himself from Party matters, the archive reveals that under Walz’s direction, Julius Schneider had been an active contributor to the war effort, despite having suffered on numerous occasions from bomb damage.²³² The 1953 statement shows that turnover had been RM960,000 in 1943, admittedly a decline from its high point of RM1.4million in 1941. But with 87 staff (the number of whom were slave labourers, perhaps a contributing factor in Walz’s exile from the company after 1945, is unknown) in 1944, the company had remained busy.²³³ Karl Walz’s conduct during the war suggests a determination to persist with pre-war business etiquette to an extent which is surprising given the context; it also makes comprehensible the speed with which the business (and others in similar wartime and post-war situations) recovered despite the post-conflict devastation. Three weeks before French troops occupied Stuttgart,²³⁴ Walz was invoicing architects for a cancelled Messerschmitt project²³⁵, including overtime pay for onsite labour.²³⁶ It is difficult to understand whether Walz was determined to display an indifference to reality or whether his behaviour was a manifestation of the determination of both the Nazi Party and many individual

²²⁹ Rolf Walz.

²³⁰ Richard Bessel, *Germany 1945: From War to Peace* (Simon & Schuster UK, 2012), pp. 361–69.

²³¹ The company history recalls that he had been barred since the introduction of Law No. 8 in September 1945. See Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’, p. 34.

²³² Karl Walz, ‘To: Kriegschädenamt, Stuttgart and Städt. Wohnungs-u. Siedlungsamt, Stuttgart’, 29 January 1945, WABW B4/Bu15.

²³³ Karl Walz, ‘Schäden und Verluste an Betriebsvermögen’, 1953, WABW B4/Bu16 This total differs from the 55 staff later recorded in the company’s history, suggesting either that the situation deteriorated as 1944 went on, or that Walz might have deliberately overstated his losses - or perhaps that he counted wartime slave labour as part of his total headcount. c.f. Hege, p. 32.

²³⁴ Frank Roy Willis, *The French in Germany, 1945-1949* (Stanford University Press, 1962), p. 18.

²³⁵ Karl Walz, ‘Invoice to Herren Architekten Lambrecht und Osthus (14) Leonberg, Bauleitung.’, 26 March 1945, WABW B4/Bu37.

²³⁶ Karl Walz, ‘Invoice to Herren Architekten Lambrecht und Osthus (14) Leonberg, Bauleitung.’, 31 March 1945, WABW B4/Bu37.

Germans to continue with daily life as though there were no likelihood of defeat or any change in local circumstances.²³⁷

It appears from the limited archival evidence that Walz and his staff adroitly navigated their way through what must have been extraordinarily trying circumstances at the war's end. Walz's ban on rejoining Schneider did not prevent him from positioning the company, through his nominated stand-in, as a very capable supplier to the American forces of replacement bridges and other steel structures, while energetically pursuing claims for non-payment of his war work.²³⁸ His strength of character, punctiliousness, and energy all seem evident from the material pertaining to the months before and just after the war ended. The question now would be how he would rebuild the business for the challenges of peacetime.

He seems to have begun by demanding detailed reports on the weekly condition of the business from Hermann Maier, his Finance Manager, who was given operational responsibility for the business as its custodian (*Treuhänder*) by the American authorities. Walz was only allowed back into the managing directorship of Julius Schneider in January 1948.²³⁹ The extended period under which the company was subjected to the so-called *Vermögenskontrolle* suggests that the Americans considered Walz to have been an active supporter of the Nazi regime.²⁴⁰ But the tight financial supervision under which the company was placed, the Americans requiring monthly management accounts which even in the "brief report" (*Kurzbericht*) form required them to account for amounts as small as RM12, must have ensured that Schneider and other companies were carefully administered. And while the economic situation was undoubtedly challenging and would remain so until after the currency was reformed a year later, the detail in the March 1947 *Kurzbericht* might in retrospect be said to have promised a positive future: turnover was RM141,900 for a total wage outlay of RM20,330, cash holdings stood at almost RM151,000, and total output was only 60% of actual productive capacity.²⁴¹ As at nearby Karosseriewerk Reutter, this was a troubled period during which business was nevertheless found, premises and workforces restored, and cash safeguarded. This brief review

²³⁷ Ian Kershaw, *The End: Germany, 1944-45* (Penguin, 2012) passim; Bessel passim.

²³⁸ Karl Walz, 'Letter to Abrechnungstelle der früheren O.T., Heidelberg.', 11 September 1945, WABW B4/Bu37.

²³⁹ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', pp. 34–35.

²⁴⁰ A file was held on him by US military authorities: Department of Defence, Office of Military Government for Germany, 'Record of File on Karl Walz', 2016 <<https://catalog.archives.gov/id/7569400>> [accessed 31 March 2016].

²⁴¹ 'Monatlicher Kurzbericht fuer Maerz 1947 der Firma Julius Schneider Stahlbauten, Serial Nr. X.C. 1503-547.' (Amt fuer Vermoegenskontrolle Stuttgart, 1947), WABW B4/Bu47. Signed by Hermann Maier, Treuhaender.

of Schneider's experience during and immediately after the war shows that despite bomb damage and Allied occupation, the company was scrupulously managed, in a reasonable financial condition, and able after denazification and currency reform to power ahead with rebuilding and the consumer boom.

Post-war Business Activity to 1954

The archival holdings of Julius Schneider's sales records are incomplete, but give some indication of activity levels before, during and after the war. The sales ledger for the period up to 25 July 1938 was one of the few original documents to survive the air raids of 1944. Though it has been damaged by fire and water, it is possible to see that the company was busy throughout the pre-war period, averaging 11.6 sales orders or contracts per week.²⁴² We have already seen examples from correspondence files of the company's sales activity during the war. Details of them are also held in the next remaining sales ledger, running from 1943 to December 1948, which shows a decline in the number of orders to 7.8 per week.²⁴³ Subsequent ledgers contain fewer months' worth of orders, as Julius Schneider became busier.

A review of the extant post-war ledgers at six-monthly intervals shows that the company managed its order book in detail. Entries are neatly written in fountain pen (not typed), showing the order number, date, customer name and where relevant the commissioning architect's name. Prices are usually shown for steelwork at DM per tonne, with the total calculations completed on a per-tonne basis; for glasswork, however, orders were normally priced per item. The persistence of entrepreneurs like Walz in this period is notable, given that, as his employee Kurt Hege subsequently recalled, it was possible to make as much money selling a few cartons of cigarettes as it was building steel structures, without any of the associated personal difficulties and responsibility. But "all this changed completely with the currency reform...Money was indeed scarce, but it had a value again, and it was worthwhile working and producing" once more.²⁴⁴ While there have been differing interpretations of the impact of the 20 June 1948 currency reform on the production of capital goods,²⁴⁵ the effect on Julius Schneider's order book was immediate and significant, as it was at Reutter: total tonnage sold increased by 3.4 times between the first and second half of 1948.²⁴⁶ Though business volumes

²⁴² Julius Schneider GmbH, 'Auftragsbuch Nr. 8 vom 11. Juni 1935 bis 25. Juli 1938', 1938, WABW B4/Bu29.

²⁴³ Julius Schneider GmbH, 'Auftragsbuch vom 24. Oktober 1943 bis 31. Dezember 1948', 1948, WABW B4/Bu30.

²⁴⁴ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', p. 35.

²⁴⁵ See, for example, the analysis in Alan Kramer, *The West German Economy, 1945-1955* (New York and Oxford: Berg, 1991), pp. 134-40.

²⁴⁶ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', p. 35.

increased overall, however, it is clear that winning work remained a challenge. A detailed examination of the 1949 ledger shows that orders varied greatly in size and came from both the private and public sectors.²⁴⁷ Examples include:

- DM54 (handrail for ramp).
- DM47,034 approximately (steelworks for work hall for Stuttgart Strassenbahn, 78 tonnes @ DM603 per tonne, fully assembled, delivery time 3 months).
- DM13,800 (various roof light assemblies, with installation, for Salamander AG shoe factory, Kornwestheim).
- DM510 (steelwork for a roof 3.0m x 11.9m, Stuttgart Strassenbahn)
- DM113,718 + DM3879 delivery and assembly (Werner & Pfleiderer, Stuttgart-Feuerbach, planned rebuilding and steelwork, total weight 206,012kg@DM552)

Orders are predominantly local or regional, but include major enterprises, indicating that Schneider must have been held in some esteem despite its relatively small size. There is no differentiation within the ledger: equivalent attention seems to have been given to every order in the book; even for very small orders there is sometimes a large amount of detail. The variance in order value and complexity suggests that in the period up to and following currency reform, Karl Walz was trying to find work wherever he could while he rebuilt the business. It is clear that the company was capable of handling larger, more complex orders, with elements of design and project management within them. But it is equally clear that in still straitened times, Walz had no desire to turn down any work, no matter how low the value. No doubt Schneider's competitors were also active, adding urgency to the search for work.

Over the course of two years, however, it appears the company's prospects began to stabilise. One explanation of the archival evidence that the quantity of orders in the sales ledgers decreased is that the reduction was a result of increased competition. But the increase in their average value suggests that as time went on and the economy strengthened, the company was able to rely with greater confidence on its ability to win fewer, larger orders, which Walz was satisfied would enable Schneider to increase its profits; a focus on more demanding projects would better highlight its experience and competencies.

²⁴⁷ Julius Schneider GmbH, 'Auftragsbuch vom 1. Januar 1949 bis 16. Oktober 1950', 1950, WABW B4/Bu31.

The order books also hint at Walz's personal identification with the company. For example, order 14078 of 12 April 1951 to Hanke & Kurtz, Stuttgart, is shown to have been delivered "from my factory" (*ab meinem Werk*).²⁴⁸ As the health of this very driven entrepreneur began to deteriorate in that same year, the effective direction of the business would become a concern; his management style, which appears from archival evidence to have been rather more autocratic than paternalistic, left little room for other managerial talent to emerge. The leadership of the company was held in a small group of five managers, including Walz, plus two *Meister* who were responsible for the works. Given the size and complexity of their orders (including the technically demanding reconstruction of damaged churches),²⁴⁹ this suggests a high level of efficiency but also a high degree of individual dominance by Walz, and a small pool of talent to enable future growth.

Material Supply Problems

One immediate and enduring challenge for Schneider, before and after Karl Walz's return, was the difficulty in obtaining scarce raw materials. There was an obvious and ubiquitous demand for steelwork, and problems of supply were expected, as evidenced by the American forces' appropriation of Schneider stocks. Years of bombing had affected the Ruhr's productive capacity. Available output could not possibly meet the demand: not only were normal industrial requirements to be met (among them the day-to-day work of Julius Schneider), but also the long-neglected "housekeeping" of the ordinary German population, not to mention the repair of war damage and the need to replace industrial plants that had been broken down and shipped to the Russian zone.²⁵⁰ In fact, subsequent analysis shows that in 1949 only 8.8 million tons of crude steel and 7.0 million tons of pig iron were produced in the bizonal area; this represented an increase of 59% over 1948's output, but was still only 59.2% of 1936 production,²⁵¹ a crippling shortfall even without the requirement to repair war damage. In Berlin, neither bomb damage, the removal and shipment to the USSR of industrial plant, nor prevailing personnel shortages were considered by city authorities to be the most significant factor in the region's inability to return to pre-war productivity levels; the critical issue was in

²⁴⁸ Julius Schneider GmbH, 'Auftragsbuch vom 17. Oktober 1950 bis 30. Dezember 1952.', 1952, WABW B4/Bu32.

²⁴⁹ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', p. 38.

²⁵⁰ Werner Buehrer, *Ruhrstahl Und Europa. Die Wirtschaftsvereinigung Eisen und Stahlindustrie Und Die Anfänge Der Europäischen Integration* (Berlin, Boston: Oldenbourg Wissenschaftsverlag, 2010), pp. 65–66 <<http://www.degruyter.com/view/product/227512>> [accessed 2 February 2016].

²⁵¹ Kramer, p. 102 Table 4.4.

fact the shortage of materials, with industry receiving only 10,500 tonnes of steel in 1947 compared to 1,026,000 tonnes in 1936.²⁵²

In the immediate aftermath of the war, a “unified, integrated German economy appeared to be a thing of the past”, with inter-zonal trade difficulties precluding the continuation of long-established trading relationships, like those between the Ruhr and Württemberg.²⁵³ Schneider’s own ability to obtain materials was hampered in this way, being particularly complicated by the fact that it had previously purchased its steel from producers in the Saar. Now that the French occupation made that impossible, the company was forced to seek new sources of supply, especially from Rhineland producers. It mitigated its difficulties by developing such good relationships with two local steel stockholders that in its own estimation “the Schneider company came out of this period in better shape than its competitors.” Even so, it was necessary to supplement supplies by buying up scrap girders and beams from bomb sites in Berlin and other major cities.²⁵⁴

The company’s difficulties in obtaining raw materials were recollected as a major challenge during its fiftieth birthday celebrations in 1960.²⁵⁵ The freshness of the memory is explained not only by the problems in the immediate post-war years, but also by the continuation of the challenge into the early 1950s. In 1952 Schneider spent DM1.92million on metals.²⁵⁶ The purchasing of steel may have been made more difficult by the “steel boom” which happened in response to the Korean war.²⁵⁷ It would also have been made acute by demands such as the huge quantity of repairs to railway bridges, just one example of the rebuilding work necessary across West Germany: at the war’s end, 2472 were unusable, and by the end of 1950 only 1181 had been permanently restored, leaving 322 in the Stuttgart region alone still to be repaired.²⁵⁸ This massive restoration project clearly provided attractive sales opportunities for firms like Schneider, but also added further to the difficulties they and their competitors had in finding materials to do the work, even when they made personal purchasing visits.²⁵⁹ It is not clear

²⁵² Renate Schwärzel, ‘Die Berliner Elektroindustrie Nach Dem Zweiten Weltkrieg. Eine Bestandsaufnahme.’, in *Unternehmen Zwischen Markt Und Macht. Aspekte Deutscher Unternehmens- Und Industriegeschichte Im 20. Jahrhundert*, ed. by Werner Plumpe and Christian Kleinschmidt, Bochumer Schriften Zur Unternehmens- Und Industriegeschichte (Essen: Klartext, 1992), I, 167–78 (pp. 174–76).

²⁵³ Bessel, p. 370.

²⁵⁴ Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’, pp. 35–36.

²⁵⁵ Zimmermann, p. 3.

²⁵⁶ Julius Schneider GmbH, ‘Eisenhändler – Umsätze im Jahre 1952’, No date., WABW B4/Bu19.

²⁵⁷ Buehrer, p. 185.

²⁵⁸ Eugen Ernst, ‘Der Brueckenbau der Deutschen Bundesbahn im Jahre 1950’, *Die Bautechnik*, March 1951, 49–53 (p. 50).

²⁵⁹ M. Epple, ‘Reise vom 23.5 – 26.5.51.’, 1951, WABW B4/Bu20.

whether his difficulty of procuring supplies was a general shortage driven by the Korean armaments boom or by European rebuilding plans funded by Marshall Aid, or indeed whether there were cultural or political differences within West Germany. But sourcing appears to have been an ongoing problem for Schneider for a decade after the war's end, and confirms another aspect of the Mittelstand's challenge: for struggling businesses, the *Wirtschaftswunder* was anything but wonderful as a daily experience.

Management and Operational Changes 1954 to 1960

The archive contains no sales ledgers from the period after 30 December 1952, but Hege's company history, supported by a collection of photographs, shows that Schneider completed significant projects from the early 1950s until 1974. Projects included work with major companies such as Mercedes-Benz and AEG; several churches; Stuttgart University; public transport works; power stations; and public spaces such as a cinema and a concert hall.²⁶⁰ In order to achieve these successes, Schneider had to manage significant leadership and operational challenges. For an understanding of how it did so, we rely on the company history written after its demise in 1977, and on material created for its 50th anniversary celebrations in 1960.

Karl Walz died in April 1954 after a prolonged illness during which he had nevertheless “shared in the fortunes of the business from his home until his dying day”²⁶¹ – an emotional, and controlling, bond with the workplace that would be recalled by his staff later. The strength of his influence begs the question of whether his overweening presence stifled the company's development, particularly in relation to the incubation of future leadership talent, and created an inevitable succession crisis. As we will see, when his son Rolf took over from him, he felt he was very much unprepared for the job, despite his father having been seriously ill for three years before he died. Given that he was going to succeed his father in any case, it is difficult to understand why Karl Walz did not make every effort to prepare Rolf for the task. Instead of joining him in the workplace as a co-director when he was released from Soviet captivity in 1950, Rolf returned at the age of 31 - presumably with his father's encouragement - to the university course he had left when he was conscripted. The company published the customary death notice, praising Karl Walz's “outstanding knowledge and capabilities” and his concern

²⁶⁰ WABW, ‘Wirtschaftsarchiv Baden-Wuerttemberg. Bestand B4, J.Schneider GmbH & Co. KG. Findbuch: 10.1, Fotos, “Ausgefuehrte Auftraege”’ (Wirtschaftsarchiv Baden-Württemberg, 1982), WABW B4/Bu51-118; See also Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’ passim.

²⁶¹ Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’, p. 38.

for the wellbeing of his staff. The business would, readers were reassured, continue to be run “in his way and following his example.” The extent to which Walz and his “tireless creativity” was seen to have been personally responsible for the company’s “present size and significance” is striking: in honouring his memory, his family present him as a man on a personal 40-year crusade; they also, perhaps, commit themselves emotionally to a way of working which was by then forty years old, and which required a single, all-dominating leader to take all the decisions.²⁶²

On his death, Rolf immediately terminated his studies. He took overtly personal responsibility for the company, changing its legal form to a “family partnership” (*Familien-KG*), in 1954, and pronouncing himself its “sole authorised representative [and] personally liable shareholder” (*allein zur Vertretung befugter persönlich haftender Gesellschafter*).²⁶³ In doing so, he declared himself to be committed in a completely different way from his counterparts at Braithwaites in the UK. As we will see, their governance model was based on the same family dominating a public company by owning the largest single block of shares and ensuring that each son succeeded his father as controlling Chairman. Each had significant power, but none accepted the personal accountability and financial liability that Walz (or Ulrich Putsch or the Wandels) actively sought.

Rolf found the business constrained by manpower shortages and poor facilities, which dissuaded younger people from joining the firm (and suggests that his father had either lost touch with current views, or had determined that what had been good enough for his generation should be accepted by the present one). Against the wishes of the city authorities, which owned the Schneider site, Walz built roofed areas where previously the work had been done in the open air, and built a separate sales office which allowed engineers to be added to the technical office, so that by 1955 there were ten staff supported by eight site foremen (*Meister*).²⁶⁴ Two things are noteworthy in Hege’s recollections of this period: that working conditions were “primitive” and that city authorities could be obstructive, suggesting that latter-day conceptions of an economic miracle being achieved from pristine premises with the support of growth-minded local governments do not necessarily reflect contemporary reality; though most of the wartime rubble had been cleared, German businesses still faced a hard slog.

²⁶² ‘Death notice for Karl Walz, 24.4.1954’ (Julius Schneider GmbH, 1954), WABW B4/Bu50.

²⁶³ IHK Ludwigsburg.

²⁶⁴ Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’, pp. 44–45.

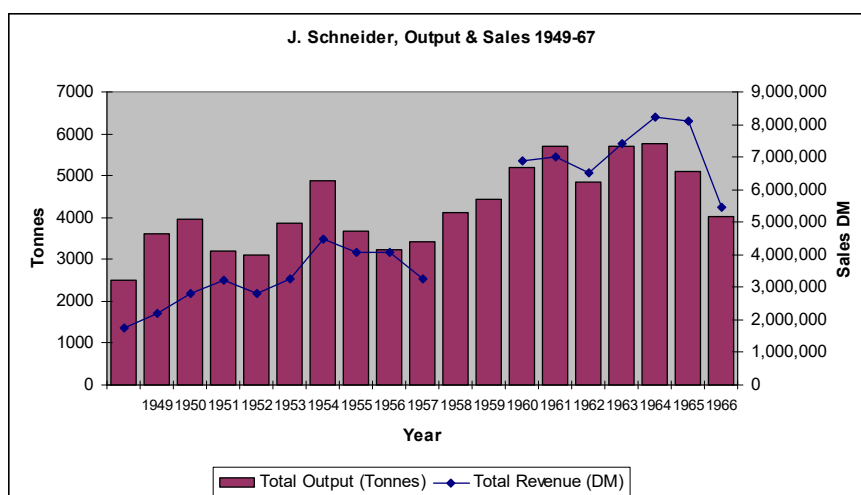
Having achieved only a temporary respite from his capacity constraints, Walz bought land in a new industrial area from the city of Ludwigsburg, 17km away from the existing Schneider site. The deal included thirty houses for long-serving workers, a reflection of both the prevailing manpower constraints and the Walz family's paternalisms. Walz and his management team decided that "in view of the prospects for the steel industry and especially for Schneider at that time" they should build ambitiously, eventually erecting 90m-long fabrication sheds.²⁶⁵ All of the layout and most of the building design was done by Rolf Walz himself. In this same period turned down a request from his senior engineer, Zimmermann, to acquire a shareholding in the business. Zimmermann had joined the company after the war, and therefore had by this time ten years' experience as the head of Karl Walz's technical office. He was remembered by Hege as "a very good engineer, who committed himself to an extraordinary extent to the firm and its interests, He knew how to develop relationships with new customers and how to win new contracts from them."²⁶⁶ No other evidence exists which might offer a contradictory appraisal to Hege's, and therefore explain why Rolf Walz turned Zimmermann down. Assuming therefore that Hege was correct, it seems to have been a misjudgement which would be to the long-term detriment of the company. It is evident that the emotion which suffused Karl Walz's relationship with Schneider was shared by his son, and deepened by the son's admiration for his father, and therefore seems likely that the refusal to accept an experienced partner was motivated less by the head than by the heart: Schneider was Rolf's, and only he could be responsible for its destiny.

In the short term, however, Walz's work had an immediately beneficial effect. Once the official move to Ludwigsburg was completed in November 1958, Schneider was immediately able to boost its engineering staff to thirteen, with eight in the new commercial office. By 1959, staff numbers reached 29, with 121 workers, and "between 1960-66 output and turnover rose in step with each other."²⁶⁷

²⁶⁵ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', pp. 51–52.

²⁶⁶ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', pp. 38, 50.

²⁶⁷ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', p. 56.



Source: WABW B4/Bü1, pp. 36, 56. Sales data for 1958 and 1959 are omitted from the source. Compiled by author.

The increase in sales up to 1958 was with both longstanding clients who were repairing war damage and new customers. With the new premises and additional staff, work with both new and old customers increased: turnover grew, and larger contracts were won; orders for 100 to 500 tonnes were no longer a rarity, and an increasing number of one thousand-tonne contracts were executed. However, the client list shows that Schneider was largely dependent on local firms, apart from the occasional contract in more distant locations such as Cologne.

While the new workload encompassed a range of building types, indicating that Schneider was not over-reliant on a single industry, there was evidently little effort to achieve any geographic diversification to mitigate future economic risk. It is in this respect that Schneider most obviously differed from Braithwaites, which offered similar products and skills but had cultivated an international customer base since its foundation. Schneider also differed in this regard from Mittelstand companies like Wandel and Recaro, both of which were internationally active. It continued to resemble them, however, in its attachment to the Stuttgart region, the commitment of a single family owner to his staff, and a focused, long-term strategy on excellent products. Whether those products were sufficiently niche was, however, an additional potential risk in a competitive market.

Fiftieth Anniversary Celebrations, 1960

Schneider's anniversary celebration, which happened soon after the move to the new premises in Ludwigsburg, warrants a detailed examination,²⁶⁸ because the occasion was used to state publicly the company's values and more significantly to explore what it meant to be an

²⁶⁸ Also reviewed in David W. Paulson, pp. 15–16.

entrepreneur (*Unternehmer*) in a Mittelstand family business in this period. Like many Mittelstand companies, Schneider laid great store by its culture and history, and archival materials reveal the considerable emotional investment in the company manifested in the anniversary celebrations. In its own acknowledgement of Schneider's achievements, the Chamber of Commerce (represented here as at other company celebrations, demonstrating their close engagement with their member businesses) praised the firm's accomplishments and remarked that "a positive social climate, made possible by the special traditions of a family business, [had] had a significant impact on the company's capabilities and on its growth."²⁶⁹ What were those special traditions? In his own speech, Rolf Walz lauds traditional craft skills and the commitment of the company's "industrious and capable men (*fleissige und tüchtige Männer*), who think for themselves, know how to help themselves" and are more important than any machines.²⁷⁰ It is not clear whether Walz was honouring the workers before him, or abjuring the modern; a nostalgic admiration for the working man (chief among them his own father) that might have blinded him to the need to invest in evolving techniques and technologies. Quoting Goethe, he invokes the image of a chain, in which every link is free to move but on which every other link is dependent, to describe himself and all his colleagues in the business. In his own speech, the company's deputy leader (*Prokurist*) and future Managing Director and historian Kurt Hege restates the importance of each individual: "Without human strength, spiritual or physical, there would be no continuation and no jubilee to celebrate."²⁷¹ And it is this "strength" that Walz emphasises, railing against the ignorance of contemporary youth²⁷² who showed no respect for their predecessors; had the latter not "worked under great privations to lay down the foundations of today" it would be young people themselves who would have to bear this burden. Everyone would need to play their part in the future and hope that it would "preserve them from years like 1914-18, 21-23, 28-33, 39-48."²⁷³ Walz is constantly mindful of the past, perhaps because his own past contained considerable hardship on the Eastern Front and then in the Gulag, and of the sacrifices made by his father and the older workers. His emotions were apparently shared by others. Hege speaks of the need to appreciate one's good fortune, and hints at the mixed emotions some felt in the postwar world:

²⁶⁹ IHK Ludwigsburg.

²⁷⁰ Rolf Walz.

²⁷¹ Herbert Epple, 'Welcome speech by Herr Prokurist Epple', 1960, WABW B4/Bu3.

²⁷² As Kenrick & Jefferson had recently railed against 'irresponsible juniors': Kenrick & Jefferson, 'A Contribution to Office Efficiency by Britain's Business Equippers' (Kenrick & Jefferson, 1952), Sandwell, BS/KJ/2/3/10.

²⁷³ Rolf Walz.

“In this era of materialism, we should all take the trouble to hold on to a few ideals. We should try to be as happy as our elders were in the past and are today” with the gift of fulfilling work.²⁷⁴

Walz tells the audience of the foundation he has set up in his father’s memory to look after sick and retired colleagues. He restates his own paternalistic commitment, “always committed to improving the workplace and working conditions”, but reminds them that he can “only do all of that if every person connected with the business fulfils his duty with industry and personal commitment.” Strikingly, Walz personalises the company’s efforts to improve conditions; it is *his* commitment. But he also does not hesitate, even in this celebration, to demand they do their duty. He closes his speech on an emotional note that is almost existential, reminding every person there that “they too are a link in the chain, which ties us all together and links us, as members of a company, as citizens of a state, to the protection of our greatest good, our freedom”²⁷⁵ There is a strange juxtaposition of “duty” and freedom, though Armin Grünbacher’s evocation of the “authoritarian-patriarchal” management style prevalent at the time in West Germany suggests one interpretation of Walz’s standpoint.²⁷⁶ It seems possible that for Schneider’s leadership and older employees, there was an emotional engagement with the company that was founded in something much more fundamental – a consciousness of their good fortune in surviving the war, and of the potential threat posed by the Cold War - than a simple desire to make a living.

As well as honouring the service of others to the business and reminding its present staff of what united him and them, Walz talks at length about what it means to be the company’s leader. In a striking section of his speech, he refers to his own position:

I see my duty as an entrepreneur (*Unternehmer*) as an office which has been entrusted to me by my father, by Fate. Continuity in the succession of bearers of this office must be preserved, and I see myself as but one link in a chain, motivated by the highest consciousness of my responsibility but also by modesty and humility...the highest duty of the entrepreneur is to guarantee the care of human ties and linkages and entanglements within and without the enterprise.

²⁷⁴ Kurt Hege, ‘Speech by Herr Hege’, 1960, WABW B4/Bu3.

²⁷⁵ Rolf Walz.

²⁷⁶ Grünbacher, *West German Industrialists and the Making of the Economic Miracle*, p. 106.

Walz admitted to his audience that he had not found the assumption of his responsibilities easy on the death of his father. “Breaking off my studies I immediately took on the leadership of the business, but found it difficult to appreciate the overall picture. However I soon managed to get hold of the most significant aspects of it, and in Senior Engineer (*Oberingenieur*) Kurt Hege I found a true and valuable colleague.” Rolf Walz’s explanation of his inner motivation is borne out in the description of both him and his father by Kurt Hege in his own speech. Speaking of Karl Walz, he recalled a man whose human qualities and abilities as an engineer were respected by all, who possessed

an enormous energy for work and gave it fully and without limitation to the service of the company...throughout his working life he never once asked when it was time to stop work, but just carried on until he had finished his task. And for such a man, work really never ends. Such a commitment to work is only really possible at the expense of one’s family... That is the contribution of the entire Walz family.²⁷⁷

Hege goes on to praise Rolf Walz, who came back from the war with his nerves and health affected, yet had to take on responsibility for the firm without any real preparation for the job, then being immediately faced with the demand to vacate their premises:

In those days and weeks he showed us all what an entrepreneur is. He took on the entire risk, bought the place in Ludwigsburg, staked his entire fortune, and created this new workplace that we see here today. ..and which, let’s be honest, none of us ever thought we would see. We can thank his courage, his entrepreneurial spirit and his architectural flair for the clean, bright offices and workshops that we can now work in.²⁷⁸

It is possible to discount Hege’s admiring words as sycophancy, and Walz’s public expression of his own sentiments as self-indulgence. But it is noticeable that at no part of the archive is there any mention of financial motivation, or of a desire to avoid one’s obligations. For Rolf Walz himself, there appears to have been a special level of emotional devotion to the workplace. Christel Lane describes “the feeling of common purpose, generated in a professional community” within German firms. Where her analysis appears to differ from

²⁷⁷ Hege, ‘Speech by Herr Hege’.

²⁷⁸ Hege, ‘Speech by Herr Hege’; Christel Lane comments on the persistence of the term ‘Unternehmer’ ‘with its connotations of risk-taking and creativity’ in *Management and Labour in Europe: The Industrial Enterprise in Germany, Britain and France*, p. 88.

Walz's very personal conception is in the sense that while "workers, technical, supervisory and managerial staff see themselves as a professional community, united around particular work tasks and committed to common standards of achievement", it is because they are pragmatically self-interested; it is sensible to co-operate to assure one's own wellbeing, not because one has Walz's sense of a covenant.²⁷⁹ Possibly the next generation would be more reflective of Lane's conception of commitment.

Company Management up to the death of Rolf Walz in 1967

As well as honouring tradition, Walz appears to have taken positive steps to propel the business forwards. It is appropriate at this point to say something about the company's organisational structure; its legal form, its staffing and hierarchy, and its management and supervisory arrangements. While the limited-liability company, the *Gesellschaft mit beschränkter Haftung* (GmbH), has been regarded as Germany's "most important legal export" to other countries following its adoption in Germany in the 1890s, it fell out of favour under the Nazis as a desire to limit one's liability was seen to be inimical to the Nazi world-view.²⁸⁰ Having chosen not to seek any limitation of his own liability, Karl Walz apparently inspired his son to follow suit, adopting in 1954 the "Kommanditgesellschaft" structure, in this case as a Familien-KG, in which the family members' liability was limited to the value of their shareholding, whereas Rolf's own liability was unlimited. The KG legal form dated back to medieval merchant venturers on the Mediterranean, ships' captains whose personal risk was by definition unlimited as they set sail to dangerous places, and who were rewarded with a quarter of all the proceeds if they survived, funded by investors whose own losses would be limited to the amount they had invested in that voyage: the concept is said to have passed from Northern Italy into Southern Germany.²⁸¹ Whether Rolf was aware of this history and saw himself as the captain of the Schneider ship, or whether he shared what seemed to be his father's view, that the avoidance of personal liability was somehow dishonourable, is not clear. But it was obvious to his staff that Rolf had put literally all he had into the firm, for example betting his "entire fortune" on the success of the new factory in Ludwigsburg.²⁸²

²⁷⁹ Lane, *Management and Labour in Europe: The Industrial Enterprise in Germany, Britain and France*, p. 53. Lane wrote this in 1989, and it is possible that her words convey accurately the sentiment of the new West Germany of younger employees born since the war, rather than those like Walz and his staff who were conscious of appreciating the postwar workplace as a haven from earlier suffering.

²⁸⁰ Prof Dr Albrecht Cordes and others, *Handwörterbuch zur deutschen Rechtsgeschichte (HRG) - gebundene Ausgabe Band II: Geistliche Gerichtsbarkeit - Konfiskation*, 2nd edn (Berlin: Erich Schmidt Verlag GmbH & Co, 2012), pp. 286–87.

²⁸¹ Cordes and others, pp. 1966–70.

²⁸² Hege, 'Speech by Herr Hege'.

Rolf Walz also put his trust in the people who worked for him. He changed the company's legal status again in April 1962, for reasons which are not recorded, renaming it J. Schneider K.G. and continuing in his own role as *Geschäftsführer* and *Komplementär* (the fully liable partner in a limited partnership). He promoted *Oberingenieur* Kurt Hege to *Prokurist* and technical leader. In this capacity, Hege was presumably like other technical directors in German firms, "invariably more powerful than the commercial director, highlighting the central importance of production in the German enterprise."²⁸³ Christel Lane shows that the typical German firm has a much flatter hierarchy than its counterparts in Britain and especially in France: on average up to 1980, German companies' ratio of workers to managers and office/technical staff was 71.8%.²⁸⁴ Only in 1975, its penultimate year, did the ratio at Julius Schneider fall below 80%.²⁸⁵ Hege's history mentions the company's *Meister* in several places, and it is to the presence of these highly qualified individuals that Lane and others attribute the flatter hierarchies and smaller workforces of German industrial businesses. With formal education and training for the role, over and above their training in their trade and years of experience, the *Meister* were much more than foremen; responsible for the training of apprentices, for production coordination, for expert input into technical issues.²⁸⁶ In these respects, Walz's high regard for his most experienced members of staff was warranted.

Walz also invested in Schneider's facilities, which enabled sales growth, which in turn required additions to the workforce. In 1959, there had been 150 members of staff in total, 29 of them in staff positions. By 1966, total numbers had grown to 203, with all but six of the additions in the revenue-earning workforce: further evidence of a flat hierarchy and a sensible control of non-earning overheads. The growing workforce delivered steadily increasing sales, which grew from DM6.9million in 1961 to DM8.2million in 1965.²⁸⁷ The search for new, larger contracts inevitably led to the need to invest in facilities which would enable competitive differentiation. Having continued to improve the new buildings, Schneider implemented a new sandblasting facility in 1966 which was "one of the most advanced in southern Germany" to overcome the problem of rusting components being delivered to site. Rolf Walz had come very far, very quickly from the "primitive" conditions of the old Stuttgart yard. But Hege's recollection of this period conveys the challenges which the business, ostensibly in an

²⁸³ Lane, *Management and Labour in Europe: The Industrial Enterprise in Germany, Britain and France*, p. 58.

²⁸⁴ Lane, *Management and Labour in Europe: The Industrial Enterprise in Germany, Britain and France*, p. 41.

²⁸⁵ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', p. 56.

²⁸⁶ Lane, *Management and Labour in Europe: The Industrial Enterprise in Germany, Britain and France*, pp. 42–48. For an appraisal of *Meister* and their training, see the Context chapter above.

