



Can Germany Avoid Deindustrialisation?

By John Greenwood

Overview

- Since 2017 the mighty German industrial machine has stalled. The stagnation of industrial production has percolated from manufacturing to the broader GDP. However, Germany's performance has not only been poor on the output side, but it has also experienced higher inflation than other leading EU economies.
- The first part of this 14-page Newsletter explains how Germany got into this quagmire of stagnating output combined with high inflation (i.e., stagflation).
- On the output side, long-standing biases in the educational system have combined with government policies to emphasise (a) a preference for manufacturing, (b) a green agenda which has caused mispricing of inputs and outputs, and (b) geo-political ambitions. In the latter category are Chancellor Angela Merkel's Ostpolitik which built up energy dependence on Russia, and the more recent alliance that Chancellor Olaf Sholz has tried to build with China – both of which have turned sour.
- On the inflation side, Germany no longer directly controls its monetary policy having delegated it to the ECB, but its representatives in Frankfurt have aligned themselves with a muddled consensus that has allowed money growth to be alternately too slow (pre-Covid) and too fast (during Covid).
- The remedies for Germany's predicament come in two forms: cyclical and structural. In the short-term, output may recover modestly while inflation will gradually subside in line with other EU economies.
- But in the longer-term, far-reaching and fundamental changes are required to wean Germany off its traditional industrial model and on to higher value-added activities in services and technology (not necessarily production). But policymakers and employers may not be ready or willing to entertain such a radical change in the German mindset.

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Introduction: Deep-Seated Problems Go Back a Long Way

In recent years there has been much discussion of the crisis in the German economy, and more fundamentally the apparent failure of the German economic model. Here I will briefly discuss the sources of these problems – short-term and long-term – and then proceed to address how Germany might escape from its industrial stagnation.

I take as my starting point a classical-liberal agenda for economic success. An economy will perform to its best capabilities if (1) assets are predominantly held in private hands, if (2) free market pricing is pervasive (and inflation is low and stable), if (3) regulations are kept to a minimum, and if (4) deviations away from any of the above are promptly eliminated. A corollary is that (5) the economy should not be allowed to become excessively dependent upon one or more products, sectors, or markets otherwise it risks being vulnerable to abrupt shifts in market conditions.

Set out in this way, it is immediately obvious that Germany's problems in recent years have resulted not so much from (1) public ownership, but from (2) government interventions in the price system and (3) excessive regulatory controls and requirements (such as the various green regimes) which (4) have now been in place for a decade or more and been highly disadvantageous to long run growth, and finally (5) excess dependence on one major supplier (Russia for energy) and one major sector (autos and engineering) in a small number of major markets (China & Russia).

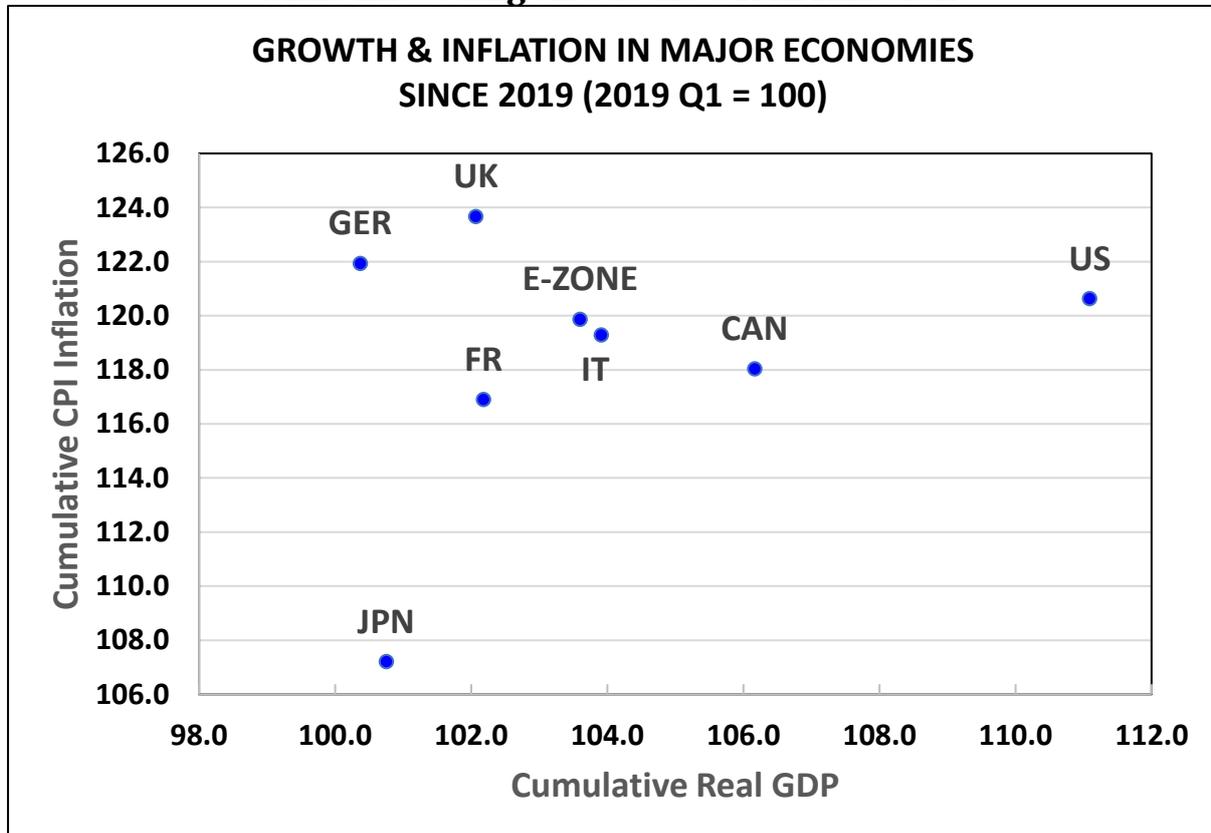
When combined with a completely unnecessary episode of inflation triggered by excess money growth during the Covid crisis, plus supply chain disruptions due to (a) the shift in domestic spending during lockdown and (b) the sanctions placed on Russia following Putin's invasion of Ukraine, Germany has faced an onslaught of problems. Just recently, in March 2024, an IMF report said that Germany's real challenges were aging, underinvestment, and too much red tape. While there is some truth in the IMF's diagnosis, the problems are much deeper in my view.

