

**WINNING THE WAR, LOSING THE PEACE?
BRITAIN'S POST-WAR RECOVERY IN A WEST
GERMAN MIRROR**

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ABSTRACT

Winning the War, Losing the Peace? Britain's Post-War Recovery in a West German Mirror*

This paper places Anglo-German growth after World War II in a long-term comparative perspective. Reviewing explanations of why post-war Germany is more dynamic than Britain, we evaluate arguments stressing institutional change, catching-up, and country-specific long-term experience. Examining competition policy and macroeconomic demand management, we find only a limited role for institutional changes and an impressive degree of institutional continuity in each country. Likewise, in inter-temporal perspective the scope for catching up between Germany and Britain is unimpressive. We find growth and productivity differences to be rooted in each country's starting position relative to its own steady state. During the 1950s, the British economy grows along a steady state established between the wars, while the German economy experiences a very pronounced rebound effect from the war shock. After its return to the steady state, German growth performance is very similar to that of Britain and by no means more impressive.

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NON-TECHNICAL SUMMARY

The idea that since World War II, West Germany outperformed Britain on the grounds of better institutional policies, greater macroeconomic stability, the *Bundesbank*, and the German work ethic is almost stereotypical and has generated a large amount of literature. Studies that use Germany as a metric for British economic performance range from vocational training to monetary policies, and until very recently, there has been a tendency to present Germany as a model for policy in Britain and abroad.

Criticism of this position has often stressed that German institutions worked well in the past but later suffered from sclerosis, lowering the overall efficiency of the economy. This is implicit in the hypothesis of Mancur Olson that institutional frameworks are subject to diminishing returns over time, as rent-seeking coalitions gradually reduce their efficiency. Major ruptures like revolutions or wars may then destroy established distributional coalitions, shaking up an ossified institutional setting and restoring its efficiency. This concept has been employed to explain the transitory nature of German super-growth after the shake-ups caused by the Nazi dictatorship and the war. Another, complementary interpretation ascribes the rise and relative decline of the West German economy to the narrowing scope for technological catching up.

In this paper we express scepticism about this conventional wisdom. We argue that the conditions of the 1950s were transitory in nature and that little can be learnt for a country like Britain from inspecting West German super-growth during the 1950s. To this end, we review the institutional and macroeconomic fundamentals of both countries. For any plausible weights attached to labour and capital, we find that convergence cannot easily account for the growth difference. The West German economy did suffer large shocks to both the capital stock and the labour force as a consequence of the war. The impact on the capital stock was not high enough to offset the large investments made during the war, however. Mass immigration of refugees after the war did displace the capital-labour ratio but was partly compensated, too, by the high out-migration of displaced persons. The net effect of all this on factor intensity and investment growth turns out not to be strong enough to account for the very high rates of growth that Germany achieved during the 1950s. If we make the same calculations for the 1960s, the picture changes considerably, and the TFP residual falls to very low levels. German supergrowth in the 1950s is thus a phenomenon that escapes obvious neo-classical explanations. Britain, in

contrast, experiences near-balanced growth during the two decades, and British figures for the 1950s are not too different from Germany's for the 1960s.

The literature has often sought to explain supernormal growth rates in the post-war period by catching-up possibilities that were larger than usual. Indeed, German productivity around 1950 is clearly lower than Britain's and gradually catches up. Nevertheless, there is a problem hidden here, as what is being measured is not necessarily catching up in the sense of acquiring best-practice knowledge that was not available before. We employ data on comparative productivity levels before and after World War I, which indicate that across World War II, German productivity had suffered a considerable setback relative to Britain's. This suggests that Germany's rapid productivity growth during the 1950s was, once again, a return to normality. Subsequent productivity catch-up to Britain is a slow process that persists into the 1980s and conforms to secular tendencies visible already before the First World War.

To place the 1950s in long-term perspective we examine the secular growth trend of *per-capita* product. For Britain, it has been argued that there was a break in growth trends after the First World War. Indeed, since the early 1920s the British economy seems to be growing around a stable growth path which is actually steeper than what an extrapolation of late 19th century trends would suggest. For Germany, several authors have suggested that after the war shock of 1945, the German economy has been recovering to a historical trend that was established in the late nineteenth century. We obtain a similar pattern. Since the late 1940s when the war shock was over, West Germany's *per capita* product grows as if drawn by a magnet back to a trend line that is given by performance prior to World War I. There is a remarkable slow down as the old trend is approached in the early 1960s.

This leads to the working hypothesis of our paper. Germany's post-war supergrowth in the 1950s was not so much the result of superior policies, greater technological backwardness, or faster institutional change, but rather a rebound effect from a war shock that had pushed the German economy far below its potential output and productivity. Similarly, Britain's less dramatic growth experience was not due to major policy failures or institutional malfunctions but rather to the absence of a war shock that displaced the British economy away from balanced growth. Consequently, an institutional explanation consistent with these facts would have to emphasize elements of institutional continuity in both countries.

This is done in the second part of the paper. We review competition policy, labour market policy, macroeconomic policy and international trade policy. The popular stereotype is that in all of these fields, post-war Germany was more efficient than Britain and that policy changes implemented in West Germany after the war gave it an, albeit only temporary, institutional lead. Britain's economic institutions, for their part, are typically described as backward and rigid.

While it is hard to deny that Britain's institutional set-up in the 1950s was not conducive to rapid adjustment to new challenges, we find the case for impressive institutional performance in post-war Germany to have been overstated. While it is well known that Britain did not overcome its pre-war mould of monopolistic competition and tacit cartelism until the adoption of a halfway clear-cut competition law in 1957, closer examination of Germany reveals that in spite of attempts by US occupation authorities, cartel practices and corporatist traditions also continued to play their part, and that the fundamental principles of German competition policy remained unclear until 1957. Even then, the legislation adopted allowed for an impressive array of exemptions and loopholes, and it turns out that in some focal cases, these exemptions continued to be regulated by legislation from the Nazi period, in some cases to this day. There seems to us an impressive case of institutional continuity across the two very different economic systems.

Labour markets in post-war Britain were often strangled by union power, and the fragmentation of unions made it difficult to establish a growth consensus between workers and the management based on wage restraint. This was on the whole easier in Germany with its system of industry-wide unions. However, a similar system had already existed in the 1920s, and we find examples showing that wage restraint does not seem to have been universal in the West German economy. If anything, persistent unemployment due to the immigration waves after the war may have played a more important role in the bargaining power of trade unions.