²⁸⁷ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', p. 56.

increasingly fortunate position, now faced: in its new factory, it had the equipment to produce rust-free parts, but immediately had to add roofing to keep the sandblasting material dry. Then, to handle larger structures in the bigger new contracts they were now winning, Schneider had to buy new cranes which would enable them to be moved around the factory. And having spent all of this money, Schneider's management then saw the entire facility become outmoded and have to be replaced by a whole, new automated production line within five years.²⁸⁸

Having made these investments and seen its situation improve accordingly, Schneider was hit first by difficulties, then by catastrophe. Several of the *Richtmeister*, the installation foremen, had to retire owing to their age, but the company was able to replace them with "particularly capable riggers". The business managed to achieve a profit of almost DM0.4million in 1966, representing an after-tax return of 4.8% on sales of almost DM8.1million. In comparison with their peers, Schneider's performance appears to have been good: while it is not possible to obtain discrete data for the steelwork branch of the building industry, Schneider's sales of DM40,000 for each of its 203 employees compared favourably with the overall building industry average of DM31,000 (for firms with 100-199 employees) or DM34,000 (200-499 employees), and even more favourably with firms specialising in engineered buildings which averaged DM29,000 and DM34,000 respectively.²⁸⁹ But recession was already starting to bite, and sales dropped alarmingly to DM5.7million in 1967, with output tonnage declining by 30%; financial disaster was only averted thanks to stable personnel costs and the drop in raw material prices, cut by the rolling mills and steel stockholders who were themselves badly hit by the recession, allowing Schneider still to make a very small profit.²⁹⁰

Commercial difficulty then turned to catastrophe, when in December 1967 Walz died at the age of 48,²⁹¹ after years of precarious health caused by his time in the Gulag. It is not surprising that he was affected by his suffering in Russia: for one prisoner, who returned to Germany two years before him, the "spiritual martyrdom" he suffered would change the remainder of his life.²⁹² For returnees generally, there was widespread national sympathy, and a consensus in the medical profession that many were suffering from "dystrophy", a pathological condition

²⁸⁸ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', p. 62.

²⁸⁹ Statistisches Bundesamt, 'Baugewerbe', in *Statistisches Jahrbuch Für Die Bundesrepublik Deutschland 1970* (Stuttgart: W. Kohlhammer, 1971), pp. 224–30 (p. 227)
<http://www.digizeitschriften.de/dms/img/?PID=PPN514402342_1970%7Clog48> [accessed 22 December 2016].

²⁹⁰ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', pp. 66–67.

²⁹¹ 'Sterbebuch für das Jahr 1967, Band 2, Nr. 551 bis Nr. 1100' (Stadt Ludwigsburg, 1967), Stadt Ludw L34/5.

²⁹² Heinz Höhner, *Kriegsgefangen in Sibirien: Erinnerungen eines deutschen Kriegsgefangenen in Russland* (Aachen: Mainz, 1994), p. 2.

caused by their experiences in Russia which had led to “the extreme reduction or even complete extinction of physical and psychological capacities.”²⁹³ His death could not have happened at a worse time for the recession-stricken business. A change of leadership was necessary, but not straightforward. In the spirit of his sense of covenant, Walz’s will specified that one of his children should take over the running of the business, provided that they had completed their commercial or technical training. If they had not, Hege was to take over. As the eldest son was still only fifteen, Hege duly took control and the governance structure of the company was amended; whereas Walz had held personal liability within the family partnership, his position was replaced by a newly formed limited company of which Hege was the sole director: the KG became a GmbH & Co. KG.²⁹⁴ Other governance changes were made by direction of the county court, holder of the trade register.²⁹⁵ This intervention demonstrates the strong corporate governance framework within which Mittelstand companies were required to operate, and the positive choice made by Walz, Ulrich Putsch of Keiper, and others to seek personal obligation rather than limit their liability.

Investment and growth following recession, 1967-72

As in the past Schneider proved resilient, even though it was now without Walz’s leadership. As the recession drew to a close, output rose considerably, increasing by 63% to almost 7000 tonnes by the end of 1968 (Schneider’s business appears to have fallen further and risen higher than that of the wider industrial-building trade, which first declined by 28% and then rebounded by 57%²⁹⁶). With attractive new contracts – Hege gives the example of a 1500 tonne job to build three new halls for Mercedes Benz – the business should now have been able to continue growing.²⁹⁷ But instead it faced a new difficulty, shared by other companies in the region, and indeed across West Germany and in the UK: a growing shortage of skilled workers. After fifteen years to 1965 in which per capita output had grown by 5.6% annually in West Germany (versus 2.3% in Great Britain), the economy slowed, but still continued at an average growth rate, even taking into account the recession of 1966-67 and the oil-price induced crisis of 1973-

²⁹³ Frank Biess, ‘Survivors of Totalitarianism: Returning POWs and the Reconstruction of Masculine Citizenship in West Germany, 1945-1955’, in *The Miracle Years. A Cultural History of West Germany, 1945-1968*, ed. by Hanna Schissler (Princeton and Oxford: Princeton University Press, 2001), pp. 57–82 (p. 62).

²⁹⁴ ‘Verfuegung Vom 20.12.1968, J. Schneider KG’ (Amtsgerichts Ludwigsburg, 1968), Staatsarchiv Ludwigsburg, FL300-31 V / Bue 227.

²⁹⁵ Amtsgerichts Ludwigsburg, Justizoberinspector, ‘Registergericht, Form HRA 563, J. Schneider KG’ (Amtsgerichts Ludwigsburg, 1969), Staatsarchiv Ludwigsburg, FL300-31 V / Bue 227.

²⁹⁶ Statistisches Bundesamt, p. 229.

²⁹⁷ Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’, p. 67.

75, of 3.9% per head (versus 2.0% in Great Britain) between 1965-80.²⁹⁸ As early as 1955, Baden-Württemberg “was particularly pinched by a shortage of labour” as unemployment fell to 2.2%.²⁹⁹ By 1970, West German unemployment was only 149,000 in a working population of 26.6 million, necessitating the employment of over two million foreign workers.³⁰⁰ As Schneider’s order book grew rapidly – and as the economy as a whole recovered from the short recession to regain growth rates previously seen in the 1950s³⁰¹ – every member of Schneider’s workforce was required to work extraordinary levels of overtime, leading the company to build a dormitory on the site and recruit twelve Yugoslav workers in 1970.³⁰² This did not help. Though Stuttgart had the highest proportion of foreign workers of all Germany’s major cities, and though the Yugoslavs were the largest group among them,³⁰³ Hege found them to be of only limited use to the company as it was so difficult to bring any of them up to the required standard of work.³⁰⁴ There is no archival record of employment-related processes. But the difficulty in achieving a particular standard with the foreign workers suggests not that such individuals necessarily lacked capability – for if they did, how could they have made such significant contributions to other Baden-Württemberg industries, such as machine-building?³⁰⁵ – but perhaps that they failed to meet the requirements of a Managing Director who still saw his company as a craft-shop and had perhaps failed to de-skill where it would have been economically sensible, if emotionally undesirable, to do so. Adding apprentices was impossible until 1972 because no young people were willing at a time of full employment to become steel riggers. However, by 1975 there were six apprentices in the works, joined each year by six to eight interns from technical universities and colleges. In Hege’s view, the apprentices “were a very valuable resource in the works and guaranteed the supply of new blood into the skilled workforce.”³⁰⁶

Despite challenging circumstances and his failure to integrate potentially useful *Gastarbeiter*, then, Julius Schneider apparently continued to prosper under Hege’s leadership. Although the

²⁹⁸ Abelshauser, p. 301 table 14.

²⁹⁹ Mark E. Spicka, ‘City Policy and Guest Workers in Stuttgart, 1955-1973.’, *German History*, 31.3 (2013), 345–65 (p. 347).

³⁰⁰ Abelshauser, p. 297 table 13.

³⁰¹ Abelshauser, p. 298.

³⁰² Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’, p. 68.

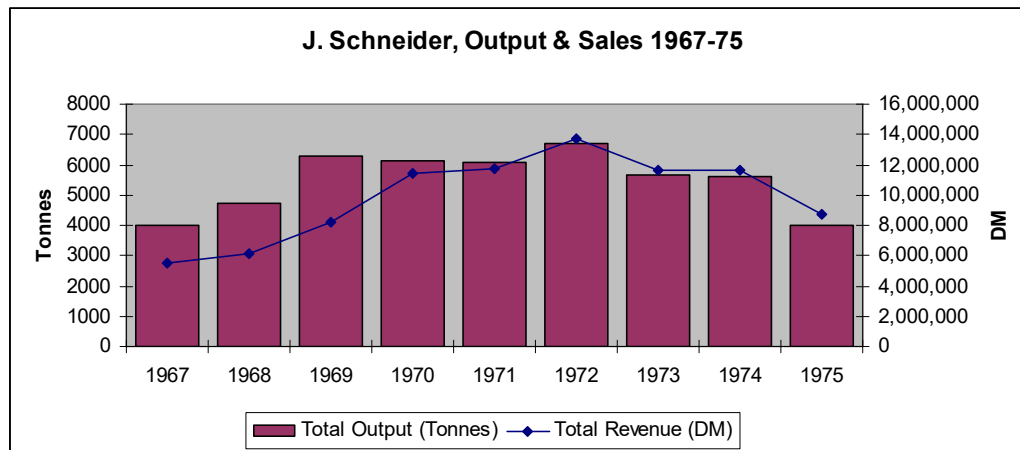
³⁰³ Spicka, p. 348.

³⁰⁴ Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’, p. 68.

³⁰⁵ In Stuttgart/Ludwigsburg and the surrounding area, ‘Gastarbeiter’ were 45.2% of metalwork-related and 17.8% of building employees in 1969: Reinhold Grotz, *Entwicklung, Struktur Und Dynamik Der Industrie Im Wirtschaftsraum Stuttgart - Eine Industriegeographische Unterstützung*, Stuttgarter Geographische Studien (Stuttgart: Im Selbstverlag des Geographischen Instituts der Universität Stuttgart, 1971), LXXXII, p. 58, table 1.

³⁰⁶ Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’, p. 68.

most wonderful years of the *Wirtschaftswunder* were now behind them, the West German economy continued to grow at a tempo which in later years would look very attractive: down from 8.8% and 7.2% growth in the 1950-54 and 1955-58 economic cycles respectively, it still attained 3.6%, despite the recession, in 1964-67 and 3.8% between 1968-75; by the late 1990s it was growing at only 1.6%.³⁰⁷



As the graph shows, sales and output both grew after Walz's death. But the slowing of economic growth became a concern which would worsen sharply after the oil-price crisis of 1973. Though the company had invested in new lifting equipment, delivery lead times to customers grew from 3-5 to 9-10 months on average between 1969 and 1972. Hege attributes this to the scarcity of steel and the accompanying sharp increase in its cost up to 1971, up by 33% over two years,³⁰⁸ problems also faced by Braithwaites. Nevertheless, "despite all these difficulties, the years 1969 to 1972 were the best at Schneider since the Second World War." The firm had almost DM850,000 in its deposit accounts and most of its debt, taken on to pay for its new mobile cranes, had been paid back. But it was at this point, according to Hege, that "the good times in the steelwork industry came to an end, and the long shadow of economic crisis began to loom," with the company's ability to fight back compromised by structural issues over and above its recruitment frustrations.³⁰⁹

Continuing challenges after 1972-73

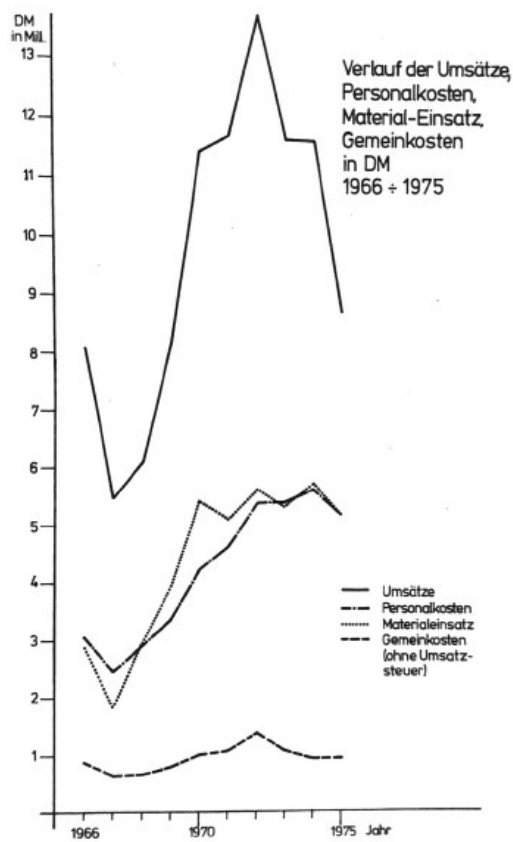
In his own analysis of the company's financial evolution, Hege claims that rising costs, particularly in respect to labour, continually hampered its ability to increase profits. In his

³⁰⁷ Abelshauser, p. 305, Table 15. Following table compiled by author.

³⁰⁸ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', p. 71.

³⁰⁹ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', p. 72.

history, he graphed the changing relationships between turnover (*Umsatz*), employee costs (*Personalkosten*), materials (*Materialeinsatz*), and overheads (*Gemeinkosten*) as follows:

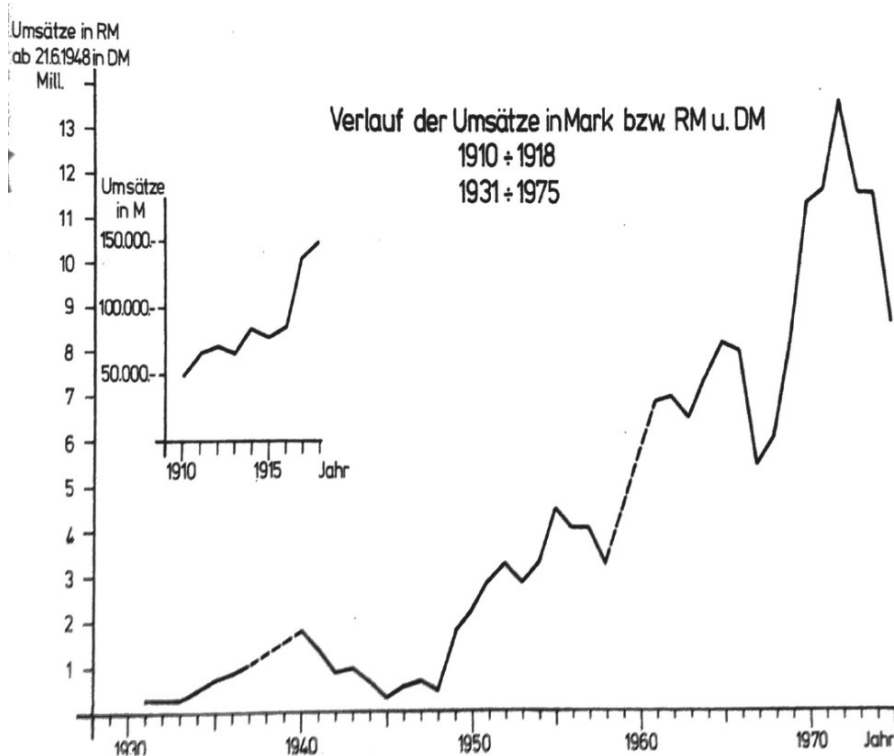


Source: Hege, Appendix.³¹⁰

The graph appears to indicate, though, that neither material costs nor employee costs were terminally destructive: until business began to fall away during the 1974 recession, in fact, the rate of increase in turnover appears to have exceeded that in any cost area, suggesting either that the employees were exceptionally productive, or that rising costs were universally recognised within Germany industry, and compensatory price increases were therefore accepted.

In fact, sales growth was achieved at almost all points in the company's history where external economic downturns did not also impact Schneider, as Hege shows in a further analysis:

³¹⁰ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg'.

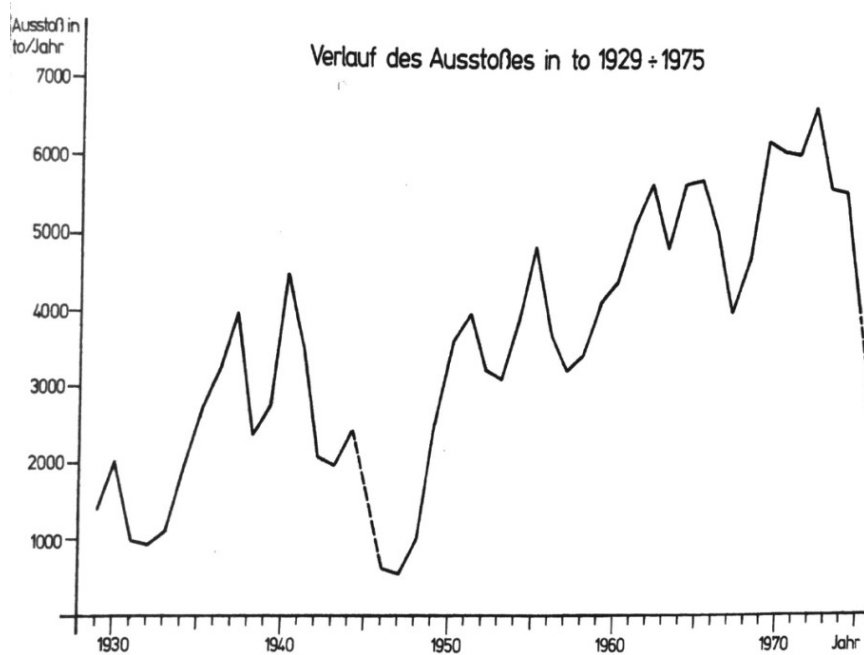


Source: Hege, Appendix.³¹¹

Production output, which Hege also included in his report, appears to have been more variable than turnover, and to have increased less rapidly from the mid-1950s, suggesting the possibility that Schneider were able to increase the perceived value of their products and command a higher price per tonne of production. The company benefited from the general boom in the building industry, but historian Willi Boelcke's suggestion that overstaffed building firms sought ever-increasing turnover to allay their rising costs offers another interpretation of Schneider's situation.³¹²

³¹¹ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg'.

³¹² Willi Boelcke, pp. 532–33.



Source: Hege, Appendix.³¹³

Given rising sales, rising output, and apparently manageable cost increases over two decades, why was the decision taken to close the business in 1976? In an article in the local newspaper in March 1976 entitled “Respected Steelwork Company Will Go Into Voluntary Liquidation in Autumn – Ruinous Competition in its Industry – No Profits for Two Years”,³¹⁴ much of whose content was subsequently repeated in Hege’s company history, it was reported that in 1972 Schneider had had 210 staff, but now had 160; sales had reduced from DM14.5million to barely DM10million. Now 61 years old and the sole leader of the business (another failure of succession planning), Hege was reported as seeing no further opportunities for the firm, owing to the “murderous competition” which in two years would bring them to bankruptcy unless immediate action were taken, an outcome for which Hege was unwilling to be responsible, either to the Walz family or to the firm’s staff. He had apparently explained to the family that the industry had thirty per cent too much capacity and many firms had already gone to the wall. Better in these circumstances to close while there was still value in the company, honouring its pension commitments and implementing a redundancy programme for all members of staff.

According to Hege, the problem lay in the general economic situation. Since 1975 there had been a reduction of 50% in factory-building work (*Hallenbau*). Companies were not investing in new buildings, and demand had fallen ruinously. For that reason, all remaining contracts

³¹³ Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’.

³¹⁴ ‘Angesehene Stahlbaufirma wird im Herbst freiwillig liquidieren’, *Ludwigsburger Kreiszeitung* (Ludwigsburg, 24 March 1976), 74 edition, Stadt Ludw SK4.4.2.

were being fought over by every means possible, and pricing had not covered costs for a long time (as Braithwaites were finding in this same period in Britain). There would be no improvement even if there was a reduction in interest rates, because firms had too much capacity already and so did not need any new buildings. Competition had come not only from within the steel-buildings sector, but also from other sectors and particularly from reinforced concrete companies in response to the new fire-prevention regulations, a point he repeated in his subsequent company history. It should be noted, however, that steel-reinforced concrete was not a new arrival – its producers had been represented in the German market by a professional association since 1907³¹⁵ and it is credited by Willi Boelcke as being the reason that the region gave priority to completely new buildings rather than the slower renovation of war-damaged stock,³¹⁶ It must therefore have been visible as both a threat and a potential means of product diversification for some time before it began to take business away from Schneider. For reasons which are not clear, neither Hege nor Walz appears to have taken any steps either to adopt reinforced concrete as a new product, or to develop a business relationship with a potential partner which specialised in the competing material.

Although in the newspaper interview he extols Schneider's capabilities, presumably aiming to find a partner willing to take it forward as a going concern, Hege had apparently already found that there was no interest. Rather strangely in such a public statement, he goes on to argue that "as the firm has a completely unique workforce (*einen vollkommen anderen Arbeitskräftestamm hat*), the employees, some of whom have been there for thirty years, will not be able to be taken on by anyone else."³¹⁷ His meaning in relation to the workforce is not clear: he seems to be saying that as they have their own particular way of working, his workforce are unemployable elsewhere, a limitation which on the face of it says little about his encouragement of flexible skills. He may simply have meant that jobs in their own area of specialism were unavailable. In fact, in relation both to his workforce's employability and to his company's ability to compete, Hege was too pessimistic. A review of the city of Ludwigsburg's monthly employment reports reveals that in April 1976, when he announced the need to close the business, there were indeed 6504 unemployed persons in Ludwigsburg, 3.6 per cent of the workforce. However, there were also open vacancies for 350 metal workers and 334 building

³¹⁵ 'Portrait', in '-- DAfStb - Deutscher Ausschuss Für Stahlbeton --' <<http://www.dafstb.de/portrait.html>> [accessed 7 January 2017].

³¹⁶ Willi Boelcke, p. 533.

³¹⁷ 'Angesehene Stahlbaufirma wird im Herbst freiwillig liquidieren'.

workers.³¹⁸ By September 1976, the steelwork industry was “predominantly satisfied” with workloads. Their only difficulty was their inability to recruit qualified fitters and welders, none of whom could be found amongst the ranks of the currently unemployed.³¹⁹ By the end of October, the unemployment rate had fallen to 2.8 per cent and there were over 700 vacancies in the building trade.³²⁰ Within the construction industry nationwide, the short-term difficulties of 1975-76 were quickly alleviated by a “genuine boom” in the building trade, which grew by 25% between mid-1977 and mid-1978. There was significant growth in public-sector building, traditionally an area of strength for Schneider, following the Schmidt government’s \$8 billion medium-term investment programme:³²¹ hanging on for 12 to 18 months might therefore have brought a turnaround in the company’s fortunes.

How did Schneider’s competitors fare in this period? A survey of a representative sample of steelwork companies listed in the Baden-Württemberg trade register revealed a total of 387 companies, 168 of which were still active in December 2016. The disappearance of 219 firms from the register suggests that theirs was not an easy industry in which to maintain sustainable profitable performance over an extended period (although it is possible that companies disappeared for positive reasons, including voluntary closure on retirement or amalgamation). However, of the fifty firms still extant in the Stuttgart region, nine entered the register before Schneider’s demise and were still active in late 2016, suggesting that survival may have been challenging, as Hege suggests in his history, but would not have been impossible. (Of those nine, six were KGs, but only five other KGs have been registered in the period since 1976. Of the fifty extant steelwork firms in Stuttgart, thirty-five are limited liability companies (GmbH) formed since the closure of Schneider, suggesting that Rolf Walz’s determination to maintain full personal liability was becoming unfashionable during his lifetime and was considered to be unattractively risky by the vast majority of steelwork entrepreneurs who have succeeded him.³²²) A simple contemporary web search carried out in December 2016 found Mittelstand

³¹⁸ ‘Der Arbeitsmarkt im Arbeitsamtbezirk Ludwigsburg, April 1976’ (Stadt Ludwigsburg, 1976), pp. 2, 4, Stadt Ludw L55.

³¹⁹ ‘Der Arbeitsmarkt im Arbeitsamtbezirk Ludwigsburg, September 1976’ (Stadt Ludwigsburg, 1976), p. 2, Stadt Ludw L55.

³²⁰ ‘Der Arbeitsmarkt im Arbeitsamtbezirk Ludwigsburg, Oktober 1976’ (Stadt Ludwigsburg, 1976), p. 4, Stadt Ludw L55.

³²¹ ‘West Germany: Construction Boom’, *The Economist*, 23 September 1978, p. 97, The Economist Historical Archive.

³²² Survey conducted by the author of ‘Currently or Previously Registered Companies Whose Name Includes “Stahlbau” in Baden-Wuerttemberg’, *Common Register Portal of the German Federal States*, 2016 <https://www.handelsregister.de/rp_web/search.do?doppelt> [accessed 29 December 2016].

steelwork companies around Stuttgart which were apparently thriving and which grew during the period when Hege declared that it was impossible to continue.³²³

Closure, 1976

Schneider closed in 1976. The filter manufacturer Mann + Hummel GmbH, a longstanding customer and Schneider's next-door neighbour in Ludwigsburg, was constrained by a shortage of space and skilled workers. Schneider's factory offered the required space. Hege's pessimism regarding the employability of his staff turned out to be doubly inappropriate: the building and steelwork trades actually needed their skills, as evidenced in the city's archives, and Mann + Hummel also took 100 Schneider employees onto their own payroll with seniority from the start of their employment with Schneider.³²⁴

It is easy to be critical of Hege with the benefit of hindsight. In reality, during 1974-75, notwithstanding the generally positive message to be drawn from his graphed analysis, the company's situation was rather worse than he had conveyed through the newspaper interview. Its financial position in the period 1966 to 1973 appears on average to have been improving, but it deteriorated dramatically. Expenses increased in all areas, especially employee costs: whereas turnover increased by 44%, average price per ton by 35.9%, and average material costs by 54.9%, the annual average cost per employee rose by almost 120%. Schneider's payroll grew from 203 employees in 1966 costing just under DM15,000 each to 171 employees costing almost DM33,000 each by 1974, with an increase of almost DM3,300 or 11% between 1973 and 1974 alone.³²⁵ This aggressive increase was reflective of the situation across West Germany as a whole: although firms' payrolls had grown in the past, their employees' wages had increased roughly in line with the growth in the income of self-employed people. Between 1970 and 1977, though, the income of self-employed workers grew by 78.5% - a sharp enough rise in itself, but for the first time significantly different from the 93% increase in the wages of employees, whose changing situation reflected the shift in relations between employee and employer and the increasing strength of organised labour.³²⁶ Unfortunately we have almost no archival records of union activity at Schneider, but it is inconceivable that in a tight labour

³²³ See, for example, 'Unternehmen - Stahlbau OTT Kirchheim Unter Teck' <<http://www.stahlbau-ott.de/unternehmen/>> [accessed 31 December 2016]; 'Daten & Fakten', 2016 <<http://schreiberstahlbau.de/de/unternehmen/daten-fakten.html>> [accessed 31 December 2016]; 'Unternehmen | Stahlbau Nägele' <<http://stahlbau-naegele.de/unternehmen/>> [accessed 31 December 2016].

³²⁴ Gerd Heimisch, *75 Years of Mann + Hummel / 1941-2016* (Ludwigsburg: Mann + Hummel GmbH, 2015), p. 109 <http://history.mann-hummel.com/media/pdf/Chronicle_MANN-HUMMEL_en.pdf> [accessed 15 November 2016].

³²⁵ Hege, 'Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg', p. 76.

³²⁶ Abelshauser, pp. 344-45.

market pay demands within the business were not adversely affected by the soaring wage rates beyond its gates. And although Hege and his team seem to have continued to fight hard, they were in a losing battle: almost all of the fifteen new contracts for important customers, each over 100 tonnes, each technically interesting, each further securing the good reputation of Schneider, were loss-making.³²⁷ In early 1975, Hege cut headcount in a bid to reduce employment costs and put his staff onto short-time working for six weeks, “but there were simply no longer any contracts available which could be won at prices that covered [the company’s] costs.” Much more fundamentally, by December 1975 Schneider’s two banks “were no longer willing to offer long-term support and suggested that we liquidate the firm while there was still value in its assets.”³²⁸ The “house bank”, the *Stuttgarter Volksbank* (both were local), offered support during the winding-up period, though.

Having agreed with the Walz family that the business could not be saved, Hege worked with the directors of Mann + Hummel to create an employee-transfer plan within the framework of an asset takeover. He then worked with the IG Metall representatives (unlike Braithwaite, Schneider had only one union) and an official of the Metal Industry Association (*Verband der Metallindustrie*) (both demonstrating the ongoing support of institutions to businesses in their industry, but neither mentioned at other points in the archival records) to formulate a social plan which paid up to DM13,000 in redundancy and which, with the support of the Walz Foundation, guaranteed all existing and impending company pensions. Strikingly, he chose to honour all outstanding contracts and to keep the employees busy for the whole of their six-month notice period, a joint commitment which was recognised by the award of large contracts in the company’s final few months by several sympathetic, longstanding major customers, including Daimler-Benz and Miele, totalling over DM2million.³²⁹ In what might be seen as the ultimate irony, weeks after its closure Schneider was awarded a national prize for Germany’s outstanding steel-framed building.

Faced at the time with the challenges posed by his own age and approaching retirement; by depressed contract prices caused by supplier over-capacity and customer retrenchment; by constantly rising wage costs; by the end of the *Wirtschaftswunder* and recent economic difficulties, Hege concluded that in both its dying days and its earlier life, “the company had made a good name for itself throughout its industry and across its customer base thanks to its

³²⁷ Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’, p. 77.

³²⁸ Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’, pp. 81–82.

³²⁹ Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’, pp. 83–88.

tidy and scrupulous work and its respectable and serious leadership.”³³⁰ Thus his own legacy as an engineer and as Schneider’s final leader was secured. But the company’s closure can be viewed in retrospect as a negative outcome. Hege had failed to foresee and deflect the threat of new materials. The building trade and economy both soon grew again, as the motor industry had grown again following precipitate mismanagement by Recaro’s leaders. Though a vacuum had been caused by the premature death of Schneider’s owner, that had been nine years earlier. There should have been time enough to prepare appropriate candidates for management succession even if Andreas Walz, now aged 24, or his siblings were uninterested in the family legacy.

³³⁰ Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’, p. 88.

Braithwaite & Co. Engineers Ltd, West Bromwich

Introduction

The company referred to in this chapter as Braithwaites was established in 1884 in West Bromwich. As Braithwaite & Co (Engineers) Ltd, it was eventually run from head offices in London, then Surrey, with staff there and at factories in Newport (making water tanks and supporting towers) and West Bromwich (for steel structures and associated construction work), selling at home and overseas. West Bromwich was closed in 1979, and the group radically transformed in the 1980s. This chapter deals primarily with the West Bromwich site and the group's management in the period between the end of the Second World War and the site's closure in 1979.

Source material for Braithwaites, housed at Sandwell Archives, is limited. It comprises some employee records (wage cards for some blue-collar staff), share transfer documents (of little use), and board minutes up to 1974 for the parent company and two of its subsidiaries. The minutes are detailed, typewritten, indexed, and immaculately presented; on the face of it, a model of good corporate governance. In one sense, they offer the researcher some advantages that are not always to be expected in investigating the history of smaller enterprises. But the dominance of "management" and "official" views has added to a challenging task of reconstruction, and attention is required to Decker's concerns regarding evidence of this sort.³³¹ The analysis which follows therefore also utilises contemporary press coverage and statutory financial and legal documents to create the most complete picture possible.³³²

Company Origins and Pre-1945 History

Braithwaites was originally a local Black Country engineering company. Although his son and grandson, his successors as Chairmen, based themselves in London, James Hulse Humphryes was a Black Country native. Born in Wednesbury in 1869, he attended a local grammar school and the Technical Schools in West Bromwich and Manchester. After an apprenticeship at Braithwaites, he progressed from draughtsman to director of a Manchester engineering business before he returned to Braithwaites as a partner in 1912. He thought about workplace innovation, presenting a paper on workshop productivity improvements to the Manchester

³³¹ Decker, pp. 161, 165.

³³² The author's letters to the Chairman and a director of the company in 1979 and to the later purchaser of its Newport subsidiary were not acknowledged. The relevant professional archive does not contain information from the late 1970s: 'Engineering Employers' Federation - Archives Hub'.

Association of Engineers in 1902.³³³ While running Braithwaites, he was granted ten patents³³⁴ and became a council member of both the Federation of British Industry and the British Engineers Association.

After successes, especially in India, over several years, Humphryes separated from his partner to take Braithwaites forward on his own in 1921. He constructed the deal cleverly,³³⁵ with the much larger steel and fabrications company Dorman, Long as principal investor and Sir Arthur Dorman, KBE, as Chairman.³³⁶ Their presence, and quick departure,³³⁷ showed how astute Humphryes was: he took on the new business with a financially strong partner whose reputation enhanced his own, and with which he needed amicable relations over the long term. After their departure, he secured his position at the head of the new company,³³⁸ retaining it after floating Braithwaites as a public company in 1927.³³⁹ In doing so, he epitomised the prevailing thinking that “families making flotations ensured that they held equity, with its attendant voting rights, so the extent to which ownership and control was divorced, even in public companies, was distinctly limited.”³⁴⁰

Despite this clever financial practice, it is notable that the new ‘public’ company’s directors – who included Humphryes’ son – were all listed as engineers;³⁴¹ though Humphryes had moved away from his Black Country roots, this was not to be a financial holding company but an engineering business, with numerous impressive projects done and in hand and a combined works capacity of 50,000 tons a year.³⁴² Humphryes died unexpectedly in May 1927.³⁴³ As the Institution of Mechanical Engineers’ obituary writer said, Humphryes’ “eminent position was

³³³ Anon, ‘Manchester Association of Engineers’, *The Manchester Guardian* (Manchester, 8 December 1902), p. 3.

³³⁴ *Espacenet*, accessed 9 November 2015.

³³⁵ ‘Agreement for Sale of Business – James Hulse Humphries to Braithwaite & Co. Engineers Ltd.’, 1921, Companies House, archive disk 00175912-02.

³³⁶ Braithwaite & Co. Engineers Limited, ‘Memorandum of Association, Braithwaite & Co. Engineers Limited’ (Braithwaite & Co. Engineers Limited, 1921), Companies House, archive disk 00175912-01.

³³⁷ ‘Dorman, Long & Co’, *The Times* (London, England, 11 December 1924), p. 24, The Times Digital Archive, accessed 17 November 2015.

³³⁸ ‘Special Resolution of Braithwaite & Co Engineers, 19/11/1924’ (Companies House, 1924), Companies House, archive disk 00175912-02; ‘Special Resolution of Braithwaite & Co Engineers, 8/5/1925’ (Companies House, 1925), Companies House, archive disk 00175912-02.

³³⁹ ‘Revised Articles of Association’ (Companies House, 1927), Companies House, archive disk 00175912-02.

³⁴⁰ Andrea Colli and Mary B. Rose, ‘Families and Firms: The Culture and Evolution of Family Firms in Britain and Italy in the Nineteenth and Twentieth Centuries’, *Scandinavian Economic History Review*, 47.1 (1999), 24–47 (p. 37).

³⁴¹ Listed in Braithwaite & Co. Engineers Limited, ‘Prospectus: Issue of 150,000 7 1/2 per Cent. Cumulative Preference Shares of £1 Each, at Par.’ (Braithwaite & Co. Engineers Limited, 1927), Companies House, archive disk 00175912-03.

³⁴² Braithwaite & Co. Engineers Limited, ‘Prospectus for Preference Shares’.

³⁴³ ‘Deaths – James Hulse Humphryes.’, *The Times* (London, England, 26 May 1927), p. 1, The Times Digital Archive.

gained after a thorough engineering experience.”³⁴⁴ He was a forward-thinking, creative and ambitious engineer, whose technical understanding was matched by his commercial astuteness. He was also well-rewarded for his expertise, leaving £212,000 (some £12 million in 2018 values) at his death.³⁴⁵

The Chairman of the new public company was his son James Harvey Humphryes, who having only just reached the age of twenty-nine³⁴⁶ clearly faced a considerable challenge. But he was confident. In the 1930 publication *Britain's Message to the Empire from the Air*, the company assured readers that “Braithwaites will go anywhere and do anything that has Structural Engineering connected with it.” Its successes to that point make impressive reading even now: a 110-mile pipeline in India, for which they had built a works on a green-field site to save on shipping costs; 20,000 tons of steel plates shipped from Newport to Sao Paulo for its new aqueduct, assembled in a purpose-built factory that was then levelled and returned to nature; five deep-water wharves at Calcutta.³⁴⁷

The inevitable question regarding Braithwaites' export performance was whether it depended on Imperial preference rather than on the genuine international competitiveness that was required of its German and other international competitors. Many of the contracts awarded prior to World War Two *were* won in countries of the Empire – although they could also point to contract wins in Iraq and Argentina,³⁴⁸ and the projects they and others completed were, irrespective of the geo-commercial influences involved, innovative and brilliantly executed. Humphryes urged co-industrialists that for “their own contribution to recovery they must continue to critically examine and investigate every field for the expansion of the new uses of steel.”³⁴⁹ This, it turned out, would not be straightforward: two years later, Humphryes had reason to deplore the failure of the steel manufacturing industry to “set its house in order”, as

³⁴⁴ ‘James Hulse Humphryes - Obituary’, *Institution of Mechanical Engineers - Obituaries*, May 1927, p. 583. http://www.gracesguide.co.uk/James_Hulse_Humphryes, accessed 9 November 2015.