The cyclical problems of excess production, inflation and higher unemployment might appear easy to overcome. Inflation can certainly be solved by continued low growth of euro-area M3, but excess capacity and the loss of competitiveness leading to factory closures and job losses are likely to be more prolonged. This is because the current cyclical downturn is highlighting problems of much longer standing.

Unlike other western economies that have seen a steady erosion of their manufacturing base as a % share of GDP (or value added) in recent decades, Germany had maintained its share of manufacturing in GDP at around 20% since the early 1990s. Only with the recent recession has that share been abruptly eroded. What has been exposed is that Germany's manufacturing prowess was built on preferential trading arrangements, a technical education system that may not be appropriate for the digital age, artificially cheap energy (at the expense of consumers), and a reliance on Russian gas that has suddenly disappeared. Restoring the success of Germany's industrial past is not an option. A new framework for success in international trade will take time to emerge.

Section 1. The Cyclical Downturn: Output and Inflation.

Figure 1. Germany has Underperformed Other G7 Economies in Growth while Exceeding all but the UK in Inflation.



As a way of reviewing the overall performance of the German economy in recent years, consider German growth and inflation since the onset of Covid. Figure 1 above compares the cumulative growth of real GDP and CPI inflation in Germany, Japan, the UK, France, Italy, the eurozone, Canada, and the US over the period 2019-2023 Q4.

It will surprise many readers, perhaps, that Germany has exhibited the weakest growth of this group with cumulative real GDP growth amounting to just 0.4% compared to 0.8% for Japan, 2.1% for the UK, 2.2% for France, 3.6% for the eurozone as a whole, 3.9% for Italy, 6.2% for Canada, and 11.1% for the US.

While Germany has shown surprisingly weak growth, inflation has been relatively high. The UK has had the highest rate of cumulative CPI increase in this group (23.7%), followed by Germany (21.9%), the US (20.6%), the eurozone (19.9%), Italy (19.3%), Canada (18.0%), France (16.9%), and Japan (7.2%).

In this Newsletter I answer two questions: what is the background to these problems, and what prospect does Germany have of escaping these conditions to produce a better performance in the future?

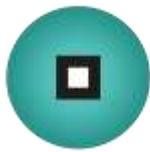
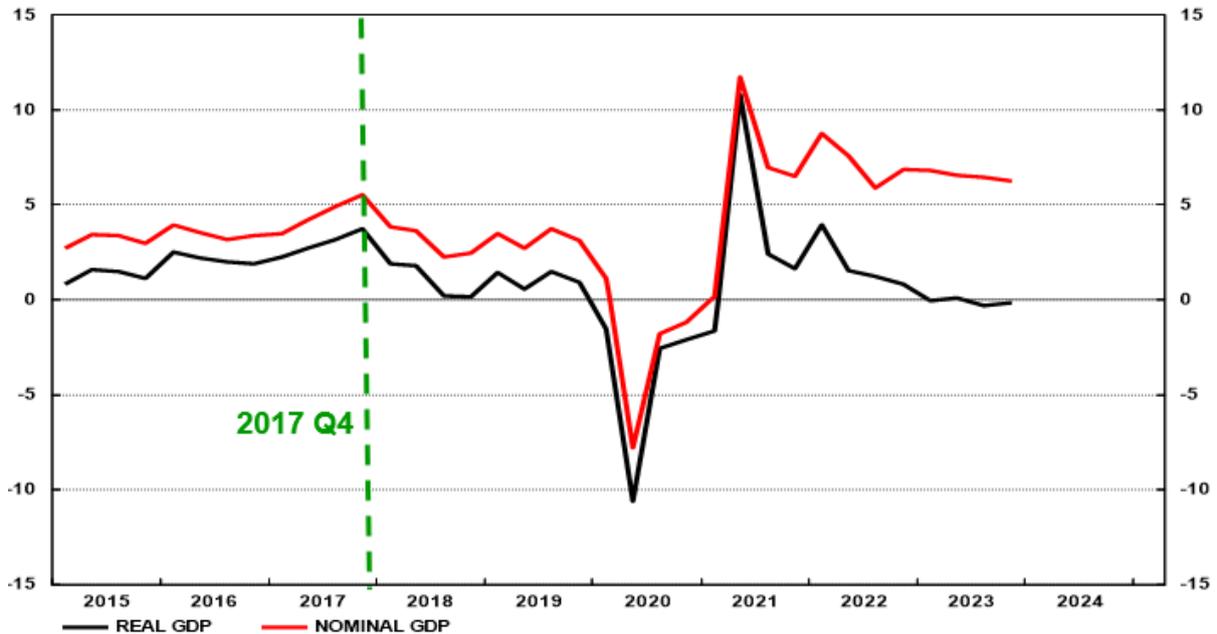


