BOOK REVIEWS

Ranald Michie, **The London Stock Exchange: a History** (Oxford: Oxford University Press, 2001. 688 pp. + numerous tables £19.99)
DOI: 10.1017/S0968565004210071

This book examines three centuries of the financial and institutional history of the London stock market. Needless to say, this is a lot of ground to cover thoroughly. Michie offers a richly detailed and well-documented narrative, written in cogent prose and intermittently enlivened with understated wit. Quantitative economic historians could doubtless do something interesting with a 300-year time series of London share prices, but that is not Michie's contribution (he has some simple tables but no fancy statistical analysis). Instead, he narrates the evolution of one of the central institutions of modern capitalism, showing the various organisational, political, regulatory and economic forces which have shaped its trajectory.

The presence of a stock market, in London or elsewhere, is fundamentally a function of the supply of and demand for financial securities. But market forces alone did not dictate a particular institutional form or structure. No grand or necessary march towards increasing efficiency occurred. Instead, there was always more than one way to make a market, and so: 'the form that the market took . . . reflected a complex interaction of economic and non-economic forces conditioned by the altering circumstances of the time' (p. 11). Thus, the stock exchange's evolution over 300 years unfolded in a contingent and messy fashion, replete with uneven fits and starts, and involving numerous misdirections.

The book proceeds in chronological order, with the breadth of coverage in each chapter decreasing as time passes. Thus, the first substantive chapter covers over a century, the second encompasses fifty years, and so on until towards the end chapter 11 discusses the 1970–9 period, and chapter 12 the 'Big Bang' of 1986. Michie's history is disproportionately weighted towards the present, although this must be partly due to the availability of evidence. A number of consistent threads run through this history, and although they do not constitute a single master theme they nevertheless add coherence to the immensely detailed story. Let me point to a few of the more important of these.

Today, stock exchanges reflect private interests and are a foundation of the for-profit sector of the economy. Michie's history reminds us, however, of the importance of the state or government. The fiscal interests of the state, and its need to borrow, were present at the creation of the London stock market at the end of the eighteenth century (p. 18), and re-emerged later on at various times (e.g. World

Wars I and II). On occasion, public securities were the main asset being traded, and public borrowing simply dominated the stock market. Warfare often drove the need for governments to borrow, but warfare also directly interfered with trade in corporate and public securities, and in some instances helped to undermine rival stock exchanges (e.g. Paris and Amsterdam, see pp. 33, 639). Furthermore, periods of war offered the opportunity to increase regulation and expand public control over the stock exchange (p. 154). Since the fiscal effects of war endured for a long time, the regulatory apparatus that was expanded at the outbreak of conflict seldom shrank back to the original *status quo ante bellum* once peace was established. In whatever direction internal factors may have propelled the London Stock Exchange, war and wartime borrowing provided massive exogenous shocks that redirected the developmental trajectory of the market.

The close connection established between the Stock Exchange and the state made the Exchange vulnerable to various political forces. For example, after World War II Stock Exchange members worried that they might share the fate of the Bank of England and be nationalised, and so come under direct Treasury control (p. 326). Politically inspired waves of Labour-led nationalisation and then Tory-engineered privatisation had an enormous effect on the Exchange, first by removing many of the staple securities from the market (under public ownership, shares of railways, coal and steel producers, or utilities, would no longer be traded), and then by putting them back in through stock floatations and IPOs (pp. 591, 625). And as the investing classes grew in numbers, the gyrations of the stock market drew more popular attention.

Orthodox economic theory supposes that stock markets are inhabited by homo economicus. Those who lose money in the long run will be bankrupted and driven out of the market, so only traders who successfully pursue their economic self-interest can survive. Yet the law of the jungle doesn't prevail either, for market competition occurs on a foundation of cooperation and compliance with the rules of the Exchange. Michie reminds us of the importance of such rules, and also that, once established, they take on a life of their own. Indeed, Exchange rules were remarkably durable and constituted a sort of private regulation that helped to reduce transaction costs (p. 37). These rules governed the conflicts of interest that arose within the Exchange's heterogenous constituency: owners vs. members (pp. 75, 296), brokers vs. jobbers (pp. 439, 494) and large vs. small member firms (pp. 447, 645). On more than one occasion, this heterogeneity among the members combined with institutional inertia to prevent the Exchange from acting in its own long-run economic interests. During the 1960s, for example, the principle of single capacity prevented the Exchange from attracting business that would have benefitted it enormously (p. 466). Options contracts became increasingly popular during the 1970s, especially with post-Bretton Woods floating exchange rates, but the Exchange continued to restrict their use (p. 527). Repeatedly, the Exchange would impose tight restrictions on its members and only succeed (unintentionally, of course) in driving business to its rivals (p. 330). Individual traders may have been good at pursuing their own self-interests, but at the level of the Exchange the pursuit of institutional self-interest was much harder to achieve.