³⁴⁵ ‘RECENT WILLS - James Hulse Humphryes’;

<https://www.measuringworth.com/calculators/ukcompare/relativevalue.php> accessed 9.1.2019.

³⁴⁶ Braithwaite & Co. Engineers Limited, ‘Form 9, Particulars of Directors and Secretaries’ (Braithwaite & Co. Engineers Limited, 1948), Companies House, archive disk 00175912-03.

³⁴⁷ Air League of the British Empire, ‘1930 Industrial Britain: Braithwaite and Co Engineers’, in *Industrial Britain. Britain's Message to the Empire from the Air* (London: Albion Publishing Co. Ltd., 2015), 1: ENGINEERING, MOTOR AND AIRCRAFT INDUSTRIES
<http://www.gracesguide.co.uk/1930_Industrial_Britain:_Braithwaite_and_Co_Engineers> [accessed 3 November 2015].

³⁴⁸ ‘Braithwaite & Co., Engineers, Limited: Report on 1934 AGM’, *The Times* (London, England, 3 October 1934), p. 19, The Times Digital Archive, accessed 17 November 2015.

³⁴⁹ ‘Progress In Steel Construction’, *The Times* (London, England, 5 November 1932), p. 6, The Times Digital Archive, accessed 17 November 2015.

manufacturers of steel structures were hindered by high raw material prices and deriving no benefit themselves from reformed tariffs.³⁵⁰ Braithwaites would continue to suffer from failings in Britain's steel industry for the next forty years.

As Chairman of the British Steelwork Association and in other appointments,³⁵¹ Humphryes displayed remarkable maturity for a young man barely thirty years old. In his public speeches, he embodied a commitment to sales growth which characterised his leadership of his own business. His leadership was tested in 1930s, as Braithwaites' situation was affected by prevailing economic conditions. During 1931 work was lost despite specially low pricing,³⁵² and closure plans discussed.³⁵³ By May 1935, the company's overdraft was up to £80,000 against a limit of £75,000. However, "a letter from the Manager of the Bank was read, in which he anticipated no difficulty in obtaining sanction for an increased limit up to £90,000." No doubt his decision was guided by his faith in the company and its prospects; the preceding item in the minutes, recording that "a canteen of cutlery had been present to Mr. Robinson on behalf of the Company on his retirement from the post of Manager of Lloyds Bank, West Bromwich", seems to have been mentioned without any sense of irony or embarrassment.³⁵⁴ It appeared that no matter how straitened the circumstances, Braithwaites would courteously preserve relationships, and continue fighting for business. In the board meeting of 13 July 1938, for example, with their highest-ever overdraft looming, he and his directors approved 27 tenders for UK and overseas work, and reviewed another 18 papers, mostly relating to overseas contracts.³⁵⁵ Correspondence in the archives of Dorman, Long suggests another interpretation: that Braithwaites' board relied on relationships in a way which might later make them vulnerable. Braithwaites are shown to have approached the South Durham Iron and Steel Company with an offer to "protect" their prices on a contract, in exchange for a £5000 payment which would be shared between Braithwaite, Dorman, Long and another company.³⁵⁶ In other

³⁵⁰ 'Braithwaite & Co., Engineers, Ltd', *The Times*, 3 October 1934, p. 19.

³⁵¹ Great Britain. Steel Structures Research Committee, *Steel Structures Research; Verbatim Proceedings of a Conference Presided over by Sir Clement Hindley, on 16th October, 1930*. (London: H.M. Stationery Office, 1930) <<http://babel.hathitrust.org/cgi/pt?id=coo.31924004638007;view=1up;seq=7>> [accessed 14 October 2015].

³⁵² Minutes of 12 February 1931 meeting. Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 9 October 1930 to 17 March 1932.' (Braithwaite & Co. Engineers Limited, 1932), Sandwell, BS-B1/1/1.

³⁵³ Minutes for 1 October 1931 meeting. Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 9 October 1930 to 17 March 1932.'

³⁵⁴ Minute for the meeting of 24 May 1935. Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, April 1932 to August 1936.' (Braithwaite & Co. Engineers Limited, 1936), Sandwell, BS-B1/1/2.

³⁵⁵ Minutes for 13 July 1938 meeting. Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, September 1936 to April 1940.' (Braithwaite & Co. Engineers Limited, 1940), Sandwell, BS-B1/1/4.

³⁵⁶ 'Correspondence Relating to North Wales Power Co. Dolgarrog Extension' (Dorman, Long & Co. Ltd, 1935), Dorman, Long Archives, Middlesbrough, BS.DL/3/2/1/5/30.

correspondence, Dorman, Long were told that Braithwaites underbid them in Argentina, whose government was willing to favour British firms to foster links with the UK.³⁵⁷ These situations suggest either that Braithwaites were alive to international opportunities, sharp-witted, and more nimble than the larger, more bureaucratic Dorman, Long; or that they were shielded from true international competition by geopolitical factors, were unwisely aggressive in their international pricing, and would resort to price-fixing if necessary. The latter portended problems in a changing postwar world.

Postwar Business Activity 1945-1979

Introduction

Given the Humphryes family's domination of Braithwaites, it makes sense to divide the review of postwar activities into the two periods they controlled as Chairman. The first ends with the retirement of James Harvey Humphryes (James) in 1971. The second covers the accession of his son James Anthony (Tony) to the chairmanship until the closure of the West Bromwich works in late 1979. Operational highlights are reviewed for each period to give a sense of the challenges management faced, though details of post-1974 business are limited by the absence of minutes and shortage of other primary evidence. In separate sections I also review challenges in the contemporary business environment and Braithwaites' responses to them. Some concluding commentary will then summarise the company's fortunes in the years after the West Bromwich plant's closure in 1979.

We begin with a consideration of the individual qualities of the business's two dominant figures.

Company Chairmen

James Harvey Humphryes was by the age of forty an experienced Chairman who had led Braithwaites through difficult pre-war circumstances. He then went on to manage its wartime work building tank hulls and Bailey bridges. Thereafter, he continued winning. Little can be discovered of his personal life or background from the archive or other sources, other than that he was a member of two professional engineering bodies. He had a public school education at Dulwich College, demonstrating his father's desire to move upwards socially, and had served

³⁵⁷ 'File Relating to Contract for Riachuelo Bridge, Argentina' (Dorman, Long & Co. Ltd, 1935), Dorman, Long Archives, Middlesbrough, BS.DL/3/2/1/5/30.

in the First World War.³⁵⁸ He remained Chairman until 1971, and the minutes reveal a man who was intelligent, decisive, orderly, technically proficient, not afraid to be confrontational, but who also looked after his staff. Alternative perspectives on his personality and performance are not available. Unlike his father, he did not die a very rich man as a result of his five decades at Braithwaite: at £144, 693, his 1981 estate was worth no more than £1 million in 2018 values.³⁵⁹

A dynamic second-generation leader following the founding father often does well and can take a business to the next level of success. Conversely, received wisdom suggests that as the third-generation leader, James Anthony (Tony) Humphries, born in 1927, would be most likely to waste his predecessors' achievements. In fact, he appeared from an early age to have shared his father's and grandfather's intelligence and drive, and their desire to retain command of the family firm. His father apparently used the wealth generated by the company to further distance his family from their Black Country roots, sending Tony to Harrow.³⁶⁰ But his performance there suggested that James Hulse's qualities had reached the third generation

graduating with a BA in Engineering in 1950 after service as an officer in the Coldstream Guards.³⁶¹ In his university file, a letter from his Harrow housemaster describes him as “

Tony seems to have thought ahead for Braithwaites' benefit, taking papers in Civil Structures, Surveying

³⁵⁸ 'Who's Who In Engineering: Name H', *Who's Who In Engineering 1939*, 1939

<https://www.gracesguide.co.uk/1939_Who%27s_Who_In_Engineering:_Name_H> [accessed 10 January 2019].

³⁵⁹ 'Probate: James Harvey Humphries', *Probatesearch.Service.Gov.Uk*

<<https://probatesearch.service.gov.uk/Calendar#calendar>> [accessed 4 December 2015] and

<https://www.measuringworth.com/calculators/ukcompare/relativevalue.php>. It is of course possible that he gave away more of his wealth before his death.

³⁶⁰ With the other former pupils of Eton, Rugby or Harrow who made up 21% of British industrialists in the period 1960-70, according to Isabelle Lescent-Giles, 'Les Elites Industrielles Britanniques: 1880-1970', *Historie, Economie et Societe*, 17.1 (1998), 157-88 (p. 171).

³⁶¹ 'News in Brief - Harrow School', *The Times* (London, England, 26 September 1945), p. 7, The Times Digital Archive; 'News in Brief - Harrow Speech Day', *The Times* (London, England, 28 June 1946), p. 6, The Times Digital Archive; email to David Paulson from Harrow School Archivist, 'RE: Enquiry Re Old Harrovian', 17 November 2015.

³⁶² 'Foot Guards', *Supplement to the London Gazette* (London, England, 7 November 1947), p. 5240.

and Geology, and Hydraulics.³⁶³

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It was clear that James Hulse Humphries had made possible a significant achievement of social mobility, moving his family's aspirations from an apprenticeship in Wednesbury to Harrow, Cambridge and the Brigade of Guards in little over fifty years. The social 'achievement' (for those who see it that way) seems unquestionable. The question in due course would be, as his career progressed, whether Tony's performance in the family firm would substantiate Tom Nicholas's finding that "an education in the upper echelons of the British system—at a Clarendon school or an Oxbridge college—was associated with negative rates of return to entrepreneurship"³⁶⁵ or instead would reflect Hartmut Berghoff's contention, in relation to his grandfather's generation, that "entrepreneurs who had been to public school were very likely to enlarge their families' fortunes."³⁶⁶ His succession exemplified criticism which was aired in a speech close to the West Bromwich works in 1949: "Unfortunately, in British industry...top management is cluttered up by the owner-manager complex, where the owner of the business is so often the manager; and sons and grandsons rise to the top in apostolic succession, often regardless of whether they have either the ability or the desire to manage the business."³⁶⁷ The postwar years would reveal whether Tony – and indeed his father - had either.

Business Performance, 1945-1971

Operational Management

Braithwaites performed effectively throughout the 1950s. In the period 1954-59, pre-tax profits averaged £143,000 in contemporary values.³⁶⁸ But by December 1959 the Group was experiencing economic strain, despite winning substantial contracts such as the Tasman Bridge

³⁶³ 'Examination in Engineering Studies, Michaelmas Term 1951 - Section II', in *Cambridge University Reporter* (Cambridge: Cambridge University Press, 1951), MMMDCCLX, 218.

³⁶⁴ Email to David Paulson from Hon. Archivist, Pembroke College, Cambridge, J.S. Ringrose, 'J.A.Humphries', 24 November 2015.

³⁶⁵ Nicholas, p. 707.

³⁶⁶ Hartmut Berghoff, 'Public Schools and the Decline of the British Economy 1870-1914', *Past & Present*, 129.1 (1990), 148–67, p. 166.

³⁶⁷ A.P. Young, 'The Foreman and Works Management': Speech to the Institute of Works Managers, Smethwick', 1949, Modern Records Centre, MRC-MSS.242/IW/8.

³⁶⁸ 'Braithwaite & Co. Engineers Ltd.', *The Economist* (London, 6 October 1956), p. 94, The Economist Historical Archive, 1843-2011; 'Braithwaite & Co. Engineers Ltd.', *The Economist* (London, 5 October 1957), p. 83, The Economist Historical Archive, 1843-2011; 'Anglo-Ceylon & General Estates - Braithwaite & Company Engineers Limited - Wm. Cory & Son Limited.', *The Economist* (London, 3 October 1959), p. 82, The Economist Historical Archive | Article; 'Volkswagenwerk G.m.b.H. - The Calico Printers' Association Ltd - A. C. Cossor - The Tor Investment Trust Limited - Gold Mines of Kalgoorlie - Braithwaite & Co. Engineers Ltd - Hecht, Levis & Kahn - Pye Ltd - British Homophone', *The Economist* (London, 4 October 1958), p. 91ff., The Economist Historical Archive | Article.

in Hobart, in which it was a 44% partner, and submitting a £400,000 tender bid for steelwork for the Thorpe Marsh power station in 1961/62. Their expectation of profits for the current year was £40,000, with the possibility that this would increase by £10-20,000: enquiries were increasing in number and prices were hardening.³⁶⁹ Characteristically, Humphryes did allow complacency. Two directors were examining ways in which overhead could be reduced at the Surrey office and at both manufacturing plants, and the company, whose accounts were £88000 overdrawn, had got the support of Lloyds Bank, which had offered to back its Hobart project.³⁷⁰

As it happened, matters did not quickly get better. In his address to the 1962 AGM, Humphryes offered a picture of a difficult trading environment, in which Braithwaites appears to have been as well managed as it could have been in the circumstances.³⁷¹ He and his managers appear to have managed the international business effectively. In Tasmania and Ireland, projects including the technically challenging Hobart Bridge were progressing well.³⁷² Projects in India and Turkey were also reviewed. Growth was a priority: to pursue more export business, the company was to send executives abroad to meet agents and customers. Domestically, business was more difficult. In 1960, low margins and a dearth of work had forced them to accept unattractive margins to retain skilled labour, though they had supplemented pensions at both works.³⁷³ In 1961, a recession in the steel industry had resulted in a reduced order book and forced Braithwaites to accept contracts at low prices. In response, Humphryes reported, management had reorganised, made economies in all areas, and instituted a planned early retirement programme. Combined with improved trading conditions, including work on Sizewell B and West Burton power stations, this had allowed them to get back into profit. He was anxious to avoid making further reductions in the labour force, as the company had done in 1959/60 during another difficult period, with consequent losses in labour efficiency.³⁷⁴

Given these general concerns, and the problems with specific issues which are reviewed separately below, management in the 1960s, despite the measured tones of the Minute Book, must have frequently been a test of nerve. A review of events during 1963 and afterwards

³⁶⁹ Minutes for meeting of 18 December 1959. Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 4 September 1963 to 29 May 1968.' (Braithwaite & Co. Engineers Limited, 1968), Sandwell, BS-B1/1/9.

³⁷⁰ Minutes for meeting of 2 December 1959. Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 4 September 1963 to 29 May 1968.'

³⁷¹ 'Braithwaite & Co. Engineers Limited: Report on 1962 AGM', *The Times* (London, England, 28 September 1962), p. 21, The Times Digital Archive.

³⁷² Anon, 'Hobart Bridge, Tasmania.', *The Engineer*, 15 January 1960, 1960, 102.

³⁷³ 'Braithwaite & Co. Engineers Limited. Mr. J. Harvey Humphryes's Review of Activities', *The Times* (London, England, 23 September 1960), p. 25, The Times Digital Archive.

³⁷⁴ 'Braithwaite & Co. Engineers Limited: Report on 1962 AGM'.

gives a sense of the challenges faced in managing a British engineering company during this period. At the 1963 AGM, Humphryes announced that the outlook was better but still not good. Improvements discussed the previous year had been achieved, and the order book was improving, with a 6000-ton order for transmission towers. However, “the current year’s results were likely to be affected by the necessity of accepting orders at unusually low prices.”³⁷⁵ Orders for 1000 tons of steelwork had been booked in a six-week period in July and August 1963, but “at cut prices in order to assist in filling the gap in production.” For the following months, the outlook “was not very bright and work was badly needed”, but the company was having to wait for the start of the Fiddlers Ferry and Aberthaw power station contracts, as well as for more transmission line tower orders. These commercial uncertainties created a cash book deficit which was projected to reach or exceed the £600,000 overdraft facility several times over the next six months.³⁷⁶

Though Humphryes adopted a positive tone in his 1963 AGM speech, he admitted that orders had been won at “prices which in normal times would not [have been] contemplated” and which would colour the company’s performance during the year to come.³⁷⁷ The situation seemed to improve over the next two years. In the Board meeting of 18 November 1965, directors were told that “West Bromwich fabrication programme provided full production over the period up to the end of January 1967 at which date there would be approximately 10,000 tons of steel to be fabricated, i.e. 7,000 tons for Pembroke Power Station and 3,000 for Dungeness Power Station.” Regrettably, the “labour position had improved somewhat in October but had become more difficult again in November.”³⁷⁸ The minutes do not tell us what the “labour position” was, but several problems had presented themselves in recent years, from labour shortages at West Bromwich through to union-led militancy and poor productivity on power station construction sites. Any of these must have presented a challenge. Nevertheless, in the September 1966 AGM, Humphryes was able to report “that the trading profit achieved for the year ended March 31, 1966 was the highest achieved in the company’s history, and he looked forward to this level of profitability being maintained in the current financial year.”³⁷⁹ The business had won “considerable tonnages” for Fiddlers’ Ferry and Cottam power stations, and

³⁷⁵ Anon, ‘Braithwaite & Co.: Statement of 1963 Results’, *The Times* (London, England, 3 September 1963), p. 17, The Times Digital Archive accessed 18 November 2015.

³⁷⁶ Minutes of 23 October 1963 meeting. Braithwaite & Co. Engineers Limited, ‘Board of Directors’ Meetings, 4 September 1963 to 29 May 1968.’

³⁷⁷ ‘BRAITHWAITE & CO. ENGINEERS LIMITED: Annual General Meeting’, *The Guardian* (1959-2003) (Manchester/London, 27 September 1963), p. 17.

³⁷⁸ Braithwaite & Co. Engineers Limited, ‘Board of Directors’ Meetings, 4 September 1963 to 29 May 1968.’

³⁷⁹ Neither the Minutes, nor the press, nor the Companies House archive reveals the actual profit figure.

for another in India. But Humphryes raised a note of caution in relation to the Government's prevailing prices and incomes standstill: "Any cut-back or postponement in placing orders for capital equipment may well affect the Company's trading in the long term. This [would] be particularly disappointing after the great efforts that had been made to recover from the effects of the 1960, 1961 recession in the steel fabricating industry."³⁸⁰

As the decade ended, Braithwaites were able to report another record year for profits at the 48th AGM. Orders for "substantial tonnages" of motorway bridgework had been won; there was ongoing volume of orders for pressed steel tanks; they had won an export order for steelwork for a US aluminium plant. The Chairman anticipated that the output of bridgework and other construction-related material would be maintained, though "the future of the industry remained uncertain."³⁸¹ In his 1970 statement, Humphryes welcomed "the resumption in the Central Electricity Generating Board's power station programme and looked forward to being able to renew participation in that class of work."³⁸² On the face of it, his company had prospered reasonably well during the 1960s, in several years achieving its highest-ever profits. He had continued to win orders overseas, and had taken the business into Britain's motorway- and power station-building programmes with apparent success. His shareholders had received an annual dividend of at least 8.28% since 1964, on two occasions receiving 12%.³⁸³ Yet at each annual meeting, he seemed at pains to express a closing note of pessimism. The following review of some of the particular challenges Braithwaites faced will help us to appreciate whether his pessimism was justified.

Personnel Challenges

Recruiting and Retention

In the absence of personnel records, it is difficult to understand the detail of Braithwaites' recruitment and retention activities. Given the complexity of some of their engineering work, investing in staff at all levels was clearly important and we know that like other companies in both the West Midlands and Baden-Württemberg, Braithwaites struggled throughout this period to overcome skill shortages. But we will see that in their approach to the recruitment

³⁸⁰ 'BRAITHWAITE & CO. ENGINEERS LIMITED: Annual General Meeting - ProQuest', *The Guardian* (1959-2003) (Manchester/London, 22 September 1966), p. 13; 'Boardroom News - Braithwaite Engineers', *The Guardian* (1959-2003) (Manchester/London, 30 August 1966), p. 11; *The Times* (London, England, 22 September 1966), p. 18, The Times Digital Archive.

³⁸¹ 'Company Meeting', *The Times* (London, England, 26 September 1969), p. 23, The Times Digital Archive.

³⁸² 'Company Meeting', *The Times* (London, England, 25 September 1970), p. 25, The Times Digital Archive.

³⁸³ *The Stock Exchange Official Year-Book 1979-80*, ed. by Jeffrey Russell Knight (East Grinstead: Thomas Skinner & Co. (Publishers) Ltd., 1979), p. 767.

and support of engineers, Braithwaites contradicts the view that engineering in Britain was “a Cinderella profession”, and that formal engineering training was not a prerequisite for advancement into management, as it was in West Germany.³⁸⁴

Problems began soon after the war. In reports to the Joint General Managers of the Structural division in 1949, managers complained of an ongoing staff shortage, despite increasing wages and offering more overtime,³⁸⁵ and in 1950 the management committee had apprenticeship brochures sent into local schools as a matter of urgency.³⁸⁶ By then the company was already supporting employees who wished to study engineering at Birmingham University. The two staff members who were students in 1950 were “making very good progress”, and the management team were keen to draw the attention of all West Bromwich staff “to the provision of the facility for Employees of the Company to obtain scholarships to Birmingham University.”³⁸⁷ The company seems to have had an enlightened attitude and openness to others’ ideas, as well as a commitment to professional qualifications and memberships. In 1958, the Management Committee reviewed plans to recruit staff at three levels: works trainees, drawing office trainees, and graduates. They intended to recruit “good quality graduate staff”, visiting Cambridge University and offering training to two engineering graduates, as well as committing to future participation in a post-graduate scheme at Imperial College. Despite Braithwaites’ commitment, graduate engineers proved difficult to find. Headhunters had been engaged after the company failed to recruit a Chief Designer, but they also failed.³⁸⁸

Ironically, but unavoidably given a downturn in business and all prices being “too thin”, these recruitment discussions came at a time when managers were also having to cut headcount to save money. Even without short-term financial constraints, staffing seems to have remained a perennial problem throughout the postwar period. In his annual statement reviewing the 1965/66 financial year, James Humphryes said “the limiting factor preventing higher output

³⁸⁴ Robert Millward, ‘Industrial and Commercial Performance since 1950’, in *The Economic History of Britain Since 1700. Volume 3: 1939-1992*, ed. by Roderick Floud and Deirdre McCloskey (Cambridge: Cambridge University Press, 1994), pp. 123–67 (pp. 149–50).

³⁸⁵ Reports of 29 August and 28 September 1949, appended to JGM meeting minutes. Braithwaite & Co. Engineers Limited, ‘Minutes of Joint General Managers’ Meetings, 21 January 1949 to 13 May 1952.’ (Braithwaite & Co. Engineers Limited, 1952), Sandwell, BS-B1/1/3.

³⁸⁶ Minutes of 14 June 1950 meeting. Braithwaite & Co. Engineers Limited, ‘Minutes of Joint General Managers’ Meetings, 21 January 1949 to 13 May 1952.’

³⁸⁷ Minutes of 10 August 1950 meeting. Braithwaite & Co. Engineers Limited, ‘Minutes of Joint General Managers’ Meetings, 21 January 1949 to 13 May 1952.’

³⁸⁸ Meetings between 21/4/1958 and 21/12/1958 in Braithwaite & Co. Engineers Limited, ‘Minutes of Joint General Managers’ Meetings, 17/3/1958 to 21/11/1960’ (Braithwaite & Co. Engineers Limited, 1960), Sandwell Archive, BS-B1/1/7.

[was] still the shortage of skilled and semi-skilled men."³⁸⁹ Board minutes in 1970 recorded that recruiting and retention for the drawing office was a major challenge, with only six of the 26 apprentices they had trained still in the company. Shortages of skilled labour were reviewed at other board meetings in this period as a damaging constraint.³⁹⁰ The training and retention of those who might make a career in the company therefore remained important. The formal apprenticeship programme in civil engineering still attracted staff members who wanted to join a programme sponsored by the Institution of Civil Engineers,³⁹¹ and the company continued to sponsor employees on degree programmes. Several were on sandwich programmes at Aston in 1970.³⁹² Merit and potential to make a difference to the company's technical capacity and performance, rather than any class-conscious sense of university being appropriate only for a certain type of person, seems to have motivated their decisions: both sponsored students holding Braithwaite Scholarships in 1960 were originally apprentice draughtsmen.³⁹³

Professionally qualified engineers dominated the company's board in the 1970s. The Minutes show that experienced managers were offered a path onto the Board: Geoffrey Instone and James Leggett joined in this capacity in 1963, eventually becoming statutory directors.³⁹⁴ Despite the constraints presented by the availability of skills within the British economy, Braithwaites demonstrated a commitment to finding engineering talent, investing in it, and giving it a path to senior management that belies conventional criticisms of British businesses' failure to do any of these things.

Braithwaites also faced challenges finding capable manual workers. We have only limited workforce records, summarised below. They show that over two decades, the company managed to retain a similar percentage of experienced staff. As Schneider, Wandel and many other West German businesses had found, one solution to the shortage of suitably skilled labour in the 1970s was the employment of immigrant staff. Of the 160 manual workers employed by Braithwaites in West Bromwich on 1 January 1978, 25 had family names which suggest

³⁸⁹ 'Boardroom News - Braithwaite Engineers'.

³⁹⁰ Minutes of 28/5/1970, 24/9/1970, 16/2/1971 meetings in Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 10 July 1968 to 11 December 1974' (Braithwaite & Co. Engineers Limited, 1974), Sandwell, BS-B1/1/10.

³⁹¹ Minutes of 26 September 1963 meeting. Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 4 September 1963 to 29 May 1968.'

³⁹² Meeting of 8/7/1970 in Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 10 July 1968 to 11 December 1974' Braithwaites signed a 7-year covenant to support the Aston programme.

³⁹³ Minutes for meeting of 12 January 1960. Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 4 September 1963 to 29 May 1968.'

³⁹⁴ Minutes for 23 October 1963 meeting. Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 4 September 1963 to 29 May 1968.'

they were from the high numbers of immigrants from the Indian subcontinent who had taken on factory and foundry work in the Black Country.³⁹⁵ None of them were employed as unskilled workers.³⁹⁶ But job titles suggest that the company may have had employees who were practised in their roles, but who did not offer skills levels that would have allowed the company to differentiate itself by any difficult-to-replicate expertise.³⁹⁷

Years of Service	% of 1960 Works		% of 1978 Works	
	1960	Staff	1978	Staff
< 10 years	237	61%	112	58%
10-15 years	32	8%	30	16%
> 15 years	117	30%	50	26%
Total Workforce	386	100%	192	100%
Sources: BS/B/1/1/7, minutes 17/10/1960; BS/B/3/2/1 employee record cards; author's calculations.				
Skill Level	Rating	Example Job	Total at Level	Immigrants as % of skill group
0	Unskilled	Sweeper-up	11	0%
1	Low-Skilled	Slinger, helper	49	8%
2	Semi-Skilled	Crane driver, plater	74	24%
3	Skilled	Welder	26	12%
Total Workforce, 1978			160	15.6%
Source: BS/B/3/2/1 - Braithwaite & Co Structural employee record cards; author's calculations.				

Paternalism

There is always a sense that the company was conscious of the value of its staff. Each Chairman unfailingly paid tribute to the work of all staff members at the close of each AGM; this was not necessarily just formulaic, as the Board's actions in relation to individuals throughout its history show. Management seem to have continued to try to combat skill shortages through generous benefits, going back to the payment of extended sick pay and the

³⁹⁵ 'Facing Up To Colour', *The Economist*, 2 April 1966, p. 23.

³⁹⁶ Braithwaite & Co. Engineers Ltd, 'Employee Record Cards', 1980, Sandwell, BS-B/3/2/1: Author's own calculations.

³⁹⁷ Individual reviews of 190 employee details by the author in Braithwaite & Co. Engineers Ltd, 'Employee Record Cards'; skill levels estimated by the author, with assistance from United States Shipping Board Emergency Fleet Corporation. Industrial Service Section, *Aids to Employment Managers and Interviewers on Shipyard Occupations with Description of Such Occupations.*, Special Bulletin (Philadelphia: United States Shipping Board Emergency Fleet Corp, 1918), SERIES ON EMPLOYMENT MANAGEMENT IN THE SHIPYARD <<http://archive.org/details/aidstoemployment00unitrich>> [accessed 7 January 2019].

rental of company-owned housing to employees in the 1950s.³⁹⁸ For example, they voted to pay a pension of £600 per annum to a former employee who had lost his job with a later employer, on the strength of his having “previously given many years valuable service both in India and also as Branch Manager, West Bromwich works.” Other individuals were given company loans to help them buy a house.³⁹⁹

Wages

In addition to this paternalistic approach to benefits, Braithwaites found itself having to pay increasingly high wages. For them and for all their UK competitors, an ever-increasing wage bill was a problem which worsened over time. It was not confined to Braithwaites’ own payroll. As *The Economist* reported in 1970, steeply rising wages were also a critical element in the ever-increasing cost of steel and other products:⁴⁰⁰

Image here © The Economist Historical Archive

Braithwaites naturally had to suffer this impact on other areas of the supply chain too, not to mention the growing burden on their own payroll. Insufficient source material is available for a full analysis, but pay cards show, for example, individuals receiving 39 and 45 pay increases respectively over a 26-year tenure at Braithwaites during which they were not apparently given any promotion or increased responsibility, indicating the difficulty for management of maintaining profitable, consistent contract pricing.⁴⁰¹

³⁹⁸ For an example of both see the minutes of 29 April 1957 meeting. Braithwaite & Co. Engineers Limited, ‘Minutes of Joint General Managers’ Meetings, Braithwaite & Co. Structural Limited, 8 April 1957 to 5 December 1960’ (Braithwaite & Co. Engineers Limited, 1960), Sandwell, BS//3/1/2.

³⁹⁹ Minutes of meeting on 12 January 1960. Braithwaite & Co. Engineers Limited, ‘Board of Directors’ Meetings, 4 September 1963 to 29 May 1968.’

⁴⁰⁰ ‘The Price Rocket’, *The Economist*, 25 April 1970, p. 68+, The Economist Historical Archive, 1843-2014.

⁴⁰¹ Braithwaite & Co. Engineers Ltd, ‘Employee Record Cards’.

Market Opportunities and Constraints

While we have no separate records of sales and marketing activity, we know that Braithwaites actively pursued business. Overseas efforts were ongoing, and all board meeting minutes contain reviews of sales activity. In many board meetings, a director is either away on a sales visit, or has recently returned from one. Advertising was also important, though its value and impact cannot be determined and it declined over time: between 1930 and 1959, 308 advertisements (some, admittedly, shareholder announcements) were posted in *The Times*.⁴⁰² For all his positive comments on the company's own efforts, however, James Humphryes was characteristically blunt on the external problems which continued to hurt the company, not least the Government's "present economic policy which [was] stultifying development work."⁴⁰³ The key challenges facing the business within the UK related both to inputs, principally of steel, and outputs, especially in government work on the motorway and power generation projects which should have been a boon for Braithwaites. Each merits a separate comment below.

Motorways

Concerns within Braithwaites about motorway work were shared at *The Economist*. A single editorial page from 1959 captured some of the challenges. A company with expertise in building bridges should have been looking forward to a period of prolonged prosperity as Britain's motorway building programme eventually took off. By 1959, though, that programme was being described by Parliament's Select Committee on Estimates as "inadequately prepared, to some extent out of proportion, and not ideally organised", with particular concerns raised about the paucity of research into materials and traffic management and the implementation of that research only after construction had begun.⁴⁰⁴ *The Economist's* conclusions, could they have been foreseen, would have disappointed the many academics, members of various institutions, and expert representatives of foreign transport ministries who had attended the British Road Federation's 1956 conference on urban motorways, which, the conference was told, "should be regarded as part and parcel of our nation's industrial equipment."⁴⁰⁵ We do not know whether representatives from Braithwaites attended, but they

⁴⁰² *The Times* online archive. Search date: 10/1/2019. Search term: "Braithwaite & Co > between 1/1/1927 and 31/12/1979 >" in "Advertising".

⁴⁰³ 'Braithwaite & Co. Engineers Limited: Report on 1962 AGM'.

⁴⁰⁴ 'Mistakes on the Motorways', *The Economist* (London, 25 July 1959), p. 236, The Economist Historical Archive, 1843-2011.

⁴⁰⁵ British Road Federation, *Urban Motorways: Report of the Conference Organised by the British Road Federation, 1956* (London: British Road Federation, September 1957), p. 12.

must have been aware of the motorway programme and its putative benefits for the company. The conference report shows that enthusiastic British delegates were keen to learn from their foreign counterparts; a three-page presentation on the plans for an urban motorway into the centre of Stuttgart, one of 19 foreign cities invited to participate, showed how relatively advanced the progress of German cities was, even so soon after the war.⁴⁰⁶ Delegates passed unanimously “the opinion that: the economic needs and traffic problems of large cities demand the construction of Urban Motorways”⁴⁰⁷ in Britain, demanding immediate plans to extend the motorways currently being planned into urban areas where transportation was particularly challenging. Despite uninspiring ministerial leadership,⁴⁰⁸ the programme continued until by 1961 there were 40 miles, and by 1966, 340 miles, of motorway completed.⁴⁰⁹ In his celebration of this achievement, which had risen to 715 miles by the time of the Institution of Civil Engineers’ 1971 conference on motorways, the Minister for Local Government neglected to remember that Britain’s Institution of Highway Engineers had proposed a 2826-mile motorway network as long ago as 1936.⁴¹⁰ Any work for Schneider and other West German counterparts was, in contrast, on an Autobahn network which grew from 1358 miles in 1955 to 2553 miles by 1970.

No matter what the final outcome, engagement in the motorways programme was difficult. Its slow start and subsequent difficult progress augured badly for a company like Braithwaites which should have been expecting to build bridges and manage difficult foundations projects, and contribute to best-practice research on each, for the foreseeable future. Nevertheless, they appear to have responded well to the challenge; the following advertisement in *The Times* for the Doncaster bypass shows the scale of work delivered and hints at the depth of expertise available within Braithwaites:⁴¹¹

⁴⁰⁶ British Road Federation, pp. 128–31.

⁴⁰⁷ British Road Federation, p. 5.

⁴⁰⁸ British Road Federation, p. 3.

⁴⁰⁹ The Institution of Civil Engineers, *Motorways in Britain, Today and Tomorrow. Proceedings of the Conference Organized by the Institution of Civil Engineers Held in London 26-28 April 1971* (London: The Institution of Civil Engineers, 1971), pp. 1–3.

⁴¹⁰ The Institution of Civil Engineers, *20 Years of British Motorways. Proceedings of the Conference Held in London 27-28 February, 1980* (London: The Institution of Civil Engineers, 1980), p. 5.

⁴¹¹ ‘Braithwaite & Co Engineers: Advertisement for Doncaster Bypass, 1961’, *The Times* (London, England, 1 August 1961), p. 7, The Times Digital Archive.

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Power Generation

Plans for power station construction offered the other major market for domestic growth. But by 1965, there was scepticism about the Government's predictions of future power use and the fuels which would enable electricity production. Government fuel policy had been simply "an array of *ad hoc* measures taken to influence the British fuel industries at different times to meet different circumstances."⁴¹² As these judgements might have foreshadowed, the power station construction programme was ambitious in scope, but problematic in its execution.⁴¹³ One internal civil service memo judged the building programme a "microcosm of the mediocrity of British industrial performance and managerial quality".⁴¹⁴ A Parliamentary Committee of Enquiry into commissioning delays blamed them on failures of planning and managerial

⁴¹² 'Cold Comfort for Coal?', *The Economist* (London, 23 October 1965), p. 415, The Economist Historical Archive, 1843-2011.

⁴¹³ I am indebted to Dr. Tae-Hoon Kim for his advice on sources for the remainder of this paragraph.

⁴¹⁴ TNA, T 319/834, 'Brief for Permanent Under Secretaries of State', 11 March 1968, p.2: cited by Dr. Tae-Hoon Kim in an unpublished paper dated 15 October 2015.

incompetence, at both the C.E.G.B. and contractors.⁴¹⁵ Several of those coal-fired and nuclear stations which were built were soon afflicted by mechanical failures, occasioning a further Parliamentary enquiry which lamented inadequate attention to, and sometimes a “lack of competence” in, design engineering.⁴¹⁶ It is not known which, if any, of these failings were shared by Braithwaites. But it is clear from the directors’ minutes that the delays and inconsistencies of the power station programme caused the company serious difficulties, not of its own making, during the 1960s and into the 1970s.

