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Article

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The long-term effects of German unification on wages, employment and growth: a trigger for a shift to a new market constellation*

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Hajo Riese introduced the concept of market constellations to analyse the changing macroeconomic effects of German monetary policy from the 1950s to the 1980s, when monetary policy, focused on internal and external price stability in Germany, enabled continued net export surpluses. Yet changing external conditions supported economic growth only in the 1950s and 1960s, leading to stagflation in the 1980s. Related to approaches based on Riese's concept for more recent decades, the paper argues that the policy response to German unification costs – including labour-market reforms aimed at regaining lost cost competitiveness and reducing high unemployment – triggered a new market constellation, lasting from the mid 1990s until the 2007–2008 global financial crisis. In the context of the European Economic and Monetary Union, this compressed effective demand and supported stagnation, leading overall to negative effects on employment and growth.

Keywords: *Hajo Riese, market constellation, monetary policy, German exports, cost competitiveness, German unification, labour market reforms, Hartz reforms, unit labour costs, REER, wage-led demand regime, macroeconomic policy regime*

JEL codes: *F16, J30–32*

1 INTRODUCTION

Hajo Riese developed the concept of *Marktphasen* (market constellations) in the 1980s to analyse the changing effects of (monetary) economic policy on economic developments in reaction to changing internal and external economic conditions. External conditions here refer to the integration of a given economy into the world economy. Riese applied this

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concept to developments in the German economy from the 1950s up to the end of the 1980s, and others have explicitly taken up the concept as well (for example, Heine et al. 2006; Heise 2010, 2011; Herr/Kazandziska 2011).

A related strand of post-Keynesian approaches for macroeconomic policy regime analysis focuses on the effects of changes in functional income distribution on growth in finance-dominated economies. Hein/Truger (2005) develop a standardized set of indicators for all macroeconomic areas. The approach allows for analysing the interaction of indicators, identifying the regime and the resulting growth effect. The authors apply the approach to Germany. Hein/Martschin (2021) provide an overview of existing post-Keynesian/Kaleckian concepts and the further extension of those regimes to finance-dominated capitalism (financialization), applying them to the analysis of the macroeconomic regimes of the four largest countries in the eurozone before and after the global financial crisis of 2007–2008 (hereafter ‘the financial crisis’).

Related to approaches that are based on Riese’s original concept, we try to show that German unification triggered new market constellations and, thereby, new macroeconomic policy regimes: a short-lived ‘unification boom’ of the early 1990s followed by a period of ‘compressed effective demand’ from the mid 1990s onwards. The aim of the present paper is to show that the follow-up costs of unification led to such high pressure on economic policy and policy institutions, especially in the labour market, that they created the conditions for a shift to a new market constellation. The focus of the paper is, therefore, on explaining the mechanics of the shift itself, not on explaining the resulting market constellation in detail, as various post-Keynesian authors have already done.

We argue that the costs of German unification, and inappropriate economic policy reaction regarding how to finance these costs (Czada 1995; Hickel/Priewe 1994), led to such strong increases in wage costs that they decreased price competitiveness and threatened Germany’s exporting success. These costs were aggravated by changing external conditions: appreciation of the Deutsche mark (hereafter, the mark) in the wake of the currency crises in the European Monetary System of 1992–1993 and the irrevocable fixing of exchange rates in 1997, due to the upcoming introduction of the euro in 1999.

These changes in external conditions also included the eventual abolition of national monetary policy. With the introduction of the euro, adjustment had to come via wage developments instead of exchange-rate adjustments. This explains why we concentrate here mainly on wage developments, unit labour costs (ULCs), and the real effective exchange rate, in contrast to Riese’s focus on domestic monetary policy.