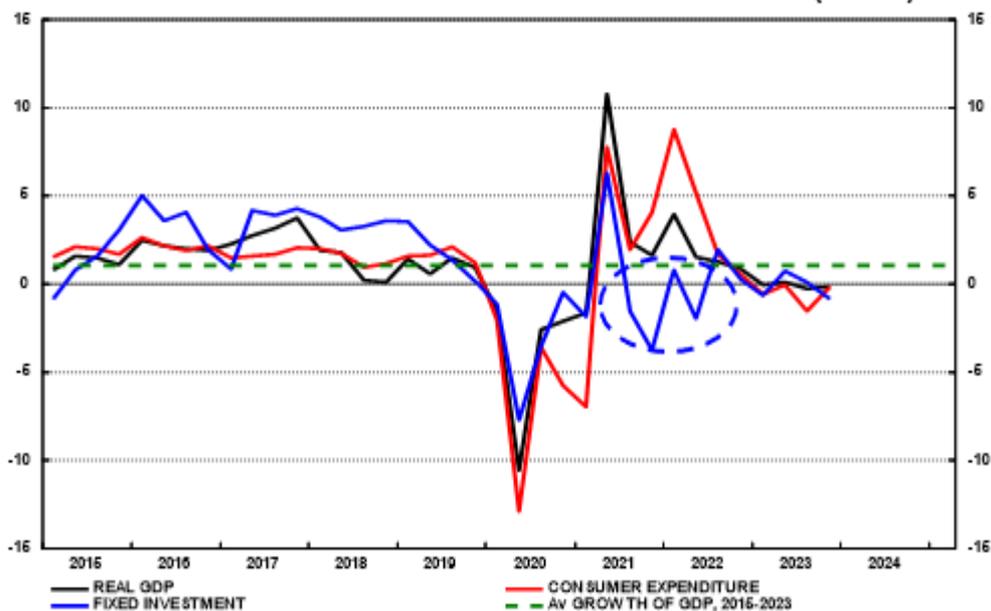
Figure 2. German Growth Already Weak before Covid Struck.
GERMANY: NOMINAL & REAL GDP (%YOY)



Source: LSEG Datastream

German real GDP growth was already in the doldrums well before Covid struck (see Figure 2). In 2018 the year-on-year growth rate slowed from 3.75% year-on-year in 2017 Q4 to just 0.2% and 0.1% in 2018 Q3 and Q4 respectively, and only recovered modestly in 2019. In 2020 Covid struck, pushing real GDP down to -10.6% year-on-year in Q2. After a corresponding, mirror-image bounce-back in 2021 Q2, real GDP has mostly been on a slowing trajectory ever since, except for just one quarter (2022 Q1). In 2023 Q3 and Q4 growth was negative both on a quarter-on-quarter and on a year-on-year basis, putting Germany into a technical recession.

Figure 3. German Capital Investment was Slashed.
GERMANY: GROWTH OF REAL GDP & COMPONENTS (%YOY)



Source: LSEG Datastream

The striking feature of German real GDP growth and its components during the Covid period has been the marked downturn in real fixed investment (Figure 3, circled in blue) from 2021 Q3 through 2022 Q2. This was associated initially with supply chain breakdowns and later with the steep rise in energy prices due to the Ukraine conflict. For many manufacturing companies the price hikes for oil and gas came as an existential threat causing a freeze on all expenditures including investment and hiring. Even today, German manufacturing industry has still not recovered from the shock.

Figure 4. The Slide in Industrial Production Predates Covid and the War in Ukraine.



However, it is important to note that the problems in German manufacturing clearly pre-dated the outbreak of the Covid pandemic and the start of the Ukraine war. As Figure 4 shows, industrial production peaked in November 2017, fell steadily to 2020, and plunged during the lockdowns of that year. Since then, manufacturing output has not regained its pre-Covid levels and slipped again in 2023. In my view the weakness of industrial production reflects not merely cyclical forces, but the emergence of long-standing problems that I will discuss in Section 2.

The ultimate source of Germany's inflation since 2021 has been excess M3 growth promoted by the ECB's policies of "Targeted Lending" (T-LTROs) and asset purchases (PEPP) during the pandemic. Together, these account for the bulk of M3 growth in 2020-22. Figure 5 shows German M3 compared to Eurozone M3. Between mid-2011 and the end of 2016 German M3 growth slightly exceeded Eurozone M3 growth, but since then the growth rates of the two aggregates have been much the same except for the period 2020-22 when Eurozone M3 increased slightly more than German M3.



Figure 5. Recent German M3 Growth Not Significantly Different from Eurozone M3.