Steel

As though the customers’ failings were not challenging enough, Braithwaites had problems obtaining appropriate quantities of steel, of the right quality, when they needed it. The Iron and Steel Board was tasked with “promoting the efficient, economic and adequate supply under competitive conditions of iron and steel products”. But over the fourteen years between its creation in 1953 and its disappearance after nationalisation in 1967, it exhibited powers of only “a negative and passive character”,⁴¹⁷ disagreeing with the British Iron and Steel Federation on demand forecasting. Differences of a million tons per year in each group’s forecasts of capacity by 1962, and the continuation of the ISB’s policy of requiring all producers to sell at a predetermined maximum price even in times of recession, caused problems in Braithwaites’ supply chain.⁴¹⁸ Reliable deliveries and consistent pricing were both critical to sustainable operations. Neither usually applied. As the steel industry struggled with nationalisation, then privatisation, then in 1967 nationalisation again, customers like Braithwaites were more often its victims than its beneficiaries. To be fair to the British Steel Corporation, other countries’ steel industries were also challenged by the vicissitudes of the global market – including that in West Germany, notwithstanding a successful rationalisation programme⁴¹⁹ - and German customers experienced frustrations in turn. Julius Schneider, for example, suffered a 54% price increase between 1968-1974, as well as some delivery problems in 1970-71,⁴²⁰ but

⁴¹⁵ *Report of the Committee of Enquiry into Delays in Commissioning C.E.G.B. Power Stations* (London: House of Commons, March 1969), paras 132, 134.

⁴¹⁶ *First Report from the Select Committee on Science and Technology. Generating Plant Breakdowns: Winter 1969-70* (London: House of Commons, 13 April 1970), para. 9
<http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:hcpg&rft_dat=xri:hcpg:rec:1969-058351> [accessed 9 January 2019].

⁴¹⁷ Keith Ovenden, *The Politics of Steel*, Studies in Policy-Making (London: Macmillan, 1978), p. 17.

⁴¹⁸ ‘Whose Responsibility?’, *The Economist* (London, 25 July 1959), p. 236, The Economist Historical Archive, 1843-2011.

⁴¹⁹ Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, pp. 220–21.

⁴²⁰ Hege, ‘Geschichte der Firma J. Schneider GmbH & Co. KG, Ludwigsburg’, p. 71.

Braithwaites' situation was much worse. *The Economist* reported an 11% increase in BSC prices in January 1970 on top of those imposed since nationalisation:⁴²¹

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Six months later, more increases were threatened,⁴²² followed by B.S.C.'s request for a further 15% nine months after that.⁴²³ Justification for further increases was reviewed in March 1973.⁴²⁴ Actual price uplifts happened more frequently. British Steel's prices were 35% higher in 1970 than in 1960, and then rose by a further 75% to 1974. Between 1975-78, they rose by an additional 54%. Average weekly deliveries to the civil engineering sector varied greatly throughout these periods.⁴²⁵ In April 1974, having suffered "disruption to production planning throughout the year", ⁴²⁶ Tony Humphryes met senior B.S.C. managers in London. Finding that it "was clear from these discussions that B.S.C. were not in a position to make any definite promises regarding steel supplies and that the position for at least the next six months would be difficult", he concluded that Braithwaites might have to buy up to 200 tons of steel per quarter from foreign suppliers.⁴²⁷ To have suffered with this combination of relentlessly increasing cost from a hopelessly unreliable, all-dominant supplier must have made the job of

⁴²¹ 'Steel: Adding £200 Million to the Bill', *The Economist*, 10 January 1970, p. 55, The Economist Historical Archive, 1843-2014 (Illustration: p. 55).

⁴²² 'Steel: Yet Another Price Rise Coming?', *The Economist*, 6 June 1970, p. 60+, The Economist Historical Archive, 1843-2014.

⁴²³ 'Is British Steel Really Worth an Investment of £3 Billion?', *The Economist*, 13 March 1971, p. 69, The Economist Historical Archive, 1843-2014.

⁴²⁴ '£250m on the Bill', *The Economist*, 24 March 1973, p. 79, The Economist Historical Archive, 1843-2014.

⁴²⁵ Iron and Steel Board and British Iron and Steel Federation, 'Iron and Steel Monthly Statistics', Iron and Steel Monthly Statistics, 5.12 (1960); Iron and Steel Board and British Iron and Steel Federation, 'Iron and Steel Monthly Statistics', Iron and Steel Monthly Statistics, 10.12 (1965); Iron and Steel Board and British Iron and Steel Federation, 'Iron and Steel Monthly Statistics', Iron and Steel Monthly Statistics, 15.12 (1970); Iron and Steel Board and British Iron and Steel Federation, 'Iron and Steel Monthly Statistics', Iron and Steel Monthly Statistics, 20.12 (1975); Iron and Steel Board and British Iron and Steel Federation, 'Iron and Steel Monthly Statistics', Iron and Steel Monthly Statistics, 24.12 (1979).

⁴²⁶ Statement by the Chairman, Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1974* (Braithwaite & Co. Engineers Ltd, 22 August 1974), Companies House, archive disk 00175912-21.

⁴²⁷ Minutes for 24 April 1974: Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 10 July 1968 to 11 December 1974'.

management extraordinarily difficult, and placed severe limitations on company growth and profitability.

Innovation

The Minutes say little about technological advances, though they refer in 1968 to a Research Committee which appears to have been active in both product R&D and market development. Braithwaites had continued success with their pressed steel water tanks for decades.⁴²⁸ Perhaps conscious of forthcoming reductions in their traditional markets for bridgework and building steels, a “Sub-Committee had been set up to investigate and report on the possibility of extending the Company’s activities beyond those of normal structural steelwork to work which could be carried out within the scope of the Company’s existing plant, premises and organisation.”⁴²⁹ Braithwaites’ patent portfolio shows R&D was being done throughout this period. James Hulse Humphreys had registered numerous patents during his Chairmanship, and his son and grandson did the same, registering six patents on roof building and load handling between 1958 and 1976.⁴³⁰ It might reasonably be argued that a company like Braithwaites, financially sound and supposedly an international leader in its specialist area, should have been much more active in creating new intellectual property for exploitation. Unfortunately, the archive does not contain any more detail on development work to counter this argument, although by 1978 one of Braithwaite Structural’s board was separately identified as its Research Manager.⁴³¹ But the business could have invested consistently and extensively in both new product development and productivity efforts without applying for patents; and in

⁴²⁸ Braithwaite & Co. Engineers Ltd., ‘Pressed Steel Tanks’ (Braithwaite & Co. Engineers Ltd., 1957) <<http://www.gracesguide.co.uk/images/1/15/Im1957v203-p770ca.jpg>> [accessed 3 November 2015].

⁴²⁹ Minutes of 29 May 1968 meeting. Braithwaite & Co. Engineers Limited, ‘Board of Directors’ Meetings, 4 September 1963 to 29 May 1968.’

⁴³⁰ J. Humphreys, ‘A Method of Applying Distinguishing Markings to Metal Articles’, 1976 <http://worldwide.espacenet.com/publicationDetails/biblio?FT=D&date=19760825&DB=worldwide.espacenet.com&locale=en_EP&CC=ZA&NR=7505847A&KC=A&ND=4> [accessed 9 November 2015]; James Anthony Humphreys, ‘Containers’, 1968 <http://worldwide.espacenet.com/publicationDetails/biblio?FT=D&date=19680828&DB=worldwide.espacenet.com&locale=en_EP&CC=GB&NR=1125001A&KC=A&ND=4> [accessed 10 November 2015]; James Anthony Humphreys and Alfred William Pond, ‘Improvements in and Relating to Grabs’, 1959 <http://worldwide.espacenet.com/publicationDetails/biblio?FT=D&date=19590708&DB=worldwide.espacenet.com&locale=en_EP&CC=GB&NR=816175A&KC=A&ND=4> [accessed 10 November 2015]; James Anthony Humphreys, ‘Improvements in and Relating to Load Lowering and Lifting’, 1958 <http://worldwide.espacenet.com/publicationDetails/biblio?FT=D&date=19580709&DB=worldwide.espacenet.com&locale=en_EP&CC=GB&NR=797839A&KC=A&ND=4> [accessed 10 November 2015]; James Anthony Humphreys, ‘Improvements in and Relating to the Strengthening, Preservation and Repair of Roofs’, 1969 <http://worldwide.espacenet.com/publicationDetails/biblio?FT=D&date=19690806&DB=worldwide.espacenet.com&locale=en_EP&CC=GB&NR=1160570A&KC=A&ND=4> [accessed 10 November 2015].

⁴³¹ Companies House, ‘Form 6A, Annual Return of a Company Having Share Capital, Braithwaite Structural Ltd, 1978.’ (Companies House, 1978), Companies House, archive disk 00418563-07.

any case, Braithwaites' rival, Cleveland Bridge & Engineering, only registered four patents itself during the same period.⁴³² Neither of the British firms' intellectual activity in their area of expertise, unfortunately, came close to that of Germany's leading bridge-engineering specialist, Professor Fritz Leonhardt of Stuttgart University,⁴³³ who personally registered 37 bridge-related patents in the post-World War II period.⁴³⁴ It is possible that Braithwaites were alert to the work of thinkers like Leonhardt and developed academics' innovations as elements of their own best practice, but their approach to patentable innovation is clearly different from Reutter and Recaro.

It appears that there was a definite need for innovation in bridge-building within the motorway programme. For bridge designers, this was in principle a seller's market: the Deputy Chief Highway Engineer of the Department of Transport concluded, when reviewing the previous 25 years of the motorway programme in 1980, that bridges, viaducts and retaining walls represented 20-30% of the design effort on inter-urban motorways and 80% on urban motorways. On the first 55 mile section of M1, 132 bridges had had to be designed in 24 months (sic) and constructed in 19 months in 1956-59. "Some 4000" bridges and viaducts had been designed and constructed on the motorway network since then. The majority were large structures "and, in spite of similarities in some respects, each in respect of foundation, geometry and span require[d] individual design."⁴³⁵ As the programme had evolved, bridgeworks had remained challenging, though builders and fabricators of bridges had made technical advances during the 1960s.⁴³⁶ In principle, this would appear to have been a market for Mittelstand-style niche products, in which each bridge required special expertise. In practice, however, the Government's approach to programme management and serious technical difficulties with

⁴³² 'Patents List - Cleveland Bridge', *Espacenet*, 2015

<http://worldwide.espacenet.com/searchResults?ST=singleline&locale=en_EP&submitted=true&DB=worldwide.espacenet.com&query=%22cleveland+bridge%22> [accessed 22 November 2015].

⁴³³ 'Fritz Leonhardt', *Wikipedia, the Free Encyclopedia*, 2015

<https://en.wikipedia.org/w/index.php?title=Fritz_Leonhardt&oldid=690616734> [accessed 25 November 2015].

⁴³⁴ 'Patents List - Fritz Leonhardt', *Espacenet*, 2015

<http://worldwide.espacenet.com/searchResults?page=0&compact=false&ST=singleline&sortField=prd&query=%22fritz+leonhardt%22&locale=en_EP&DB=worldwide.espacenet.com&ascending=false> [accessed 22 November 2015].

⁴³⁵ The Institution of Civil Engineers, *20 Years of British Motorways. Proceedings of the Conference Held in London 27-28 February, 1980*, p. 46.

⁴³⁶ The Institution of Civil Engineers, *Motorways in Britain, Today and Tomorrow. Proceedings of the Conference Organized by the Institution of Civil Engineers Held in London 26-28 April 1971*, p. 61.

some kinds of bridge⁴³⁷ must, despite the welcome volume of work, have been a further unwanted burden for Braithwaites.

Banking and Shareholder Relationships

We have already considered the financial challenges of the 1930s and the ensuing need for bank support. As the 1960s progressed, the requirement for an understanding bank increased. By October 1963, the Group's accounts were £454,538 in deficit; within another six weeks, this figure was £535,668. Nevertheless, the Board were told that "Lloyds Bank Limited, Head Office, had agreed to the renewal of the Company's overdraft limit of £600,000 for a further twelve months."⁴³⁸ By the nature of the Company's business, cash flow was bound to be difficult. No correspondence or commercial contracts remain in the archive, but any international bridge project must have necessitated outflows for the procurement and shipment of steel to West Bromwich; for the wages and overheads incurred in its fabrication; for international shipment, seldom to a European country; and for all the stages of bridge erection for which Braithwaites were responsible. Against this there were compensating inflows of stage payments which are referred to in the company's accounts, and in the vast majority of years the company made a profit, suggesting that the contracts were ultimately beneficial. But in the very extended period between winning a contract (with all the associated sales visit, survey, and detailed design costs which preceded all of the product-engineering costs mentioned above) and completing it, Braithwaites could not have managed without the support of their bankers. These financial tensions may have made day-to-day investment challenging. Isabelle Lescent-Giles' insists that British industrialists in this period were guilty of pursuing an all-pervading mantra of growth at all costs, at the expense of "notoriously insufficient" investment in research and development and tooling.⁴³⁹ The Board Minutes do not offer much detail on expenditure down to this level. Though we have observed the lack of much patented innovation, it may be unfair to include Braithwaites in this criticism, as fixed assets increased from £1.02million in 1972 to £2.9million by 1979.⁴⁴⁰

⁴³⁷ The Institution of Civil Engineers, *20 Years of British Motorways. Proceedings of the Conference Held in London 27-28 February, 1980*, pp. 11–12.

⁴³⁸ Minutes for meetings of 23 October and 20 November 1963. Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 4 September 1963 to 29 May 1968.'

⁴³⁹ Lescent-Giles, p. 186.

⁴⁴⁰ Five-year summaries, in: Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1981* (Braithwaite & Co. Engineers Ltd, August 1981), Companies House, archive disk 00175912-25; Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1976* (Braithwaite & Co. Engineers Ltd, August 1976), Companies House, archive disk 00175912-22.

During these difficult operational years, Humphryes ensured that shareholders benefited from the company's progress, capitalising £150,000 of its profits and distributing them to all shareholders in 1965, and in 1967 increasing its share capital by capitalising £300,000 of existing profits to increase it to £1,050,000, and distributing the new shares to existing shareholders.⁴⁴¹ Though he and those of his fellow directors who were also shareholders certainly benefited from the profit distribution, it is important to note that the directors paid themselves only £500 per annum (£750 for the Chairman) by a special resolution passed in 1963:⁴⁴² there is little sense of them feathering their own nests in this period. It is also important to note that, although by this time the group had been a public company for over 40 years, there is absolutely no indication during the 1960s of its Directors becoming any less active in daily management. At many board meetings, one of the Board is absent on a foreign sales visit. At every meeting, current major contracts are reviewed and developing opportunities discussed. According to the Minutes up to 1974, at least, these men are financially prudent and conscious of their margins and their cash position, but they are operating engineers first and foremost, and emphatically not financial manipulators or stock watchers.

Business Activity 1971-1979

Governance: Succession

In October 1971, "The Chairman reported that for medical and other reasons he had decided to retire at the end of the present calendar year." The Board accepted his resignation "with very great regret" after 52 years' service,⁴⁴³ and in the subsequent Board meeting he was replaced by his son Tony, who would now relinquish all executive responsibilities.⁴⁴⁴ It seems reasonable to ask two questions of this situation. First, whether 44 unchallenged years was simply too long for effective, innovative leadership. Notwithstanding the successes achieved under James Humphryes' command, it is conceivable that an earlier change of leader might have enabled Braithwaite to seek opportunities in new technologies and markets, or as part of a larger group with greater leverage in structural engineering.

⁴⁴¹ 30 November 1967, 'Ordinary Resolutions of Braithwaite & Co Engineers' (Companies House, 1967), Companies House, archive disk 00175912-04.

⁴⁴² 'Special Resolution of Braithwaite & Co Engineers' (Companies House, 1963), Companies House, archive disk 00175912-04.

⁴⁴³ Minutes of 23 September 1971 meeting. Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 10 July 1968 to 11 December 1974'.

⁴⁴⁴ Minutes of 27 October 1971 meeting. Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 10 July 1968 to 11 December 1974'.

The second question is whether the automatic elevation of the third-generation Humphryes represented good governance – with or without the minuted board vote of approval - or nepotism. Tony had been educated as an engineer and had committed his life to the business. In Board meetings leading up to his appointment, the minutes show him to have been playing an active role in strategic selling.⁴⁴⁵ The Humphryes family remained the largest single shareholders in the company. Yet his decision to withdraw from executive responsibilities was a further distinction between Braithwaites' management team and that of similar German companies. Not only had an important part of the shareholding been released from family control following Tony's partial divestment in 1974, Braithwaites' new leader chose to continue to base himself and his senior executives two hours' drive away from either factory and, despite being an engineer, to leave hands-on leadership to others. In fact, the remainder of the decade would reveal that this approach, very different from that at the admittedly smaller Schneider, appears nevertheless to have delivered success.

The key concern about Tony's appointment, that it might have prevented the inclusion of new talent with new ideas in the business, remains valid. But the company was not averse to promoting capable men from within, or importing senior talent. In 1975, for example, Lord Tanlaw, formerly Simon Brooke Mackay, was appointed as a director.⁴⁴⁶ Aged 38, he had been chairman of his family's business, Inchcape, and was also a director of a merchant bank and eight other companies. By 1981, he was the owner of 85,000 Braithwaites shares, almost as many as Tony Humphryes and 75,000 more than the next largest board shareholder, suggesting that Tony had invited him to buy some of his own shares, or to make an investment in the business of cash it could use to grow.⁴⁴⁷ It is not clear how he and Braithwaites became connected. But his business track record and Inchcape's involvement in Asian trade were distinctive. Tanlaw also offered corporate, public company experience. His willingness to speak in the House of Lords on the need for a new Government energy policy and for investment in the Scottish oil industry was perhaps seen as a means of encouraging structural

⁴⁴⁵ Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 10 July 1968 to 11 December 1974', *passim*.

⁴⁴⁶ 'Business Appointments', *The Times* (London, England, 29 July 1975), p. 18, The Times Digital Archive; 'Business Diary: Moneychanger in the Temple · Bermuda Triangle', *The Times* (London, England, 23 March 1977), p. 21, The Times Digital Archive; Braithwaite & Co. Engineers Limited, 'Form 9A, Notification of Change of Directors or Secretary or in Their Particulars' (Braithwaite & Co. Engineers Limited, 1972), Companies House, archive disk 00175912-06.

⁴⁴⁷ Companies House, 'Form 6A, Annual Return of a Company Having Share Capital, Braithwaite & Co. Engineers Ltd.' (Companies House, 1981), Companies House, archive disk 00175912-25.

investment in power plants and pipelines that might benefit Braithwaites.⁴⁴⁸ In the absence of minutes after 1974 or references to his Braithwaites work in any other sources,⁴⁴⁹ Tanfield's contribution cannot be judged. But the evolution of events during the 1970s and early 1980s suggest that his recruitment was as a contributor, rather than as a social asset, and was astute.

Other directors were drawn up from the ranks, as Geoffrey Instone's appointment as Managing Director showed.⁴⁵⁰ The Newport works manager was also made a director in 1974.⁴⁵¹ A tradition of engagement within the wider industry was maintained, for its and for Braithwaites' benefit. James Hulse Humphryes had applied in October 1908 to join the Institution of Mechanical Engineers,⁴⁵² and father, son, grandson, and colleagues participated in professional organisations throughout their careers. Engagement included both roles in national and international industry bodies. For example, Tony Humphryes was Chairman of the British Constructional Steelwork Association in 1977 and was then elected chairman of the executive board of the European Convention for Constructional Steelwork,⁴⁵³ later winning its Silver Medal for 1983,⁴⁵⁴ reflecting the esteem in which he and Braithwaites must have been held. Others also participated in technical organisations: six out of nine Structural directors were members of professional engineering institutions. The company was represented in the Institution of Welding by James Bickley, a Director of Braithwaite Structural, presumably both to learn and to show his peers that Braithwaites were engaged with best practice.⁴⁵⁵ In all of this activity, reaching back to James Humphryes' committee work in the 1930s, Braithwaites' staff were behaving in a way which resembled German traditions of networking and professional development through industry organisations.

⁴⁴⁸ 'Demand for Energy Policy Linked to EEC', *The Times* (London, England, 1 March 1973), p. 12, The Times Digital Archive; 'Oil Firms to Be Asked Why They Buy Abroad', *The Times* (London, England, 14 December 1972), p. 6, The Times Digital Archive.

⁴⁴⁹ He also chose not to reply to a letter from the author.

⁴⁵⁰ Minutes for 23 October 1963 meeting. Braithwaite & Co. Engineers Limited, 'Board of Directors' Meetings, 4 September 1963 to 29 May 1968.'

⁴⁵¹ Companies House, 'Form 9A, Notification of Appointment of Director, Braithwaite & Co. Engineers Ltd, 1974.' (Companies House, 1974), Companies House, archive disk 00175912-05.

⁴⁵² Institution of Mechanical Engineers, 'Institution of Mechanical Engineers - Membership Proposal Forms', *Archivecat.ImechE.Org*, 2015
<<http://archivecat.imeche.org/CalmView/TreeBrowse.aspx?src=CalmView.Catalog&field=RefNo&key=MPF%2f26%2f1%2f205>> [accessed 21 November 2015].

⁴⁵³ 'Business Appointments', *The Times* (London, England, 31 October 1977), p. 18, The Times Digital Archive, accessed 6 November 2015.

⁴⁵⁴ 'The European Convention for Constructional Steelwork: History and Achievements 1955 – 2015' (The European Convention for Constructional Steelwork, 2015), p. 83
<https://www.tucsa.org/images/haber/606/606_2_3_15012016141359.pdf> [accessed 12 January 2019].

⁴⁵⁵ Institution of Welding Engineers, *Tenth Annual Report* (London: Institution of Welding Engineers, 1933), The Welding Institute <<http://www.twi-global.com/membership/information-services/library/heritage-archive/annual-reports-institution-welding-engineers/?p=1>> [accessed 21 November 2015].

Operations: 1977 to West Bromwich Closure

In the absence of management minutes and other primary sources, the following review of events leading up to and after the closure of West Bromwich depends on annual accounts, the Chairman's report, and press articles.

For all the challenges of its operating environments, Braithwaites achieved highly impressive financial results for most of Tony Humphries' tenure as Chairman.⁴⁵⁶

	1972	1973	1974	1975	1976	1977	1978	1979
Sales (£)	4,936,000	4,780,000	4,978,000	6,862,000	9,621,000	13,006,000	11,786,000	10,466,000
of which exports	714,000	578,000	800,000	1,367,000	2,944,700	5,328,000	7,180,000	6,705,000
% exported	14%	12%	16%	20%	31%	41%	61%	64%
Profit Before Tax (£)	383,946	402,551	326,595	452,531	846,194	1,923,860	1,019,893	526,712
PBT as % of sales	7.70%	8.40%	6.60%	6.60%	9.40%	14.80%	8.70%	5.00%
Total Employees			827	828	832	768	758	693
Aggregate Remuneration (£)			1,623,575	1,916,537	2,438,704	2,685,467	2,904,686	2,772,000
Avg Remun per Employee (£)			1,963	2,315	2,931	3,497	3,832	4,000
Remun as % of Sales			32.6%	27.9%	25.3%	20.6%	24.6%	26.5%
Balance Sheet Value (£)	2,559,253	2,679,357	2,746,950	2,835,471	3,442,297	4,245,935	4,612,964	4,429,184
Payments to Shareholders (£)	73,041	82,333	89,002	93,910	101,423	111,730	123,865	139,435
Taxation	157,500	160,500	170,000	236,500	449,000	1,008,500	529,000	235,500
PAT	187,988	255,351	156,595	182,431	337,194	915,369	490,893	-44,315
Source: Companies House refs.	00175912-22, Report & Accts to 31.1.76 - 5-Yr Summary					00175912-25, Report & Accts to 31.1.81		

He and his staff were able to push sales upwards each year, despite the rising cost of steel and, particularly, of wages. In particular, they anticipated a decline in the UK market and grew export sales by 115% in 1976 and by more in later years. Publicly, he attributed this growth “to the determined efforts of our salesforce and the support they receive from our Works’ performance.”⁴⁵⁷ Export markets themselves were becoming more competitive, though, so Braithwaites invested in enabling quicker delivery from the works and in onsite erection teams in various countries, helping to compensate for “severe cutbacks in Government expenditure

⁴⁵⁶ Table compiled by author from: Braithwaite & Co. Engineers Ltd, *Accounts for the Year Ended 31 March 1975* (Braithwaite & Co. Engineers Ltd, August 1975), Companies House, archive disk 00175912-21; Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1976*; Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1977* (Braithwaite & Co. Engineers Ltd, August 1977), Companies House, archive disk 00175912-22; Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1978* (Braithwaite & Co. Engineers Ltd, August 1978), Companies House, archive disk 00175912-23; Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1979* (Braithwaite & Co. Engineers Ltd, August 1979), Companies House, archive disk 00175912-23.

⁴⁵⁷ ‘Statement by the Chairman’, in Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1976*.

and a continuing lack of major expenditure from private industry” in the UK.⁴⁵⁸ Despite these domestic problems, sales were driven up by 2.6 times and pre-tax profit by 5 times between 1972-77, with export sales in 1978 marking a ten-fold increase over seven years and earning Braithwaites the Queen’s Award for Export Achievement.⁴⁵⁹

Nevertheless, Humphryes’ frustrations are apparent, in several areas. Regarding pay-restriction legislation he protested, “I cannot accept that the current system is fair when hard-earned rewards cannot be shared to a greater extent with all our employees”.⁴⁶⁰ In response, the company launched a profit-sharing scheme for all staff which paid out 10% of pre-tax profit,⁴⁶¹ and a share-option scheme for directors.⁴⁶² But as conditions were “generally as bad as any experienced in the constructional steelwork industry since the 1930’s” the company continued to look for diversification opportunities which were – prudently – “within the scope of our existing managerial expertise.”⁴⁶³ In 1978 it took its first steps, and showed by acquiring a small plastic recycling company that it was anticipating future market developments.

At home, the motorway-building programme was reaching an end, and it was predicted that “it is most unlikely that there will be anything approaching the intense activity on the construction of inter-urban routes of the past 20 years.”⁴⁶⁴ This was another sign that returns would continue to diminish, and presumably among the reasons that the company made 72 West Bromwich staff redundant early in 1978. The local press reported that management and the TGWU had agreed redundancy payments, giving some workers payments of more than £4600, but with a promise “that the men would get first offer of their jobs back if work picked up by the end of 1978.”⁴⁶⁵ The comment of a TGWU chief shop steward suggests a positive working environment and a sense of shared destiny: “It was a real wrench for the firm to let the men go as men were highly skilled top class welders. Nothing would please the bosses more than to

⁴⁵⁸ ‘Statement by the Chairman’, in Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1977*.

⁴⁵⁹ ‘Braithwaite & Co. Engineers Ltd: Statement of 1978 Results’, *The Times*, 15 September 1978, p. 19, The Times Digital Archive.

⁴⁶⁰ ‘Statement by the Chairman’, in Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1977* a year of record profits.

⁴⁶¹ Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1978*.

⁴⁶² Companies House, ‘Annual Accounts, Braithwaite Structural Ltd, 31/3/1979.’ (Companies House, 1979), p. 3, Companies House, archive disk 00418563-07 It is not known whether this scheme was extended to other employees, as the accounts are required only to show it for directors.

⁴⁶³ ‘Statement by the Chairman’, in Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1978*.

⁴⁶⁴ The Institution of Civil Engineers, *20 Years of British Motorways. Proceedings of the Conference Held in London 27-28 February, 1980*, p. 12.

⁴⁶⁵ Andrew Parker, ‘Paid-off Men May Be Returning to Old Firm’, *Sandwell Evening News* (Sandwell, 25 August 1978), Sandwell Archive, 63/8.

get them back and we are all keeping our fingers crossed.” The journalist commented that “Braithwaites are one of a number of heavy steel firms hit by the recession. Unions and managements are blaming cuts in Government spending and the old row is raging that nationalised firms are getting the pick of public contracts.”⁴⁶⁶

The board’s initial thoughts on the prospect of losing West Bromwich works are not available to us. While funding support for short-time working as a means of protecting skills had been in use on West Germany for twenty years by this time,⁴⁶⁷ it was not available to Braithwaites. In April 1979, the decision to close West Bromwich permanently was announced. The TGWU’s divisional officer argued that there was no logic in closing the site and the local MP demanded that “Every effort must be made to stop this company from closing and keep these jobs in an area where unemployment is too high already”. But while Braithwaites’ Managing Director, William Mair, “said he was anxious about the social effect on the area which the closure will bring”⁴⁶⁸ the company had lost over £600,000 at West Bromwich in the preceding year with a “continuing lack of demand worldwide and over-capacity in the industry”.⁴⁶⁹ Moreover, despite positive recent financial results, Braithwaites also had a deferred tax bill which, having been £44,000 in 1975/76, would rise to £1.8 million by 1979/80.⁴⁷⁰

It is not clear whether Tony Humphryes had emotional bonds to the site given his family’s history. He regretted publicly “that so many hardworking and loyal members of the staff and workforce have had to face redundancy” and reached “mutual agreement” with unions and staff.⁴⁷¹ The redundancy terms seem to have been both generous and pragmatic. Workers received redundancy and payment in lieu of notice, and additional bonuses were paid to expedite the closure of the plant. Redundancy payments ranged from £1500 to – for the best-paid workers - £7500, twice the average annual remuneration per worker.⁴⁷² But while the total cost of closure exceeded £860,000, the company benefited immediately from tax refunds, the

⁴⁶⁶ Parker.

⁴⁶⁷ ‘Kurzarbeit’, *Wikipedia*, 2018 <<https://de.wikipedia.org/w/index.php?title=Kurzarbeit&oldid=180005144>> [accessed 13 January 2019].

⁴⁶⁸ ‘Sacked Steel Men Battle for Jobs’, *Sandwell Evening News* (Sandwell, 12 April 1979), Sandwell Archive, 63/126.

⁴⁶⁹ ‘Statement by the Chairman’, in Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1979*; ‘Braithwaite Works Losses’, *Evening Standard* (Sandwell, 26 July 1979), Sandwell Archive, 63/190.

⁴⁷⁰ *The Stock Exchange Official Year-Book 1975-76*, ed. by Jeffrey Russell Knight (Croydon: Thomas Skinner & Co. (Publishers) Ltd.); Russell Knight, *The Stock Exchange Official Year-Book 1979-80*; *The Stock Exchange Official Year-Book 1980-81*, ed. by Jeffrey Russell Knight (London and Basingstoke: Macmillan, 1980).

⁴⁷¹ ‘Statement by the Chairman’, in Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1979*.

⁴⁷² ‘Golden Pay-Off for Workers at Doomed Factory’, *Sandwell Evening News* (Sandwell, 30 June 1979), Sandwell Archive, 63/175.

transfer of West Bromwich's best equipment to Newport, which was continuing, and the rapid sale of the site for £1.3 million, 178% of its book value.⁴⁷³ The prospect of new local jobs was offered by Subaru, which purchased the site as its new UK base.⁴⁷⁴

Humphryes' reflection in the following year's report is worth quoting as an indication of the economic climate prevailing in Britain in 1979/80, against which his and any other British management team's actions and performance must be judged:

The year under review has been one of the most eventful in the Company's history. Not only was the planned closure of the West Bromwich works brought to a successful conclusion, but the effects of three major national strikes in the transport, engineering and steel industries had to be weathered. In addition, there has been the deepening recession, an alarming escalation in the rate of inflation and, latterly, the highest interest rates on record. Against such a background, to be able to report a Trading Profit of £976,627 before tax gives me the greatest pleasure.⁴⁷⁵

Moreover, his confirmation that the Plastic Recycling Ltd. subsidiary had been growing was reinforced the following year, when he also revealed the establishment of Braithwaite Investments Ltd, which had begun to invest in industrial property.⁴⁷⁶ Different perspectives on the nature of capitalism are can be drawn from the decision to close West Bromwich works. While 270 workers had lost their jobs, directors and investors had profited: the 1980 accounts showed a 42% increase in pay for the highest-paid director, presumably Humphryes, who had also sold 18,000 shares. Aggregate directors' compensation rose by 44%.⁴⁷⁷ Gross dividends

⁴⁷³ 'Contract for Site Sale', *Evening Standard*, 26 July 1979, Sandwell Archive, 63/249.

⁴⁷⁴ 'New-Look Car Firm Lines Up Big Jobs Boost', *Sandwell Evening News* (Sandwell, 4 January 1980), Sandwell Archive, 63/251.

⁴⁷⁵ 'Statement by the Chairman', in Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1980* (Braithwaite & Co. Engineers Ltd, August 1980), Companies House, archive disk 00175912-24.

⁴⁷⁶ 'Statement by the Chairman', in Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1981*.

⁴⁷⁷ Companies House, 'Braithwaite Structural Ltd, Report of the Directors to Be Presented to the 34th AGM of the Company, with Accounts for the Year Ended 31 March 1980' (Companies House, 1980), Companies House, archive disk 00418563-07.

were £73,000 or 59% higher in 1980 than in 1978. Shareholders continued to prosper, as their successors still do.⁴⁷⁸

The annual report for the year to 31 March 1983 showed that the group had moved on from the disappointments of the late 1970s. In his Chairman's statement, Tony Humphryes announced a 10% increase in profits to £1.02 million, passed on to shareholders as a 12% increase in dividend. Although margins in structural steelwork remained "dangerously thin", the Newport works had won export orders for both structural work and pressed steel tanks. After researching diversification opportunities, the group would now be manufacturing air conditioning filtration units at Newport. Further diversification had come in the acquisition of an engineering company in April 1982, and there had been a "further substantial expansion in sales" at Plastic Recycling Ltd. The industrial properties bought by the newly established Braithwaite Investments Ltd. were all occupied, and had appreciated in value.

Although his family had achieved considerable success in one industry over almost 100 years, Humphryes was rational and committed to change: "We shall continue to look for suitable companies where our experience and skills can contribute and help the Group to widen its activities and reduce its dependence on structural engineering." He was also unsentimental about his own role, announcing that he was stepping down as Chairman of Braithwaite Structural as part of a planned devolution of autonomy to local managers within the group and urging shareholders to support the widening of share ownership among employees as a means of strengthening the Group.⁴⁷⁹ This was a business whose strategy would no longer be the engineering of steel structures around the world – the Newport works would soon also be sold - but financial engineering close to home.

Summary

Their products were similar, and in terms of Hall and Soskice's five 'spheres' we find some similarities between Schneider and Braithwaites. First, though there is little archival detail on their industrial relations practices, we find parallels between each company's leaders working with their unions to manage site closures decently. Second, both valued technical training and education. Both worked with technical institutions, though we have frustratingly little evidence

⁴⁷⁸ 'About Us - Andrews Sykes' <<https://www.andrews-sykes.com/info/about-us/#t1>> [accessed 31 January 2019].

⁴⁷⁹ Braithwaite & Co. Engineers Ltd, *Report and Accounts for the Year Ended 31 March 1983* (Braithwaite & Co. Engineers Ltd, August 1983), Companies House, archive disk 00175912-26.

on the ways in which relations might have influenced technical know-how. Karl Walz had been rigorously educated, and Rolf went back into technical education as soon as he returned from the Gulag. Their commitment to apprenticeships and to engineers like Hege was evident, and the surrounding infrastructure enabled continued technical recruitment despite the skills shortages during Baden-Württemberg's economic boom.

Braithwaites also valued technical knowledge, evidenced in university sponsorships and the qualifications of their senior management. However, they faced limitations on growth imposed by the failure of the British education system to produce enough of the designers and engineers they sought. Despite an apparently favourable view of technical training, profiles of Braithwaites' late-1970s workforce indicate either challenges in recruiting skills or a different view of their importance in the lower levels of their organisation. In contrast, Schneider publicly acknowledged employees' industry and skills, fostered by its *Meister*, in a collaborative environment.

Their relations with other companies reflected differing operational contexts. Schneider's decades-long relationships with demanding customers embodied the Mittelstand approach to long-term commitment and impeccable quality. Public-sector sales flourished in a political environment in which regional reconstruction was prioritised and organised. Schneider could remain locally focused, and unadventurous. Braithwaites, in contrast, sought and achieved growth overseas because the infrastructure projects – and the supply of steel – it relied on in Britain were appallingly mismanaged by government and nationalised industries.

It was in their differences in governance and approach that Schneider and Braithwaites seemed to embody the CME and LME conceptions of business. Adopting Schumpeter's formulation, Braithwaites from its earliest days exemplified "creative destruction":⁴⁸⁰ large-scale operational innovation delivered early international success; a new business model enabled interwar growth. In the 1970s, Tony Humphries reinvigorated his business by changing its shareholding structure, transforming its international presence, accepting the inevitability of decline within a too-challenging external context, and subsequently moving into completely new industries. Karl and Rolf Walz exhibited total personal engagement. But Rolf and Hege exemplified Penrose's claim that "the most effective restriction on the quality of entrepreneurial services is that which stems from a lack of interest in experimenting with new

⁴⁸⁰ Joseph A. Schumpeter and Joseph E. Stiglitz, *Capitalism, Socialism and Democracy* (Florence, USA: Routledge, 2010), pp. 71–75 <<http://ebookcentral.proquest.com/lib/cam/detail.action?docID=515353>> [accessed 17 July 2019].

and alien lines of activity, or in moving into new geographical areas.”⁴⁸¹ That is not to deny Schneider’s success over six decades. But long-term Mittelstand thinking seems to have been less conducive to survival in this industry than Humphries’ adoption of ideas that would have been anathema to Schneider’s leaders.