British policies are commonly charged with budgetary stop and go that transmitted external shocks to the domestic economy. West German policies, in contrast, are praised for their steadiness. To the extent that this is true, we find an explanation in the difference in national debt to income ratios: while Britain laboured to reduce her wartime debts under conditions of an external debt overhang, West Germany was liberated from most of her war debts by an agreement with her creditors in 1953. As a result, broadly similar patterns of private and public saving translated into vastly different budgetary room for manoeuvre. Nevertheless, West Germany does not stand out from this period

for impressive budgetary stability. In the mid-1950s, large sums were poured into a sinking fund for rearmament and then spent for social security projects at election time. The overall effect was strongly pro-cyclical, rendering the record of fiscal stability less impressive.

Trade policy in Britain attempted to retain imperial preferences while seeking limited integration with Europe. It is here where Germany's comparative success is hailed most, as growth seems to have been export-led, while the British economy remained much less integrated internationally. There is again a large rebound effect, with Germany returning to earlier levels of integration, however. We also note that Germany's trade integration in the 1950s was largely the result of European cooperation policies which obliged Germany to comply with European trade rules.

Thus, while we do not dismiss the importance of institutional changes in the post-war economies, we find their role in explaining the comparative Anglo-German growth experience to be quite limited.

I. Introduction

Understanding Britain's postwar recovery requires a metric for performance—that is, a benchmark for respectable rates economic growth following a war. In this paper we employ West Germany as such a metric. The choice of Germany is anything but accidental, for it and Britain are opposing case studies in recovery experience. Where Britain's recovery was halting and troubled, Germany's was exceptionally rapid and has widely come to be regarded as a "miracle" (a *Wirtschaftswunder* in the popular German term). Much of the literature on Britain's recovery has invoked this comparison. Popular interpretations emphasizing the lack of free-market policies, the stalemate between capital and labor, and the destabilizing role of macroeconomic policies in accounting for the UK's disappointing postwar performance all refer at least obliquely to the contrast with Germany, where none of these debilitating problems is thought to have arisen.

In this paper we highlight the comparison in order to lay bare the assumptions underlying the literature on British recovery. The Anglo-German comparison highlights three determinants of recovery experience: institutional inheritance, favorable and unfavorable shocks, and bad policy. We conclude that the most weight should be attached to the first two of these determinants, the least to the third.

Section II, following upon this introduction, presents and criticizes two explanations for the Anglo-German contrast: productivity catch-up and institutional sclerosis. Section III develops an alternative hypothesis emphasizing wartime devastation and postwar reconstruction. Sections IV through VI then consider the roles of inherited institutions and the socio-political context for policies. Section VII concludes with a summary assessment of the relative importance of these factors in the two countries' recovery experiences.

Our conclusion is that the contrasting experiences of Britain and Germany owe more to institutional continuity than institutional change and more to historical inheritance and historical contingency than current policy. We argue that Britain's recovery was slower not simply because of bad policies or bad shocks but because the economy was already close to its steady-state growth trajectory while the West German economy was still far below.

II. Sclerosis and Catching Up: Why the Two Obvious Answers Are Unsatisfactory

The literature emphasizes two explanations for why productivity grew more slowly in Britain than in Germany: Britain suffered from institutional sclerosis, and Germany started off behind. According to the first explanation, associated with Olson (1982), the destruction of German institutions by the Nazis and World War II eliminated rent-seeking coalitions, rendering the German economy more flexible and efficient. In Britain, in contrast, institutional persistence created political and economic barriers to change.¹ The second explanation, associated with Baumol (1989) and Abramovitz (1986), emphasizes the greater scope that existed in Germany for convergence and catching up after World War II. For much of the 19th century Britain had been Europe's technological leader, with the highest level of output per capita and the highest capital/ labor ratio. Germany could grow faster after World War II, in this view, because it had long been characterized by a lower capital-labor ratio and lower level of output per worker.

A. Catching Up and Convergence: Advantages of a Late Start?

Table 1 compares the long-run evolution of German and British productivity.² It confirms that the German economy was behind the British in terms of productivity in the 1950s,

¹See e.g. Alford (1988) and the literature reviewed in Bean and Crafts (1996).

consistent with the Abramovitz-Baumol view.

(Table 1)

But it also reveals that this differential was due largely to the effects of the world wars. The series we employ suggests that Germany had still not recovered her 1913 relative productivity position as late as 1938. While Germany's large agricultural sector dragged down her productivity, the productivity gap vis-à-vis Britain increased across the two world wars without an equivalent increase in Germany's agricultural employment share. In other words, West Germany's lower initial level of productivity was to a large extent a result of the war shocks and not of any underlying technological backwardness vis-à-vis Britain.³

One reason why Germany grew faster was more investment. This is consistent with neoclassical convergence where a lower starting point is identified with a lower capital-labor ratio than in the steady state. But while the Anglo-German investment gap is impressive, it is too small to account for the growth differential. This is evident in Table 2.

(Table 2)

There, TFP I is the growth of total factor productivity on the assumption of an elasticity of output with respect to capital of .33, roughly equal to capital's share in national income as implied by first-generation growth models. Even if we assign a much larger role to capital, as in second-generation models of endogenous growth, there remains a large unexplained residual. TFP II, which is constructed by doubling the elasticity of output with respect to capital

²We follow Broadberry (1993, 1997). The difference with Broadberry is that we use GDP per person-hour instead of GDP per person as our productivity measure.

³We therefore agree with Olson (1982, p.114) that technological catching up cannot explain the difference in performance between the two countries in the 1950s. Measures of backwardness like those of Maddison (1991) which is largely based on agriculture are often reported and employed in work on the post-war recovery like Crafts and Toniolo (1996) or van de Klundert and van Shaik (1996). Although they typically have some explanatory power in the German case, in studies like van de Klundert and van Shaik, Germany emerges as is the only country still having a large unexplained residual, a fact noted by Carlin (1996).

from 0.33 to 0.66 (as in Mankiw, Romer and Weil 1992), gives a larger role to investment, but the vast majority of the Anglo-German differential still remains to be explained.⁴ This is consistent with the results from comparing human capital measures like skills levels and R&D activity across both countries directly (as in Broadberry/Wagner, 1996). Thus, neoclassical convergence fails to explain growth differences between Germany and Britain in a satisfactory manner.

B. Institutional Sclerosis

Olson's (1982) institutional-sclerosis story, as applied by Giersch et al (1992) and Paqué (1994, 1996), posits a sharp change in German institutions after the war and an equally sharp break in the growth process. According to this view, the shake-up of traditional structures caused by the Nazis and Ordo-liberalism destabilized rent-seeking coalitions and unleashed Germany's productivity boom, producing the *Wirtschaftswunder* until new coalitions formed and sclerosis again set in.