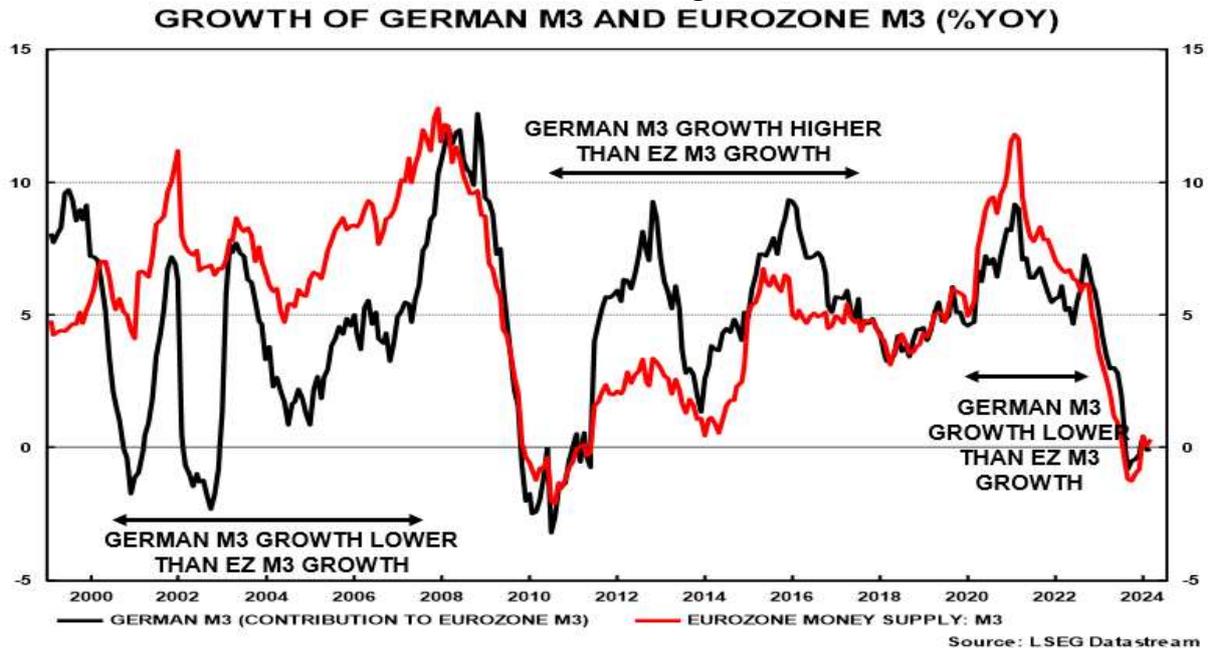
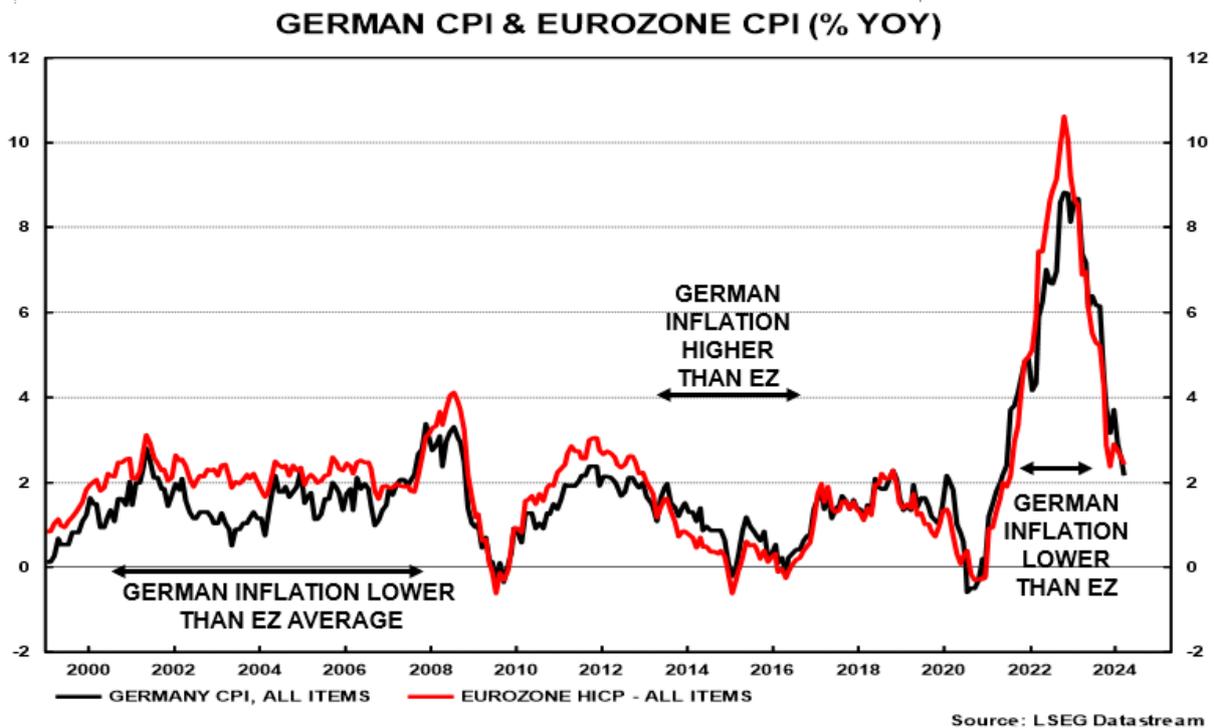


Figure 6. German and Eurozone Inflation have Seldom Diverged Much.



Despite moderate differences of M3 growth, Figure 6 shows that CPI inflation rates in Germany and the Eurozone as a whole have seldom diverged much. The reason is that the “law of one price” is operating across the single currency region, tending to keep final selling prices roughly in line.

Nevertheless, the gap between nominal and real GDP, or the GDP deflator shown by the gap between nominal and real GDP in Figure 2, has so far hardly narrowed at all. In 2023 Q4 (the latest data available at the time of writing) the deflator was 6.4% year-on-year. In the same quarter of 2023, the CPI averaged 3.6%. The implication is that the GDP deflator is likely to slow sharply in 2024 Q1.

Section 2. Pricing and Regulations: A Major Headwind.

As a founder member of the EU and the ECB, the German economy has been heavily influenced by policies devised in Brussels and Frankfurt. This need not have had damaging effects on Germany, but in practice the outcome has been materially lower rates of return on capital invested in Germany versus, say, capital invested in the United States. A reasonable way to demonstrate this is to compare the total returns in US dollars on listed equities in the major stock markets of the two economies.

Figure 7. Rates of Return in Germany have been Substantially less than in the US.