Few institutions have lasted as long as the London Stock Exchange. Such longevity, Michie suggests, arises from the Exchange's fundamental usefulness. It provides liquidity to those who want it. It reconciles borrowers who wish to mobilise capital for the long term (or indefinitely) with lenders who may want or need to recover their funds at short notice (p. 141). With the liquidity that an active secondary market provides, both sides can get what they want. Unlike a bank loan, negotiable securities can easily change hands. Such liquidity depended on the formal rules of the Exchange that made contractual agreements enforceable, transparent, and so on. But it also depended on the informal rules of the Exchange and the existence of high levels of trust. Informal ties through family or other social connections produced a degree of trustworthiness that 'lubricated' transactions and reproduced the order of the market (pp. 100, 245, 639).

Other readers may find other themes and findings to be more edifying, but all will recognise that Michie's impressive book now sets the standard. Anyone with an interest in English financial development or corporate history will find his book to be of value.

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BRUCE G. CARRUTHERS

Gerald D. Feldman, Allianz and the German Insurance Business, 1933–1945 (Cambridge: Cambridge University Presss, 2001. 590 pp. £,42.50)

Harold James, The Deutsche Bank and the Nazi Economic War against the Jews (Cambridge: Cambridge University Press, 2001. 280 pp. £,27.50)

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It has become almost fashionable in some circles to accuse the history profession of spending too much time attempting, and failing, to say something new about the Third Reich. These important works by Feldman and James – two leading exponents of the craft – demonstrate the value of continuing to focus scholarly labours on interpreting and elucidating the implications and consequences of the National Socialist dictatorship. In recent years, a number of works have been published that have considerably enhanced our understanding of economic and financial institutions and structures in the Third Reich and the impact these had on life in Germany and beyond. Partly stimulated by the development of class actions in the courts, German corporations have devoted additional resources to the process of locating and organising business records, many previously untouched by historians, and then opening them up for independent scrutiny. Much relevant material has also become available, of course, in the archives in eastern Europe, particularly Russia. The studies by Feldman and James, while different in their scope, are two very significant contributions to this literature which will continue, and rightly so, to grow. Scrupulously fair and balanced in their judgements, both Feldman and James give credit where appropriate for honourable behaviour; for the most part, however, they

brook few excuses in utterly condemning the cynical and opportunistic actions of the organisations and people they analyse. The purpose of James's study (prepared under the auspices of the Deutsche Bank's historical commission) is to amplify what has already been written about the bank and 'aryanisation' – the policy of expropriating Jewish assets, held in whatever form, and the exclusion of Jews from economic life in the Third Reich. This painful and ever-controversial subject is also the leitmotif of Feldman's book. However, the author considers far more than this. For, in spite of disclaimers that many records were destroyed in the war, Feldman's wide-ranging study weaves together a history of the Allianz concern, its partner firms such as Munich Re, and the internationally oriented insurance industry during much of the last century. This hugely accomplished study of a business is replete with profound insights into the politics of the period. As such, it deserves to become a standard-bearer for the discipline.

Allianz and the Deutsche Bank were leaders in their respective fields of insurance and banking. As such, they were proud, well-connected companies with managements that enjoyed a range of foreign contacts – factors that, ironically, the regime could exploit in a variety of ways. In the restructuring of the economy, first in preparation for aggression against Germany's neighbours and then in prosecuting total war, manufacturing enterprises contributed directly by producing war matériel. However, for the regime, the part allotted to the finance industry was no less important in ideological terms: it was required to act as a vehicle for 'aryanisation'. It is the role of Allianz and the Deutsche Bank in this, the most barbaric aspect of the dictatorship's policies of economic discrimination, that both authors analyse in general terms and by means of detailed case studies of the assets of individuals, families and firms. Feldman and James make clear that, while it is difficult to detect any principled objection to anti-semitism, neither company was so predisposed, if only for commercial reasons. Jews were good customers with a favourable attitude towards insurance products as investments, and Allianz wanted to retain them. The firm took steps, even courageous ones, to protect Jewish employees and the interests of Jewish policyholders. Similarly, the Deutsche Bank tried to safeguard the interests of the owners of the Mendelssohn and Simon Hirschland private banks. In such a decentralised organisation, the Deutsche Bank branch managers operated with a fair amount of autonomy; some were opposed to 'aryanisation' because they feared that it would badly disrupt the local economy and business would suffer.