This view identifies currency reform and the abolition of planning in 1948, together with Ordo-liberalism's synthesis of free markets and the welfare state, as the causes of super-growth. All this was popularized in Germany under the slogan of *Soziale Marktwirtschaft*, or social market economy. Its architect, Ludwig Erhard, became a figure of mythical fame, as did the *Bundesbank* as the guardian of the deutschmark.

Later research (e.g. Abelschauser 1985) has pointed to the incompleteness of this picture. In fact, the scope of post-war economic reform in West Germany was narrower than often thought. The removal of price controls and quantity rationing at the time of the currency reform was limited to food and finished products, whereas coal mining, heavy industry, trans-

⁴Denison (1968) similarly concludes that faster growth of capital inputs can explain only one percentage point of the four percentage point differential in annual per capita growth rates between the UK and Germany in the pe-

port, public utilities, agriculture and urban housing continued to be tightly regulated into the 1950s. Existing regulations were then replaced by similar regulations harmonized EEC-wide without introducing more competition. Indeed, it was precisely in these industries that pressure groups and rent-seeking coalitions continued to operate, leading some scholars to conclude that Erhard's attempted introduction of more competitive structures was a failure (Abelshauser 1984, Hentschel 1996).

Two cases in point are coal and steel. Both had long been cartelized and vertically integrated. France's desire to contain German heavy industry coincided with the Attlee government's sympathy for nationalization, a predisposition shared also by German trade unions. But when the United States vetoed nationalization, the compromise found was to re-cartelize coal and steel under the auspices of the European Coal and Steel Community. The owners remained a powerful lobby, a fact evident in the generous subsidies they received. In the Investment Assistance Act of 1951, West Germany adopted investment control to achieve higher investment rates in that sector. In the same year, co-determination was introduced, generating a mechanism which assured that workers would receive their fair share in any excess profits.

Nor did other traditional distributional coalitions disappear from the scene. The occupation authorities resurrected Weimar's trade unions, rehabilitating many of the same individuals who had occupied high positions before the advent of National Socialism. They encouraged the resumption of industry-level bargaining for the convenience of having recognized labor spokesmen with whom to deal. Unions were organized along the same lines as in the 1920s (with some 16 industrial unions, each with a corresponding employers' association) and participated in the same kind of national congress (formerly the ADGB, now the DGB).

As in the 1920, unions were dedicated to democratic socialism and in some cases openly hostile to markets. They demonstrated their renewed strength in 1948, soon after the currency reform of the same year, when a notable increase in the price level led to real wages losses and provoked a wave of strikes (Buchheim 1990). The subsequent steep rise of unemployment fueled resistance to Erhard's supply-side policies. The government felt the pressure so strongly that it contemplated a Keynesian job creation program, which was rejected only when recovery gained sufficient momentum to pacify union demands (Berger and Ritschl 1995, Berger 1997).⁵

Thus, little of the radical institutional change needed to support an Olsonian interpretation is evident in the German case. If Britain grew slower, this was not because West Germany was significantly freer of institutional sclerosis.

III. Closing the Reconstruction Gap

An alternative view is that the German economy grew faster in the post-war decade because had been displaced further from its long-run growth path.⁶ In this view, the aftermaths of the world wars were periods of crisis when growth fell below long-term potential levels which could be regained subsequently. We operationalize this idea by comparing output per capita in the recovery periods to that suggested by an extrapolation of the trend of the growth of the two economies in 1900–1913. Figure 1 shows the gross domestic product per capita of Britain and Germany/West Germany along with the extrapolated trend lines from

5A similar point could be made for agriculture whose lobby remained intact and powerful despite the disappearance of the "Junker" class of the politically influential landed nobility. Here as much as in iron and steel, German regulations, often inherited from Nazi economic planning, were successively replaced by EEC-wide market control that attempted to regulate the market with very similar instruments (on this, see Kluge, 1988).
6This idea underlies the work of Janossy (1969); it was popularized in Germany by Abelshauer (1975).

1900–1913 on a semi-logarithmic scale.⁷

(Figure 1)

For Germany the result is striking: after World War II, output per capita returns as if drawn by a magnet to the path established in the early 20th century.

Viewed from this perspective, West Germany's supergrowth in the 1950s took place during a period of recovery from a highly irregular starting point.⁸ The converse was true of Britain. Its 1900–1913 trend is flatter than Germany's, and from the mid-1930s the extrapolated German trend line is always above the British one. Had there been no world wars and had both economies continued to evolve according to their tendencies at the turn of the century, it appears that German tourists would have flocked to London's shopping districts already in the 1940s and not just in the 1970s!⁹

There is evidence in the British data of a structural break around the time of the post-World War I depression (see also Crafts and Mills 1996). From 1922 on, the British economy seems to have grown around a new trend path which is steeper than historical experience would predict. This new trend is almost identical to the extrapolated German trend line of 1900–1913. Unlike the German case, Britain's growth trajectory seems only mildly affected by World War II. Germany's exceptional position in the 1950s and the subsequent return to the trend are reflected in the data of Table 2 as well. Already in the 1960s, Germany's total

⁷We choose 1900–1913 as the base period because of the limitations of the German data, whose quality is inferior before 1900, but also because the turn of the century marked a shift in away from extensive growth (accompanied by falling fertility and emigration rates) and therefore a significant structural break. A related exercise with data extending back to 1870 was first made by Borchardt (1977 [1991]).

⁸Consequently, the focus of interest soon shifts away from explaining why post-war growth was so fast to why it could be that the German economy's steady state seems so stable.

⁹To establish the robustness of these results, we experimented with data from Maddison (1995) and Hoffmann and Müller (1959), extending the trend back to 1870. Although these backward extensions do affect the position of the German trend line, there is consistent evidence of German per-capita output growth having been about 40–50% higher than that of Britain in the last third of the 19th century. We also experimented with extending the British trend backwards and found it to be highly stable: inserting another extrapolated trend for Britain based on 1870–1913 would lead to an almost complete overlap with the one shown in Figure 1.

factor productivity growth (TFP I) was back at British levels.¹⁰ In contrast, British total factor productivity growth (TFP I) does not change across the two decades, which indicates again that Britain was already close to its steady state.

The fast growth of West German TFP during the 1950s and its slowdown soon after finds a partial explanation in the externalities of investment during the reconstruction process. Wartime destruction had often hit strategic bottlenecks. With sometimes very limited damage to capital stock, much larger capacities had been rendered unproductive. Consequently, reconstruction investment would generate high initial externalities on the productivity of surviving capital stock (e.g. Kregel 1958).