⁴⁸¹ Edith Penrose, *The Theory of the Growth of the Firm*, Third edition (Oxford: Oxford University Press, 1995), p. 35.

Chapter 5: Case Studies - Automotive

Introduction

This chapter introduces two companies, Stuttgarter Karosseriewerk Reutter, later renamed Recaro, and Jensen Motors Ltd. which began in very similar ways. Having started well, they each created iconic automotive brands in different fields. But after subsequently facing difficulties, they ended up in very different circumstances which can be said to have reflected distinctive aspects of their respective national business cultures.

Recaro Aircraft Seating is a world leader in its market. Consistently innovative, its annual sales exceeded €500million for the first time in 2018.¹ It belongs to a family business group whose origins date back to 1906 and the Stuttgarter Karosseriewerk Reutter. Business values have been consistent since then, even after one family acquired the business of another.² During that period the respective families' companies have sometimes been very large, with international manufacturing operations. But the commitment to Mittelstand values has remained, and as we will see those values are evident at all points of the history which follows, demonstrating that dynamism and growth are not inconsistent with long-term thinking and humane management.

In principle, Jensen Motors should have been one of the companies which Stephen Broadberry has identified as one of Britain's economic success stories: " Britain has been relatively successful in those industries where customised production has remained the norm", including the production of sports cars in the 1950s and 1960s.³ In their initial pursuit of excellence in a niche market, they and firms like them sounded, in fact, like Mittelstand businesses. In Jensen's case, there was an apparent resemblance to Reutter: founded and initially run by two brothers, who started with coachbuilding, their company became famous for a series of iconic sports-touring cars. Jensen's eventual decline following the brothers' departure did not mirror

¹ 'Turnover Rises to over 500 Million Euros for the First Time - RECARO Aircraft Seating', 2018 <<https://www.recaro-as.com/en/press/press-releases/details/turnover-rises-to-over-500-million-euros-for-the-first-time.html>> [accessed 5 December 2018].

² The history of the Reutter family's businesses is told in: Jung and Jung: Uta Jung is the granddaughter of interwar shareholder and business leader Albert Reutter and the daughter of Joint Managing Director Theodor Koch; Jung, *Porsche 356 Made by Reutter*: Frank Jung is the great-grandson of Albert Reutter, and the former Head of Tradition for Recaro Holding GmbH; the history of Keiper, which acquired and still owns Recaro, is told in: Putsch and Putsch; Ulrich Putsch was the business owner at the time of the Recaro acquisition, and his son Martin Putsch is the current business owner of Recaro Holding GmbH.

³ Broadberry, p. 83.

Reutter's experience, however. Despite their similar origins, the experience of each company was guided by different values and philosophies, and ended in different outcomes.

Recaro GmbH, Stuttgart

Company Development, 1906-45

The "Stuttgarter Karosseriewerk Reutter & Co." was founded by Wilhelm Reutter, until then a *Meister* (foreman) in a wagon works, in 1906. In a sign of his intent, the twenty members of staff he had recruited by 1908 "were all specialists: wagon-maker, smith, mechanic, tinsmith and painter." Wilhelm Reutter's brother Albert joined in 1909 as commercial leader, and their shared product philosophy was "the highest quality, happy customers, and strongly motivated colleagues."⁴ Both men were Pietists, and their religious values permeated the business.⁵ Bills were paid on time. Commitments were honoured unfailingly. Hard work was expected of and delivered by every member of staff. Employees were of good character and were well looked after.⁶ They were also innovative: their *Reform-Karosserie*, patented in 1909, was the first convertible roof which would allow contemporary limousines to function as both a summer and winter car. It brought Reutter into partnership with well-known automakers in Germany and internationally.⁷ During the 1920s Reutter held production licences from foreign makers of limousines as well as producing its own designs. Then, as later, Reutter had to prove itself flexible and adaptive to changing circumstances. While the economy was stagnant, they had their carpenters and painters making kitchen cabinets rather than dismissing them and losing their skills. And when it picked up, Reutter's engineers had to completely relearn their trade and restructure their working environment, as car body construction gradually changed from wood to steel. Although it was committed to craft excellence, Reutter was also able to grow and reshape its operations to meet new opportunities, moving from custom-built vehicles for individual customers to series production for emerging mass producers such as Daimler-Benz and Wanderer.⁸ In the 1930s, business with Wanderer increased,⁹ eventually employing 600 workers who were also engaged in special constructions for other manufacturers. Albert

⁴ Jung, *Porsche 356 Made by Reutter*, p. 12.

⁵ See Chapter 2 for an exploration of Pietist values and their application at Reutter.

⁶ Friedrich Greger, 'Chronik der Firma RECARO GmbH & Co.', 1977, pp. 2–5, Jung Family Archive.

⁷ Jung, *Porsche 356 Made by Reutter*, pp. 13–14.

⁸ Jung, *Porsche 356 Made by Reutter*, pp. 15–21.

⁹ Jung and Jung, pp. 79–100.

Reutter established a second factory at Zuffenhausen, a suburb of Stuttgart, enabling an increase to 800 staff to cope with rising demand. Innovation continued. Reutter developed numerous patents of its own and obtained a licence for the British ‘Leveroll’ mechanism, which enabled seats to slide backwards and forwards. It also began to cooperate with a new engineering consultancy in Stuttgart, established by Ferdinand Porsche in 1931,¹⁰ delivering the first bodies for Porsche’s new Volkswagen in 1938¹¹ and working with Porsche throughout the Second World War.¹²

By 1939, Albert Reutter and his son-in-law Theodor Koch had established an operation which was producing internal and external coachwork of the highest quality for both individual and series-produced vehicles with their staff of 850, achieving annual sales of RM7million. Within a year, however, staff numbers had fallen to 350 and revenue to DM4million as the firm moved onto war work.¹³ While that work continued without recorded difficulty, Reutter’s situation became precarious when, having already lost Technical Manager Otto Reutter, killed at Stalingrad in 1942,¹⁴ “in a single blow it lost its entire management on 9 December 1944”: Albert Reutter and his son-in-law and joint Managing Director Theodor Koch were killed when inspecting bomb damage from the air raid that had killed their sales director.¹⁵ In their place, the Finance Manager Ernst Körner was appointed *Geschäftsführer* on 5 January 1945.¹⁶ Though what Körner was criticised at the time for *not* being might summarise the desired qualities of a Mittelstand business leader – tough, visionary, aware of the need to invest¹⁷ – his own Pietist values ensured he kept the business on a steady course in very difficult postwar circumstances.

Postwar Operations, 1945-48

In his business report for 1945,¹⁸ Körner reviewed the closing months of the war. Under occupation, work was barely halted; the Stuttgart factory was quickly required to service

¹⁰ Ferry Porsche and Günther Molter, *Ferry Porsche: Ein Leben Für Das Auto, Eine Autobiographie* (Stuttgart: Motorbuch Verlag, 1989), p. 49ff.

¹¹ Jung, *Porsche 356 Made by Reutter*, pp. 22–26.

¹² Jung and Jung, pp. 114–27.

¹³ Jung and Jung, pp. 131–32.

¹⁴ Jung and Jung, p. 306.

¹⁵ Jung and Jung, p. 135.

¹⁶ Schwäbische Treuhand AG Wirtschaftsprüfungsgesellschaft, ‘Bericht Über Die Prüfung Des Vorläufigen Reichsmarkabschlusses Der Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H. Stuttgart Zum 20. Juni 1948’ (Schwäbische Treuhand – Aktiengesellschaft, 1949), p. 4, RECARO Holding GmbH archives.

¹⁷ Jung and Jung, pp. 135–47.

¹⁸ ‘Geschäftsbericht 1945’ (Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., 1946), RECARO Holding GmbH archives.

French military vehicles and build replacement city trams. Reutter appears to have responded pragmatically to the dramatically changed circumstances. [REDACTED]

[REDACTED],¹⁹ relations between workers and employers and their respective committees were “extraordinarily cooperative.”²⁰ [REDACTED]

[REDACTED]²¹ though reserves [REDACTED]

[REDACTED].²² The staffing situation was clearly difficult, but the disposition of employees is noteworthy and suggests why it was possible for the business to respond so readily to the varying challenges it now faced: of 162 members of staff on 31 December 1945, only 12 were classified as unskilled, and only 19 were office staff, whereas 122 are recorded as being skilled workers.²³

There were continued difficulties in 1946 and 1947. Reutter won repair and new-build contracts for trams and trains, yet had no opportunities to return to prewar commercial work.

[REDACTED].²⁴ [REDACTED]

[REDACTED].²⁵

[REDACTED].²⁶ In the first half of the year, the procurement of raw

¹⁹ Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., ‘Geschäftsbericht 1947’ (Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., 1948), RECARO Holding GmbH archives.

²⁰ Jung and Jung, p. 149.

²¹ ‘Gewinn- Und Verlustrechnung Auf 31.12.1945’ (Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., 1946), RECARO Holding GmbH archives.

²² ‘Bilanz Auf 31.Dezember1945’ (Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., 1946), RECARO Holding GmbH archives.

²³ Jung and Jung, p. 144, table.

²⁴ Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., ‘Geschäftsbericht 1947’.

²⁵ Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., ‘Geschäftsbericht 1947’ Neither the profit & loss account nor the balance sheet for this year are available.

²⁶ ‘Geschäftsbericht 1948’ (Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., 1949), RECARO Holding GmbH archives.

materials became practically impossible unless some service was offered in return. In the run-up to the 20 June currency reform, there were so many demands for vehicle repairs that some customers had to be turned away. Afterwards, cash became a problem as repairs dried up, evidence of the discontent and anxiety over increasing living costs that quickly replaced the initial euphoria of the post-currency reform consumer boom.²⁷ [REDACTED]

[REDACTED]
[REDACTED]²⁸

After a period of serious difficulty, though, in which Reutter had to sell off machinery and other equipment to raise cash, the economic clouds seem to have lifted. As for other companies, the currency reform appears to have signalled a revivification of the market, and released new opportunities.²⁹ [REDACTED]

[REDACTED] (though difficulty finding skilled workers, especially in sheet-metal work, was again noted). Quickly, however, Reutter's resilience was re-tested: the economic uplift was replaced by a sudden downturn, on this occasion forcing Reutter to begin building small buses. Again, the company rose to the new challenge, exhibiting at trade shows in Reutlingen and Hannover and winning new orders, without which it would have been impossible to retain its workers. But the firm's primary focus was on returning to its traditional business of building car bodies, which it was finally able to do in 1949.³⁰ It is notable that throughout this difficult period, Reutter did not lower its ambitions or its standards: despite losing its leaders and key customers, it continued to pursue excellence and the surviving members of its owning family remained committed to its long-term success and the retention of skilled staff.

Restoration and Growth, 1948-1960

In 1949, the company was comprehensively audited by the Schwäbische Treuhand,³¹ whose auditing activities in this period concentrated on the valuation of companies following the

²⁷ Christian L. Glossner, *The Making of the German Post-War Economy* (London and New York: I.B. Tauris, 2013), pp. 133–35.

²⁸ Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., 'Geschäftsbericht 1948'.

²⁹ Glossner chapter 6, especially pp. 138-143.

³⁰ Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., 'Geschäftsbericht 1948'. The reference in the annual report was presumably to the initial order for the Porsche 356.

³¹ For the scope of its activities following its foundation in 1919, see Reiner Quick, 'The Formation and Early Development of German Audit Firms', *Accounting, Business & Financial History*, 15.3 (2005), 317–43 (pp. 325–26) <<https://doi.org/10.1080/09585200500284252>>. In due course it became the foundation of what is now EY Germany. See 'Geschichte' under 'Ernst & Young', *Wikipedia*, 2017

currency reform. The thoroughness of their report reinforced existing management control measures, while summarising Reutter's problems. [REDACTED]

[REDACTED].³² [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED].³³ Despite these setbacks Reutter had now begun to find its way. In 1948, Dipl. Ing. Walter Beierbach was recruited as Technical Leader with signatory powers (Prokura). Responsible for numerous technical developments which were patented, most significant among them for the company's future a reclining seat mechanism, Beierbach was made co-Managing Director with Körner in 1950.³⁴ Like Körner and other recruits, he was connected to the Reutter family through his membership of the Pietist community.³⁵ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED].³⁶ Supporting him, the company's *Meister* controlled key areas of the business, such as the pre-paint preparation area, the upholstery department and the prototyping shop, with the company's own quality-control systems in all areas being a critical contributor to its success.³⁷ Their experience and ability was apparently the strategic differentiator which made Porsche choose Reutter as its bodybuilding partner. That decision was not based on the Reutter works' proximity to Porsche's factory in Zuffenhausen, but on the judgement of Professor Ferdinand Porsche, who advised: "You have this offer and you have that offer. Here and there the prices are a bit more advantageous and so on, but I'll tell you what, go to Reutter. Never mind the money; you see, Reutter has the best foremen."³⁸

<https://de.wikipedia.org/w/index.php?title=Ernst_%26_Young&oldid=169184426> [accessed 22 October 2017].

³² Schwäbische Treuhand AG Wirtschaftsprüfungsgesellschaft, 'Bericht Über Die Prüfung Des Vorläufigen Reichsmarkabschlusses Der Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H. Stuttgart Zum 20. Juni 1948', p. 6.

³³ Schwäbische Treuhand AG Wirtschaftsprüfungsgesellschaft, 'Bericht Über Die Prüfung Des Vorläufigen Reichsmarkabschlusses Der Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H. Stuttgart Zum 20. Juni 1948', p. 5.

³⁴ Jung and Jung, p. 154.

³⁵ See Chapter 2 on Pietism and its values.

³⁶ Greger, p. 11.

³⁷ Jung, *Porsche 356 Made by Reutter*, pp. 269, 253, 286.

³⁸ Richard von Frankenburg, *Porsche, the Man and His Cars*, trans. by Charles Meisl (London: G.T. Foulis, 1961), p. 126.

Beierbach's rigour was complemented by a progressive organisational culture: employees dined together in the company dining hall, and women workers were paid the same wages as men for the same job from the early 1950s onwards,³⁹ two decades before the Equal Pay Act was enacted to enforce the same approach in Britain. Within the workplace, workers' wellbeing and motivation were maintained by attention to the factory's lighting and to the aesthetics of each machine; the three big presses were painted green and given visible pet names.⁴⁰ (At Porsche, too, the owner insisted on identical treatment for all employees, irrespective of their job level or responsibility.)⁴¹ The Porsche 356 contract placed extraordinary demands on Reutter's workforce, requiring them in early 1955, for example, to produce a new model in parallel with very high volumes of the existing product, working excessive overtime in order to meet Porsche's demand for 300 finished bodies (versus the contractual agreement for 150 per month) in July alone. For the company's owners and directors it was "obvious" in these circumstances that they should "pay the highest amount permitted by law into the staff pension fund."⁴² Future Managing Director Norbert Helmes

.⁴³ But while discussion of religious values and social enterprises might give the impression that Reutter lacked hard edges or commercial drive, its performance in the 1950s showed it lacked neither.

The company histories convey in detail the way in which Porsche's growth was achieved in a symbiotic relationship with Reutter.⁴⁴ Producing at high volumes was, on the face of it, a highly attractive proposition, with finished bodies each being sold to Porsche for DM4085 in 1952.⁴⁵ The cars themselves were sold by Porsche in 1950 for DM9950.⁴⁶ The results were attractive. In 1956, its fiftieth anniversary year, Reutter earned "pleasing profits", investing in new capacity, paying almost DM210,000 into the staff welfare fund, and increasing pension payments for retirees. Helmes's condemnation of these personnel practices seems misplaced: in a full-employment economy in which high skills were always in short supply, Reutter's generous treatment of its staff was commercially astute as well as socially just. For example,

³⁹ Jung, *Porsche 356 Made by Reutter*, pp. 267, 281.

⁴⁰ Jung, *Porsche 356 Made by Reutter*, p. 271.

⁴¹ Porsche and Molter, pp. 241–42.

⁴² Jung, *Porsche 356 Made by Reutter*, pp. 117, 125.

⁴³ Helmes, p. 19.

⁴⁴ Jung, *Porsche 356 Made by Reutter*, pp. 68–188; Jung and Jung, pp. 167–247.

⁴⁵ Jung, *Porsche 356 Made by Reutter*, p. 88.

⁴⁶ Porsche and Molter, p. 188.

at the same time as they celebrated the anniversary, Reutter's management were having to work out how to increase deliveries of the finished Porsche 356 body to Porsche from 19 to 24 daily.⁴⁷ [REDACTED]

[REDACTED],⁴⁸ increasing Reutter's revenue but also consuming so much time and resource that its dependency on Porsche grew ineluctably. None of that progress could have happened without the full commitment – in terms of both effort and quality of work – of Reutter's workforce, or the retention of all available skilled staff. Other Mittelstand firms followed a similar approach: dedication from the staff was expected, but rewarded, tying them into the business.⁴⁹ As we will see later in this chapter, Jensen in the UK also needed to meet growing demand, but tried to do so without the same investment of resources or management care for its staff, with predictably less impressive results. Despite its intrinsic attractiveness, though, Porsche's growth engendered a growing fear among Reutter's commercial staff of the risk that any reduction, by accident or intent, in Porsche's purchased volumes would spell disaster for Reutter. They therefore sought a "second leg", but found it increasingly difficult to diversify when all staff were constantly "at the limits of their performance capability" thanks to the pressure of the Porsche programme.⁵⁰ These pressures are vividly brought to life in Greger's account and the Jung histories, and illustrate what West Germany's annual increase in output per worker of 6.40%,⁵¹ within an economy growing by an average of 7.2% annually between 1950-63,⁵² felt like to those who delivered it.

In its search for profitable niche products, the board pursued patentable innovation, as Reutter had always done. Reutter's most important achievement was the device patented in 1953 by Beierbach in the firm's name: the reclining seat mechanism, *der Liegesitzbeschlag*. Those already in the market took up too much space or needed the door open to operate. Reutter's was compact, and would fit almost all the car seats currently in use.⁵³ Requests for licence fee arrangements came from engineers in Munich and Paris, and at the Geneva motor show in 1954

⁴⁷ Jung, *Porsche 356 Made by Reutter*, pp. 139–41.

⁴⁸ Greger, p. 17.

⁴⁹ See, for example, the treatment of employees at Stuttgart engineering company Philipp Müller in this period: 'Payroll' (Firma Philipp Müller Nachf. Eugen Bucher GmbH & Co), WABW B38/ Bü182; 'Personal Folder of Dr. Kurt R. Müller, 1955-67' (Firma Philipp Müller Nachf. Eugen Bucher GmbH & Co), WABW B38/ Bü195; 'Personal Folder of Hans Gress'.

⁵⁰ Greger, p. 18.

⁵¹ Barry Eichengreen, *The European Economy since 1945: Coordinated Capitalism and Beyond* (Princeton and Oxford: Princeton University Press, 2007), p. 88, table 4.1: annual growth per worker 1950-1960. In Britain, it grew at 2.51%.

⁵² Abelshauser, p. 305, table 15.

⁵³ Jung and Jung, p. 253.

and London motor show in 1956 there were large orders. By July 1957 Reutter had delivered over 500,000 reclining mechanisms. Most car manufacturers in West Germany and abroad were using it, at least in their high-end models. The biggest customer, Mercedes, was taking 3000 sets a month. Reutter's management was never complacent. The *Liegesitzbeschlag* was being constantly modified, creating variants; all were patented, blocking development efforts by Reutter's competitors, who either had to buy from Reutter or apply for a manufacturing licence.⁵⁴ This situation led to difficult competitive battles, especially with arch-rival Keiper, and forceful pricing tactics from Reutter's leadership, winning business at Mercedes-Benz and Opel.⁵⁵ These actions and attitudes indicate the degree of competitiveness which drove growth during the *Wirtschaftswunder*.

Though 85% of *Liegesitzbeschlag* capacity was now dedicated to Porsche, making it difficult to serve other customers as quickly and inventively as Reutter would have liked, the *Liegesitzbeschlag* business continued to thrive, and Reutter added work with Volvo in Sweden to its success with Opel. Given the value of the *Liegesitzbeschlag* patents, the board decided to establish a Swiss subsidiary, whose purpose would be to collect licence fees from foreign customers, hold the patents, and invest in potential foreign business opportunities. To avoid concerns over tax avoidance, Müller-Scholl ethically sought the approval of the Economy Ministry. Reutter set up the subsidiary as the worldwide licence-holder, so it paid patent fees but also received royalties. Thus Recaro AG was launched in Switzerland on 9 September 1957.⁵⁶ These strategic decisions show again that Reutter's management was commercially astute and forward-thinking, and also intent on good governance, as we will see in their management of the company's finances.

Company Operations and Strategic Change, 1960-63

The West German automotive industry was transformed during the 1950s: its productivity growth averaged 9.37 per cent annually, its share of the national economy rose threefold to 5 per cent between 1952-1960, and its employee numbers rose ten-fold to 2.1million between 1950-1962.⁵⁷ The number of cars in private ownership grew nine-fold to 4,066,000 between 1950 and 1960, and the car became a quintessential element of the national culture as "motorization became a reality and the car the symbol of a new Germany".⁵⁸ The rate of change

⁵⁴ Jung and Jung, pp. 254–56.

⁵⁵ Jung and Jung, p. 256.

⁵⁶ Jung and Jung, pp. 258–250.

⁵⁷ Abelshauser, p. 416.

⁵⁸ Harold James, *A German Identity, 1770 to the Present Day* (London: Phoenix Press, 2000), p. 189.

in the industry was evident at Porsche, which had only started to build its first sports cars in 1950, a modest target of 500 vehicles reflecting the fact that it had only DM200,000 in capital available. By 1960, Porsche was transformed, its 1250 staff achieving DM108million in annual sales.⁵⁹ In these circumstances, severe demands were placed on suppliers (and of course, huge opportunities were presented to them, fuelling the growth of Baden-Württemberg's Mittelstand), and Reutter was forced constantly to adapt and improve, or be left behind. Having managed to do so, it entered the new decade in an apparently strong position.⁶⁰

[REDACTED]

[REDACTED] In comparison, the Hohner family paid themselves dividends of DM450,00 on DM37 million (1.2%) in 1960, and DM810,000 on DM35 million turnover (2.3%) in 1958.⁶¹ For comparison, Jensen's owner Norcros paid itself dividends in 1965 of £122,000, 5% of turnover, when profits were £116,000.⁶²

Reutter's results were also impressive for 1962.⁶³ [REDACTED] (double Keiper's 1962 sales of DM20million⁶⁴), [REDACTED]

[REDACTED]⁶⁵ While they demonstrated that the company was well run and prudently governed, the financial statements for 1962 betrayed some potentially

⁵⁹ Porsche and Molter, pp. 188, 241, 243.

⁶⁰ Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., 'Bericht Über Das 55. Geschäftsjahr 1961' (Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., ND), RECARO Holding GmbH archives.

⁶¹ Hartmut Berghoff, *Zwischen Kleinstadt und Weltmarkt: Hohner und die Harmonika 1857 - 1961 : Unternehmensgeschichte als Gesellschaftsgeschichte* (Paderborn ; München [u.a.: Schöningh, 2006), p. 568, fig 47; p. 574, table 35.

⁶² Jensen Motors Ltd., 'Jensen Motors Limited: Profit & Loss Account for Seven Years, Ending 31 July 1959 - 1965' (Jensen Motors Ltd., 1965), Modern Records Centre, MSS 215/2/11.

⁶³ Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., 'Bericht Über Das 56. Geschäftsjahr 1962'.

⁶⁴ Putsch and Putsch, p. 149.

⁶⁵ Stuttgarter Karosseriewerk Reutter & Co. G.m.b.H., 'Bericht Über Das 56. Geschäftsjahr 1962'.

worrying signs. [REDACTED] (but may have been normal: Volkswagen's after-tax profit margin was 3.8% for the same year⁶⁶). [REDACTED]

[REDACTED]⁶⁷ though, suggesting its freedom of movement within the capital-intensive automotive industry was potentially constrained.

However, Reutter's intellectual property, now held by its Swiss subsidiary, was also an important asset in which the company had invested heavily. Of the 30 patents granted to Reutter between 1950-1962, eight were published in the 1950s, and nine in 1962 alone.⁶⁸ Other German manufacturers invested in the same way. Reutter's customer Porsche, admittedly with a wider range of potentially patentable products, published 757 between 1950-1962;⁶⁹ the synchromesh gearbox introduced in the 356 alone generated 70 patents and DM10 million in licence fees.⁷⁰ Their competitor and future owner Keiper produced 30 during the 1950s and 47 in total between 1950-1962.⁷¹ [REDACTED]

[REDACTED],⁷² and was practised by Reutter/Recaro managers throughout. All these Mittelstand companies, pursuing excellence in their niche markets, demonstrated a greater determination to generate intellectual property and protect it than their British counterpart Jensen Motors Ltd, which published only five patents between 1950-1962 and none in the subsequent five years.⁷³ Faced with the

⁶⁶ VW AG, 'Bericht über das Geschäftsjahr 1964' (Volkswagenwerk Aktiengesellschaft, 1965), p. 4
<<https://www.volkswagenag.com/presence/konzern/images/teaser/history/chronik/geschaeftsberichte/1964-Geschaeftsbericht.pdf>> [accessed 6 November 2018].

⁶⁷ See Chapter 2 on Bank relations.

⁶⁸ 'Patents List - Stuttgarter Karosseriewerk Reutter 1950-1962', *Espacenet*, 2017
<https://worldwide.espacenet.com/searchResults?submitted=true&locale=en_EP&DB=EPODOC&ST=advanced&TI=&AB=&PN=&AP=&PR=&PD=1950-1962&PA=Reutter&IN=&CPC=&IC=&Submit=Search>
[accessed 23 September 2017].

⁶⁹ 'Patents List - Porsche AG 1950-1962', *Espacenet*, 2017
<https://worldwide.espacenet.com/searchResults?submitted=true&locale=en_EP&DB=EPODOC&ST=advanced&TI=&AB=&PN=&AP=&PR=&PD=1950-1962&PA=Porsche&IN=&CPC=&IC=&Submit=Search>
[accessed 23 September 2017].

⁷⁰ Porsche and Molter, p. 236.

⁷¹ 'Patents List - Fritz Keiper 1950-1962', *Espacenet*, 2017
<https://worldwide.espacenet.com/searchResults?compact=false&page=0&IN=&TI=&locale=en_EP&DB=EPODOC&PN=&ST=advanced&AB=&PR=&PD=1950-1962&IC=&CPC=&Submit=Search&AP=&PA=keiper>
[accessed 23 September 2017].

⁷² Keiper, pp. 91-93; Helmes, pp. 3-5.

⁷³ 'Patents List - Jensen Motors Limited 1950-1976', *Espacenet*, 2017
<https://worldwide.espacenet.com/searchResults?submitted=true&locale=en_EP&DB=EPODOC&ST=advanced&TI=&AB=&PN=&AP=&PR=&PD=1950-1976&PA=Jensen+Motors&IN=&CPC=&IC=&Submit=Search>
[accessed 23 September 2017].

necessity of reinventing themselves after the Porsche divestiture, in contrast, Reutter in its new incarnation as Recaro published 33 patents between 1963-1968,⁷⁴ evidence of its strategic mentality as well as high levels of creativity.

Though 1961's and 1962's results were good, the preceding three years had seen the beginning of a perceptible change in Reutter's relationship with Porsche. In 1958, Reutter had declined Porsche's request to increase its output from 24 to 32 bodies per day, "which would have required an investment of unbearable scale and bound us even more closely to our principal customer", as Müller-Scholl told the Reutter board. He had discussed the future of Reutter's relationship with Ferry Porsche and agreed to cooperate with a second bodybuilder, Drauz, effectively creating a competitor for himself.⁷⁵ In response, Reutter began talks with a plastics company to develop a plastics tooling business in order to diversify its risk. The proposed venture came to nothing, but its initiation highlighted the benefits in German business society of interlocking responsibilities and relationships: the owner of the plastics company, B.W. Müller, was also the chairman of Reutter's shareholders' advisory council.⁷⁶ It also highlighted two potential future problems for the new, small company. First, a concern to avoid a repeat of the excessive dependency on one market or customer might lead to strategically questionable thinking on diversification. Second, Müller's willingness to seek what would be a financial benefit not only for Reutter but also for himself suggested a potential for future governance problems or unethical conduct. Both came to pass.

1963-65: Acquisition by Porsche and Reinvention

Being a coachbuilder had become, in both West Germany and Britain, a precarious existence since World War Two. At the 1929 Earl's Court Motor Show there had been 59 British coachbuilders; by 1959 there were thirteen left; by 1967 only one remained independent of

⁷⁴ 'Patents List - RECARO AG 1963-1968', *Espacenet*, 2017

<https://worldwide.espacenet.com/searchResults?submitted=true&locale=en_EP&DB=EPODOC&ST=advanced&TI=&AB=&PN=&AP=&PR=&PD=1963-1968&PA=recaro&IN=&CPC=&IC=&Submit=Search> [accessed 23 September 2017].

⁷⁵ Board minutes of 19/2/1958 and 4/6/1958, quoted in Jung and Jung, p. 231; In fact, although Drauz did complete 3514 bodies for the Porsche 356, according to 'Drauz-Werke', *Wikipedia*, 2018

<<https://de.wikipedia.org/w/index.php?title=Drauz-Werke&oldid=175225324>> [accessed 22 April 2018] their predominant interest was in bus-building, and in 1965 they sold their car body business to NSU; See also the brief history at 'Karosserien von Gustav Drauz' <<https://stadtarchiv.heilbronn.de/stadtgeschichte/geschichte-a-z/d/drauz-karosseriefabrik.html>> [accessed 22 April 2018].

⁷⁶ Jung and Jung, p. 232.

mainstream car manufacturers.⁷⁷ [REDACTED]

[REDACTED]⁷⁸ [REDACTED] and

[REDACTED]⁷⁹ In the opinion of Jung and Jung, it now became “all too clear how much over the years the family concern had missed the driving force that the entrepreneurial vision and leadership of family members”⁸⁰ would have provided, making at this juncture the wartime deaths of Albert and Otto Reutter and Theodor Koch seem all the more significant. Their argument is understandable in the light not only of Uta Jung’s emotional engagement with Reutter’s history, but also of the success which Albert Reutter, Ferry Porsche, Wilhelm Putsch and his sons, and indeed Alan and Richard Jensen, had achieved as leaders of their own family’s firms. But the attribution of superior vision and leadership to family membership is not automatically accurate, as the Wandel family were then proving in nearby Reutlingen. Nor, in implicitly denigrating the substantial achievements of Reutter’s management, does it explain how a Reutter family member would have devised a more attractive strategy for the coachbuilding side of the business in a period of increasing consolidation in the automotive industry. [REDACTED]

[REDACTED]⁸¹ Porsche, though, was alone among German automobile manufacturers in not having its own bodyworks, and no matter what strategy Reutter chose to adopt, the mutual dependency remained. (Jensen was in a similar position: its solvency was almost entirely dependent on Austin wanting it to continue building its sports car bodies.) For Porsche, short of space, expanding rapidly, conscious of its

⁷⁷ George Oliver, *Cars and Coachbuilding: One Hundred Years of Road Vehicle Development* (London: Sotheby Parke Bernet in association with the Institute of British Carriage and Automobile Manufacturers, 1981), pp. 212–14.

⁷⁸ Greger, p. 19.

⁷⁹ Greger, p. 20. Welf was born in 1942.

⁸⁰ Jung and Jung, p. 250.

⁸¹ Greger, p. 19.

own dependency on Reutter and anxious to be self-sufficient in the future, acquiring Reutter would be a logical and affordable step.⁸²

[REDACTED]
[REDACTED]⁸³ [REDACTED]
[REDACTED] – even though his company’s turnover, output, and staff numbers had grown exponentially in the fifteen years since its foundation⁸⁴ – his very personal engagement with every detail [REDACTED]

[REDACTED]⁸⁵ [REDACTED],⁸⁶ [REDACTED]
[REDACTED]. This suggests a willingness on the part of local and national authorities to support entrepreneurs like Porsche, still a relatively young company albeit one whose wartime and prewar achievements might have resonated with officials.⁸⁷ This relationship appears to offer a sharp contrast with contemporary UK policy, where Government focused not on helping successful entrepreneurs but on the interests of big business.

[REDACTED]
[REDACTED]
[REDACTED]⁸⁸ Paternalism was maintained. For Reutter’s employees the sale - which had been conducted in complete secrecy - of such a successful business was incomprehensible. Greger’s response is that none of them could see as clearly as Reutter’s leaders “the sword which was hanging over the company” while 85% of its business was dependent on Porsche. [REDACTED]
[REDACTED]
[REDACTED]

⁸² Jung and Jung, p. 251.

⁸³ Ferry Porsche, ‘Verhandlungen über den Ankauf der Geschäftsanteile der Firma Stuttgarter Karosseriewerk REUTTER & Co. G.m.b.H.’, 31 January 1963, RECARO Holding GmbH archives.

⁸⁴ von Frankenburg, pp. 189, 206.

⁸⁵ Ferry Porsche, ‘Stuttgarter Karosseriewerk REUTTER & Co. G.m.b.H. in Stuttgart’, 14 March 1963, RECARO Holding GmbH archives.

⁸⁶ Value withheld for confidentiality reasons.

⁸⁷ Ferry Porsche himself had been an honorary SS officer, which he later described as an unwanted ‘honour’ which he had been unable to decline, and which briefly caused him some discomfort in his postwar relations with US officials. See Porsche and Molter, pp. 124–25. His father, however, was held as a prisoner by the French after the war; See Porsche and Molter, chap. XIII; and Ferry Porsche and John Bentley, *We at Porsche: The Autobiography of Dr. Ing. h.c. Ferry Porsche with John Bentley* (Yeovil: Haynes, 1976), pp. 191–211. Both father and son were, however, recognised as contributors of engineering expertise - for example through the provision of the VW Kübelwagen to the Wehrmacht - and not as Party adherents.

⁸⁸ ‘Deed of Sale: “Geschäftsanteilsübertragungen Ella Reutter, Charlotte Reutter, Nachlaß Fritz Reutter und Firma Dr. Ing. h. c. F.Porsche KG. mit dem Sitz in Stuttgart vom 15. Mai 1963”’, 1963, RECARO Holding GmbH archives.

[REDACTED]

[REDACTED].⁸⁹ For the remaining Reutter workers and management, a new start was to be made in the company's long-term headquarters building, in Augustenstrasse in central Stuttgart, which had been left out of the sale. A key element of the sale was that the newly named Recaro (from the initial letters of "Reutter" and "Carosserie") received a contract which would allow Recaro to fulfil Porsche's "total requirement for complete seats and seat reclining mechanisms", an exclusivity which, as Recaro's management quickly reminded their Porsche counterparts, also included newly developed "shell seats".⁹⁰

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]).⁹¹ His ability was so well respected, in fact, that when Ferry Porsche's son disagreed with the company's chief designer about the design of what became the iconic Porsche 911, Porsche solved the problem by having Beierbach draw it himself.⁹² This episode highlights two distinguishing characteristics of German management mentality. It shows that Ferry Porsche was still a hands-on *Mittelständler*, despite his company's size, more concerned by product quality than paternal allegiance (and as engaged in technical detail as he had been in the financial detail of the acquisition); and that senior business leaders like Beierbach remained expert technicians long after they assumed managerial responsibility. Similar technical capabilities existed within senior management at Jensen, where the proficiency of the Jensen brothers and some of their successors enabled the development of innovative models. But none demonstrated an equivalent capacity for operational or personnel management which allowed them to deliver the sustained, long-term, profitable performance of their German counterparts.

While Porsche gained control of its own bodyshop, more land, and the expertise of men like Beierbach, Recaro derived several benefits itself from the transaction. First, some financial security, through the ten-year exclusive seat contract with Porsche, in which supply at current pricing was guaranteed for the first five years and would continue for the second five years

⁸⁹ Greger, p. 22; Greger's account is given credibility by being quoted in full by Jung and Jung, p. 252 and in other places in their history.