One of the key themes to emerge from these studies of Allianz and the Deutsche Bank is how vulnerable such bastions of private capitalism felt themselves to be throughout the entire Nazi era – a case of the hegemony, rather than mere primacy, of politics over economics. The finance industry as a whole was already on the defensive when Hitler took power: several institutions and their executives had been blamed for the disasters of 1931. Worse still, businesses based on the idea of the sanctity of individual and private contractual arrangements were bound to incur the disfavour of Nazi ideologues bent on dismantling the liberal economy and purging a finance system supposedly dominated by Jews. Feldman reveals how the insurance

industry was constantly threatened with nationalisation or 'socialisation'. It had to contend not only with the publicly chartered companies (in which Hans Goebbels, brother of Joseph, was a significant force) but also with the dynamically growing insurance enterprises associated with the German Labour Front. Indeed, in documenting how party satraps competed with one another in order to become the recognised authority in a particular economic area, and thereby advance their careers, the study illuminates the nature of internecine struggle in the Third Reich. Allianz's defence strategy included the use of politically correct language ('national community' was stressed rather than company profitability), investing everincreasing amounts in government paper and, above all, trying to curry favour with Goering in connection with the demands of the Four Year Plan and by plying him with gifts.

In charting the course of anti-semitic policies, Feldman reproduces heart-rending correspondence from Allianz's Jewish customers. As persecution intensified from 1938, and the company's resistance to 'aryanisation' began to evaporate, there was a wave of life policy surrenders as Jewish holders desperately sought funds in order to emigrate, pay special taxes or simply survive. The failure to honour glass and other insurance polices in the aftermath of the Kristallnacht pogrom illustrated the sophistry and perversion of business and personal ethics that had come to characterise executives as they pursued their interests under the conditions created by National Socialism. During the war, the policies of Allianz and the other insurance companies reflected the nature of German rule in the occupied states: in France there was negotiation and collaboration, in the Netherlands acquisition of expropriated shareholdings, and in the East the provision of a variety of insurance products to the SS that included insuring production facilities in the Lodz ghetto and SS enterprises in most of the principal concentration camps.

One of the elements that makes Feldman's book so compelling is the author's keen eye for the bizarre and unexpected twists in this otherwise grim narrative. In the middle of the war, Allianz was still writing to the home addresses of its policyholders, to remind them to pay premiums, when the individuals concerned had already been carted off to the camps. As early as spring 1943, the German authorities accepted the French view in relation to the settlement of Anglo-American portfolios that one day they would have to give an account to the English insurance companies. Likewise, in the same year, the US courts rejected the case put by Jewish emigrants against Swiss insurers that the latter had no right to turn the assets of the former over to the Reich government. Some events had a surreal quality to them: prolonged contractual negotiations between Allianz and the SS continued into 1945 even as the camps were being liberated. Feldman's explanation is that the business world had become so habituated to working and expanding with the regime that it became difficult not to continue.

James's study examines the activities of the Deutsche Bank in the new business environment that emerged after 1938. The German authorities regarded the

Deutsche Bank and Dresdner Bank – the two largest, and rival, commercial banks – as indispensable agents of economic imperialism. Even before the Munich Agreement, the Deutsche Bank was involved in preparing for the takeover of Jewish firms and planning for the reconstruction of the Czech economy. By 1942, a major Deutsche Bank-led banking group in central Europe was complete. James, too, considers that expansionism developed a dynamic of its own: young, ideologically driven managers acted on their own initiative. Such spontaneity fitted in perfectly with the requirements of the radicalisation in occupation policy in 1941 – administering the property of the victims of National Socialism for the benefit of the German state. Although the eastern occupied areas were less important in commercial terms, there, too, the bank was deeply implicated in the horrors of the regime.