In the interwar period, both countries share a not-so-golden age in the 1920s characterized by slow growth, sluggish investment, and labor market rigidity (Broadberry and Ritschl 1995). However, Germany recovered better from her lost growth opportunities than did Britain.

This leads directly to the main hypothesis of this paper. Germany's recovery from World War II was faster not so much because of better policies, greater technological backwardness or greater institutional change, but rather because a larger war shock had displaced the German economy farther from its steady state. Britain's recovery was slower not so much because of lost growth opportunities but rather because Britain was already close to a growth path whose parameters had been established in the 1920s. It follows that any explanation for Britain and Germany's contrasting recovery experiences after World War II will have to emphasize persistent factors that can account for continuity over long periods.

¹⁰Note that our estimate of German TFP growth, derived from the standard data set of Maddison (1991), is far below companion estimates for the 1960s, probably because we use hours, not persons, and standardized, not raw capital stock data here. Inspection of the data reveals that Germany experiences another investment boom during that decade. But unlike in the 1950s, this investment boom fails to produce similarly high growth.

These observations do not square well with an Olsonian interpretation of the post-war period. For Germany there is no displacement from the long-term growth trajectory that an Olsonian revolution should have wrought. Rather, what is striking is the speed and extent of the reversion to the previous growth trend. For an Olsonian view to be consistent with the evidence of Figure 1 above, the relevant institutional shake-up must be sought in Britain in the 1920s, not in Germany in the 1950s.¹¹ Britain's adaptation to the institution imperatives of 20th century growth may have already occurred after World War I, in other words, leaving only limited scope for an institutional explanation of her economic performance after World War II. Similarly, the reversion of German GDP per capita to its long-term trend points to institutional inertia which persisted through World War II.

This interpretation puts less weight on current policy and institutional change than many previous accounts. This makes it incumbent upon us to analyze these alternatives in more detail. We start with competition policy before proceeding to labor market policy, stabilization policy and finally trade policy.

IV. Competition Policy

The policy environment in Britain after World War II was anything but competition friendly. Collusive arrangements were a British tradition: during the 1930s and the war some 60 per cent of British manufacturing was covered by such agreements. Collusion was used in the 1930s to shelter weak firms from the slump, and during the war to smooth the flow of inputs

¹¹ While we do not pursue the question of whether there exists an Olsonian explanation of Britain's performance during the inter-war years, it is worth noting that the historiography on Britain's secular decline seems to have arrived at Georgian England as the pivotal period (see the contributions in Floud and McCloskey, 1994), which is consistent with the evidence in Figure 1 above. Broadberry and Crafts (1996) suggest that this may reflect in-

to the military. Officials saw cartels as convenient for pursuing their industrial agendas; it was easier to meet with a few industrial leaders than to organize a large number of small entrepreneurs. Yet another motive for disregarding the potential for abuses by industrial rings was to exploit economies of scale and scope. America's example suggested that units of production had to be enlarged to compete, and cooperation and consolidation were viewed as means to this end.

Legal restraints did little to inhibit collusion, Britain possessing no analog to the U.S. Sherman Anti-Trust Act. While the Board of Trade favored tough anti-trust legislation and the Conservatives were cautiously sympathetic, management and union leaders, anxious to share the rents from collusion, resisted. Not until 1956 with the adoption of the Restrictive Practices Act was a serious effort made to discourage collusive practices. Even then, mergers were rarely discouraged as restraints to trade, and the Conservative Government extended legal sanction to price maintenance schemes. The impact on competition was debilitating. One contemporary concluded that the restrictive practices of trade associations were "the greatest single cause of the lack of all dynamism in British industry."¹²

Postwar Labour Governments, hostile to high prices and high profits, acknowledged the costs of price maintenance schemes. Their solution was not to break up collusive arrangements or regulate natural monopolies, however, but to bring the offending industries under government ownership and control. Labour's enthusiasm for nationalization was prompted by the feeling that the market had failed in the 'thirties and by its desire for wider economic and social reform, with roots traceable back to Fabian Socialism. (The commitment to nationali-

stitutional arrangements put in place in response to the crises of World War I, the postwar recovery, and the subsequent depression.

¹²Cited in Harris (1972), p.222. One attempt to measure this effect is in Crafts (1995); he includes in a cross-section model of the determinants of productivity growth in the period 1954-63 (using data

zation had been given official status in Clause IV of the party's 1918 constitution drafted by Sidney Webb.) Nationalization proceeded from the Bank of England, the coal industry and BOAC in 1946 to the railways, waterways and electricity in 1947, gas in 1948, and iron and steel in 1949. By 1951 more than two million workers were employed in public corporations.

The productivity and profitability of these public companies was hardly admirable. As Cairncross (1985, p. 78) concludes, "There was no very apparent gain in efficiency, no revolution in industrial relations, no real reinforcement of the government's grip on the economy." In 1950 profits amounted to 23 of net output in the private sector but -4 percent in nationalized industry. Comparable figures for 1955 were 25 percent and zero (Glyn and Sutcliffe 1982, p.164). Between 1948 and 1958, labor productivity in nationalized industry grew by only 1.5 percent per year, a percentage point below the average for the British economy as a whole. With unionists on both sides of the bargaining table, public corporations provided generous wage settlements. Soft-budget constraints gave management little incentive to minimize costs. Pressured to help with political problems like the existence of depressed regions, managers had mixed motives when it came to allocating resources.

It might seem that this contrasts with Germany where strict antitrust legislation prevailed. The US occupation policies had sought to break with Germany's cartel traditions, and some writers have praised of their antitrust policies as the "Americanization of German industry" (Berghahn 1986). This is an exaggeration. The British occupation authorities, less inclined to introduce competitive capitalism into Germany than their American counterparts, had relied on a revitalized version of existing entrepreneurs' associations for economic planning. American pressure and allied anti-cartel legislation gradually reduced their power again,

for 57 British industries) the change in the five-firm concentration ratio (as a measure of the scope for collusion), finding a negative coefficient on the margin of significance at the 10 percent confidence level.

although occupation authorities admitted that reconstruction without the expertise of these associations was impossible, and there were suspicions that the old cartels continued to operate in a more covert form into the 1950s (Plumpe 1987). Under American aegis, the economic administration under Erhard and later the federal government attempted to adopt tight anti-trust legislation, but a proposal drafted by Ordo-liberals failed in 1951. Resistance from heavy industry delayed the passage of an antitrust law until 1957, when finally a bill (following principles actually set out by the Bruening administration in the early 1930s) was adopted (Berghahn 1986). This allowed substantial exceptions to the principle of noncartelization.¹³