GERMANY: STOCK MARKET PERFORMANCE RELATIVE TO S&P COMP
JAN 1970 = 100; BOTH INDICES IN USD; LOG SCALE



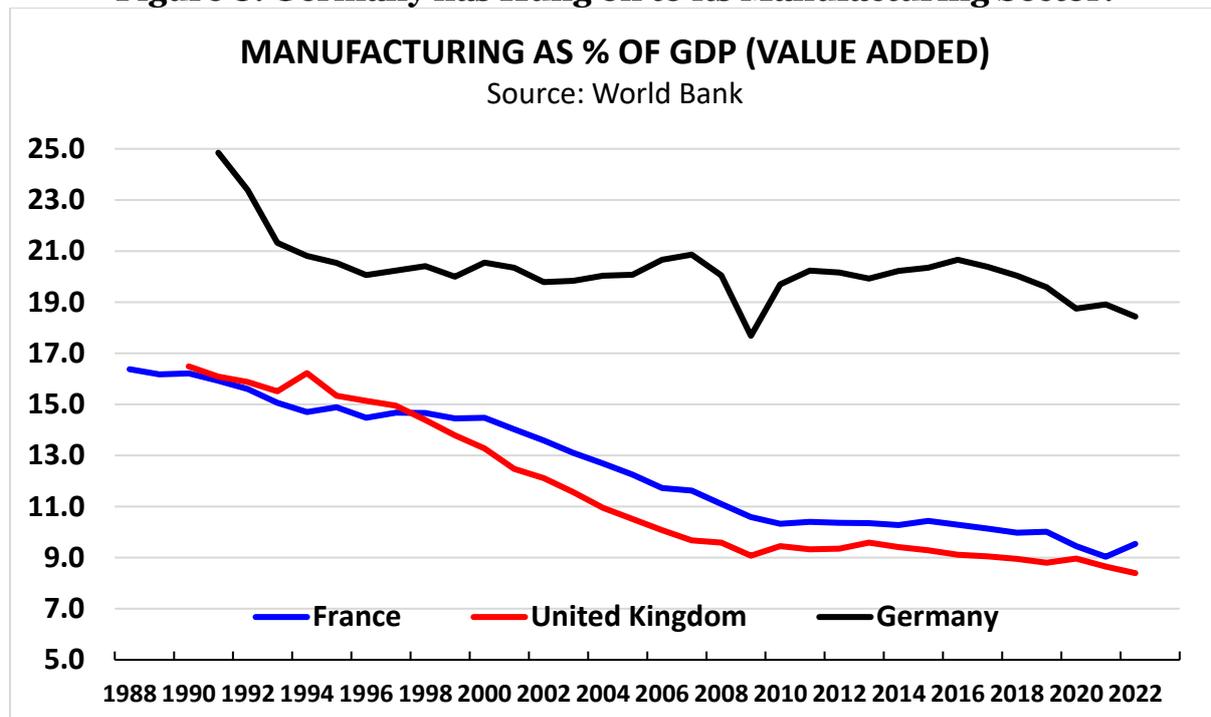
Source: L SEG Datastream

Figure 7 shows the ratio of the total return on the German DAX Index to the total return on the S&P Composite (in black) since June 1988. (Before June 1988, only price data was available.) Arguably, except for the currency-driven spike in 1985 there was rough parity between the two indices to around 2002, followed by a step down for Germany in 2002, relative parity again from 2003 to 2015, but then a fairly continuous relative decline of the German index after 2015.

The question is, what are the underlying drivers of this underperformance over such a long period? I will argue that it is due to a number of key distortions to the price system combined with excessive regulatory zeal either from Brussels or from Berlin – regimes which have been maintained for too long and which have gradually eroded Germany’s competitive position.

One of the clearest demonstrations of Germany’s overcommitment to industrial production is the relative share of German manufacturing in GDP compared with competitor economies in Europe. Figure 8 shows the shares of manufacturing value added in Germany, the UK and France. Whereas Germany has hung on to its manufacturing with almost no decline in its percentage share between 1994 and 2018, Britain and France have seen steady declines over the past three decades.

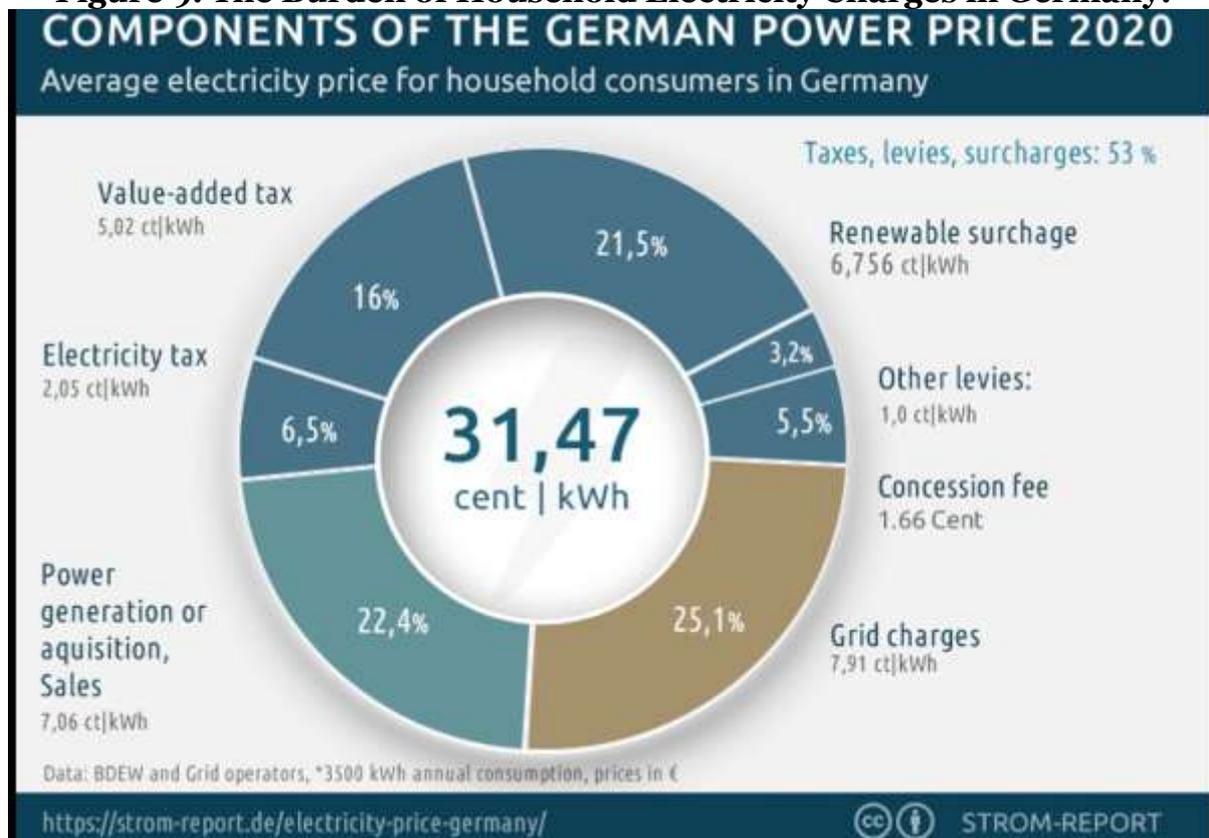
Figure 8. Germany has Hung on to its Manufacturing Sector.



How has Germany done this? The EU is often described as a free trade area, which is largely true for transactions within the single market, but just as importantly it is a market protected by tariff and non-tariff barriers. This has enabled large parts of the German (and other EU) auto and engineering industry to be shielded by a 10% tariff and by rules of origin or domestic content requirements. For example, EU residents are effectively discouraged from buying Japanese, Korean, or Chinese vehicles by a 10% tariff while domestic firms such as Mercedes, BMW and Audi/VW are protected.