In this paper, we explain that repeated labour market reforms were implemented in reaction to high unemployment and the costs of unification. Aimed at decreasing unemployment and regaining lost cost competitiveness, these reforms led to stagnating ULCs in the German economy from the mid 1990s until the financial crisis, thus changing the market constellation. As the ULCs of most of its trading partners increased, stagnating costs in Germany contributed towards increasing cost competitiveness and supported export surpluses during the 2000s. Yet the negative effect of repeated reforms on labour income in Germany has compressed effective demand. The overall effect on GDP growth was negative and furthered stagnation. The growth-depressing effect of this market constellation has been analysed by several post-Keynesian authors, as we will briefly mention in the next section.

Section 2 briefly introduces Riese’s market constellation approach and related post-Keynesian approaches. Section 3 shows the strong cost effects of German unification by portraying developments in wages, ULCs, and cost competitiveness from the mid 1980s until recently. The aim here is to show the strong negative impact of the fall of the Iron Curtain and German unification on the cost competitiveness of German companies at the start of the 1990s. Section 4 discusses the resulting labour market reforms and

their long-lasting effects on wages, ULCs, and price competitiveness. Section 5 briefly points towards the effects of these policies on overall growth and Section 6 draws conclusions.

2 HAJO RIESE'S MARKET CONSTELLATION APPROACH

Hajo Riese's concept of market constellations is based on John Maynard Keynes's considerations in *A Treatise on Money* (1930) and *The General Theory of Employment, Interest and Money* (1936; see Betz et al. 2001: 786). Riese focuses on monetary policy in a broad sense, encompassing all policy actions that affect relevant nominal macroeconomic aggregates, such as central-bank action, fiscal policy and wage policy. Analysing the resulting effects of their interaction on investment and employment in a given market constellation, which may last beyond the business cycle (Riese 1988: 5), Riese holds that money is non-neutral, even in the long run (Betz et al. 2001: 786).

Riese sees the main goal of the Deutsche Bundesbank from 1950 through the late 1980s to be the achievement of internal and external price stability, with internal price stability meaning low inflation and external price stability being represented by the strong international value of the Deutsche mark. 'Strong' relates to continuous expectations of an appreciation of the mark. He stresses that the Deutsche Bundesbank managed to support continued German export success despite this strong external value by undervaluation of the mark (Riese 1988: 7).¹ This apparent contradiction between a strong external value and undervaluation was possible due to delayed nominal appreciations of the currency that never fully compensated for gains in competitiveness, especially during the 1960s (for example, Riese 1989: 112). Even though the degree of undervaluation diminished over time, Riese stresses the long-lasting positive effects for German exporters: cost advantages allowed for high investments that contributed to raising market shares, diversification of production, high quality standards, and powerful market organization. Economies of scale supported export market shares, even in periods of decreasing undervaluation (Riese 1978: 155–156 and 160–161).

As German internal and external price stability were not in conflict during the 1950s and 1960s, Riese calls this market constellation a period of 'accumulation', where wage increases below productivity gains plus price increases allowed for profit gains, high investment, and high levels of employment (Riese 1984: 33; 1988: 9ff). This benign external constellation changed at the end of the 1960s with appreciation of the mark and increasing inflation in the US that contributed to the erosion of the Bretton Woods system. Increasing conflict between internal and external price stability due to this changed external environment and stronger wage developments was reflected in increasing German inflation rates. Riese characterizes the short period from the late 1960s to the oil-price shock in 1973 as a market constellation of 'inflation' (Riese 1987: 180; 1988: 11–12), whereas the subsequent period from the mid 1970s until the 1980s was one of 'stagflation': a market constellation wherein the Bundesbank started fighting inflation 'successfully', accepting negative effects on employment and domestic investment (Riese 1984; 1988: 12–14).

Market constellation research based on Riese's original concept (Heise 2011) for later periods has been applied to economic developments in several Western industrial

1. In his words, combining 'Härte der Deutschen Markt mit ihrer Unterbewertung' (Riese 1989: 112).

countries, including the US, the UK, Japan and Germany (Herr/Kazandziska 2011; Fritsche et al. 2005 for the US).² Heise stresses the systematic long-term effect of state interventionism on economic growth and employment developments using the post-Keynesian approach, where the state acts as a market player that tries to influence market conditions as one player out of many (Heise 2010: 106–107). For the period from 1980 until the financial crisis in Germany, Heise (2010: 111) finds growth and employment-depressing effects due to state focus on price stability combined with low wage developments and low fiscal spending.