US occupation policies had also actively sought to deconcentrate German big business. In some cases this was successful, as with IG Farben, the chemical trust. The company was divided into four enterprises, creating a market structure that has survived to this day. One explanation for this remarkable stability is that stable oligopolistic structures had always characterized in the chemical industry. In the cases of heavy industry and banking, deconcentration was less lasting (Mollin 1988, Wixforth 1995). An additional problem was the "Verbundwirtschaft" structure of German heavy industry, which entailed the joint production of coal, steel, gas and electricity; this made it difficult to deconcentrate without replacing cartel agreements by an equally complicated regulatory framework. The solution found in the Schuman Plan was to put the deconcentrated industries of the Ruhr under the control of a European-wide regulatory board. However, this did not prevent reconcentration of heavy West German heavy industry, which soon restored high degrees of market power and de-facto

¹³In fact, most of the exemptions from free competition defined in the new law derived from the mid-1930s and are still in force today. Ironically, then, it was precisely during the early Nazi years under the aegis of Hjalmar Schacht that key elements shaping the limits of West Germany's later system of competition policy were introduced. Regulatory legislation from the Nazi years which survived intact included that affecting credit markets, transport, electricity, vocational training, guild protection for traditional crafts, and shop-closing hours. Other regulations from the Nazi period, including agriculture and heavy industry, were replaced with European legislation.

cartelization (Abelshauser 1984, Gillingham 1991).

The most obvious defeat of American-inspired competition policies was in banking. US regulators had attempted to create a state banking system for post-war Germany. The big Berlin banks were split up and successor institutions were created on a zonal basis. The German government was pressed to cast the new situation into federal law. However, after West Germany regained its sovereignty in 1955, these laws were lifted, and the zonal banks merged. Recent research has demonstrated that even during the years of deconcentration, the regional successor banks of the old Deutsche Bank continued to operate a joint shadow executive board that coordinated their strategies, approved large credits, and distributed revenues (Holtfrerich 1995).¹⁴

We thus find a striking degree of parallelism between competition policy in Britain and in West Germany. Neither possessed an antitrust culture resembling the Sherman Act in the United States. Nationalization, not competition, was the order of the day, the degree nationalization and regulatory intervention being if anything higher in Germany than in Britain. Coherent competition policies did not develop in either country before the second half of the 1950s. With the exception of chemical industry, where favorable conditions prevailed, allied policies had very limited impact on corporate culture and competition in German markets. Antitrust laws left large loopholes that insulated the respective national economies from competition, a condition that has changed only in the 1980s in Britain and the 1990s in Germany. Tempting as it may be to explain the difference in performance by invoking Ordo-liberalism in Germany, a closer look reveals that such an explanation lacks power.

¹⁴The influence of large banks on German big business and the possible unofficial cartel structures created by this has continued to attract scholarly attention (e.g. Edwards and Fischer 1994), although historical research seems to imply that the influence of banks on German industry may in fact have been quite limited (see Wellhoener, 1989, for the imperial period, Wixforth, 1995, for the Weimar Republic, and James, 1995, for the Nazi years).

V. Labor Markets

The recipe for rapid growth in the wake of World War II was to exchange wage moderation for high investment (Eichengreen 1996). In return for workers agreeing to moderate their wage demands, owners agreed to plow back profits into the modernization and expansion of capacity. But while Britain's national labor organization, the Trades Union Congress, sought to exchange wage moderation for a commitment to invest, it had difficulty keeping its member unions in line (Flanagan, Soskice and Ulman 1983; Booth, Melling and Dartmann 1997). Early industrialization had bequeathed a myriad of small, craft-based trade unions. A single employer might have to negotiate with several dozen unions. Their number and the autonomy of shop stewards on the factory floor frustrated efforts to achieve the industry-wide, much less economy-wide, coordination of bargaining. What direct negotiations between labor and management could not deliver, governments sought to provide. British governments and unions pursued agreements to trade wage restraint for pro-union legislation and the pursuit of employment-friendly macroeconomic policies. In return for wage restraint, workers were provided a Beveridgian welfare state involving generous health and unemployment benefits financed by high tax rates (Weaver 1950; Barnett 1986). Between 1938 and 1950, government spending on social services doubled in real terms, reflecting the cost of the National Health Service.¹⁵ To reassure workers offering wage concessions that their living standards would be preserved, the British government invoked price controls; as late as 1951, 54 percent of consumer spending was on controlled items (Dow 1964, Broadberry and Crafts 1996). Controls implied rationing, which was retained on a significant share of consumer goods until the end of the 1940s. Firms denied the freedom to set prices were compensated by

the retention of import restrictions, completing the cozy arrangement. The convertibility of sterling for current-account transactions, which was necessary for freedom of imports, was delayed until the end of 1958. British managers were thus shielded from the chill winds of competition; ten years after the end of World War II, the import share in domestic demand remained less than 5 percent.

Moreover, with scores of unions squabbling over their members' shop-floor rights, work rules proved difficult to modify. Bean and Crafts (1996) analyze total factor productivity growth in 137 British industries in the postwar period; they find that the presence of multiple unions significantly depressed total factor productivity growth, with multiple-union workplaces exhibiting annual TFP growth as much as one percentage point lower than that achieved by single-union workplaces.¹⁶ In this environment, attempts to import American-style mass production methods under the aegis of the Anglo-American Council on Productivity (AACP), set up in conjunction with the Marshall Plan, had little impact on growth (Crafts 1995). Unions and employers agreed that neither restrictive practices nor work rules were fair game for investigation by the AACP.

At a first glance, Germany's labor market institutions seem better able to deliver wage moderation. Late industrialization had given rise to a small number of large, industry-based labor unions. Where a British company might have to deal with a score or more unions, its German counterpart had to negotiate with only one of 16 nation-wide unions, depending on the industry in which it operated. Smaller numbers meant lower transactions costs. The intra-industry coordination necessary for wage restraint was facilitated by having the metalworkers' union negotiate first and the others follow its lead.

¹⁵Cairncross (1985), p.80.

¹⁶Here too there is impressive evidence of institutional continuity: Broadberry and Crafts (1992) provide remarkably similar estimates for the interwar years.

For iron and coal, the Codetermination Act of 1951 placed workers' representatives on company boards, allowing them to surveil their employers and verify that the latter were keeping their investment commitments. The Works Constitution Act of 1952, based on similar Allied acts of the late 1940s and on slightly less comprehensive legislation from the Weimar Republic, had similar effects; moreover, it secured monopoly for the trade union in representing firm workers.