While on the one hand certain German industries were being protected, on the other hand German households and small businesses were required to pay the highest price for electricity in Europe, a system that has been in place for over two decades. Until the recent “electricity brake” was imposed in 2022, Figure 9 shows that more than half of the price of electrical power consisted of components determined by the state (53%). These taxes, levies and surcharges, part of the government’s green agenda, had tripled since 2000. They included levies for financing investment in renewable energy (22.1%) and other kinds of taxes (e.g. GST 19%). Transmission (or grid) charges accounted for almost 25%, and only the remaining 22% was used to generate the electricity. But the prices charged to industry were much lower.

Figure 9. The Burden of Household Electricity Charges in Germany.



In response to the steep rise in energy prices in 2022 the German government felt compelled to step in. On 1 January 2023, various energy “price brakes” came into force to mitigate the increase in energy costs for households and businesses. The key provisions of the gas price brake granted a subsidy to gas customers, which was paid by the federal government to energy suppliers. The suppliers in turn were obliged to pass on the relief to consumers either in their regular bills or via instalment payments.

For private households and small and medium-sized enterprises, 80% of their natural gas consumption was capped at a price of 12 cents per kilowatt hour, which represented a saving compared to the market price. The capped price for heating was set at 9.5 cents per kilowatt hour. Consumers paid the normal market price for their remaining consumption in order to incentivise them to save energy. But in the industrial sector, customers would receive 70% of their natural gas consumption in 2021 from their suppliers at a much lower guaranteed price of 7 cents per kilowatt hour. The federal government also mandated that 90% of the surplus revenues of power plant operators were to be paid to their grid operator.

Although the electricity price brake was widely seen as an important step towards alleviating the financial burden of rising energy costs and at the same time optimising energy consumption, it was also a recognition that German zeal for green energy had gone too far. By summer 2023 Germany and France were in dispute over their respective energy policies, and German industrialists were protesting the rising

costs of doing business in Germany – the burden of climate policies, high taxes and expensive energy.

According to the FT, “experts are clear on why Germany is facing such a uniquely grim outlook. It took a much bigger hit from 2022’s surge in energy prices than many other large economies, partly because it has so many big gas-guzzling manufacturing firms.” This is the result of years of discriminatory pricing.

An analysis by IW Consult in 2023 highlighted two big transformations under way in Germany that would cause major problems for large sectors of German chemicals and manufacturing: the shift to a carbon neutral economy which would put pressure on energy-intensive and high carbon-emission industries such as steelmaking and chemicals; and the switch to EVs. German industries are therefore faced with profound challenges. Together, the huge surge in energy costs and the slow demise of petrol-powered cars are slowly strangling the pride of German manufacturing.

Unsurprisingly the knock-on effects of the manufacturing downturn are hitting other related industries such as construction of civil engineering projects and residential building or renovations. High interest rates and the rise of construction materials prices produced a record level of building project cancellations in 2023.

Business leaders such as Joachim Nagel, President of the Bundesbank, have dismissed claims that German was the “sick man of Europe” or that it was facing “deindustrialisation.” But although Intel and TSMC are building big fabs (factories) in Dresden and Magdeburg to produce semiconductor chips, and battery factories are springing up in numerous states, the transition is unlikely to be quick or easy. Well-established steel and chemical companies are investing heavily to de-carbonise their production, but many may find that investing abroad in countries where costs are cheaper is the only solution that makes sense for the long-term.

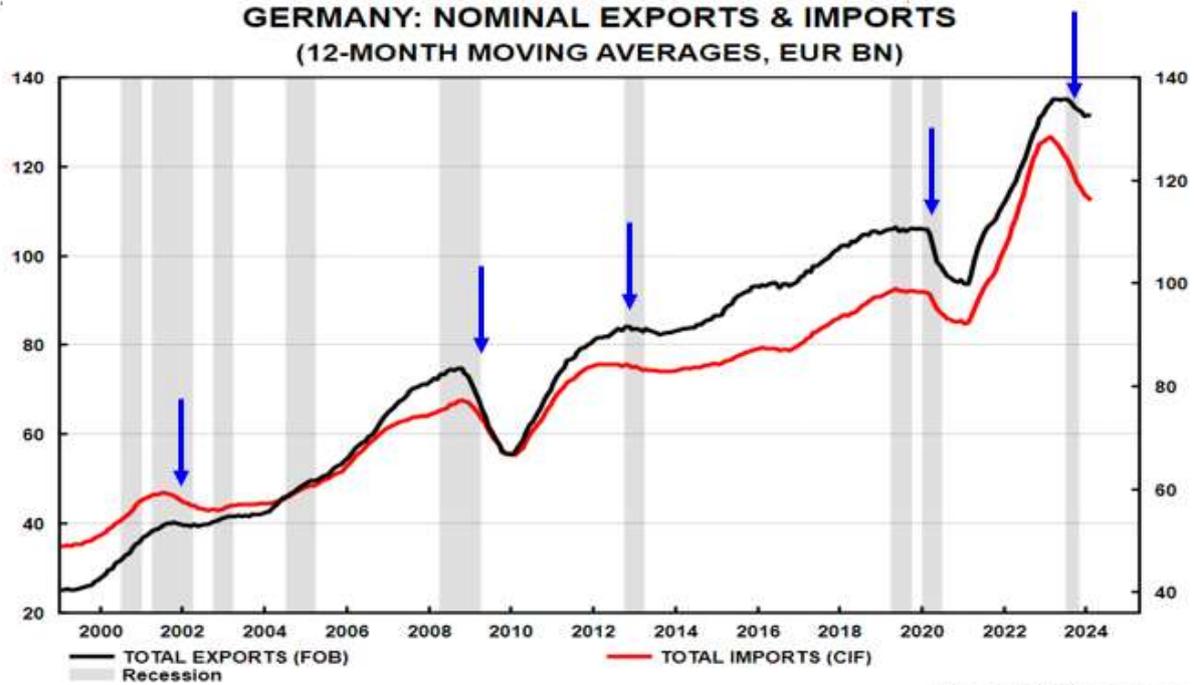
One facet of the industrial adjustment is the problem of subsidies to specific industries such as semi-conductors, a policy that until recently went directly against EU law. A modest easing of state aid rules has helped, but the EU will lag far behind the US or China. According to Everstream, a supply chain data company, the US will invest \$122 billion in chip-making capacity in 2021-25 out of a global total of \$700 billion, while the EU will invest just \$31.5 billion. In addition, approvals by Brussels are proving painfully slow according to companies such as the joint venture Wolfspeed/ZF (a US chipmaker and a German auto supplier) who wanted to build a fab in Saarland and applied for grants and other financial support.