Yet, if ideological adherence eventually prevailed among the junior ranks, what motivated the directors who sat on the supervisory and management boards? What, at crucial turning points in German and world history, was in the minds of men like Hermann Abs of the Deutsche Bank and Kurt Schmitt of Allianz? This question remains substantially unanswered. Feldman and James give careful consideration to the relevant methodological issues involved in the calculation of profitability. As a result, both authors give short shrift to the argument that profits were a major driving force; at the same time, they point out that a paucity of commercial gain does not absolve those concerned from the moral or social responsibility for their actions. Feldman and James also critically evaluate the aftermath of aryanisation: the protracted and far-from-satisfactory process of restitution that has stretched from the late 1940s to the present day. In addition, Feldman meticulously reviews the conclusions reached by the drawn-out denazification procedure involving leading Allianz figures. In nearly all cases, these postwar developments served to attenuate serious reflection on the social and ethical responsibility of business. Ultimately, for James, the Deutsche Bank's strategy was determined by corrupted individuals who competed for influence in what had become an essentially political market. As Feldman comments, one of the 'great achievements' of National Socialism was to politicise all economic decision-making: businessmen who thought that they could protect and preserve their enterprises by working within the political system, ended up contributing to the ruin of their country and much else besides. In many respects, unfortunately, we can only speculate on the motivation of individuals who were caught up in the totalitarianism of the Third Reich: under such conditions very few indeed were prepared to express themselves openly.

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NEIL FORBES

David Kynaston, **The City of London**, volume IV: **A Club No More, 1945–2000** (London: Chatto and Windus, 2001. 886 pp. + illustrations £16.00) DOI: 10.1017/S0968565004230074

This is the fourth and final volume in Kynaston's sweeping history of the City of London. Originally envisaged as a single volume, the author has over the years been

compelled by the scale of the enterprise to expand the work considerably. The scale of the work has partly been dictated by the methods Kynaston has employed, in-depth archive research into the many facets of the City itself, and the painting of a rich and detailed canvas. Kynaston achieves an effective grand narrative, combining sweeping macro-economic, institutional and political change with the personal and everyday perspective – from the boardroom and club, on the exchange floor, in the back office, on the Central line or among the huddled mass crossing London Bridge. The overarching theme of the book, as the title suggests, is the gradual, halting yet inexorable transition from the City of old with its social networks and rigid class divisions, to the New City, where a series of interlopers, new institutions, new forms of regulation, and new 'products', finally erode and replace the old traditions.

The City has often been likened to a village – a geographically concentrated warren of finance and commodity trading where the money and goods of the world are exchanged and brokered in mysterious and arcane ways. The City, of course, has many elements - the stately edifices such as the Bank of England, merchant and clearing banks, accepting and discounting houses, the Stock Exchange, the many commodity exchanges, firms of brokers and jobbers, Lloyds and so on. Vignettes abound throughout the text as Kynaston retains a keen eye for the eccentric, the character, the larger than life. Indeed, a rather disproportionate number of tall, imposing figures, usually with impeccable sartorial demeanour and imposing eyebrows, feature through the lingering heroic days of the Old City. However, the author also notes the objectionable, the scruffy and the occasional spiv attempting, usually unsuccessfully, to scale the social ramparts. There are familiar tales of schoolboy pranks and misogyny, of nepotism and old school ties, of clubs and lunches. Of the characters he records, with their public school, amateur ethos, some display genuine flair and skill. Others survive somehow with a general bumbling Woosteresque approach to what work they do between bouts of drinking or leisure. Kynaston evokes the cosy lethargy at clearing banks while the whole discount market is said to comprise a 'hard drinking, old-fashioned, congenial gentlemen's club'. Each firm and sector has its own personality, where jobbers may be more extrovert than brokers, for example, but yet merges into one cosy, inert culture.

This is a history on one hand of generous lunches and mid-morning drinks, on the other of a vast army of clerks toiling slavishly over hefty ledgers with ebony rulers cancelling yesterday's laborious entries. It is a class-ridden world of top hats and bowlers, black jackets, striped trousers and blue buttons. The subtle class delineations even subdivide the elites – between chairmen and managers in the clearing banks, for example.