⁹⁰ Letter of 20 December 1963 to Porsche management, reproduced in Frank Jung, *RECARO: Sitzen in Bewegung* (Delius Klasing, 2016), p. 30.

⁹¹ Greger, p. 21.

⁹² Porsche and Molter, pp. 244–46.

sense of a covenant, to honour both the Reutter legacy and the loyalty and expertise of the remaining staff. There was too much respect for staff members to retain them as an indulgence which risked their wellbeing. And for those staff, in a period of full employment, there must have been a belief in the venture and the family's values, otherwise they would have found work elsewhere. The realisation of both employee and family aspirations would, however, depend on the successful leadership of the business in the time before Welf was able to take over.

1964-1969 – World Brand to the End of Independence

The final few years of the Reutter family's ownership of an independent business were distinguished by its outstanding inventiveness and disfigured by its mismanagement. The actions of Recaro's most senior decision-makers demonstrated the concerns over the agency of non-family members alluded to by Jung and Jung. The achievements of Recaro's eventual conqueror, Ulrich Putsch, seemed to prove their point about the desirability of family ownership and leadership. Adopting the formulation of David Teece and others, Putsch and his brother displayed "dynamic capabilities" during the 1960s, "sensing" new opportunities, "seizing" them, and "transforming" both their business and their industry.¹⁰⁰ Müller-Scholl, in contrast, was clearly capable but no longer dynamic. Norbert Helmes, his replacement, may have been dynamic, but was not evidently capable. And though *Aufsichtsrat* chairman Bernhard Müller was possibly both dynamic and capable, he appears to have used those attributes to promote a cause other than the Reutter family's long-term wellbeing. Recaro's experience did not invalidate Mittelstand values of focused strategies, excellence in niche products, or generational continuity. Instead, it demonstrated that those values were themselves dynamic, as Keiper showed by adapting them so successfully to changing markets and technologies.

The early opportunities facing Recaro were brilliantly managed. Staff realised that to survive they would need to be quicker than the automotive manufacturers' own work in seat development, which was still unsophisticated. They therefore began working with orthopaedic surgeons to review seat design, creating innovative marketing materials that featured surgeons

¹⁰⁰ David J. Teece, 'Dynamic Capabilities: Routines versus Entrepreneurial Action', *Journal of Management Studies*, 49.8 (2012), 1395–1401 <<https://doi.org/10.1111/j.1467-6486.2012.01080.x>>; David J. Teece, *Dynamic Capabilities and Strategic Management: Organizing for Innovation and Growth* (Oxford: Oxford University Press, 2009).

and other relevant professionals.¹⁰¹ Innovation appears to have been the product of an egalitarian and cooperative working environment: “We had at that time lots of freedom and lots of ideas,” the seating department leader recalled fifty years afterwards. In a workplace distinguished by close working together and interaction with colleagues, a contemporary colleague remembered, “We had good people, who from the outset shared responsibility and ideas. The boss was someone you only needed for the trickiest decisions.”¹⁰² This suggested an environment that was less hierarchical and more flexible than was common in British business.¹⁰³ For the external market, the company launched the Recaro *Sportsitz* (sports seat), which could be retrofitted to a range of cars. One may question whether the two old colleagues quoted here retained an objective memory of their workplace fifty years later (though their recollection of the positive working atmosphere matches Ferry Porsche’s recollection of the “enthusiasm with which we all went to work” in the early years of Porsche).¹⁰⁴ But their emphasis on the responsibility devolved to individual technicians to develop complex products suggests a high level of technical competence across the workforce, and by integrating the “traditional” Reutter emphasis on performance and quality into their seating innovations, and producing striking new marketing materials, Recaro was soon able to build a strong brand. The outcome of inclusive innovation was soon plain to see: at the 1965 international IAA motor show in Hannover, Recaro exhibited its new “sports seat” under the slogan, “*Wer gut sitzt – fährt besser*”. It thereby created for itself not only a new product, but also a new way of thinking about and marketing what had largely been a commodity item within the car until that point. Now, Recaro told the market, anyone who wanted “to drive better had to sit correctly”. Superb public relations work, later used by American Carl Duerr to good effect at Jensen but decried by his British managers, reinforced their message:¹⁰⁵

¹⁰¹ Jung and Jung, pp. 263–65.

¹⁰² Jung, *RECARO*, p. 102.

¹⁰³ Carl Duerr, *Management Kinetics: Carl Duerr on Communication* (London: McGraw-Hill, 1971), pp. 187–93; Lazonick, p. 20.

¹⁰⁴ Porsche and Molter, p. 240.

¹⁰⁵ ‘Recaro “Wer Gut Sitzt” Image’, 2019 <https://www.club.recaro-automotive.com/blog-de/wp-content/uploads/rau_solitude_gut_sitzen.jpg> [accessed 19 February 2019]; Jung, *RECARO*, pp. 33, 63.

Image A here © Frank Jung	Image B here © Frank Jung

In parallel with this marketing success, though, came operational and financial pressures. Building seats to meet Porsche's booming requirements was a challenge. The reclining seat mechanism business, which had continued to be a success since the 500,000th system was delivered back in 1957,¹⁰⁶ offered some financial security thanks to what Ulrich Putsch acknowledged to be Reutter's "unbreakable" patent,¹⁰⁷ which blocked competitors' development opportunities. But Keiper had achieved equivalent market dominance to Reutter/Recaro with its own, different reclining technology,¹⁰⁸ and Putsch realised that Recaro were vulnerable. The strong, famous bodybuilder had now become a small specialist supplier, for which heavy investment in new seat mechanisms as well as in the Sports Seats and in production for Porsche would be difficult.¹⁰⁹ Increasingly onerous demands from customers like Mercedes Benz¹¹⁰ would just drive Recaro's costs up and allow Mercedes to play one seat mechanism manufacturer off against another, ensuring each made minimum profits. Furthermore, Recaro developed its market knowledge by working with dealers and end-users, which was expensive, and had to outsource some elements of its manufacturing, adding to costs.

In contrast, Keiper had anticipated years previously the move to automotive mass-production, and implemented mass production techniques for their own components. Recaro and Reutter certainly met the rising production demands of Porsche and benefited from judicious intellectual property protection, but their company culture continued to venerate technical excellence and *Handwerk* (craftsmanship). Keiper shared Mittelstand values with Recaro and valued its own technical excellence. But in its own pursuit of excellent niche products it had

¹⁰⁶ Jung and Jung, p. 256.

¹⁰⁷ Putsch and Putsch, p. 155.

¹⁰⁸ Putsch and Putsch, pp. 154–57.

¹⁰⁹ Putsch and Putsch, p. 157.

¹¹⁰ Greger, p. 26; see also Herrigel, *Industrial Constructions: The Sources of German Industrial Power*, pp. 153–56 on the evolution of Daimler-Benz's relationships with its suppliers.

been working since the early 1950s with process-improvement consultants in line with its stated company mission “to develop simple, effective and economical constructions which can be produced and marketed in large quantities for the building of new vehicles of all types.”¹¹¹

This was not the only threat to Recaro. Greger [REDACTED]

[REDACTED]¹¹² For this he engaged Norbert Helmes in 1964 as assistant to the directors (*Assistent der Geschäftsleitung*).¹¹³

Helmes’s 1977 recollections of this period offer a critical perspective. We have focused on the value Recaro accorded to quality and creativity and its paternalistic ethos, typical Mittelstand values. In his retrospective criticism of Recaro’s shortcomings, though, Helmes implicitly identifies the hard edges that also characterised successful Mittelstand businesses, including Keiper, but were missing from Recaro. Thus for Helmes, [REDACTED]

[REDACTED].¹¹⁴ Furthermore,

[REDACTED].¹¹⁵

[REDACTED].¹¹⁶ The more successful Helmes was in depicting difficult circumstances, the more reasonable his later actions in selling off Recaro would appear.

Nevertheless, the contrasts between Recaro and Keiper in this period actually *were* stark. Recaro had lost some of its best people, transferred to Porsche. Its shareholders were not actively involved in the business, were not competent to shape its strategy, and were

¹¹¹ Putsch and Putsch, pp. 142–43.

¹¹² Greger, p. 24.

¹¹³ Jung and Jung, pp. 266–67.

¹¹⁴ Helmes, p. 7.

¹¹⁵ Helmes, p. 8.

¹¹⁶ Martin Sandberger, ‘Letter headed “Verkauf der Recaro im Jahre 1969”’, 4 August 1977, RECARO Holding GmbH archives.

emotionally attached to its Reutter history and its increasingly unviable city-centre premises. Its Managing Director, Max Müller-Scholl, was now in his mid-sixties and represented increasingly old-fashioned, albeit virtuous, values. Greger's [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]¹¹⁷ in a world of evolving business morality. The evolving relationship with Porsche can be seen as an indication of the increasingly competitive nature of the automotive industry, in which the principle of “loyalty to the supplier”, codified by Daimler-Benz in 1958¹¹⁸ and practised by Ferry Porsche in the days of Reutter, was beginning to be superseded by manufacturers' pursuit of dual- or multiple sourcing unless a supplier's patent dictated a sole-supplier relationship.¹¹⁹ Although the automotive industry was undergoing a change from a “seller's to a buyer's market”, only 12-15% of suppliers, by one estimate, depended on one customer for over half their turnover.¹²⁰ Recaro's dependency on Porsche was therefore, despite the fears expressed a decade earlier about Porsche's controlling power, still exceptionally high.

Keiper and Recaro had similarly humble origins,¹²¹ though unlike Reutter's luxury products, Fritz Keiper's were innovative but unglamorous metal parts made in high volumes.¹²² After the war, Keiper's factories benefited from long-term investments in automation and process improvement under Wilhelm Putsch, who took over from his father-in-law Keiper in 1950 and worked closely with local politicians to expand Keiper's premises and in-house production capabilities.¹²³ When Wilhelm Putsch suffered a stroke in 1961, his sons Friedrich Wilhelm and Ulrich were forced to assume control. Though still in their twenties - almost forty years younger than Recaro's Max Müller-Scholl - they were well prepared (having trained as an administrator and a machine-design engineer respectively), entrepreneurial, dynamic, and

¹¹⁷ Greger, pp. 30–31.

¹¹⁸ Stéphanie Tilly and Jean-luc Malvache, ‘Des partenaires des grands ? Les relations entre constructeurs automobiles et sous-traitants et leurs conséquences spatiales en Allemagne depuis 1945, Abstract’, *Revue du Nord*, 387, 2013, 877–94 (p. 884).

¹¹⁹ Tilly and Malvache, pp. 885–86.

¹²⁰ Stéphanie Tilly, ‘Das Zulieferproblem Aus Institutionenökonomischer Sicht. Die Westdeutsche Automobil-Zulieferindustrie Zwischen Produktions- Und Marktorientierung (1960-1980)’, *Jahrbuch Für Wirtschaftsgeschichte/Economic History Yearbook*, 51.1 (2010), 137–160 (pp. 138, 142).

¹²¹ See Chapter 2 on Reutter's and Keiper's origins as *Meister*.

¹²² Keiper, pp. 125–39.

¹²³ Putsch and Putsch, pp. 140–48.

locked into the family firm.¹²⁴ One public notice, from 1964, encapsulates their focus on productivity and staff communication, and can be contrasted with Recaro's emphasis on creativity and handcraft skills:

Our modern card-punch machines in Remscheid have taken over a lot of the work which would have occupied many members of staff...That means we can save personnel costs, and our staff get time for things which only people can do: planning for the improvement of our products, of production-sequencing, of the organisation, of our social benefits [*soziale Leistungen*] - planning for the future.¹²⁵

It was at this time that Keiper's progress began to threaten a dramatic worsening of Recaro's situation. In 1965, Recaro impressed the motoring world with its brilliant new *Sportsitz*. But in 1966, Keiper patented a highly innovative new seat mechanism which they called the *Taumel*. Over the next decade they were able to take the price down to 25% of the level of predecessor products, with the result that "through this price level there was no car which didn't have adjustable seats within a decade" and Keiper became the world leader in seat mechanisms.¹²⁶ Both firms had created the perfect Mittelstand niche product. But while Recaro's was a superbly conceived and crafted, low-volume, automotive luxury, Keiper had created an unglamorous, ubiquitous, world-beating bestseller.

In contrast to Keiper's apparently well-managed, forceful development, Jung and Jung present the performance of Recaro's business and its management in the same period as a series of missteps and inappropriate choices, beginning in 1965. Recaro's disastrous "false move into diversification", buying a graphics company and its factory 70km away at Schwäbisch Hall, "involved lots of cost and delivered big losses"¹²⁷ in an industry of which Recaro's managers knew nothing. Their decision can be contrasted with the very different path of Keiper. For Ulrich Putsch, it was exciting to try new products, as he also was conscious of Keiper's dependence on the automotive market, but he was prudent and focused:

¹²⁴ Putsch and Putsch, p. 104.

¹²⁵ Putsch and Putsch, p. 151.

¹²⁶ Putsch and Putsch, pp. 159–60.

¹²⁷ Jung and Jung, p. 269.

Why should we struggle with things that others might understand more about? In all the areas that we made other things, we were not the number one. But we definitely were with seat mechanisms, and by a distance.¹²⁸

When Ford cancelled a potential seat deal with Recaro in 1967, the unused factory space in Schwäbisch Hall emphasised the wasted expenditure. It came at a bad time. Ford's decision was part of a downturn in the automotive market. Volkswagen's CEO Heinrich Nordhoff told his Board that he saw this as a "turning point" and "the end of an unusually prolonged boom since the end of the war".¹²⁹ Abelshauser agrees: the rise in unemployment to 2.1 per cent in 1967 persuaded the population that the era of Reconstruction had reached its end, and West Germany's "was now an economy like almost any other".¹³⁰ To add to the sense of pressure felt by Recaro's management, the friendly personal relationships between each company's older generation of leaders had not continued into the younger generation of Porsche managers.¹³¹ 1968 marked the end of the first five years of the Recaro-Porsche seating contract. Porsche's aggressive management wanted to renege on the 1963 contract, and Recaro demonstrated "an absence of decisive company leadership for the implementation of the contract conditions" by conceding a major price reduction, sacrificing income and re-creating the earlier subservience to Porsche.¹³²

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]¹³³ [REDACTED]

[REDACTED]¹³⁴

suggests at best ineffectual management, at worst the possibility that Recaro managers had

¹²⁸ Putsch and Putsch, p. 105.

¹²⁹ VW Board minutes, December 1966, quoted in Manfred Grieger, 'Die „geplatzte Wirtschaftswundertüte“ : Die Krisen 1966/67 und 1973/75 im deutschen Symbolunternehmen Volkswagen', in *Automobilindustrie 1945-2000: eine Schlüsselindustrie zwischen Boom und Krise*, ed. by Stephanie Tilly and Florian Triebel (Munich: Oldenbourg, 2013), pp. 1–75 (pp. 32–33; 34).

¹³⁰ Abelshauser, pp. 307–8.

¹³¹ This difficulty is also discussed in detail by Greger, p. 32.

¹³² Jung and Jung, p. 271.

¹³³ Bernhard Müller, 'Teilbericht Über Die Betriebsprüfung RECARO/REUTTER' (Recaro G.m.b.H. & Co., 1968), p. 15, RECARO Holding GmbH archives.

¹³⁴ Dr. Franz Lipfert Wirtschaftsprüfungsgesellschaft und Steuerberatungsgesellschaft GmbH, 'Ergänzungsbericht Über Die Prüfung Des Abschlusses Für Die Recaro G.m.b.H. & Co., Stuttgart, Für Das Rumpfgeschäftsjahr Vom 1. April Bis 31. Dezember 1969' (Recaro G.m.b.H. & Co., 1971), RECARO Holding GmbH archives.

some ulterior motive. It also suggests that in due course, Müller would be guilty of establishing a self-fulfilling prophecy by his insistence that the company's relatively weak financial state should be a cause for its sale: he and his decisions were a key element in its weakness.

In April 1969 Helmes became Managing Director on the retirement of the 70-year old Max Müller-Scholl, who had been in post since 1953. Helmes subsequently analysed the company's position at the time in this way.¹³⁵ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED].¹³⁶ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED].¹³⁷

[REDACTED]

[REDACTED]. His review seems to have been unduly pessimistic, either designed afterwards to fit subsequent events, or reflective of his own entrepreneurial shortcomings. He does not mention aircraft or train seating or exports, let alone launching unpatented but innovative new solutions. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]¹³⁸ Jung and Jung argue that this decision was taken because for many company leaders in this period, the way out of any business difficulty was by cooperation, merger, or acquisition: this was the thinking of Recaro's management and they influenced the shareholders (that is, Uta Jung's mother and grandmother) accordingly.¹³⁹ They ask "why it was not possible after so many years of the business being led by salaried business leaders to delay the negotiations until Welf Koch, as a member of the shareholding family and joint

¹³⁵ Helmes, pp. 3–7.

¹³⁶ Helmes, p. 5.

¹³⁷ Helmes, p. 6.

¹³⁸ Helmes, p. 11.

¹³⁹ Jung and Jung, p. 272.

shareholder, could take his own view of the situation and make his own decision.”¹⁴⁰ The company had a business leader and the owners had their Board of Directors. The family had to be able to rely on their competence and integrity. But in rushing the deal through and ignoring Welf, their agents had let the Reutter family down. Despite family misgivings, in October 1969 Keiper’s offer for the while Recaro group was accepted by B.W. Müller under his power of attorney, and the sale agreement was signed on 30 December 1969. The takeover happened on 1 January 1970, affecting 130 staff in Schwäbisch Hall and 250 in Stuttgart. In their objection to the final outcome, Jung and Jung take a classic *Mittelstand* position. For them, family leadership was the differentiating factor between the two companies. In contrast to the incompetently managed Recaro, Keiper “had under the constant participation of its own family members in management been able to expand even during the sales crisis of the automotive industry”.¹⁴¹ The solution for Recaro was therefore clear. No matter that Welf Koch had no experience yet: with the support of the Reutter family shareholders Recaro would have been able to ride out its temporary difficulties, making it possible for a family member to resume control of the company and, by extension, make things right again.

Their assertion was less naïve than it might appear, for as Jung and Jung argue, Müller and Helmes had made an incorrect assessment of the industry. By the time they were making their arguments for a sale, the industry’s consolidation was already under way, in most businesses with a dynamism that recalled the results of the *Wirtschaftswunder* years. The predicted “catastrophe” was in practice short-lived. Although there *was* a definite downturn in the automotive market in 1967, it was temporary, as the data below demonstrate, suggesting that Recaro could have not only seen out the storm but also prospered in ensuing years:¹⁴²

A	Personenkraftwagen as "Investitionsgüter" = Cars as investment goods																Index: 1962 = 100			
B	Personenkraftwagen as "Verbrauchsgüter" = Cars as consumer goods																Index: 1962 = 100			
Source: Kothe, Jochen, 'XII. Industrie und Handwerk', <i>Statistisches Jahrbuch für die Bundesrepublik Deutschland</i> , 1974 (1975) Table 13, p. 236																				
	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	
A	55.8	63.0	67.3	79.9	84.6	97.8	98.0	100.0	103.7	112.7	114.6	122.9	107.2	132.0	150.0	140.8	136.6	143.0	143.3	
B	15.6	22.8	29.5	42.6	55.1	74.5	84.0	100.0	121.7	136.6	143.7	148.7	121.5	158.2	194.8	227.5	239.2	232.1	246.7	
C	7.2%			5.7%				3.6%				3.8%								
C	Average annual growth rate per economic cycle (%) (1950-1954 = 8.8%)																			
Source: Abelshauser, Werner, <i>Deutsche Wirtschaftsgeschichte von 1945 bis zur Gegenwart</i> , 2nd edn (2011), Table 15, p. 305																				

¹⁴⁰ Jung and Jung, p. 274.

¹⁴¹ Jung and Jung, p. 273.

¹⁴² Table compiled by author, using Jochen Kothe, 'XII. Industrie und Handwerk', *Statistisches Jahrbuch für die Bundesrepublik Deutschland*, 1969 (1970), 192–93 (p. 236) table 13; Abelshauser, p. 305 table 15.

In this ever-growing market, drivers' demands for better comfort and new legal requirements would have given a company like Recaro, which had repeatedly made a mark in the past, good business opportunities.¹⁴³

Jung and Jung end their review of Helmes's perspective with his conclusion that the "continuation of the concept of a 'social undertaking' with special consideration for long-serving workers would not have been compatible with the aim of achieving acceptable profit levels".¹⁴⁴ This can be read as a fair assessment of the changing cost dynamics of a German workplace in which average employee remuneration had increased by 54% since 1965,¹⁴⁵ as Schneider's ultimately fatal experience in Ludwigsburg was now proving. Equally it can be seen as a deliberate disavowal of the model which had served Recaro and its highly skilled, extremely employable, but loyal staff well for the previous six decades, by a management team whose strategic errors had proven so costly to the business that its sale had become the only viable rescue plan. When contrasted with the performance of Ulrich Putsch and his brother, the insistence on the need for *family* leadership to guarantee family interests now seemed justified.

Under New Control, 1970 onwards

January 1970 saw the Reutter family leaving the business they had formed 63 years earlier. Jung and Jung conclude that with the sale, Keiper had bought out its strongest competitor and obtained the world-renowned "Recaro" name and numerous granted and applied-for patents, totalling altogether some 130 internationally registered product developments. For Keiper and the Putsch family, the acquisition of Recaro was a masterstroke. They had taken their strongest competitor out of the market, got all its patents, secured all the know-how on both types of seating mechanism, and achieved access to a new range of ideas created by Recaro's design staff. They were now also in a significantly stronger position vis-à-vis their larger customers.¹⁴⁶

¹⁴³ Jung and Jung, p. 275.

¹⁴⁴ Helmes, p. 19; cited at Jung and Jung, p. 275.

¹⁴⁵ Lothar Kettenacker, *Germany Since 1945* (Oxford & New York: Oxford University Press, 1997), p. 279, table 11.

¹⁴⁶ Putsch and Putsch, p. 166; Greger, p. 34.

¹⁴⁷ There were no immediate redundancies and the future outlook for individuals and the business looked as though it would be secured by the new owner.¹⁴⁸

Following the takeover Recaro's existing managers were initially left in place. Helmes appointed a new, young sales director. He developed the vehicle seating business, launched new advertising and a new logo, and found new markets, while continuing on Recaro's strategic path of "proper seating" (*richtiges Sitzen*).¹⁴⁹ The product range included complete Recaro seats for Porsche and the *Idealsitz* for the aftermarket. The Keiper team, in contrast, remained focused on door handles, gear levers, and window winders. The *Taumel* remained Keiper's most important product: in 1972, 720 came off the line each hour for 24 hours a day,¹⁵⁰ an eloquent symbol of their distance from the handcrafted workmanship that had characterised Reutter/Recaro's thinking and was lovingly captured in photos which adorn its company histories.¹⁵¹ Keiper has been cited by one scholar as an example of a market-orientated specialist which saw its strengths as solving problems and developing know-how, and thus was able to escape the "supplier problem" of being treated as a servant by its customers¹⁵² (with its aircraft seating in particular, Recaro would duly find a way to combine its tradition of craftsmanship and innovative design with the cultivation of similar relationships, a combination which distinguishes it still in 2019). The Mittelstand commitment to remaining independent specialists providing excellent niche products as part of a long-term strategy was maintained in ways which best suited each division's market and provenance.

But given Keiper's commitment to mass production, would it not have made more sense now to move away from Mittelstand gradualism and push ahead more aggressively with mass-producing straightforward products? It seems that Putsch saw a better opportunity in taking the best of Recaro's expertise and flair, building on it, then streamlining the manufacture of the resultant products. He began carefully, pragmatically seeking a licensing arrangement with an American aviation seat manufacturer until Recaro had enough expertise to operate autonomously.¹⁵³ He then wanted leaders with special technical expertise to deliver Recaro's strategy. In 1971 Horst Sommerlatte was appointed chief designer of Recaro's own range of

¹⁴⁷ Greger, p. 34.

¹⁴⁸ Jung and Jung, p. 276.

¹⁴⁹ Jung, *RECARO*, p. 114.

¹⁵⁰ Putsch and Putsch, pp. 168–69.

¹⁵¹ See for example the workplace photographs in Jung, *Porsche 356 Made by Reutter*, pp. 224–70.

¹⁵² Tilly, p. 158.

¹⁵³ Frank Jung, *Recaro: Seating in Motion* (Delius Klasing Verlag, 2016), p. 118.

aircraft seats. Aged only 31, Sommerlatte seems to have shared the youthful energy, allied to very high technical competence, of the Putsch brothers. As well as aircraft seats he developed a modular family of seats for cars, trucks and buses, customised to suit a range of driver types:¹⁵⁴ specialised, niche products again. [REDACTED]

[REDACTED]¹⁵⁵ Sommerlatte recalls positive working relations with Recaro's technical team, distinctive designs, clever marketing, all of which led to new business in all areas of vehicle interiors.¹⁵⁶ In other words, Recaro's practices and values were respected and adapted, not replaced.

Putsch's other notable appointment was Dr. Ing. Rolf Bahmann who succeeded Helmes in autumn 1972 [REDACTED] Greger's account¹⁵⁷ [REDACTED]

[REDACTED]¹⁵⁸ [REDACTED]

[REDACTED]¹⁵⁹. The detail reminds us again that the business achievements which powered the 'economic miracle' and the high growth which continued into the 1970s were not in fact 'miraculous'; German companies were confronted constantly with logistical challenges, staff shortages, technical innovation opportunities, and the concomitant leadership challenges, just as their counterparts were in the UK and elsewhere. Greger [REDACTED]

[REDACTED]¹⁶⁰

Success appears to have been made possible by the leadership of a focused, technically

¹⁵⁴ 'Recaro Seats', *Sommerlatte Industrial Design* <<http://www.sommerlatte-industrial-design.de>> [accessed 30 November 2018].

¹⁵⁵ Greger, p. 35.

¹⁵⁶ 'Recaro Seats'.

¹⁵⁷ Bahmann died in 1975 of cancer, leaving no papers on which to base a review of his performance (per Frank Jung, meeting of 6 October 2016).

¹⁵⁸ Greger, p. 38.

¹⁵⁹ Greger, p. 39.

¹⁶⁰ Greger, p. 39.

[REDACTED]¹⁶¹ and a PhD in mechanical engineering;¹⁶² patient investment from the company's owners, who waited three years for the first substantial order; and personal commitment from the workforce, who were willing to tolerate considerable personal upheaval. In principle, fixing problems in this way should also have been possible at Jensen, except it lacked leadership of equivalent quality, patient investors, and a workforce who were equally capable and equally well looked after.

Growth was further secured by holding true to Mittelstand values of solidifying regional attachments, looking after staff, and accepting institutional support. For example, Keiper

[REDACTED]

[REDACTED]¹⁶³ reveal the social and commercial systems within which Mittelstand firms could flourish: broad institutional and political support, strong networks, the ambition to create long-term jobs, and a willingness to invest public money in the infrastructure required to support them.¹⁶⁴

The leadership structure and underpinning values which remained with the larger and growing business are significant. A detailed examination of its evolution, which is of particular interest in relation to aircraft seating (dominating a world market by 2019, in typical Mittelstand

¹⁶¹ Greger, p. 36.

¹⁶² 'Doctoral Theses Supervised by Professor Lueth, Professor Heinzl, and Professor Unterberger since 1953', *Chair of Micro Technology and Medical Device Technology, Technical University of Munich*, 2018 <<https://www.mimed.mw.tum.de/en/structure/doctoral-theses/>> [accessed 6 December 2018].

¹⁶³ 'Schwäbisch Hall: Geeigneter Wirtschafts- Und Lebensraum', *Haller Tagblatt* (Schwäbisch Hall, 6 October 1971), section 'Aus Stadt und Kreis', Frank Jung Archive.

¹⁶⁴ In contrast, for companies seeking to grow in the West Midlands, an already inconsistent approach to supporting SMEs in Britain was later weakened further by the Thatcher Government's preference for market forces over local institutional commitments. See for example: C.G. Pickvance, 'Introduction: The Institutional Context of Local Economic Development: Central Controls, Spatial Policies and Local Economic Policies', in *Place, Policy, and Politics: Do Localities Matter?*, ed. by Michael Harloe, C.G. Pickvance, and John Urry (London: Unwin Hyman, 1990), pp. 27–28; Dennis Smith, 'Coping with Restructuring: The Case of South-West Birmingham', in *Place, Policy, and Politics: Do Localities Matter?*, ed. by Michael Harloe, C.G. Pickvance, and John Urry (London: Unwin Hyman, 1990), pp. 113–14 explains the particularly inefficient response in the West Midlands.

“hidden champion” fashion), is beyond the scope of this chapter and the available archival evidence. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]¹⁶⁵ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] At the end of 23 years during which he had increased staff numbers 11-fold and total sales by a factor of 32,¹⁶⁶ developing a substantial international company, Ulrich Putsch clearly still felt that this was his family’s company, and would not delegate his personal sense of fiduciary accountability as its ‘Unternehmer’. In this respect, his conduct and values reinforced the belief of Jung and Jung that family leadership was best able to deliver sustainable competitiveness through Mittelstand precepts.

In 2013, Recaro’s published *Values* restated the Putsch family’s commitment to “Modern entrepreneurship”, centred in a “performance-oriented family company... Our managing partner Martin Putsch [evidence of generational continuity] puts it very clearly: ‘With the right team, there's no better type of company. It guarantees a focus that doesn't depend on quarterly figures, as well as financial freedom and the ability to make decisions quickly.’”¹⁶⁷ In reinforcing the value of family ownership over several decades, even as their group developed into a global force, Martin and Ulrich Putsch have exemplified the leadership qualities which propelled the original Reutter business but whose absence from Recaro was lamented by the surviving members of the Reutter family.¹⁶⁸ And they have done so while providing the social benefits¹⁶⁹ which Norbert Helmes had judged to be inimical to company growth and profitability, but which they themselves appear to have found are the best means of aligning the long-term interests of valuable skilled staff and their employer. While their companies’ size eventually outstripped the conventional criteria for inclusion in the Mittelstand, the Putsch family continued, and continue, to personify the strengths and values associated with Mittelstand leadership.

¹⁶⁵ ‘RECARO Aircraft Seating Division’, 1985, RECARO Holding GmbH archives.

¹⁶⁶ Putsch and Putsch, p. 149.

¹⁶⁷ RECARO Holding GmbH, ‘Family Business and Philosophy’, 2013 <www.recaro.com/family-company-and-philosophy.html> [accessed 13 October 2013].

¹⁶⁸ Jung and Jung, p. 250.

¹⁶⁹ Putsch and Putsch, pp. 276–77.

Jensen Motors Ltd, West Bromwich¹⁷⁰

Early History to 1945

Alan and Richard Jensen were Birmingham-born car enthusiasts and motor-trade apprentices who hand-crafted a stylish sports body onto a standard car chassis in 1928. It earned them the admiration of vehicle designers and orders for custom models. Joining a truck builder in West Bromwich in 1932 as joint Managing Directors while both still in their twenties, they accumulated broad experience in bodybuilding. Unlike Wilhelm Reutter and Fritz Keiper, they were not experienced *Meister*. In fact they were more like the proverbial Swabian *Tüftler*, though perhaps it is fairer to characterise them as the equivalent of 21st century tech entrepreneurs. But they were capable. In parallel with trucks they developed stylish custom-built sports cars, most famously for Clark Gable, changing the company name to Jensen Motors Ltd. in 1934 and working with numerous skilled workers who would remain with them for the next thirty years. In a foreshadowing of their future preference for working with American components, they met Edsel Ford and created a number of stylish coupes using handmade Jensen bodies on Ford chassis.¹⁷¹ They had enough personal credibility to develop commercial relationships combined with precocious technical acumen: when the newly launched Jensen S Type was praised by *The Motor* in 1936, they were 30 and 27 years old. They were also innovative. While their sports cars continued to attract attention, in 1937 they produced the world's first aluminium bodied commercial vehicle, followed by the first Pantehnicon, or high-bodied furniture removal truck.¹⁷² The factory switched to war work, but their innovativeness was again shown with the Jen-Tug, a new type of commercial vehicle tractor-trailer combination.¹⁷³

Postwar Developments, 1945-59

¹⁷⁰ The source material for the following review combines documents from the Jensen MRC archive, with some trade union archives; supporting press articles; published company histories (which are written primarily for Jensen enthusiasts by Jensen enthusiasts interested more in the cars than in the company, and lack the detail and professionalism of the histories of Reutter and Recaro); the business autobiography of one Managing Director; and recollections of former employees which are published on Jensen enthusiasts' websites.

¹⁷¹ Keith Anderson, *Jensen* (Yeovil: Haynes, 1989), pp. 7–16.

¹⁷² 'A Brief History of Jensen' (Jensen Motors Ltd., 1966), Modern Records Centre, MSS 215/6/2.

¹⁷³ Anderson, *Jensen*, pp. 35–40; Hans Kamp, 'Jensen Commercial Vehicles', *The Jensen Museum*, 2017 <<http://www.jensenmuseum.org/jensen-commercial-vehicles/>> [accessed 16 January 2019].

Wartime production had grown Jensen's sales significantly, taking them from £28,800 in 1938 to £384,633 in 1944. Profitability was apparently poor, however; having recorded a loss of 9% in 1938, the company reached a high of 3% profit in 1941, thereafter recording none, and complaining bitterly that Excess Profits Tax had consumed it all.¹⁷⁴ Whether that lack of profitability was a reflection of the nature of their war work, or of some management failing, is not clear: K&J's nearby factory was, after all, highly profitable throughout the war. Though post-war sales were strong, reaching £345,000 in 1951, profits initially remained low, thanks to continuing material controls¹⁷⁵ and a rising wage bill.¹⁷⁶ That position changed in the following decade. Sales doubled from £383,000 to £764,000 over five years to 1955/56.¹⁷⁷ From 1948, the last loss-making year until 1961, pre-tax profits averaged £48,000, reaching £119,613 in 1958. These increases reflected and enabled a substantial increase in machinery investments, with capital expenditure taking the value of plant from under £6000 in 1949 to over £176,000 in 1958. Additional investments of £144,000 had been made in freehold property within West Bromwich as the company outgrew its original factory. As a consequence of its progress and reinvestment of increasing profits in the business, the value of the balance sheet grew fivefold to £293,559.¹⁷⁸

They remained innovative, pioneering the use of fibreglass, first for truck cabs and then using it on the 541 and CV-8 car bodies. For all the glamour and indisputable achievement of their custom-built touring cars, though, their business model was reliant for its viability on cross-subsidies from less stylish activities, especially their commercial vehicle building. Military contracts had helped fund other projects, such as the Jensen Interceptor in 1948.¹⁷⁹ By mid-1958, commercial vehicles had become less important, for by now high-volume car assembly was in full swing. An internal summary detailing ten months' profit shows the relationship between sub-contract assembly work and the production of Jensen's own cars:¹⁸⁰

¹⁷⁴ 'Handwritten Duplicate Book', pp. 4, 18, 22–23, 27.

¹⁷⁵ Geoffrey Owen, *From Empire to Europe: The Decline and Revival of British Industry Since the Second World War* (London: Harper Collins, 1999), p. 218.

¹⁷⁶ 'Jensen Motors Limited: Profit and Loss Account Summary, 1946-51' (Blakemore, Elgar & Co., 1951), Modern Records Centre, MSS 215/2/2.

¹⁷⁷ Jensen Motors Ltd., 'Handwritten Profit and Loss Account Summary, 1951/52 to 1955/56' JML date stamped May 1954, suggesting it was updated yearly.

¹⁷⁸ 'Jensen Motors Limited: Summary of Accounts, 1949-58'.

¹⁷⁹ Kamp.

¹⁸⁰ Jensen Motors Ltd., 'Jensen Motors Limited: Summary of Estimated Profit, Ten Months from 1st August 1957 to 31st May 1958' (Jensen Motors Ltd., 1966), Modern Records Centre, MSS 215/3/19. Additional analysis and table by author.