Separately an argument rages as to what kind of chips Europe should manufacture – cutting -edge chips or old technology chips. Some consider Germany’s demand will continue to focus on old-tech chips for the automotive industry, for industrial automation and for medical devices where demand is currently strongest, but others believe that Germany needs to leap ahead in digitisation to be ready for the next generation of products.



Section 3. Big Shifts in Germany's Overseas Markets.

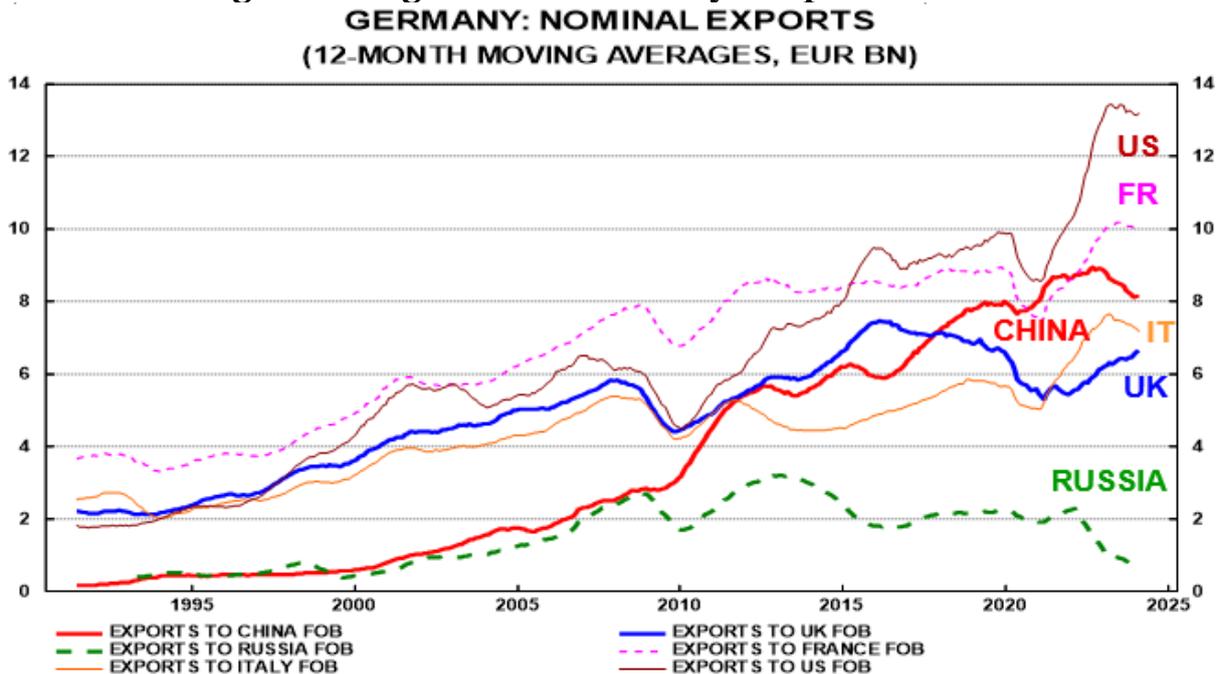
Figure 10. Every Export Downturn has been Associated with Recession.



Source: L SEG Datastream

Turning to Germany's external accounts, the economy is widely considered to have benefited from the low level of the euro since its inception in 1999, enabling Germany to operate persistent trade and current account surpluses through most of the past 25 years. Figure 10 above shows a simple record of the 12-month moving averages of monthly German exports and imports. Since the launch of the euro there