Related post-Keynesian/Kaleckian approaches using indicators in line with Hein/Truger (2005) find a similar demand- and growth-depressing effect for Germany in the 2000s (for example, Hein/Martschin 2021; Hein/Truger 2005; Heine et al. 2006; Herr/Kazandziska 2011: ch. 3.3; Stockhammer et al. 2011). Hein/Martschin (2021) stress that recent post-Keynesian/Kaleckian research has begun to analyse whether the financial crisis and the resulting recession in 2007–2009 provoked regime shifts. Comparing the periods 2001³–2009 with 2010–2019, they find evidence of regime shifts in some eurozone countries, though not in Germany.

In the present paper, we also focus on identifying a regime shift in Germany – but one in the 1990s. Analysing the period 1980–2008 in Germany, Heise (2010) seems to indicate a long-lasting market constellation during which the focus on price stability depressed economic developments. Yet this long period includes several changes in internal and external conditions during the 1990s, most notably German unification in 1990, the crisis in the European Monetary System in 1992–1993, and the introduction of the euro in 1999.

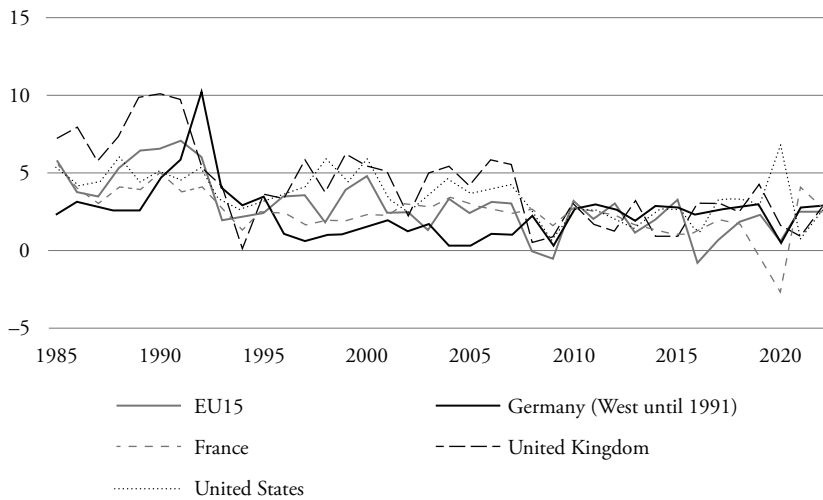
Consequently, we doubt that Germany is characterized by the same market constellation during this long period. We argue, instead, that market constellations changed due to unification. First, unification led to a short-lived boom period. Then, labour market reforms provoked by the high costs of unification triggered a new market constellation, beginning after the mid 1990s and lasting up to the mid 2000s, one that we view as a period of compressed effective demand. We mainly refer to Heise (2010) for the discussion, as this is one of the few publications covering developments from 1980 to 2008. Probably due to data availability, most approaches for market constellations research or macroeconomic regime analysis in any case concentrate on analysing developments after the introduction of the euro.⁴

The financial crisis of 2007–2008 and the ensuing depression triggered a new market constellation with quite different wage and ULC developments than the period of compressed effective demand (Figures 1 and 2). This assessment is in contrast to Hein/Martschin (2021: 519), who hold that an ‘export-led mercantilist regime’ continued even after the financial crisis, ‘though to a lesser extent’. While we do not disagree regarding Germany’s continuous net export surpluses, we nevertheless emphasize the different trajectory of wages after the financial crisis that developed more in line with those of trade partners and led to more stable domestic demand developments – in line with Hein/Martschin’s findings. The slightly more expansionary stance of German fiscal policy following the financial crisis might also be considered, but that is outside the focus of this article.