Given that German mining and heavy industry enjoyed the most elaborate system of industrial relations, it was there that the success of trading wages for high investment should have been most evident. But in fact, investment rates in this sector were so low that an energy crisis developed in 1950. The Investment Aid Act of 1951 imposed a levy on wide segments of German industry in order to pour into coal, steel, electricity generation and transport funds that owners, capital markets, and banks could or would not supply.¹⁷ In 1950 when this crisis was mounting, the miners' union managed to obtain pay increases of 9 and 10 percent (Abelshausner 1984), hardly consistent with the picture of restraint.

This was not the only way in which government sought to provide what negotiation between capital and labor could not. Extensive use was made of Marshall Plan counterpart funds to finance investment in coal, steel, public utilities, and transport. Large portions of investible funds were thus channeled through public hands in order to boost strategic sectors. After the currency reform of 1948, coal prices had continued to be fixed at levels far below cost, and the same held true for electricity and railway transport prices; this was a deliberate policy to keep production costs low and to boost consumer purchasing power. Housing rents were kept artificially low, and subsidies were provided for residential construction. Hence, if

¹⁷The act laid the administration of this levy in the hands of the entrepreneurs' associations, again strengthening the informal cartels that allied legislation had sought to abolish (Abelshausner, 1984).

there was a social compact between capital and labor in postwar Germany, it was buttressed by state subsidies and partly enforced through investment control.

Aggregate labor-market statistics for the two countries paint sharply contrasting pictures (Table 3). British unemployment was low. Many feared a postwar surge in unemployment like that which had followed World War I, but their expectations were disappointed. Between 1945 and 1951 unemployment averaged an astonishingly low 1.5 per cent. For the remainder of the decade the annual average rate never once crept above two per cent.

Germany, on the other hand, entered the 1950s with unemployment close to 10 per cent. Only toward the end of the decade had German unemployment rates attained British levels. The persistence of high unemployment during the first years was itself a consequence of a very high influx of refugees after World War II. Therefore, it is not an indication of failing labor market institutions. However, the initially high level of unemployment and its subsequent decline may have increased the bargaining power of trade unions over time.

All this leads us to conclude that the contrasting structure of labor relations in the two countries may have mattered less for the course of the first postwar decade than is commonly supposed.¹⁸

VI. Aggregate Demand and Its Management

Many comparisons of the British and German recoveries credit superior German performance to higher levels of saving, a stable budget, and wiser balance-of-payments policies. The British stereotype is of lower savings, budgetary stop-and-go, and balance of payments

¹⁸In a Nash bargain over the wage rate, unemployment may affect the bargaining position of the trade union. Broadberry and Crafts (1996) find evidence of this effect in post-war Britain. According to Lindlar and Holtfrich (1997), unit labor costs started to rise at the end of the decade, and continued doing so until the labor market was opened to immigration from Southern Europe in the 1960s. Hence, to the extent that high initial unemploy-

deficits. But Table 3 shows that private savings rates were actually quite similar in the two countries. In both, the public sector's contribution to national saving was positive. Both countries were capital exporters.¹⁹ The question is therefore how two such similar patterns could have produced such different outcomes.

(Table 3)

The answer is the two countries' very different debt/income ratios. West Germany's started out lower and remained below 25 percent until the 1970s. Britain's debt ratio started out at 175 percent and remained higher than Germany's until the 1990s (Ritschl 1996). Different levels of debt meant different balance-of-payments positions, given similar savings rates. The British balance of payments was weak owing to the large amount of service due on debt to foreigners, while the German balance of payments benefited from the country's debts having been written down by the currency reform of 1948 and the London Agreement of 1953 (Buchheim 1986). Had the UK obtained German-style debt relief, she might have seen her international reserves accumulate as fast as Germany's. Thus, the main difference lay in post-war debt arrangements which favored Germany, allowing her to accumulate foreign currency reserves despite savings rates only marginally different from Britain's. And that accumulation of reserves freed macroeconomic policy from the balance-of-payments constraint.

The socio-political context is important for understanding the constraints on macroeconomic policies. Seeking to sustain full employment at all cost, the British government subjected the economy to the highest possible level of demand. When it overshot, the external deficit widened and sterling weakened. Supporting the currency then required slamming on

ment reinforced the implicit contract trading in wage increases for higher investment, this effect became weaker over time.

¹⁹Commentators have sometimes argued that the country's propensity to export capital was harmful for domestic investment, and also that Germany's ability to generate current-account and export surpluses was an important engine of growth. Table 3 reminds the reader that these views cannot be true at the same time.

the brakes, generally by raising taxes and increasing the Bank of England's discount rate. When the crisis passed, the government opened the throttle again.

These stop-go episodes complicated of investment planning. Liquid, short-term assets were preferred by investors uncertain about macroeconomic prospects. Firms seeking finance for investment projects found external funds costly or difficult to obtain. Considerable evidence exists that demand uncertainty has a depressing effect on investment (see e.g. Ghosal 1991). There is reason to think that this mechanism operated with considerable power in Britain after the war.

British policymakers' single-minded pursuit of output and employment goals reflected the searing effect of high unemployment between the wars. They were aware that the Conservative Government of 1924–1928 and the Labour Government of 1929–1931 had been brought down by their failure to solve the unemployment problem.²⁰ The 1944 *Employment Policy* White Paper made the pursuit of “high and stable” employment a priority. The authorities' inclination toward fiscal fine-tuning reflected the singular influence of the Keynesian revolution—not surprisingly, given that the theory was developed in Britain. This emphasis on fiscal policy was married to a neglect of monetary policy, which contemporaries dismissed as ineffectual and irrelevant to macroeconomic management. Monetary policy was to be used, in the prevailing view, to minimize debt-service payments; this provided an incentive to keep interest rates low and to over-stimulate aggregate demand.²¹

In Germany, where pressing foreign exchange constraints were absent, one might expect more stable fiscal policy. But Table 3 shows that this was not the case. The German government ran a series of surpluses in the 1950s, the proceeds of which were spent in subse-

²⁰Price and Sanders (1994) show that postwar governments were similarly rewarded and punished depending on their success in hitting short-term employment targets.

quent years. This spike in German public saving was caused by the attempt of the German government to pour money into a sinking fund for rearmament, known as the "Juliusturm."²² Surpluses were added to the government's central bank account and removed from circulation. Soon, however, a grand coalition of politicians determined that a better use of these monies was to expand social security, and the government's account was run down. This fiscal conduct received harsh criticism at the time for its procyclicality (notably by Musgrave 1956).²³ None of this is consistent with the stereotype of a stabilizing fiscal policy. What really seems to have mattered for Germany's fiscal system was the absence of large interest burdens on the public budget that allowed Germany to keep tax rates low and insulated the public budget from balance-of-payments pressures.