It is a tale of implicit cartels, money making by tradition and exclusion. The brokers world is especially docile into the 1960s – work simply falling into the laps of established firms, staffed by family dynasties (augmented by wartime comrades) and being apportioned through a network of trusted acquaintances. This is a world based on trust, where deals are agreed with a handshake or noted in pencil, where syndicates are formed over sherry, and where market monopoly and competition are

regulated in an almost medieval guild-like way. However, there is also a dark contradiction – of keeping a keen eye out for the chance to make money – the instinctual awareness of what the 'other chap' is up to, surviving on the tip-off and the expectancy of personal profit from insider dealing. If there was a metaphor relating to playing cricket in a jungle, then Kynaston would have surely used it. He has a keen social anthropologist's eye for the City, spotting the variance in tribal customs and tradition between, for example, the brokers and the jobbers in the Stock Exchange.

A broad survey of historic events which impinge on the City, and which the City occasionally helps to shape forms the backbone of the book. The volume begins with reconstruction after the war in a world changed, but attempting to reassert itself back into pre-war days. One thread throughout the book is the role played by the Bank of England, in relation to the rest of the banking system and in relation to government. The Bank emerges triumphant during the reconstruction of the late 1940s, never seriously challenged by the Labour Government, keeping its own council, and almost shrugging off the formality of its nationalised status. Clarence Sadd of the Midland, for example, figures as a lone, socialist clearing bank chairman, only grudgingly tolerated in the ranks of the City. In many senses the book conveys the sense of business as usual, especially in the informality of control by the Bank over the rest of the system – policy is conducted through suggestion over strategically arranged lunches, the fear of bad form, ungentlemanly conduct and so on all combining to keep the system on track. This system proved remarkably resilient, still extant after the showdowns with Labour in the 1960s. In reality, the City was, throughout the whole period, against any control by any government, as Kynaston demonstrates. There is inherent resistance to regulation and persistent distrust on both sides throughout successive Labour and Conservative administrations.

The City was, of course, unable to resist change and, as the story unfolds, takeover booms arrive, quasi-legitimate practices such as bond-washing thrive and are then stamped out, businesses encroach and boundaries change - the demise of accepting houses, under the pressure of diversified merchant banking, for example. Foreign firms, the US and the Japanese in particular, invade and whole new market opportunities such as the Eurobond sector ensure the regeneration of the New City into the 1970s. Crises ebb and flow, with periodic collapses such as those in 1974 and 1987. 'Go-go' firms like Lonrho or Slater Walker upset the staid and conservative, and the rise of the institutional investor, the fund manager and the primacy of analysis overtakes the hunch, instinct or simple inside information – traditionally acquired over lunch, on the golf course or at the shoot. The skyline of the City also evolves and is renewed – often as a modernist phoenix rising from the bombsites of the war. The streetscape also undergoes a transformation as the service sector of clubs, pubs, and specialist shops are replaced and as back offices relocate to faceless office blocks in Croydon. Within the office there is a slow modernisation of office practice and a decline of tradition charted in the demise of the top hat and the bowler. The final post-Leeson world of the City is one of cynical money-making for its own sake, and an unquestioned condescension towards industry.

Kynaston has an affinity for the great and the good, for personalised history where the actions of key figures shape financial and commercial events. Broader statistical trends intrude and general structural and demographic changes are noted, but the author favours, if not the anecdotal, then the intimate account. The personal is not wholly restricted to those in command, however, and the book does a fine job of evoking life in the City for the ordinary clerical worker. For Kynaston, the Old City is a world we have lost. While the author accepts, for example, Anthony Sampson's damning first-hand appraisal of the Stock Exchange of the early 1960s, and borders on a Ralph Miliband-style exposé of the narrow social origins of the networks of power in the city, such analysis carries little convincing weight of political and ideological censure. Instead, he feels moved to mourn the passing of the characters, customs and institutions which endured so long, confessing it, for example, 'permissible to feel some nostalgia for the old Stock Exchange, a place where real human beings encountered each other and experienced the meaning of trust and fear, of hope and greed'.

Big questions, such as the role of the City in the relative decline of the British economy, tend to permeate the text, rather than be confronted directly. Kynaston frequently assumes that the reader will be familiar with personalities or arcane practices, eschewing the explanatory — perhaps in emulation of the world he describes. There is no doubting the value of this, and the other volumes in the series, however. Kynaston has set the standard with an elegant fusion of narrative and historical analysis. Overall, the book draws to a conclusion an extraordinarily impressive and probably never to be equalled piece of scholarship.