Figure 11. Big Shifts in Germany's Export Markets

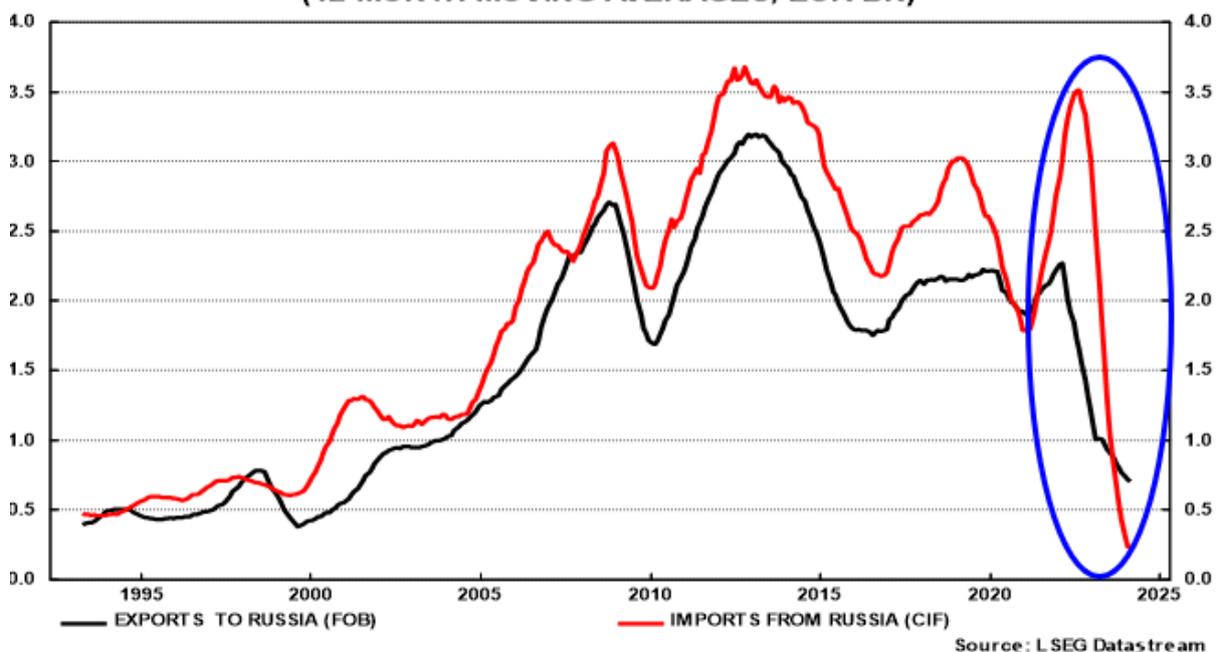


Source: L SEG Datastream

have been five downswings in the trade data (arrowed in blue), each one associated with a domestic recession: 2002 following the bursting of the tech bubble, 2009 following the bursting of the US housing bubble, 2012 due to the euro debt crisis, 2020 due to Covid, and the current downturn, 2023-24.

Germany has a remarkably wide range of export partners. As Figure 11 shows, since 2015 the US has become Germany's largest single export market, followed by France, China, Italy and the UK. Exports to Russia peaked in 2013, flattening out until 2021, and plunging in 2022 following the start of the Ukraine war and the imposition of sanctions on Russia by the EU and other world powers.

Figure 12. Germany's Trade with Russia has Collapsed.
GERMANY: TRADE WITH RUSSIA, EXPORTS & IMPORTS
(12-MONTH MOVING AVERAGES, EUR BN)



Investigating Germany's trade with Russia a little more, Germany's imports from Russia mostly exceeded its exports to Russia even after mild sanctions were imposed following Russia's annexation of the Crimea in 2014. However, after Russia's larger-scale invasion of Ukraine in 2022-23, sanctions were strengthened with a ban placed on EU imports of Russian oil and gas, and strict controls on exports to Russia. The result was that both imports and exports collapsed (Figure 12).

Germany's imports from Russia had consisted mainly of oil and gas (accounting for about one third of Germany's oil requirements and 55% of its gas requirements), together with some key metals, minerals (including coal), and chemicals, while Germany's exports to Russia consisted mainly of autos, heavy engineering machinery, other capital equipment and specialty chemicals.

Figure 13. Germany's Imports from China have Ballooned, but Exports to China have Stalled.



When imports and exports are included, China has been Germany's largest trade partner for the last eight years. In 2023 the total value of imports and exports exceeded its trade with the US by 0.7 billion euros, but whereas Germany ran a surplus of 63.5 billion with the United States, it ran a deficit of 58.4 billion with China. The surge in the value of imports from China during Covid is circled in Figure 13, and contrasts with a softening of export growth. One reason for the weaker export growth is a developing trend for German companies to relocate production to China as a result of the various headwinds encountered at home. Some of the larger auto makers shifted production many years ago, but recent transfers of manufacturing from Germany to China include chemical, pharmaceutical and engineering firms.

Looking forward, the big question is whether Germany can continue to be a manufacturing powerhouse compared with its neighbouring economies in Europe. I have argued that in order to maintain its current position German policy has had to make concessions to large manufacturers (such as maintaining the EU's tariffs on the import of foreign autos, trucks and trailers, and supporting manufacturers with lower energy prices) while at the same time penalising consumers with higher electricity costs in the name of greening the nation's overall output. The costs of these distortions have been painfully exposed by the recent Covid and Ukraine crises, causing the German economy to underperform its peers such as France and Italy by a significant margin since 2017.

My conclusion is that whereas the UK, France, and Italy have seen a steady decline in their manufacturing production as a share of GDP and are now able to grow at moderate rates (having already made the adjustment to more service-oriented economies), it will take Germany many years to adapt to the new conditions. Adding



the problems of aging, red tape and the re-allocation of investment to sectors that will be competitive in the future suggests a challenging multi-year agenda for Germany, not a simple cyclical recovery.

Summary and Investment Conclusions

- Since 2017 the mighty German industrial machine has stalled. The stagnation of industrial production has percolated from manufacturing to broader GDP. However, Germany's performance has not only been poor on the output side, but it has also experienced higher inflation than other leading EU economies.
- The first part of this Newsletter explained how Germany got into this quagmire of stagnating output combined with high inflation (i.e., stagflation).
- On the output side, long-standing biases in the educational system have combined with government policies that have emphasised (a) a preference for manufacturing, (b) a green agenda which has caused mispricing of inputs and outputs, and (b) geo-political ambitions – such as Chancellor Angela Merkel's Ostpolitik which built up energy dependence on Russia, and the more recent alliance that Chancellor Olaf Sholz has tried to build with China – that have turned sour. Strong commercial ties with the West have failed, in both cases, to temper overseas aggression by either Russia or China.
- On the inflation side, Germany no longer directly controls its monetary policy having delegated it to the ECB, but its representatives in Frankfurt have aligned themselves with a muddled consensus that has allowed money growth to be alternately too slow (pre-Covid) and too fast (during Covid).
- The remedies for Germany's predicament come in two forms: cyclical and structural. In the short-term, output may recover modestly while inflation will gradually subside in line with other EU economies.
- But in the longer-term, far-reaching and fundamental changes are required to wean Germany off its traditional industrial model and on to higher value-added activities in services and technology (not necessarily production). But policymakers and employers may not be ready or willing to entertain such a radical change in the German mindset.
- Part of the problem is that the present-day structure of the German economy has resulted, at least partially, from long-standing distortions that range from fundamental policies such as the EU's tariff schedules, discriminatory pricing of oil and gas, to an educational system that favours technical skills over broader skills more appropriate to the digital era.
- All of this means that Germany's adjustment will be a long and slow one, probably against a backdrop of slow growth and weak profitability, which will

make investment in some of the traditional pillars of the German economy unappealing.

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