Thus, the two countries' macroeconomic policies seem to explain less than might be supposed.

VII. Trade Policy

For Britain, the formative event of the recovery period was the abortive restoration of convertibility in 1947. As a precondition for a \$3.75 billion loan extended in 1946, the U.S. required Britain to restore current account convertibility within a year.²⁴ This would have made sense had the UK been able to negotiate a reduction in its sterling balances (financial claims acquired by the Commonwealth and other sterling area countries over the course of the

²¹The Treasury and the Bank of England made a number of efforts to limit advances to the financial system designed to minimize these effects.

²²The original "Juliusturm" was a tower in the fortress of Spandau near Berlin where Imperial Germany had hoarded French gold paid as reparations after the Franco-Prussian War of 1871.

²³Analyzing German full employment budget surpluses, Berger (1997) similarly finds that "Juliusturm" had strong procyclical effects.

²⁴Sterling remaining the second most important international currency after the dollar, the Americans viewed this as a critical step in the reconstruction of the international trading system and the elimination of remaining discrimination against American exports.

war), had it freed up domestic prices, and had the government limited the level of domestic demand. But none of these preconditions was met. Between July and September 1947, the Bank of England's lost in excess of \$300 million of reserves, forcing the British authorities to devalue and suspend convertibility again.

This experience reinforced the conviction that the currency should remain inconvertible until the sterling balances were run down and exports had strengthened. The 1949 devaluation was step in this direction, although it was too small to sustain current account convertibility (Eichengreen 1993). Another step was joining the European Payments Union in 1950, which precommitted the U.K. and other EPU members (principally the countries of Continental Europe) to remove prohibitions and controls on one another's exports.

But while the EPU mandated the reduction and removal of controls on trade with Europe, tariff barriers remained. These were applied preferentially to the Commonwealth under the provisions of the Ottawa Agreements; in turn, the Commonwealth extended preferential treatment to British exports. Some have argued that the persistence of these preferential arrangements insulated British exporters from the chill winds of international competition. British firms were cushioned against the need to meet price and quantity competition on equal terms, allowing them to "lie back on the featherbed of mutual [Commonwealth and colonial] trade" (Robertson 1954). The fact that British exports were tailored to slowly growing Commonwealth markets rather than to the buoyant markets of Continental Europe limited the expansion of demand.²⁵

How much did Britain's continued reliance on Commonwealth and sterling-area markets handicap the development of its trade? UK exports grew by a total of just five percent in

²⁵Between 1948 and 1958 the imports of the sterling area other than Britain increased by 39 percent, while the imports of Continental Europe nearly doubled.

volume from 1950 to 1955, while Germany's exports, benefiting from her re-integration into the European economy, more than tripled. The UK's share of world exports of manufactures declined from 26 to 17 percent between 1950 and 1960, while Germany's rose from 7 to 19 percent. While these trends were discouraging, the question is whether Britain's orientation toward the Commonwealth was to blame. Schenk (1994) suggests not, arguing that Commonwealth trade was "a rather hard featherbed." Competition with other national suppliers was more intense than the critics supposed, exposing British exporters to the rigors of international competition. The sterling area may have once been a relatively cohesive trading bloc, but by the mid-1950s it had evolved into a looser, less discriminatory arrangement. The preferences enjoyed by Britain and the Commonwealth were mostly specific tariffs whose value had by then been greatly eroded by inflation: by 1953 the average preference margin on trade between the UK and the Commonwealth was only 5–6 percent, and only half of all Commonwealth trade was covered by preferences.

This is not to deny that British trade remained disproportionately oriented toward the Commonwealth and sterling area. But this reflected the legacy of long-established business relationships rather than current discriminatory policies. Commercial relationships between foreign suppliers and domestic consumers, once put in place, became resistant to change. Colonial consumers had developed a taste over the years for English biscuits and Scotch whiskey. For these reasons, a larger share of British exports depended on the state of demand in Commonwealth markets than was typical of European exporters. To the extent that the Commonwealth and colonial markets to which British exports were disproportionately directed grew relatively slowly, this was a handicap.²⁶ But this handicap reflected mainly the

²⁶The Board of Trade concluded that the geographical distribution of Britain's trade could account for at most 30 percent of its loss of market share in the period 1951-5. Krause (1968) similarly concluded that any handicap

country's historical inheritance rather than distortions caused by current policy.

Germany's trade position, on the other hand, was initially characterized by the disintegration of the zones of occupation from the European market (Buchheim, 1990). After the currency reform of 1948, Germany's unsettled foreign debt remained the main stumbling block for further reintegration. Before a settlement was negotiated, the EPU provided dollar-backed fresh money for Germany to restock her economy. The EPU framework helped to recommit West Germany to trade liberalization and financial integration after two decades of autarky and debt default (Berger and Ritschl 1995). The increase in the openness of the West German economy during the 1950s is thus once again an element of recovery, not so much a growth phenomenon. However, we note with Crafts (1989) that from a medium-term perspective, Germany may have possessed a more favorable mix of export industries than Britain, just as in the inter-war period.

VIII. Concluding Remarks

Viewing Britain's post-World War II recovery in a West German mirror casts doubt on popular explanations for the contrasting experiences of the two countries. There is little evidence that Germany's more successful performance reflected greater technological backwardness or higher investment rates. Nor do Olsonian theories of institutional sclerosis and rejuvenation hold much water. British institutions displayed remarkable continuity, but the same was true of Germany. That institutional inheritance had powerful effects, but this was no less true in the Federal Republic than the UK. The labor market policies, competition poli-

from geographical distribution was offset by the favorable effects of product composition (that British exports were primarily manufactures rather than primary products, the global demand for which was growing more slowly).

cies, macroeconomic policies and trade policies that flowed from this inheritance may have held back British growth, but the German record in these respects was no better.

Far more important was how the productivity gap between the countries had widened after World War I and again after World War II. Britain had less scope for fast growth after World War II because her economy had not been significantly displaced from its equilibrium path. Germany, in contrast, could grow fast simply by reversing the cumulative effects of the two wartime shocks.

Thus, both institutional inheritance and historical contingency shaped the contrasting recoveries of our two economies. The institutional inheritance constrained possibilities and molded outcomes, but to a similar extent in both Germany and Britain. On the other hand, historical contingencies—the wartime shocks—had effects on the German economy far more dramatic than in the UK. Once those effects faded, Germany reverted to her historical growth path, a trajectory quite similar to Britain's.