	Quantity	Sales £	Gross Profit £	% GP	Reconciliation	£
Austin Healey 100	3,978	1,021,148	146,306	14.3%	Estd profit to March	6,813
K.D.	149	30,290	6,456	21.3%	Countryman Price Adjustments	29,200
Prototype		1,710	832	48.7%	Est profit April	1,984
Sundries		5,240	1,064	20.3%	A.H. 100 material handling	
Austin Countryman	1,363	215,515	44,545	20.7%		charge to April 20,294
C.K.D.	372	24,180	7,800	32.3%	Estd profit May	7,444
Spares/Repairs		83,990	32,578	38.8%		65,735
Jensen Cars	46	66,805	8,874	13.3%	Deduct	
Car Spares & Repairs		9,821	3,965	40.4%	A.H. 100 Retrospective Costing	
Commercial Vehicles	3	5,584	813	14.6%		Adjustments 6,605
Spares/Repairs		20,736	5,609	27.0%	Jig, Tool, etc	1,735
Articulated Vehicles	4	2,423	455	18.8%		57395
Spares/Repairs		6,294	3,469	55.1%		
Hard tops (740) & Misc bodywork		37,291	10,696	28.7%	Author's Analysis (Ignoring Reconciliation Values)	
Plastics (Sundry)		1,076	553	51.4%		
Sale of Petrol, Scrap Metal, etc		4,600	3,183	69.2%	Subcontract products as % of all Revenue	89.9%
		<u>1,536,703</u>	<u>277,198</u>	<u>18.0%</u>	Jensen cars & spares as % of all Revenue	5.0%
					Subcontract products as % of all Gross Profit	86.4%
Estimated Gross Profit as above			277,198	18.0%	Jensen cars & spares as % of all Gross Profit	4.6%
Overhead expenses			205,650	13.4%	All % Calculations by author	
Jigs, Tools & Development etc			14,153	0.9%		
Net			57,395		Net Profit as % of Sales	3.7%
MSS 215/3/19	Jensen Motors Limited: Summary of Estimated Profit, Ten Months from 1st August 1957 to 31st May 1958					

As the above analysis suggests, Jensen was potentially vulnerable. Enthusiasm for its own cars was high, but this analysis shows they were made in tiny volumes, averaging less than seven per month, and were less profitable than any other product; this was more of a subsidised enthusiasts' workshop than a serious vehicle manufacturer. More importantly, their construction was apparently subsidised by the subcontract manufacture which provided 90% of revenue and 86% of gross profit: without work from Austin, Jensen could not nearly cover its own overheads.

Nonetheless, Jensen's own cars and reputation as car designers – reinforced by the engagement of the highly esteemed Eric Neale as Chief Designer in 1946¹⁸¹ – were what distinguished them. An undated Jensen press release from the 1950s apparently echoes Broadberry's comments and speaks to the self-conception of the firm and its owners: "A great deal is talked these days about the fine British tradition of skilled and specialised craftsmanship... this craftsmanship is held, and rightly too, to be one of the old country's chief assets". In a company which was "still owned and directed by them alone...the Jensen brothers are craftsmen, still more they are artists." They had already "solved a great number" of technical problems as they aimed for "that final effect, for that gasp of admiration as a man first takes the wheel."

¹⁸¹ Anderson, *Jensen*, pp. 51–54.

Such achievements required long-term commitment as well as admirable craft skills, as an “effect such as this can only be produced by years of painstaking and devoted work. It cannot be produced by making quick profits out of short term demands.”¹⁸² The Jensen brothers had achieved their success to this point, as had Reutter, by the application of this philosophy, which has remained central to the continued hagiography of Jensen car enthusiasts. The difference was that Reutter was carrying through this philosophy with a large team of *Meister* and experienced staff, building quality cars in volume, after prewar experience of building in similar volumes, all for the most demanding of customers.

The Jensens’ achievements to this point were indisputable: starting as very young men, they had built a company in which technical innovation across a range of vehicle types was combined with the ability to carry out subcontract manufacture to a satisfactory standard for other British manufacturers, enabling a progressive increase in revenue and profit. But as the preceding analysis shows, Jensen’s own cars – though highly regarded by themselves and others – were not particularly profitable and were subsidised by the remainder of the business. Sales were low, just 718 cars between 1936-62.¹⁸³ Both were in poor health, which Richard later “ascribed to the effort of running a business in the face of increasingly disruptive labour practices.”¹⁸⁴ It may still have been true that, in the words of an undated press release from the late 1950s, the Jensen brothers “[had] the spirit of pioneers” who had never “lacked faith in their abilities, or of the unique products they have designed and build from time to time.”¹⁸⁵ But given the risk of diminishing returns to their efforts, the brothers sought outside help. In June 1959, they sold their shareholding to a new financial conglomerate, Norcros, for £712,000, £182,000 in cash and the remainder in Norcros shares.¹⁸⁶ Norcros was created in 1956 to acquire and manage, with the former owners’ continued engagement, family firms which were threatened by death duties or whose owners felt they lacked the resources for further growth. Its founder, Eton- and Cambridge-educated financier John Sheffield, “one of the most innovative financial minds of his generation” looked to build a mini-conglomerate of mostly unrelated businesses. Nevertheless, “the method worked, profits soared and many of

¹⁸² ‘Craftsmanship. Britain’s Great Weapon in the Face of Competition’ (Jensen Motors Ltd., 1955), Modern Records Centre, MSS 215/6/2.

¹⁸³ Keith Anderson, *Jensen and Jensen-Healey* (Stroud: Sutton, 1998), Appendix.

¹⁸⁴ ‘Mr Richard Jensen - Obituary’, *The Times* (London, England, 14 September 1977), p. 18, The Times Digital Archive; see also ‘Two Brothers with Vision - Alan & Richard Jensen’, *The Jensen Museum*, 2016 <<http://www.jensenmuseum.org/alan-richard-jensen/>> [accessed 16 January 2019].

¹⁸⁵ ‘Press Release: “The Faith of the Jensen Brothers”’ (Jensen Motors Ltd.), Modern Records Centre, MSS 215/6/2.

¹⁸⁶ ‘Norcros Acquires Jensen Motors’, *The Times* (London, England, 18 June 1959), p. 16, The Times Digital Archive; ‘Jensen Motors Bought by Norcros’, *The Manchester Guardian* (Manchester, 18 June 1959), p. 12.

the early company owners who joined the group became millionaires.” The group itself “became a darling of the stock market and was always well-capitalised”.¹⁸⁷ On the face of it, the Jensen brothers’ action was sensible: they had taken a payout from a reputable business and would remain as Chairman - each for an alternating year - of the company which would continue to bear their name, designing exciting new cars, while a Norcros appointee became Managing Director and took responsibility for most of the less pleasant tasks. However, they had also taken the first step away from the business model which had brought them to where they were. That model was at this same time also working well for Porsche, where the engineer/entrepreneur Ferdinand Porsche remained in complete personal control of a business to which he was passionately committed; and for Reutter, whose long-term business leader and senior advisors were all completely familiar with the industry, knew Porsche and other customers and suppliers, and shared the values of the company’s founders. Unlike its German counterparts, Jensen was now in the hands not of serious automotive engineers with long-term strategies and supportive local banks, but of financial engineers with profit-hungry shareholders and no industry knowledge or expertise.

Jensen under Norcros Ownership

Management and Operations

The first accounts Norcros received must have been a gratifying justification for John Sheffield’s judgement: sales for 1958/59 up to £3.02million, up £950,000 from the prior year, with net profit of £200,406 paying a special dividend of £200,000.¹⁸⁸ By 1960/61, though, a year in which Jensen had had to lay off 350 men during an industry-wide slump,¹⁸⁹ sales had dropped from £3.4million to £2.1million.¹⁹⁰ This was despite revenues being boosted by a contract with Volvo, under which Jensen painted and equipped in West Bromwich body shells made in Scotland. The finished body was then shipped to Sweden, where Volvo added the mechanicals. This was the same relationship that Reutter had with Porsche, the difference being that the finished body was shipped 1700km from West Bromwich to Gothenburg rather than 200m between buildings in Zuffenhausen. Following disagreements over poor quality,

¹⁸⁷ ‘John Sheffield’, 1 July 2008, section News <<http://www.telegraph.co.uk/news/obituaries/2230560/John-Sheffield.html>> [accessed 17 July 2017].

¹⁸⁸ Blakemore, Elgar & Co., ‘Jensen Motors Limited: Accounts for the Year Ended 31st July 1959.’ (Jensen Motors Ltd., 1959), Modern Records Centre, MSS 215/2/6/56.

¹⁸⁹ Our Own Correspondent, ‘Dunlop Introduce Short Time’, *The Times* (London, England, 19 November 1960), p. 5, The Times Digital Archive; Our Own Correspondent, ‘Recession In Car Industry Feared’, *The Times* (London, England, 13 September 1960), p. 3, The Times Digital Archive.

¹⁹⁰ Jensen Motors Ltd., ‘Analysis of Sales by Products 1958/59 -1964/65’ (Jensen Motors Ltd., 1965), Modern Records Centre, MSS 215/2/11.

the contract was terminated after three years.¹⁹¹ Though Jensen were compensated, their complaints about Volvo's excessive quality demands suggest a difference in mentality between themselves, Volvo, and Porsche/Reutter that presaged problems to come.

There were also concerns about management quality. Norcros's first appointed Managing Director was recruited from an airline company, had no experience of the motor industry, and was replaced within a year.¹⁹² Norcros then appointed Brian Owen as Managing Director, to run the business jointly with the Jensen brothers. An ex-Army Colonel, Owen also had no experience of the motor industry, and had a difficult relationship with the Jensens, but remained Managing Director until January 1968.¹⁹³ His experience and knowledge were no match for his direct competitor, Ferry Porsche. In their own recruitment of Kevin Beattie in 1960 as Deputy Chief Engineer, however, the Jensens found a high-quality candidate, who eventually served as Managing Director.¹⁹⁴ Beattie immediately became involved in the development of the new C-V8, praised by *The Times* as "among the most advanced high-performance cars in the world".¹⁹⁵ Jensen targeted a niche market, pricing the C-V8 at £3,860, but managed to sell only 499 altogether.¹⁹⁶ Beattie and the Jensen brothers then took the revolutionary step of approaching Harry Ferguson Research Ltd in Coventry, agreeing with Ferguson to jointly develop the world's first four-wheel drive road car. *The Times*, whose correspondent favoured Jensen, reported that "the marque has become synonymous with prestige and performance" after "many years of producing only cars of exceptional quality and revolutionary conception." The new 'Ferguson Formula' (FF) car was to be, they expected, the forerunner of a new generation of four-wheel drive cars.¹⁹⁷

With the risk of contract manufacture for Austin and Sunbeam ending,¹⁹⁸ Beattie insisted that Jensen needed a new model by the end of 1966 if it was to survive. He was credited by Richard Graves, Jensen's Marketing Director, as the company's saviour. Beattie persuaded Owen to make the necessary investment, and delivered two new cars, the FF and the Interceptor, within

¹⁹¹ Anderson, *Jensen*, pp. 117–19.

¹⁹² 'Jensen Motors Employees A-Z', *The Jensen Museum*, 2016 <<http://www.jensenmuseum.org/jensen-motors-employees/>> [accessed 16 January 2019].

¹⁹³ 'Jensen Motors Employees A-Z'.

¹⁹⁴ Anderson, *Jensen*, pp. 107–8.

¹⁹⁵ 'Jensen To Produce Car With Four-Wheel-Drive', *The Times* (London, England, 26 October 1964), p. 6, The Times Digital Archive.

¹⁹⁶ 'Jensen CV8 | From Drawing Board To Reality', *The Jensen Museum*, 2018 <<http://www.jensenmuseum.org/jensen-cv8-from-drawing-board-to-reality/>> [accessed 16 January 2019].

¹⁹⁷ 'Jensen To Produce Car With Four-Wheel-Drive'.

¹⁹⁸ Anderson, *Jensen and Jensen-Healey*, pp. 93–94.

one year.¹⁹⁹ However, in insisting the new cars' bodies be designed in Italy, Beattie alienated the Jensen brothers and their design chief, Eric Neale. Within four weeks, all had left acrimoniously, removing their design flair, public reputation, and industry credibility.²⁰⁰ Until the arrival of Norcros, Jensen was still identifiable as a family-owned business, with many staff having worked for years with the brothers. Thereafter, though staff may have identified with the cars themselves, they were now a division of a financial corporate, a very different cultural proposition. No matter whether Norcros turned out to be competent, they were not car people, and they were not Jensens.

The new cars themselves actually met with very positive reviews. The FF in particular invited admiration for its technical advancements - Porsche bought one for themselves – and was awarded 'Car of the Year' in 1967. But having excited potential buyers, Graves soon ran into problems: "production was increased substantially to meet demand, but then quality problems arose, customer demand began to decline, dealers became overstocked and cash flow suffered."²⁰¹ One company historian argues that Alan and Richard Jensen had opposed the Italian relationship because they had foreseen the problems that quickly arose. First, Italian quality levels were well below the handcrafted Jensen standards that justified the cars' high prices. Second, cancelling the Italian supply contract enabled the cars to be built in West Bromwich, but Jensen's union job demarcation precluded their efficient assembly. Finally, Jensen had been building fibreglass cars, and therefore did not have staff capable of producing a high-quality steel body shell like the Interceptor's.²⁰² It is clear that by this point, the resemblance to Reutter had ceased. No matter what the flair for design and publicity, these failures of operational management now became damaging,

Financial Management

Norcros's relationship with the Jensen factory quickly became problematic. Disappointing 1961 group financial results were publicly attributed to unspecified "temporary setbacks" at Jensen.²⁰³ Revenues were inconsistent and unreliable thereafter. A summary of seven years' results from 1958/59 onwards shows Jensen had delivered £19.3million in sales. But two of those years had seen drops of over £1million since the previous year. More worryingly for a company which presented as the builder of the world's finest grand touring cars, sales of those

¹⁹⁹ In 'Foreword' to Richard Calver, *A History of Jensen: All the Models* (Melbourne: Richard Calver, 2007).

²⁰⁰ Calver, p. NPN.

²⁰¹ Foreword to Calver, pp. xi–xii.

²⁰² Anderson, *Jensen*, p. 135.

²⁰³ 'Norcros', *The Economist*, 17 February 1962, p. 660.

cars and spares amounted to less than £1.4million in total. The company still depended on its subcontract assembly work for 74% of its revenues, hence Beattie's concern. Any deterioration in relationships with Austin and others would be devastating; £1.66million of the £19.3million, representing the terminated Volvo contract, was in fact already lost.²⁰⁴ As we have seen, Reutter staff were anxious for years about their dependence on Porsche, but having to rely on the strike-ridden Austin plants for 75% of one's revenue was a more worrying proposition.

Against this backdrop, Norcros's 1966 group results showed a strong balance sheet, reflecting prudent financial management and recent acquisitions. A slightly increased profit had resulted. The announcement of £1.4million in group investment in operating assets appeared to indicate their commitment to growth. But it should also be compared with their decision to pay out £535,000, 50% of after-tax profit, in dividends, which supports Wayne Lewchuk's criticism of the "industry-wide preference for satisfying the short-run demands of investors rather than the long-run demands of sustained growth."²⁰⁵ And little of that investment seemed to be coming Jensen's way: when other automotive firms were investing heavily in automation, additions to Jensen's plant were minimal.²⁰⁶

Despite the excitement of the Interceptor's reception at the Motor Show, Norcros's concerns were likely reinforced by Graves' 1967/68 sales forecast. For the brand new Interceptor, "Orders are already being lost due to our inability to provide cars fitted with [power steering] and we are being further embarrassed by the lack of accurate information as to its availability and cost", even though production was to start in four months. FF sales were "dependent on the early receipt" of the remaining bodies and tooling from Italy. Cars for the US would require extensive modifications to a tight deadline, after which Graves hoped to "establish a market capable of absorbing one car per week by the beginning of April 1968." His summary rested on optimism: "Throughout 1968 it is assumed that Production will be able to maintain Sales targets and the problems encountered in 1967 will have been overcome."²⁰⁷ There is no specification of what those problems were, nor of how they would be overcome; the future was to be based on fragile assumptions, which would in the best case result only in a tiny number of production cars. Following the loud congratulations for the launch of the Interceptor and FF,

²⁰⁴ Jensen Motors Ltd., 'Analysis of Sales by Products 1958/59 -1964/65'.

²⁰⁵ Wayne Lewchuk, *American Technology and the British Vehicle Industry* (Cambridge: Cambridge University Press, 1987), p. 186.

²⁰⁶ Jensen Motors Ltd., 'Jensen Motors Limited: Balance Sheet Summaries 1959 -1965' (Jensen Motors Ltd., 1965), Modern Records Centre, MSS 215/2/11/2.

²⁰⁷ R.A. Graves, 'Memorandum: Sales Forecast 1967/68' (Jensen Motors Ltd., 1967), Modern Records Centre, MSS 215/6/7.

there is no sense at this point that the company was being managed in such a way that the cars would actually be produced to meet market requirements, or in numbers that would secure the business's future.

This uncertainty was conveyed in Owen's Five Year Budget, created after Graves's report. In terms of planning ahead, the "figures in advance of 1969 can at this stage only be considered as tentative because unless the whole economy of the country is changed, it could well be that the present malaise within the car industry could bring about wholesale changes in design and selling patterns." He goes on to review other car projects, including the Austin Healey successor. Amazingly, given the date of his report and the necessary planning and operational organisation required, he concludes: "At this stage, without any concrete projects or contracts, we have only been able to work on a hypothetical basis, as those things which could materialise in 1968 or 1969 are at the moment only in an embryo stage." Two other projects were mentioned, "but insufficient is known about either to take into serious account."²⁰⁸ This does not sound like the 'focused, long-range strategy' of a competent Managing Director.

Neither Owen's budget nor the business he was running can have inspired Norcros. The Austin and Sunbeam contracts had ended, creating a loss of -£43,000 in 1967 after average pre-tax profits of £145,000 over the previous five years.²⁰⁹ Pre-tax profit forecasts were all for losses; no matter what the scenario, Jensen's operations were bound to fail. It was only one of Norcros's challenges, according to *The Economist*. Of its four divisions (printing, consumer products, construction, and industrials) two were a "hodgepodge". These included the consumer products group which combined Jensen with Hygena Kitchens (on the basis that individual buyers bought both, not a compelling strategic justification) and two medical companies. Though respected by *The Economist* for its performance relative to other holding companies, there needed to be "some savage sorting out of the group's priorities"; management needed to "cut out, not just unprofitable companies, but those that do not fit into a clear industrial framework."²¹⁰ The financial conglomerate's variety of capitalism seems to have produced less than the sum of its parts.

²⁰⁸ B.C. Owen, 'Five Year Budget' (Jensen Motors Ltd., 1967), Modern Records Centre, MSS 215/6/7.

²⁰⁹ Jensen Motors Ltd., 'Jensen Motors Limited: Profit & Loss Account for Seven Years, Ended 31 July 1959 - 1965' (Jensen Motors Ltd., 1965), Modern Records Centre, MSS 215/2/11.

²¹⁰ 'Holding Companies: Disappearing Breed?', *The Economist*, 1 April 1967, p. 63.

Carl Duerr and William Brandt's Sons, 1968-1970

Norcros's response was to appoint management consultants to review their options. They in turn sent American turnaround specialist Carl Duerr to West Bromwich. Duerr reported back in negative terms and was appointed to replace Owen: the company said that "there have had to be some radical changes in thinking and, in particular, management thinking."²¹¹ Duerr recorded his impressions in a business memoir. He found that Norcros's "disapproving, semi-absentee ownership"²¹² had destroyed staff morale, and Jensen "combined all the deficiencies of a big company with all the disadvantages of a small one, and had none of the benefits of either."²¹³ Six months later, Norcros's decision to divest Jensen was announced.²¹⁴ Duerr and Jensen's PR consultant persuaded merchant bank William Brandt's Sons to buy them out, with Duerr and other directors investing, and the bank publicly proclaiming its intention to shake up the industry and add to Jensen by acquisition.²¹⁵ The purchase price was less than a third what Norcros had paid.

Duerr's book is valuable not only for its commentary on Jensen and its analysis of the prevailing problems and culture there, but also for his observations on British management. Although he too had not come from an automotive background, he was a University of Pennsylvania-trained graduate engineer who had been in engineering and sales positions in both smaller companies and General Electric. Since the war he had served initially as an economic officer for the US Army in Austria and subsequently as a management consultant in Germany, which he considered home. His commentary on British approaches therefore benefits from comparison with German and American practices. On his arrival at Jensen, Duerr "had never set foot in a factory where morale was so low." Communication was poor, departments did not work together, productivity was disastrous, and management of the union relationship poor. In particular, management had ceased to communicate with the staff and keep them aware of Jensen's difficulties. Boosting productivity, improving internal communication, growing sales and enhancing Jensen's image therefore became his priorities.²¹⁶

²¹¹ 'American to Head Jensen', *The Times* (London, England, 6 January 1968), p. 9, The Times Digital Archive.

²¹² Duerr, p. 187.

²¹³ Duerr, p. 189.

²¹⁴ 'Not so Much a Luxury', *The Times* (London, England, 12 June 1968), p. 27, The Times Digital Archive.

²¹⁵ *The Economist*, 31 August 1968, p. 63; 'Bankers Take Major Stake in Jensen', *The Times* (London, England, 23 August 1968), p. 17, The Times Digital Archive.

²¹⁶ Duerr, pp. 187-93.

Staff Relations

Duerr attracted very different feelings among Jensen employees. He thought highly of the skills and attitudes of local workers. His evaluation of them is important, both for its general relevance to this chapter and indeed the whole thesis, but also as a counterpoint to the generally negative perception of unionised British labour in this period. He saw that at Jensen, a critical

asset was the basic calibre of the workforce. They were Black Countrymen, a breed, with one exception, unique in my experience. That exception is that metal-workers of the Ruhr district in Germany. Like the Ruhr workers, the Black Countrymen are the inheritors of a centuries-old tradition of metal-working craftsmanship. As a result, they have a remarkable degree of technical integrity, and an unparalleled willingness to devote themselves to a product they believe in. Generations of hard work at the forge have made them very, very independent and bloody-minded, suspicious of ‘outsiders’ such as people from Birmingham seven miles away, given to mischievous behaviour, hard drinking, and hard work. With half a chance, and some leadership, these very qualities produce a rare degree of team effort. Just get that stubborn steadfastness and wonderful sense of humour harnessed and pulling in the right direction, and your company is going to be very hard to stop.²¹⁷

His appreciation seems to have been reciprocated. One assembly worker, who discovered a way to save Jensen money, decided to report his idea to Duerr directly: “I would never had done this with previous Managing Directors (or even those that came later), but Carl Duerr was approachable. He would often walk along the track early in the morning saying hello to everyone, and asking how people were doing. All the assembly guys liked him.”²¹⁸ One visiting journalist found on his factory tour that “Everyone was pleased to see the boss. They were enjoying their work and they had Carl Duerr to thank for the work and for enjoying it.”²¹⁹

²¹⁷ Duerr, p. 190.

²¹⁸ ‘Jensen Motors Assembly Line Finisher | Day In The Life’, *The Jensen Museum*, 2017 <<http://www.jensenmuseum.org/jensen-motors-assembly-line-finisher-day-life/>> [accessed 22 July 2017].

²¹⁹ Geoffrey Howard, ‘How to Turn Red Into Black. Jensen and Their Nerve-Centre, Mr. Duerr’, *Autocar*, 1970 <http://www.jcc.ch/fileadmin/user_upload/Jensen_Firmengeschichte/Artikel/AC_70_FACT.pdf> [accessed 20 July 2017].

Though he discusses at length his frustration with elements of British union conduct and organisation,²²⁰ Duerr's appraisal of relationships at Jensen reflects his generally positive disposition towards "the skilled British worker [who] is first of all a craftsman of above average literacy and outstanding character. It goes against the grain for him to down tools and walk out".²²¹ In his relations with Jensen's shop stewards, whom he challenged very quickly on the need to improve productivity, "we learned to understand, trust, and respect each other."²²² He was, however, "horrified at the insulation of the offices from the factory" – "not one office worker had ever set foot in the factory"²²³ - which he addressed by the introduction of factory tours and encouraging other senior managers to "get out onto the floor."²²⁴

Duerr was unimpressed with British management in general, and some of those he found at Jensen in particular. He was sceptical about British ambivalence towards the need to make profit,²²⁵ and scornful about the evolution of various management 'types' in Britain, from nepotistic family appointees, to Oxbridge graduates, to the prevailing fashion for 'professional management.' He gives some credit to degree-trained managers with life experience, and to business-school trained business intellectuals. He is contemptuous of managers who like committees but then "duck into the background when the time comes for the decisions, or the shouldering of responsibility" and warns British business that moving into the EEC in the future will expose its lack of managerial professionalism compared to German, Dutch or Belgian managers.²²⁶

Jensen Marketing Director Richard Graves was personally opposed to Duerr, a large part of whose strategy was the systematic development of Jensen's, and his own, public profile. For Duerr, the PR strategy was essential to build the company's image and raise staff morale.²²⁷ Communication was clearly a personal mantra, hence the title of his book and its dedication to a long list of journalists "whose sincere and critical interest" helped Jensen. It should be recalled that Recaro's achievements owed a great deal to their own superb PR, by which they created a global seating brand. However, Graves's criticism of Duerr and his obsession with PR was vitriolic: "I'm not sure how good a businessman he was. I don't generally take badly

²²⁰ Duerr, pp. 92–101, 133–47.

²²¹ Duerr, p. 94.

²²² Duerr, p. 192.

²²³ Duerr, p. 193.

²²⁴ Duerr, p. 193.

²²⁵ Duerr, p. 35.

²²⁶ Duerr, pp. 47; 39–49.

²²⁷ Duerr, pp. 191, 195.

to people, but I couldn't stand him.”²²⁸ This view was unhealthy when both were board directors. The roots of his dislike may have been located in Duerr's criticism of the British, and Jensen's, approach to selling, arguing that being a salesman or an engineer in Britain was socially unacceptable, “which is maybe why sales managers all seem to be renaming themselves marketing directors”.²²⁹ In Jensen, on “the marketing front the company exhibited a hyper-British syndrome: neither the firm nor its dealers were oriented to sell Jensen cars. They were (sometimes reluctant) order takers.” As for the exclusivity of the Jensen product, the cars had always sold themselves “largely because they were in chronically short supply, had been carefully engineered, meticulously built, and often priced below cost.”²³⁰ Graves outlasted Duerr and has remained a hero to Jensen aficionados. In his own very negative criticisms of aspects of the company, quoted below, Graves was open and candid. That the cars sold at all must have owed something to his ability. But his insistence that “you have to have customers who want the cars, rather than you wanting the [manufactured but unsold] cars to have customers”,²³¹ indicates a lassitude and lack of growth orientation which added weight to Duerr's insistence that “supine reliance on order taking was no longer enough.”²³²

Business Performance Under Duerr

Duerr's intention was to take Jensen public in 1972.²³³ In itself, this plan – so alien to the thinking of most Mittelstand businesses, even those which grew very large like Keiper – suggested that the “turnaround man” had adopted a short-term plan for Jensen from which he himself stood to gain as a shareholder. The details of his plan are not known, but it is possible that those critical of his management and his pushing for more output believed that he was pumping the business unnecessarily hard with a view to enhancing its IPO value. This criticism was not apparent in *Autocar's* congratulatory review in January 1970, which pointed out the firm had taken 33 years to build its first 1000 Jensens but 33 months to build its first 1000 Interceptors, with a Managing Director who was popular with the workforce and passionate about the product.²³⁴ The business appeared to be thriving in a way that it had not

²²⁸ ‘Jon Pressnell – Richard Graves Interview’, *The Jensen Museum*, 2017 <<http://www.jensenmuseum.org/jon-pressnell-richard-graves-interview/>> [accessed 22 July 2017].

²²⁹ Duerr, p. 167.

²³⁰ Duerr, p. 188.

²³¹ ‘Jon Pressnell – Richard Graves Interview’.

²³² Duerr, p. 199.

²³³ Duerr, p. 201.

²³⁴ Howard.

thrived previously. Five months later, though, Duerr had resigned, sold his 30% holding, and left.²³⁵

The origins of his departure can be found in a review of the financial results for the 13 weeks ending 31 January 1970.²³⁶ Sales were strong: 138 cars had been sold. But the quarter showed a -£28,000 loss. Though Duerr had cut hundreds of jobs and each car was in itself profitable, his battle to improve quality was apparently not over. ‘Rectification costs’ totalled £8000. A later statement showed each 429 cars under guarantee, costing on average £118 per car each year, a huge potential liability.²³⁷ There was almost £1.1million of stock and work in progress: 116 cars had been built, but only 39 actually sold, substantiating Graves’s complaint about building too many cars, and Duerr’s criticism of Graves’s failure to sell them. And with creditors at £1.2million and debtors at £234,000, the business lacked liquidity, not least because it was paying £15,000 in interest and £19,000 in Norcross royalties per quarter.

Duerr’s defence was simple: all the development and other charges had been loaded into the costs, they had invested for growth, and were on target for £250,000 profit before the IPO. There were slack sales periods each year, and it was more efficient to run the factory consistently and then push hard to sell the cars produced, than to lay workers off in quiet periods. The bank’s chairman demurred, recommending instead that overhead be cut, and – echoing the conservative Graves – “a proven rate of production to match proven sales” implemented. Mirroring Duerr’s own experience, the bank appointed former Rolls Royce aviation manager Alfred Vickers to report on Jensen’s financial position. His negative report was ill received by Duerr. In response, Duerr looked around for an alternate investor. He found Kjell Qvale, American distributor of Austin Healey and other British cars, and Donald Healey, the car’s designer. They bought our Brandt’s shares and then decided – by telegram – to cancel the agreed scheme by which Duerr would return to Germany and set up a Jensen sales franchise.²³⁸ Vickers was then appointed Managing Director himself.

Duerr claimed in his book, published the following year, to have succeeded in his turnaround. He warned that Jensen could be returning to its past problems, again dependent on a single

²³⁵ Giles Smith, ‘Duerr of Jensen Resigns’, *The Times* (London, England, 9 May 1970), p. 11, The Times Digital Archive.

²³⁶ ‘Monthly Trading Report, 13 Weeks Ended 30th January 1970’ (Jensen Motors Ltd., 1970), Modern Records Centre, MSS 215/6/9.

²³⁷ ‘Guarantee Costs, 4 Weeks to 26th June 1970’ (Jensen Motors Ltd., 1970), Modern Records Centre, MSS 215/6/9.

²³⁸ Duerr, pp. 204–5.

customer – Qvale himself – and on sales in an increasingly competitive American market.²³⁹ He was right. We have no record of the reaction of staff to Duerr’s departure, but they now found themselves with new owners for the third time in barely a decade and their third Managing Director in less than three years. In these circumstances, workforce frustrations with company management were understandably high.

Labour Relations

As labour problems were said to have contributed to the brothers’ decision to sell Jensen and were frequently mentioned as the business neared its end, it is appropriate at this point to consider their varied nature over time. They occurred within a context of industrial relations difficulties across the British motor industry,²⁴⁰ within which, increasingly, “management was being challenged to take direct responsibility for planning, maintenance and the organisation of shop floor activity. It was a challenge for which they were ill prepared.”²⁴¹ Wayne Lewchuk’s analysis of the industry between the 1950s and 1980s pays particular attention to the challenge of relating pay to productivity, and productivity to automation, and both to the management of labour relations.²⁴² Strikes were endemic: there were 401 strikes of more than 100 days each in British car factories in the period 1960-64. At the Austin plant closest to Jensen, there were 935 internal disputes between 1966 and 1971, in a climate in which labour generally found it effective to launch small stoppages which blocked the increasingly integrated production systems.²⁴³ Lewchuk is generally sympathetic to the labour perspective, but his analysis of the industry’s difficulty in moving from piecework pay to managed day rates is persuasive, as is his wider appraisal of work organisation and his conclusion that in many situations, it was management incompetence rather than labour intransigence that caused line stoppages. The workers’ perspective at the Austin plant, for example, was of growing frustration at management’s inability to keep the plant running.²⁴⁴ Similar frustrations were expressed at Jensen.

Some stoppages were caused by indirect action or impact. Three hundred Jensen workers had refused in July 1956 to work on Austin Healey bodies in sympathy with a strike at British

²³⁹ Duerr, p. 206.

²⁴⁰ Geoffrey Owen, pp. 220–21, 231–38; David Kynaston, *Austerity Britain 1945-51* (London: Bloomsbury, 2007), pp. 487–99.

²⁴¹ Lewchuck, p. 195; other than at Vauxhall, where ‘crucially, workers were treated as human beings’: Kynaston, p. 489.

²⁴² Lewchuck, pp. 184–225.

²⁴³ Lewchuck, p. 203, table 9.8.

²⁴⁴ Lewchuck, p. 208.

Motor Corporation, for instance.²⁴⁵ In 1957 the National Union of Vehicle Builders (NUVB) wrote to the Trades Union Congress to advise that the Birmingham and Midland Sheet Metal Workers' Society (BMSMWS) had withdrawn all their members from Jensen from 14 October, causing all 400 members of the NUVB to be suspended from work. As the BMSMWS had claimed "sole prerogative", NUVB interests could not be represented, hence the appeal for TUC support. BMSMWS wrote to the TUC on 5 November reporting: "the Dispute at Jensen Motor Co. Ltd., is now settled, and you will be pleased to know that we have received from the Management everything we asked for."²⁴⁶ In this case, having lost production from 14 October to 1/2 November,²⁴⁷ the Jensens then had to concede all that had been demanded. The financial impact on the business of this particular strike is not known. Later disputes also required workers from an unaffected union to cease work while a separate disagreement was enacted between management and the disaffected workers.²⁴⁸

It is beyond the scope of this chapter and of the available source material to study Jensen's personnel management practices in any detail. But the challenge to productivity, quality, and long-term viability of management-labour relations can be judged from various documents relating to factory wage rates as well as to the strike actions referenced above. Pay was complicated. Production wages included elements of basic pay, overtime, incentives, piecework – and later, day working - and holiday pay. Additional payments were agreed by trade and by union, and included both "domestic" and nationally agreed levels. An analysis was set out at Jensen in April 1970 which showed changes in wages from 1961 (when the working week was 42 hours) to 1965 (when it was reduced, first to 41 and then to 40 hours), to 1969 and then 1970. As the table below shows, the combination of decreasing hours and increasing weekly rates meant that on basic wages alone, the company had to bear nominal cost rises of between 36% and 61% for three sample roles over the period. Rates of increase on piecework and other supplements are not recorded. However, some sympathy must be offered to the workers, who were having to combat soaring living costs: when normalised for inflation, actual increases between 1961-1970 for those roles were between -6% and 12%

²⁴⁵ 'More Motor Workers Join Strike', *The Times* (London, England, 26 July 1956), p. 8, The Times Digital Archive.

²⁴⁶ H. Townsend, 'Letter from Birmingham and Midlands Sheet Metal Workers Society to Sir Vincent Tewson, TUC', 5 November 1957, Modern Records Centre, MSS 292/251/6; 'Sports Car Production Halted by Strike', *The Times* (London, England, 19 October 1957), p. 4, The Times Digital Archive.

²⁴⁷ 'Car Factory Strike Ends', *The Times* (London, England, 2 November 1957), p. 4, The Times Digital Archive.

²⁴⁸ For example, 'Production Halted at Jensen Works', *The Times* (London, England, 5 April 1962), p. 5, The Times Digital Archive.

(though a 12% real terms increase is of course highly significant). It is not clear whether the price of Jensen cars or other inputs rose by the same amount over the same period, so the actual impact on the business cannot easily be determined.²⁴⁹

Sympathy for the inflationary climate aside, the general situation with wage demands appears to have been untenable when weighed against the company's operational struggles. It was not necessarily the fault of the unions. From the available evidence there are suggestions that management did not always manage the wage situation or general operations effectively. Given that first piece rates, then bonuses, relied on the throughput of cars, which in turn depended on accurate planning and reliable material supplies, the onus was on management to plan and execute properly. When they did not, the worker's standard of living would immediately be affected, giving rise to understandable tensions. It can be imagined that in the prevailing external industrial climate with constant internal pressure to produce enough cars to keep the business viable and the requirement to keep the 'track' always moving and provisioned, acting rationally, much less being hard-nosed and holding out against union demands, is easier to contemplate than to achieve. It must, however, be remembered that both Porsche and Reutter did exactly that. Carl Duerr claims in his book to have done the same.

Difficulties were endemic within the craft-demarcated culture. For example, from February 1969 Jensen paid eight different rates to adult male workers, plus six to workers aged 20 and under according to their age.²⁵⁰ Piecework rates, which differed by trade and between the two production unions, and other supplements added further complexity to the pay scales. Whereas staff of both sexes were paid the same rate for the same job at Reutter and Porsche from the early 1950s onwards, establishing an egalitarian culture of equal commitment, all adult women workers at Jensen were paid a flat rate which was 79% of the lowest-paid male labourer's wage. Ferry Porsche went further: though he also suffered strikes and disagreements with his (single) union, he insisted that "workers and staff all be on an equal footing"²⁵¹ in his business, an approach as unimaginable in the them-versus-us environment of British motor manufacturing as Porsche's consequent results were.