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RICHARD COOPEY

J. Adam Tooze, Statistics and the German State, 1900–1945: the Making of Modern Economic Knowledge (Cambridge: Cambridge University Press, 2001. 332. pp. \$65.00)

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This is an important book. It analyses the rise of a neglected yet influential industry in Weimar Germany, the production of economic statistics and of quantitative economic policy advice. The book tells a story of stunning political success and predictable policy failure. Seen through the lens of a semi-academic discourse among professional statisticians, it obtains a mirror image of Germany's growing economic policy interventionism in the interwar period, as well as the ineptitudes of German wartime economic planning during World War II.

The account starts out from a strange debate among German statisticians before World War I. Experts discussed at length how to improve the design of Germany's population and workplace censuses. In the eyes of their critics, Germany's censuses reflected the reactionary attitudes of Imperial Germany's bureaucrats more than anything else. The methods applied were strange indeed. Censuses classified workers according to their formal profession instead of their actual employment, and

subdivided firms artificially into ill-defined technical units. No nationwide census of production ever took place before World War I. The book rightly considers this to be a conundrum and tries to find answers.

Two explanations are offered, and one becomes the thread from which the text is woven. First, there is the political context. After Bismarck's ban on the Social Democratic Party had been lifted, the workers' movement rapidly gained influence, both in parliament and among academic economists. Business circles were deeply worried that figures on output could turn into a political weapon in the hands of socialists and their academic supporters.

But there is also a second dimension, to be placed in the context of discourse analysis. Statistics are an obvious construction of imagined realities, and the ups and downs of one or another statistical programme can themselves be subjected to analysis. This, at least on the face of it, is the perspective adopted by the book. Three strands of debate among statisticians become discernible, each of which reflects intellectual constructs of the state of the German economy before and after World War I. Traditional statisticians sought to picture a crafts- and trade-oriented economy. Labour could be categorised according to its formal skills, which themselves were defined in a traditional classification of trades. The same *Weltanschauung* would assign workers to equally well-defined workplaces, which constituted the basic unit of account of the economy. In this view, the German economy between 1871 and 1913 was largely one of small-scale enterprise, family businesses and a stable social composition, unlikely to draw towards any unwanted change or even upheaval and revolution.

A second, diametrically opposed view started out from the firm as the basic decision-making unit of a capitalist economy. Informed by a growing literature on monopoly and organised capitalism, this perspective on the German economy saw increasing firm size, monopolisation and cartelisation as the driving forces of economic development around the turn of the twentieth century. In the same vein, any preconceived classification of skills or work practices was entirely void and based on prejudice, just as Max Weber's analysis of categories in the social sciences was about to point out.

The book tells its story in the context of a rivalry between the two concepts in German statistics that lasted to the very end of World War II (and in fact, beyond, as a quick glance at today's statistics reveals). But that was not the only dimension of conflict in German statistics at the time. A third concept came in through the idea of macroeconomic control and output planning. A new generation of economists who made their career in the wartime planning boards of World War I sought to generalise their concepts and adapt them to economic stabilisation in peacetime. The book traces the spectacular rise of Ernst Wagemann and his intellectual empire, the Institut für Konjunkturforschung (Institute for Economic Research), in 1941 renamed Deutsches Institut für Wirtschaftsforschung, under which name it still exists today.

Founded to collect and publish high-frequency business-cycle indicators, the institute soon developed into the main producer of economic statistics in Germany.

In conjunction with the Statistical Office (Statistisches Reichsamt), also headed by Wagemann, it generated an impressive wealth of data on output, labour relations, and financial market indicators. Three censuses of production were conducted between 1925 and 1936, and highly innovative studies such as work on an input-output table for the German economy were commenced. Not surprisingly, the statistical material produced by this institute provided the backbone of Nazi war planning. Less obviously, the same data later proved indispensable for communist economic planning in postwar East Germany. The book provides a detailed institutional account of the development of these statistics and the political debates surrounding them.

The significance of this part of the book is hard to overstate. Having spent years on the methodological intricacies of precisely these data, the present reviewer is an obvious consumer of the institutional background information provided by this book. Still, reducing its information content to merely that would do grave injustice to it. It may be this reviewer's personal satisfaction to see dozens of unsettled questions on the institute's data resolved, but this is not the main achievement of the book. Its principal merits lie elsewhere.