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Table 1: Estimates of comparative levels of productivity and agricultural employment shares, 1870-1973

(a) German GDP/hour (UK = 100)			(b) Share of agriculture in the labor force		
Year	Maddison	revised	Year	Germany	Britain
1870	48.50	46.90	1870	49.5	22.7
1890	53.06	51.31	1882	43.5	
1913	63.82	61.71	1895	37.5	
1929	63.10	55.32	1907	35.2	
1938	71.83	60.83	1925	30.5	
1950	52.47		1933	28.2	
1960	81.24		1939	25.0	
1973	96.03		1950	22.2	5.1
			1960	13.3	
			1973	7.1	2.9

Sources: Output per man- hour: Calculated from Maddison (1991, Table C.11).
Revised data calculated using Ritschl/Spoerer (1997, Table I) for output
Labor force shares: Germany: Bundesbank (1976, Table 1.02)
Britain: Maddison (1991, Table C.5).

Table 2: Comparisons of output growth and its determinants, 1950-1973

	Output Y	Capital K	Labor L	Y/L	K/L	TFP I	TFP II
(a) 1913-1929							
Germany	1.20	-0.05	-0.17	1.37	0.12	1.33	1.29
Germany (rev.)	0.59	-0.05	-0.17	0.76	0.12	0.72	0.68
Britain	0.71	1.51	-0.74	1.45	2.25	0.71	-0.04
(b) 1929-1938							
Germany	3.78	1.74	1.36	2.42	0.38	2.29	2.17
Germany (rev.)	3.39	1.74	1.36	2.03	0.38	1.90	1.78
Britain	1.89	2.20	0.96	0.93	1.24	0.52	0.11
(c) 1950-1960							
Germany	7.96	5.66	1.02	6.94	4.64	5.41	3.88
Britain	2.85	3.90	0.55	2.30	3.35	1.19	0.09
(d) 1960-1973							
Germany	3.45	6.50	-0.81	4.26	7.31	1.85	-0.20
Britain	3.16	5.32	-0.69	3.85	6.01	1.86	-0.12
Sources:	Maddison (1991), Tables A7-8, C 10, D 5. Revised output data for Germany: see Table 1 above.						
Methods:	TFP I = $Y/L - 0.33 K/L$ TFP II = $Y/L - 0.66 K/L$						

Table 3: Macroeconomic Performance of Britain and Germany, 1950-1960

	Private savings rates, per cent		Public debt/GNP ratio, per cent		Public savings rates, per cent		Unemployment rates, per cent	
	GB	D	GB	D	GB	D	GB	D
1950	1.3	3.2	193.5	19.7	19.1	7.5	1.3	11.0
1951	1.1	3.2	175.4	17.5	15.2	11.7	1.1	10.4
1952	3.4	5.7	162.7	16.5	8.6	11.6	1.6	9.5
1953	3.6	6.9	152.3	21.6	6.1	13.0	1.5	8.4
1954	3.0	7.4	147.3	23.1	6.6	12.3	1.2	7.6
1955	3.6	6.6	139.1	21.4	11.2	13.7	1.0	5.6
1956	5.3	5.7	128.9	19.9	9.3	13.7	1.1	4.4
1957	4.5	8.0	121.8	19.1	11.3	9.4	1.3	3.7
1958	3.9	8.7	117.6	18.8	12.2	4.6	1.9	3.7
1959	4.8	8.9	112.5	18.2	10.1	5.6	1.9	2.6
1960	6.7	9.0	107.7	17.4	6.0	9.3	1.5	1.3

Sources: Britain: Mitchell (1990, Tables Publ. Fin. 7, Nat. Acc. 5);
 Feinstein (1972, Appendix Tables 3 (col. 7), 10 (cols. 12, 14),
 14 (cols. 8, 12), 57).
 Germany: Bundesbank (1976, Tables A 1.02, H1.02, K.2.01, K. 2.03;
 1988, Table I.2)

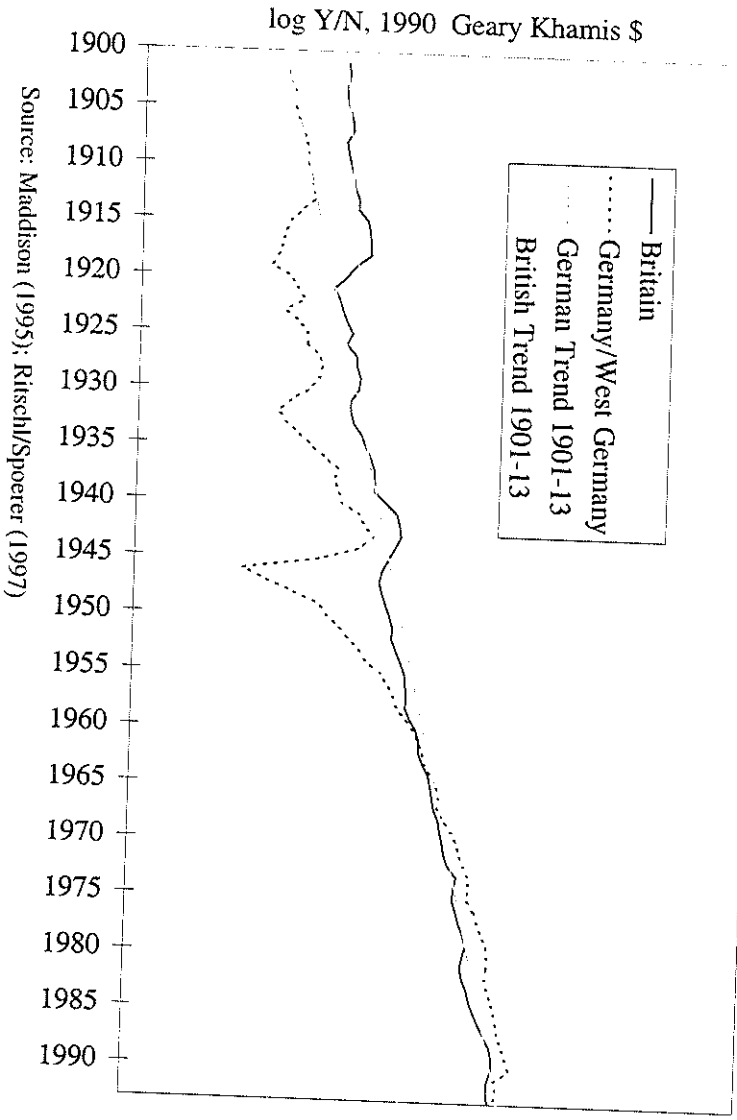


Figure 1: Growth of GDP Per Capita in Britain and Germany, 1901-1993

Source: Maddison (1995); Ritschl/Spoerer (1997)