As Jensen's situation deteriorated, so wages issues became more pressing and, in hindsight, incomprehensible. In August 1974, for example, with Jensen in difficulties, production was

²⁴⁹ Jensen Motors Ltd., 'Basic Wages 1961-1970' (Jensen Motors Ltd., 1970), Modern Records Centre, MSS 215/6/11. Calculations by the author.

²⁵⁰ Jensen Motors Ltd., 'Domestic Wages Agreement' (Jensen Motors Ltd., 1969), Modern Records Centre, MSS 215/6/11.

²⁵¹ Porsche and Molter, p. 242.

halted again. Management agreed to pay demands which would “improve holiday pay and pension benefits, provide better security of earnings, and the employees (sic) general credit worthiness”. Basic wages for 40 hours would rise and include an irrevocable productivity element, even if productivity was not sustained. Thus a £47.80 per week basic wage would become a £54.00 basic wage plus a £3.75 incentive payment for a worker who did 49 “good minutes” work in an hour, i.e. was less than 82% efficient. This plan would apply for the remainder of 1974, then rise again. On top of this 20.8% pay rise, holiday pay would also rise by 5.3%, the whole agreement being backdated to 1 July 1974. The BSMWS and TGWU signatories “recognised that the Company’s financial difficulties prohibit a more generous settlement” but looked forward to the meeting which would review indirect workers’ pay the following week.²⁵² In an environment in which operational incompetence and a rapid recourse to dismissals were both commonplace, it is not surprising that Jensen’s unions – emboldened by a national culture of labour militancy - were willing to seek greater security for their members. It is also not surprising that their doing so, even without the use of stoppages to reinforce their demands, had a deleterious effect on the company where they wanted to continue working.

Company Culture

A former draughtsman recalled that the original Jensen site, from which the much larger business moved to a purpose-built factory elsewhere in West Bromwich, “was quite a dingy factory...that was true of most factories at that time” (though not of Reutter’s works). But he remembered also “the general friendliness of the workers, one to another, and between staff (not necessarily management) and shop floor workers.”²⁵³ There was pride in craftsmanship, as Duerr found. Images of Jensen’s Trim Shop recall those of Karosserie Reutter, hand-cutting and sewing leather for seats and trim. A report by one visiting car magazine that “six Connolly hides are used to upholster each Jensen, and roof linings are stitched up with notable skill” indicates that here, and elsewhere in the factory,²⁵⁴ the quality of the work done by Jensen’s workers appears to have been superior to the management done by Jensen’s managers:

²⁵² Jensen Motors Ltd., ‘Meeting Held in Mr. Beattie’s Office on the 16th August 1974’ (Jensen Motors Ltd., 1974), Modern Records Centre, MSS 215/3/JE/1; Jensen Motors Ltd., ‘Memorandum of Agreement Between Jensen Motors Limited and The Birmingham and Midlands Sheet Metal Workers Society and the Transport and General Workers Union’ (Jensen Motors Ltd., 1974), Modern Records Centre, MSS 215/3/JE/1.

²⁵³ ‘Recollections of Nick Maltby, Draughtsman, of Jensen Motors | Carter’s Green Factory’, *The Jensen Museum*, 2016 <<http://www.jensenmuseum.org/jensen-motors-carters-green-factory/>> [accessed 22 July 2017].

²⁵⁴ ‘How Jensens Are Made’, *Motor Sport Magazine*, 1969 <<http://www.motorsportmagazine.com/archive/article/february-1969/44/how-jensens-are-made>> [accessed 20 July 2017].

Image here © Frank Jung



Left: Reutter seat production (Jung, *Porsche 356*, p. 269); Right: Jensen trim shop (<http://www.jensenmuseum.org/jensen-motors-trim-shop-employees/>, © The Jensen Museum).

The Trim Shop's leader started at Jensen in the late 1940s or early 1950s and ran it until it closed in 1976. The level of his training and involvement in decision-making are unknown, so it is not possible to draw a parallel between him and his counterpart *Meister* at Reutter. His Senior Trimmer, Gilbert Hughes, was also the Works Convener.²⁵⁵ A colleague who began work in the Press Shop in 1951 and later became its manager, Ron Freckleton, remembered Hughes as “one of the few trade unionists that I ever came across, that understood that companies had to make a profit at the end of the day. He was respected by both the management, as well as those working on the shop floor”²⁵⁶: Duerr remembered Hughes as “exhibiting a degree of maturity and business insight that would probably surprise the union-knockers.”²⁵⁷

Freckleton's own memories of working in various production-related roles indicate a can-do attitude among shopfloor staff, and in his own case a willingness to promote men from a trade background to increasing levels of responsibility (though it is not clear whether they were trained for it). The assembly line finisher who approached Duerr with his cost-saving idea had begun as an apprentice at Jensen.²⁵⁸ He appears to have followed a structured programme, including one day a week at West Bromwich College, and is positive about the atmosphere in the factory. Jensen's approach was to offer a general training, however: after completing his studies, he was asked which area of the factory he wanted to work in, rather than having been

²⁵⁵ ‘Jensen Motors Trim Shop Employees A-Z’, *The Jensen Museum*, 2016
<<http://www.jensenmuseum.org/jensen-motors-trim-shop-employees/>> [accessed 22 July 2017].

²⁵⁶ ‘Jensen Motors’ Press Shop Manager | Recollections’, *The Jensen Museum*, 2017
<<http://www.jensenmuseum.org/jensen-motors-press-shop-manager-recollections/>> [accessed 22 July 2017].

²⁵⁷ Duerr, p. 192.

²⁵⁸ ‘Jensen Motors Assembly Line Finisher | Day In The Life’.

trained to an advanced level in a specific skill. The archive contains a report of the Birmingham Productivity Association's visit to West Germany in 1955, which comprehensively reviewed apprenticeship provision in general, and within several companies including Opel. Some attention was paid to the training of *Meister*.²⁵⁹ We do not know whether any of its findings were applied within Jensen.

Given the apparent interest in German ways of working and the problems that company had been experiencing for some time, it is surprising to hear from Quality Engineer Paul Turner that in 1971 "the Quality Department was a new idea at Jensen. There had always been line inspectors and an inspection structure but not one responsible for quality. There was no job description, the job just developed as we went along. It soon became very apparent that certain foremen on production were not sold on the idea of a Quality Engineer sticking his nose into what they did."²⁶⁰ Having overcome the initial resistance once it was clear that he was technically capable (he had done a five-year apprenticeship at Austin and then worked at Rolls Royce on aero engines), his relationships were good. But he discovered that "Many of [the] problems had existed for a long-time and had become endemic...many of the difficulties were never solved, just improved a little."

The small Quality team faced pressure from management to pass vehicles which were unacceptable, and the general impression is of a quality system which was reluctantly introduced and inadequately supported; Turner's salary was lower than assembly workers' wages. This management mindset can be contrasted with Porsche. After the war, all the factory machines had been lost, and the first Porsches "were therefore mostly made by hand, but were of an outstanding quality which was internationally recognised."²⁶¹ Throughout the build programme for the Porsche 356, which had delivered 40,000 cars by 1960, "quality control was systematically improved" with every fifth production worker given a specific control-task and data-collection sheets being completed for the key features of each vehicle.²⁶²

Criticisms of Jensen's mindset cannot be restricted to staff managers. The foremen, in Turner's account, are equally at fault, apparently as concerned with impingement of their status than with maintaining impeccable standards. The difference between Porsche/Reutter and Jensen

²⁵⁹ Birmingham Productivity Association, 'Gaining Skill: A Report of an Investigation into the Training of Industrial Apprentices in Western Germany' (Birmingham Productivity Association, 1955), MRC, MSS.289/VB/5/3/3.

²⁶⁰ 'Jensen Motors Quality Engineer | Recollections', *The Jensen Museum*, 2017
<<http://www.jensenmuseum.org/jensen-motors-quality-engineer-recollections/>> [accessed 22 July 2017].

²⁶¹ Porsche and Molter, p. 183.

²⁶² Porsche and Molter, p. 241.

in this instance is instructive. Though they were concerned about the operational pressure of growing weekly demands for Porsche 356 bodies and the concomitantly increasing dependence on Porsche, Reutter did whatever was required to meet those demands without sacrificing quality. When Duerr, quite reasonably, requested an increase in output to capitalise on the popularity of the Interceptor and to improve the company's dire financial position, he was condemned by Graves and others. Following Duerr's departure, Vickers' decision to cut production by one third, which produced an improvement in product quality, "proved the point" of Duerr's misjudgement. This outcome suggests a sense within Jensen that producing fifteen good cars in a week was somehow an unreasonable demand, as though product quality were a finite resource which could not be stretched across fifteen cars, rather than an irreducible cultural commitment in whose pursuit all necessary efforts should be made. It also implies a feeling that business growth was somehow distasteful and inimical to the Jensen cachet. Finally, it indicates a significant difference in thinking between the *Meister* of Reutter and the foremen of Jensen.

Duerr's description of the office/works divide suggests a them-and-us culture existed. Whether he was as successful as he claimed to be in mitigating it is not clear. If he was, the problems returned after he left. A 1973 memo written by Jack Warren, a manager or supervisor (it is not clear) in the stores/purchasing area, to a director is highly critical of failings in several areas, including his own. He calls for more assertive management and better communication with workers. His conclusion to the five typed pages, which are literate, organised, constructive and clearly motivated by his commitment to the business rather than by any desire for self-advancement, is: "Too many projects are taken on at once, or if more than one is taken on, they are not placed in priority order and then thoroughly processed. A realistic budget must be drawn up... A realistic margin of profit must be placed on the car, with due consideration to sales requirements and/or alterations." There is more of the same. All of it is consistent with the evidence of Jensen's conduct and performance. The director's response is to annotate "Bull" in the margin, and instruct his secretary to file it away,²⁶³ suggesting at best an indifference to the positive engagement of one employee, at worst a refusal to acknowledge the problems which would eventually prove to be Jensen's downfall.

²⁶³ Jack Warren, 'Untitled Memorandum Re: Jensen Internal Problems' (Jensen Motors Ltd., 1973), Modern Records Centre, MSS 215/3/W/1.

Qvale Period, 1970-1975

When Qvale took over, Jensen staff including Graves “were all thrilled to bits. We thought we had a new lease of life.”²⁶⁴ Qvale was happy to take credit for an upturn. He had appointed Vickers as Managing Director. Losses had turned by the end of the 1971 financial year to a £102,000 profit and he had increased the labour force from 600 to 1000. *The Times* reported that “Jensen’s turnaround is almost entirely due to the arrival on the scene a year ago of Mr. Kjell Qvale” whose US dealership network had boosted sales, with production at West Bromwich increasing and requiring a further 400 staff in due course.²⁶⁵ The growth was to come from the launch of the new Jensen Healey, the fruit of Qvale’s cooperation with Donald Healey, though Interceptor sales were also at a record high.²⁶⁶ The new Interceptor III was praised in 1972 as “the kind of car one would dearly love to own.”²⁶⁷ Its key drawback would become significant in 1973: at 15.2mpg fuel consumption, it was about to become prohibitively expensive to run.

The 1972 accounts showed sales of £3.7million, £1.2million of them exported, an increase of 30% over the previous year. But then problems with the new Jensen-Healey became apparent. They were traceable to Qvale’s insistence that he would sell 200 cars per week in America, and therefore needed a manufacturer who would supply 200 engines per week, plus an additional 300 Jensen factory staff to cope with demand.²⁶⁸ He personally agreed terms with Lotus, who would supply their unproven, new engine only without a warranty. Multiple problems with the cars ensued, with no recourse to Lotus. For Graves, whose marketing team “had hardly any input into the car itself...it was a fait accompli”, the consequence of Qvale’s management of the Jensen-Healey development “was a total shambles. It was awful.”²⁶⁹ Even with the increased sales Jensen could only achieve 1.5% profit.²⁷⁰ Of more concern, it now also had £494,000 of loan debt and -£8000 of net current assets. For 1973, it seemed in revenue terms that Qvale’s push on exports for the Jensen-Healey and the Interceptors had paid off: sales had

²⁶⁴ ‘Jon Pressnell – Richard Graves Interview’.

²⁶⁵ Clifford Webb Midland Industrial Correspondent, ‘Jensen Ends Year with a Profit: Staff to Be Bigger’, *The Times* (London, England, 26 June 1971), p. 16, The Times Digital Archive.

²⁶⁶ Our Midland Industrial Correspondent, ‘Jensen to Expand Its Labour Force by 50 Pc’, *The Times* (London, England, 11 February 1972), p. 20, The Times Digital Archive.

²⁶⁷ Edward Eves, ‘Taking Stock: What It Means to Own a Jensen Interceptor III’, *Autocar*, 29 June 1972, Modern Records Centre, MSS 215/6/2.

²⁶⁸ Our Midland Industrial Correspondent.

²⁶⁹ ‘Jon Pressnell – Richard Graves Interview’.

²⁷⁰ ‘Jensen Motors Ltd.: Audited Accounts for the Year to 28 April 1972’, 1972, Companies House, archive disk 00182205-05.

more than doubled to £8.3million, £3.7million in exports. But the increased sales had produced a loss of -£123,000, having paid £99,000 interest on what was now £1.1million of bank debts and overdrafts,²⁷¹ all of them secured by a mortgage over the factory.²⁷² Net current assets were now -£200,000: the company could not readily pay its bills. The 1055 workers were at risk. Qvale disingenuously told *The Times* that Jensen was “not in any serious financial problem” but that he had postponed a £650,000 paint shop investment because mostly “external factors” had regularly stopped production.²⁷³

Acrimony and job losses followed. One hundred staff were made redundant in October 1974, with the remaining 1200 jobs threatened by a cash flow crisis. *The Times* reported that “one of the mysteries of Jensen Motors’ recent confrontation with its employees is now cleared up”, as Kevin Beattie was replaced as Managing Director. Described by “close friends” as a “brilliant engineer” who had “never seemed entirely at home as chief executive”, Beattie said he was “quite happy to revert to [his] old job”.²⁷⁴ Qvale threatened to close the business, publicly condemning the workers: “Our present problems are quite simply due to an insufficient level of productivity and unless and until the work force are prepared to honour their agreements, and produce the required number of cars in return for their not ungenerous pay, the future of the company cannot be assured.” Union leaders met Qvale and “told him quite bluntly that management inefficiency was the trouble, not laziness among his workers. The fact is cars are not being produced because there are recurring shortages of components”.²⁷⁵ Their comments echo Lewchuk’s evaluation of problems in other, larger car plants. Though Beattie was respected by the workforce and was considered by his Chief Engineer to be unusual as an engineer in being both technically capable and good with people,²⁷⁶ the appointment of a design engineer to run a production business without any prior executive experience or recorded management training, and without much enthusiasm for the job himself, would seem to substantiate union frustrations about poor management.

²⁷¹ ‘Jensen Motors Ltd.: Audited Accounts for the Year to 27 April 1973’, 1974, Companies House, archive disk 00182205-05.

²⁷² Bank of America National Trust & Savings Association, ‘Certificate of Registration of Mortgage over Jensen Motors Ltd’, 1973, Companies House, archive disk 00182205-07.

²⁷³ Edward Townsend, ‘Car Output Last Week at Best Level for a Month’, *The Times* (London, England, 22 March 1974), p. 19, The Times Digital Archive.

²⁷⁴ ‘Business Diary: Jensen’, *The Times* (London, England, 31 October 1974), p. 23, The Times Digital Archive.

²⁷⁵ ‘Cash Crisis Forces Jensen to Cut Staff’, *The Times* (London, England, 4 October 1974), p. 19, The Times Digital Archive.

²⁷⁶ ‘Jensen Motors Chief Engineer | Day In The Life’, *The Jensen Museum*, 2016

<<http://www.jensenmuseum.org/jensen-motors-chief-designer-day-life/>> [accessed 18 January 2019].

Within a month of sacking Beattie, Qvale had decided to halve production and make up to 400 redundancies, owing to “sharply depressed sales” in the US where the automotive industry was in crisis.²⁷⁷ He also promoted Richard Graves to Deputy Managing Director to run the business while he himself was in the USA. Qvale was admired by *The Times*’ motor correspondent for being “a dynamo of a self-made millionaire [who] would brook no opposition to his way of doing things.”²⁷⁸ Unfortunately his “way of doing things” was inappropriate. When Graves resigned in May 1975 in a disagreement with Qvale over rescue tactics for Jensen, production was down from 130 to 28 cars per week, and 500 staff had been made redundant. The Jensen Interceptor, priced at £8717 (three times the annual salary of Jensen’s planning manager²⁷⁹), had turned into a liability for its drivers, who could no longer afford in the post-oil crisis world to put fuel into its 7-litre engine, and for dealers who could not sell the car.²⁸⁰

Qvale had built a network of 100 dealerships on the West Coast, representing 36 makers including Porsche and Rolls Royce as well as Jensen. He was a great salesman of cars in America to Americans, as the sales results there proved. But he was neither an engineer nor a production expert, as the ongoing failure with those cars, starting at the specification stage, also proved. Nor was he a culturally sensitive people-manager, who could have won over the workforce and unions, as Duerr seemed to have done, or either brought out the best in his senior staff or recruited suitably qualified alternatives. He claimed to have invested heavily in Jensen, but the larger financial inputs came from the bank debt with which he burdened the business. He was, in fact, the last in a line of Jensen business leaders – with the possible exception of Duerr – who failed to match the competence and professionalism of Ulrich Putsch, Ferry Porsche, or Reutter’s Müller-Scholl.

The End

On Alan Jensen’s death in 1994, *The Times* stated that Jensen had been “crushed by financial troubles and labour unrest.”²⁸¹ The conclusions of the Receiver, appointed on 25 September 1975, substantiated the first part of this statement. In his official report, he noted a total

²⁷⁷ ‘Jensen Will Cut Car Production by 50 Pc’, *The Times* (London, England, 21 December 1974), p. 15, The Times Digital Archive.

²⁷⁸ ‘Business Diary:Jensen Collision’, *The Times* (London, England, 6 May 1975), p. 19, The Times Digital Archive.

²⁷⁹ Kjell H. Qvale, ‘Letter to J.A. Moore Offering Pay Increase’, 25 February 1975, Modern Records Centre, MSS 215/3/JE/1: £2875 with effect from 1/1/75.

²⁸⁰ ‘Deputy Chief Resigns in Board Split at Jensen’, *The Times* (London, England, 6 May 1975), p. 17, The Times Digital Archive.

²⁸¹ ‘Motor Pioneer Dies at 87’, *The Times* (London, England, 8 February 1994), p. 2, The Times Digital Archive.

estimated deficiency of £3.77million, finding the company had failed for three main reasons: a recession for cars, especially in the USA, which had caused sales to be too low to meet overhead and development costs; high engineering costs incurred to meet new emissions and safety regulations; and the effect of a high rate of inflation on all the company's costs.²⁸² Numerous efforts over succeeding months to find a buyer for the company failed.²⁸³ Union representatives went to London to request a loan from the Labour Government of up to £4.5million.²⁸⁴ They were declined, as Kevin Beattie's request for export support from their Conservative predecessors had been declined earlier.²⁸⁵ The final four hundred jobs were lost when the company was wound up in January 1977. *The Times* concluded: "A respected company, and an ideal for which so many people had fought so gallantly for almost half a century, was finally lost for the want of £5m."²⁸⁶

As for *The Times*'s attribution of blame to "labour unrest", it might reasonably be argued that labour unrest was a consequence of Jensen's problems as much as, if not more than, their cause. Clearly union disruption was endemic in Britain's automotive and other industries in this period (and elsewhere: for example, 360,000 Baden-Württemberg workers in 530 factories were off work in 1971 as a consequence of an IG Metall strike).²⁸⁷ Workers whose craft skills were the essence of the Jensen business had been largely treated as commodities by a series of owners and managers who had proved incapable of running the factory efficiently or selling the cars in sufficient volumes, and had felt free to lay off hundreds of workers whenever it suited them. Counterfactuals are probably unhelpful. But accepting the possibility that 1970s British industrial relations might have been too intractable for any putative owner, it is difficult in the context of this comparative study to imagine that Porsche or Reutter or Keiper would not have run Jensen more effectively. They were not financial engineers, as Brandt and Norcross were,

²⁸² J.A. Griffiths, 'Letter from Receiver to Registrar of Companies', 7 November 1975, Companies House, archive disk 00182205-03.

²⁸³ 'Buying Interest Shown in Jensen Motors', *The Times* (London, England, 19 September 1975), p. 18, The Times Digital Archive; 'Jensen Bidders Urged to Pool Resources', *The Times* (London, England, 23 February 1976), p. 15, The Times Digital Archive; 'Hope Fades for Survival of Jensen Motors', *The Times* (London, England, 6 April 1976), p. 22, The Times Digital Archive; 'Jensen Motors Reprieved for One More Week', *The Times* (London, England, 12 May 1976), p. 26, The Times Digital Archive; *The Times* (London, England, 18 January 1977), p. 17, The Times Digital Archive.

²⁸⁴ 'Jensen Workers Seek State Aid up to £4.5m', *The Times* (London, England, 21 January 1976), p. 25, The Times Digital Archive.

²⁸⁵ 'Correspondence between Kevin Beattie (Jensen) and Peter Walker (Secretary of State for Trade & Industry)' (Jensen Motors Ltd., 1973), Modern Records Centre, MSS 215/3/W/1.

²⁸⁶ 'Memories of Jensen', *The Times* (London, England, 26 August 1976), p. 23, The Times Digital Archive.

²⁸⁷ Washington Post Foreign Service, 'German Metal Strike Threatens Auto Firms', *The Washington Post, Times Herald* (1959-1973) (Washington, D.C., United States, 27 November 1971), section General <<http://search.proquest.com/docview/148016322/abstract/FF731FC296744BC6PQ/1?accountid=9851>> [accessed 7 March 2015].

nor short-term transients, as other Jensen owners and leaders were, but were manufacturing professionals who were embedded in their regions and their industry and made a long-term commitment to the success of their products and the workers who made them.

Summary

In terms of Hall and Soskice's five 'spheres' the differences between Jensen and Reutter are clear. First, the industrial relations practices of Reutter (and of Keiper and Porsche) reinforced equitable and positive working relationships with their staff, whereas Jensen appears at times to have treated its workers as commodities. The national industrial relations climate was unhelpful, and having multiple unions on site was difficult. But adverse reaction to management failings which affected workers' livelihoods was understandable.

Second, Reutter was committed to apprentice training, and to advancing the *Meister* who effectively ran its factories. Jensen's apprentices were less rigorously trained, and its foremen apparently advanced through seniority and expertise in controlling their own turf.

Third, in response, Reutter's staff offered unstinting commitment: meeting continuous demands for more Porsche bodies and launching the aircraft seating business were evidence of it. Jensen's less focused training, restrictive craft practices, and a personnel management style which varied between confrontation and indifference made it impossible to maintain production flows and consistent quality.

Fourth, Jensen's relations with other firms were problematic. The Volvo relationship failed. The Italian body supplier was mismanaged. Qvale's engine deal with Lotus was disastrous. In contrast, Reutter had a challenging but successful relationship with Porsche, clever licensing deals with other customers and, as Keiper-Recaro, cooperative relationships with airlines.

Finally, fundamentally different approaches to corporate structure, governance, and funding separated the firms. The Jensen brothers were successful as technician-entrepreneurs, less so as managers. The takeover by Norcros, greedy for dividends and knowing nothing of the automotive business, marked the beginning of Jensen's decline. Radical innovation failed. Successive ownership by Norcros, a merchant bank, and an American car dealer continued short-term thinking and short-term funding.

Reutter's (and Keiper's) innovations were incremental and brilliantly brought to market. Funding was long-term and operational processes stable. Müller-Scholl and Beierbach showed

that combining family management with family ownership was not the sine qua non of Mittelstand success. *Good* management was sufficient, provided it happened within the stable structure made possible by family ownership. It was when lower-quality managers subverted the Reutter family's values – and denied Welf Koch the opportunity to reassert them - that Recaro went wrong. It did not fail as a business; after all, its creativity and engineering excellence won it a world-leading position in half a decade. Its management team failed it. Keiper in contrast was blessed by the duality of stable family ownership and brilliant family management, reinforced by Ulrich Putsch's willingness to bring in highly capable leaders such as Sommerlatte and Bahmann.

Jensen and its German counterparts embodied at the firm level the two varieties of capitalism posited by VoC scholars. In the period under review, the Mittelstand approach of focused, long-term strategies, excellent niche products, and continuity within a patriarchal culture - all backed by supportive political, financial, and technical institutions - was more successful and appropriate.

Chapter 6: Conclusions

As anticipated in Chapter 1, the decisive factors in the success or failure of the companies reviewed above were the quality and practices of their management; their investment in the competence and know-how of their human capital; the degree of support provided by their banks and other institutions; and their ownership structure. In this Conclusion, I revisit the original research questions in order to address each of those factors in turn. I also consider the validity of the distinctions between national approaches drawn by VoC scholars.

What Managers Did

West Germany The more successful Mittelstand business leaders, at Reutter, Keiper, and Schneider, demonstrated a combination of emotional commitment and technical mastery in the most successful periods of their postwar history. Reutter's and Keiper's managers showed themselves to be capable of conceiving innovative products, which could be patented and fully exploited, and processes which enabled business growth without the loss of quality. At Schneider, Karl Walz demonstrated absolute commitment and engineering expertise. His son Rolf lacked his father's technical skills, but was spiritually devoted to Schneider and willing to take personal investment risks to enhance its capabilities. Hege, though technically proficient, astute, and cognisant of his responsibilities to family and workforce, lacked a similar desire to fight for Schneider's future. At Wandel, circumstances were more challenging from the outset, but Erna Wandel nevertheless showed herself for over 35 years to be capable of managing an international sales network which reliably sold Wandel's high-value products. In every case, leaders built and maintained strong teams by recruiting apprentices and devolving power to their *Prokuristen* and capable *Meister*. None of them (except the management team at Recaro in 1968-69) looked for shortcuts or easy fixes: company strategies focused on quality and the long-term interests of their businesses. In the cases of Wandel and Schneider, however, the failure to manage succession militated against the continuation of each company in its optimum form.

Britain Their British counterparts were in some cases no less effective. Though the Braithwaite business model was quite different from that of the Mittelstand family firms, all three generations of the Humphryes family proved themselves to be technically proficient, as

formally trained engineers, and entrepreneurially dynamic. They were resilient and flexible, and like their foreign counterparts aimed to produce a high quality solution to demanding technical requirements. They also had a clear strategy of identifying men who were technically and commercially competent and promoting them to senior executive positions. At K&J, the insistence on maintaining family control, albeit with the support of capable subordinates, caused relative decline after World War II. Nevertheless, the Kenricks and the Jeffersons continued to insist on high quality standards within a patriarchal environment, and made determined efforts to enter new industries or use new technologies as they emerged. The exceptional energy of Tom Jefferson coincided with the appearance of effective senior managers, and K&J's future would have been better assured if he had granted them more autonomy. Management was much less convincing at Jensen, where the departure of the Jensen brothers led to a succession of inappropriate owners and a failure to manage the workforce properly or to determine and execute a viable strategy.

External Context

West Germany Baden-Württemberg's Mittelstand firms operated in an environment in which it seems that local, regional, and national institutions were all designed to give competent, qualified people the resources to deliver internationally competitive products. The regional bank network, principally the Sparkassen, existed to provide long-term funding and comprehensive support from staff who had industry knowledge and shared entrepreneurs' sense of local accountability. The education system made it possible to recruit apprentices and more senior staff who had strong technical skills which could then be built on, again with institutional support. It then enabled the more capable workers to study for further qualification as *Meister*, allowing employers to give those individuals significant responsibility and enhanced esteem. Research and development activities were further supported by the network of technical institutions, coordinated by state-sponsored bodies which also facilitated long-term funding for incremental innovation. Although industrial relations have unfortunately featured little in our analysis owing to a lack of archival material, we know that labour organisations were organised as a single, industry-focused union per company, and were instrumental in developing labour standards and skills. In general, the context in which Baden-Württemberg's Mittelstand operated was intended to facilitate the long-term growth of its companies.

Britain The owners and managers of British SMEs shared some of the personal qualities of their Mittelstand counterparts, but few matched their technical competence and none was able

to draw on the institutional support they enjoyed. Largely centralised banks did not see themselves as the providers of long-term funding to SMEs, and until the late 1970s offered little of the support that Mittelstand firms enjoyed from their house banks. Skilled staff were always in short supply: technical training provision, at all levels, was comparatively and absolutely inadequate,¹ and skilled workers offered neither craft flexibility nor the individual ambition to pursue the professional development that made their German *Meister* counterparts so indispensable. For Britain too, the absence of archive material has meant that industrial relations have played little part in our analysis. But contrary to the German experience, we know that multiple unions operated on strictly demarcated craft lines and made managing K&J and Jensen, notwithstanding the management deficiencies which may have precipitated union intransigence, difficult.

Family Ownership

The histories of the six companies reviewed above show that Chandler's insistence on the shortcomings of personal capitalism is only partly valid. Succession was a concern and some individual managers were weak. But family ownership in both countries was also the driver of long-term commitment and creativity. Most of our companies did invest in management, manufacturing, and marketing, though they may have lacked the wherewithal to invest in all three consistently and simultaneously. All of them grew throughout the period of this study, though Jensen (the only one lacking long-term family influence) collapsed before its end and Schneider closed voluntarily. Family control actually allowed firms in both countries to maintain the "sound, long-term perspectives from the decision-makers responsible for the health and growth of their enterprise"² which Chandler values, rather than indulging in the dangerous short-termism of American big business since the 1970s which he deplores.³

Contrary to Chandler's perspective, it seems that the emotional engagement of personal capitalists characterised our German companies more than it did the British ones. Mittelstand owners were committed to a lifetime of service to their business. Critically, though, each family matched this emotional dedication with the intellectual engagement to achieving excellence in

¹ In addition to the commentators identified in Chapter 2 above, this problem is also emphasised in Alfred D Chandler, *Scale and Scope: The Dynamics of Industrial Capitalism*, pp. 292–93.

² Alfred D Chandler, *Scale and Scope: The Dynamics of Industrial Capitalism*, p. 627.

³ Alfred D. Chandler, 'History and Management Practice and Thought: An Autobiography', ed. by Shawn Carraher, *Journal of Management History*, 15.3 (2009), 236–60 (p. 252)

<<https://doi.org/10.1108/17511340910964117>> This is my own interpretation, not one explicitly made by Chandler himself.

niche products through focused, long-term strategies, using their *Meister*, engineers, and others in a coordinated approach. The most successful, Keiper, combined family values with driven, professional management: the decision of the extremely capable Ulrich Putsch to appoint an industry specialist to direct his aircraft-seating business validates Chandler's argument that the best family firms sought to bolster their management talent.

Their British counterparts were less emotionally engaged. James Hulse Humphryes set up Braithwaites to be a corporate company which his family ran at a physical distance and with emotional detachment. Though the closure of the West Bromwich plant was conducted respectfully and with what appears to have been some financial generosity, the family easily moved on in search of the next opportunity for shareholder value. Having been a patriarchal family-run business that seemed to resemble the 'family' that they claimed it to be, K&J lost its way once greater detachment set in. Though Tom Jefferson was conscious of his covenant, the Jefferson and Kenrick extended families pushed to be treated as though they were stockholders in a quoted company, and strategy and product excellence eventually appeared to be less of a priority than satisfying shareholders. The Jensens ran their business as long as it was exciting to them, and others had an emotional commitment to the cars themselves. But the business model became corporate when the brothers chose to leave. Independence was lost, and later company leaders were either not genuinely engaged, or not competent.

Varieties of Capitalism?

The analysis presented in this thesis substantiates the differences in structure and thinking between German and British approaches identified by VoC scholars. The Mittelstand businesses viewed here took a long-term approach to sustainable excellence supported by like-minded institutions. Their British counterparts, however, were generally more short-termist and enjoyed neither the institutional support nor the economic and political circumstances to enable them to be otherwise. They were at their best when, like K&J before World War II, they emulated Mittelstand practices. Doing so subsequently was difficult, owing to both institutional inadequacies and management and worker limitations.

Further exploration of national differences, based on a wider range of case studies, would be valuable in allowing us to understand the business-level ramifications of policy decisions.

Conclusion: Mittelstand Past and Future

At various points in Germany's economic history, the Mittelstand has been written off. Despite the challenges identified by Berghoff,⁴ and Herrigel's predictions of its demise, and the closure of firms for want of a leadership successor identified by Lubinski⁵ and Hilger et al,⁶ it has proved to be resilient. More than that, it has demonstrated not only its unbroken contribution to Germany's economic prosperity, but also its emerging influence on international discussion of new and better ways to make national business sectors enduringly competitive. Recent scholarship on the present-day Mittelstand addresses its ongoing capacity for innovation and its economic and social value. De Massis et al note the continuing importance of the Mittelstand traits identified by Berghoff, Fear and others, and demonstrated by the individual companies within this thesis.⁷ Focusing on the Mittelstand approach to innovation and demonstrating how others can adopt it, they highlight its beneficial impact on youth unemployment and the geographic dispersal of wealth. As such, they suggest, the Mittelstand model could serve as a template for politicians in other countries.⁸ Pahnke and Welter compare critical Mittelstand innovations that are primarily "deep-tech", hidden within other companies' products and processes, with Silicon Valley's more consumer-oriented products.⁹ In praising the robustness of the Mittelstand's innovation culture, the authors also weigh its wider social contribution and its "pronounced sense of responsibility towards people and places."¹⁰ They call for future research on the culture of the Mittelstand and participants' self-identification with it, and of the context which sustains it.¹¹

This indicates an opportunity for further development of the research in the present thesis. The case of Recaro in particular has demonstrated how a company's international competitiveness in the 21st century can be traced through the evolution of foundational values and concomitant practices over a century, maintaining the social responsibility identified by Pahnke and Welter while achieving world market leadership in several related areas successively. The attempt in this thesis to contrast Mittelstand practice in Baden-Württemberg with the challenges faced by

⁴ Berghoff, 'The End of Family Business? The Mittelstand and German Capitalism in Transition, 1949-2000.'

⁵ Lubinski, 'Path Dependency and Governance in German Family Firms'.

⁶ Hilger and others. See n.300 above.

⁷ Alfredo De Massis and others, 'Innovation with Limited Resources: Management Lessons from the German Mittelstand', *The Journal of Product Innovation Management*, 35.1 (2018), 125–146 (pp. 136–41) <<https://doi.org/10.1111/jpim.12373>>.

⁸ De Massis and others, p. 137.

⁹ Pahnke and Welter, p. 353.

¹⁰ Pahnke and Welter, p. 351.

¹¹ Pahnke and Welter, p. 355.

SMEs in the West Midlands makes a contribution to this comparative analysis too. It can now be built on, in considering how the present-day West Midlands should determine the future shape – and most critically, the operating context – of its SME sector.

This approach has validity in all parts of the world where dissatisfaction exists with whichever variety of capitalism is being locally applied. For example, organisation scholars have recently addressed the prospect of translating Mittelstand practices to Australia, as “the desired characteristics and future of the Australian manufacturing sector very closely reflects the current and well-known characteristics of the Mittelstand.”¹² They reason that “the Mittelstand represents a uniquely German story accommodating societal well-being with economic prosperity”, ensuring that “human dignity is manifest in business”: its principles should therefore be applied to the development of policy and practice in Australia.¹³

These endorsements of the Mittelstand model can be seen as a validation of its continued relevance as a means of delivering long-term competitiveness. It cannot be seen as an automatic panacea to economic ills: Mittelstand businesses can fail to remain competitive, or fail altogether, as we have seen, if any element of the model is inadequately tended. But the research presented in this thesis should contribute to an understanding of its ability to help policy-makers and business people create the sustainable, human-centred enterprises of the future - provided all stakeholders are willing to invest in the context which sustains them.

¹² Danielle M. Logue and others, “Translating Models of Organization: Can the Mittelstand Move from Bavaria to Geelong?”, *Journal of Management and Organization; Lyndfield*, 21.1 (2015), 17–36 (p. 28) <<http://dx.doi.org.ezp.lib.cam.ac.uk/10.1017/jmo.2014.66>>.

¹³ Logue and others, p. 33.

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