German economic policy fundamentally changed its nature during World War I. Wartime planning created the desire for a full quantitative overview of the economy. Given the flirtation of Germany's intellectual elites with state socialism, obtaining such a database was more than just a technical project. The drive for better data was itself part of a grandiose design that fascinated almost everyone from the extreme left to the extreme right in interwar Germany: the planification of an advanced industrial economy. Describing this process skillfully is the true achievement of this book.

Weimar Germany experimented with counter-cyclical fiscal policy during a slump in the mid 1920s, ten years before John Maynard Keynes provided the theoretical underpinnings. Work creation and credit expansion in the 1930s could draw on prior experience and extensive debates during the Great Depression. In the mid 1930s, census data on production were fed into an input-output table to determine the resource needs for German war preparation. During World War II, war planners relied on daily reports of output processed through an elaborate system of punchcard machines. Albeit highly imperfect by today's standards, German statisticians had a pretty detailed understanding of the input-output flows in the German economy and its strategic bottleneck sectors. To any economist trained in the international mainstream of economic knowledge, this must seem surprising and inexplicable. Conventional wisdom would teach that the respective analytical tools were developed too late to be ready for practical use in the early 1930s.

Tooze's answer to this is an original one, but it is also problematic. His approach is to place the solution in the context of the discourse of German statisticians at the time. In their search for practical solutions to their planning problems, they are supposed to have discovered these tools almost incidentally, and probably independently. The figure of Ernst Wagemann, founder of the Institut für

Konjunkturforschung, becomes a key player in this perspective. The author analyses Wagemann's theoretical writings in quite some detail and assigns to them a focal role in shaping German statistics and, indirectly, economic policy.

It is here where limitations to the perspective adopted by the book become visible. Tooze does resist the temptation to characterise the work of Wagemann and others as a mere intellectual import from abroad. At the same time, he rightly observes that in the wake of the Younger Historical School and its collapse, academic economics in Weimar Germany was in a state of flux and disarray. Given his frustrated search for insights on which the economic practitioners of interwar Germany could draw, he feels compelled to assign all the more originality to the contributions of Wagemann and his contemporaries. The state of economic research in Weimar Germany is clearly an issue. On his way from Russia to the United States, young Wassily Leontief took a doctoral degree at the University of Berlin, precisely on input-output analysis. His dissertation supervisor, Ladislaus von Bortkiewicz, was then famous for his mathematical analysis of the Marxian transformation problem. The works of Arthur Spiethoff and Joseph Schumpeter, both at the University of Bonn during the 1920s, informed a younger generation on the credit cycle and the liquidity trap – although it was not yet called that. All in all, economic research in Weimar Germany was probably slightly less disoriented than the author's perspective is seeing it.

But there is also an intertemporal dimension that the book explores only partly, the lines of countinuity in economic analysis from the nineteenth century. German research in public finance between 1870 and 1890 centred precisely on the concept of individual and national income. Only if components of income were properly categorised and separated from wealth could a rational system of income taxation be implemented. Work of economists like Wagner, Schaeffle, and Schanz on this issue received strong international attention, especially from a younger generation of economists from the United States. The system of income taxation implemented after 1890 was based precisely on this research. It defined taxable income in a way still largely consistent with a modern definition of income. Modern national accounting had its intellectual bases in the debates of those times, and there was little that Wagemann and his followers had to add to this.

Naturally, this affects the structure of the argument, which portrays the ups and downs of the various approaches to the making of economic statistics as the outcome of a discourse between different schools. Writing as an historian, the author commands an impressive knowledge of economics and of the history of economic thought. Still, his discourse-oriented approach tends to overstate analytical distinctions between the rival groups and suggests questionable trade-offs. This becomes apparent in the discussion of statistical reporting in World War II. There, the concepts of material balances and input-output tables are weighed against each other as alternatives, though analytically, they would be prerequisites for each other.

But such issues of intellectual priority and fine analytical distinctions do not subtract from the high quality and importance of this book. Tooze writes the

making of economic policy in Germany from the input side, namely as an institutional history of German statistics and their radical modernisation in the interwar period. In the process, he provides what is doubtlessly the best existing account of Germany's experimenting with economic policy after World War I. Ambiguous in its intentions and changing its course violently, it began as a modernising attempt and was taken to opposite extremes by the Nazis and the communists after 1933 and 1945.

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ALBRECHT RITSCHL