2. See also coverage of Scandinavian countries in Sauer et al. 2007 and developing countries in Heise 2011.

3. The authors justify the starting year of 2001 as being due to their focus on a eurozone-country sample, including Greece (Hein/Martschin 2021: fn 7).

4. See previous footnote and availability of data series for country samples in AMECO.



Note: EU15 comprises Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the UK.

Source: AMECO, nominal compensation per employee, total economy, in national currency (European Currency Unit for EU15 before 1999, euro afterwards), West German data up to 1991, data accessed October 2021).

Figure 1 Compensation per employee in selected countries (1995 = 100)

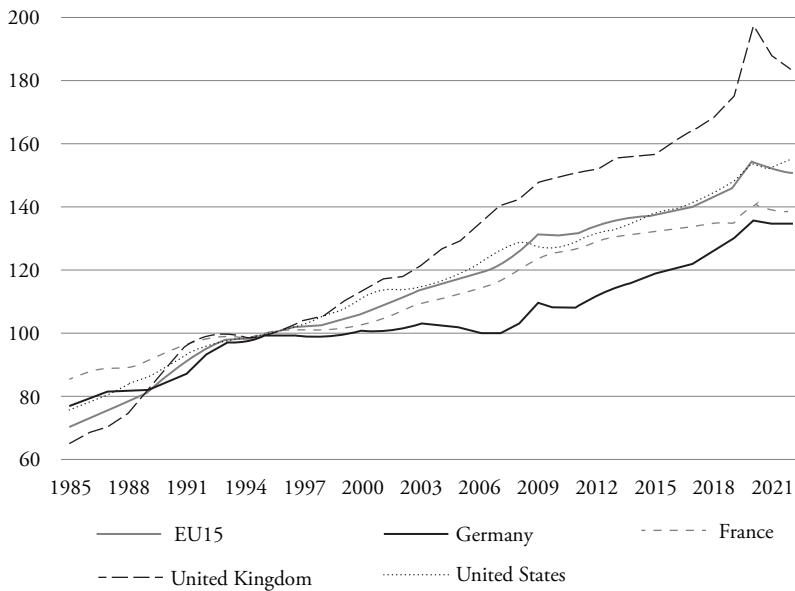
3 GERMAN UNIFICATION TRIGGERS HIGH UNIT LABOUR COSTS

High and increasing inflation rates from 1969 until 1973, the year of the oil-price shock, were reflected in high wage growth in West Germany in the early 1970s (see consumer price index (CPI) inflation and increases in compensation per employee as listed in the AMECO database). Yet the increase in average compensation per employee remained below that of European trading partners from 1972 onwards (AMECO and Figure 1, showing wage data from 1985 onwards). A system of collective wage- and salary-bargaining in combination with special labour market institutions (Behrens 2016) dampened price effects on wages, together with a West German central bank that did not accommodate price shocks from 1973 onwards (for example, Heise 2010; Riese 1984; 1988: 12–14). Wage growth measured by total compensation per employee declined until the mid 1980s, roughly stabilized at rates below 3 per cent until 1990 (AMECO database).

With German unification, nominal compensation per employee increased from a growth rate of 2.6 per cent in 1989 to 10.3 per cent in 1992 (Figure 1). This increase in wages was reflected in increasing ULCs from 1989 to 1995, with an especially strong increase in the years 1991 to 1993 (Figure 2).

From the early 1970s onwards, improving price competitiveness measured by total economy ULCs (see discussion of this indicator in Appendix 1) provoked repeated nominal appreciation of the German mark. Figure 3 tracks Germany's nominal effective exchange rate⁵ (NEER), starting in 1970. An increase in the NEER indicates an

5. The NEER measures the value of a currency against a weighted basket of foreign currencies from countries that are relevant trading partners, here against a sample of EU15 countries.



Note: See Figure 1 for definition of the EU15 country group.
 Source: AMECO, nominal unit labour costs, total economy (data accessed October 2021).

Figure 2 Nominal ULCs in selected countries (1995 = 100)

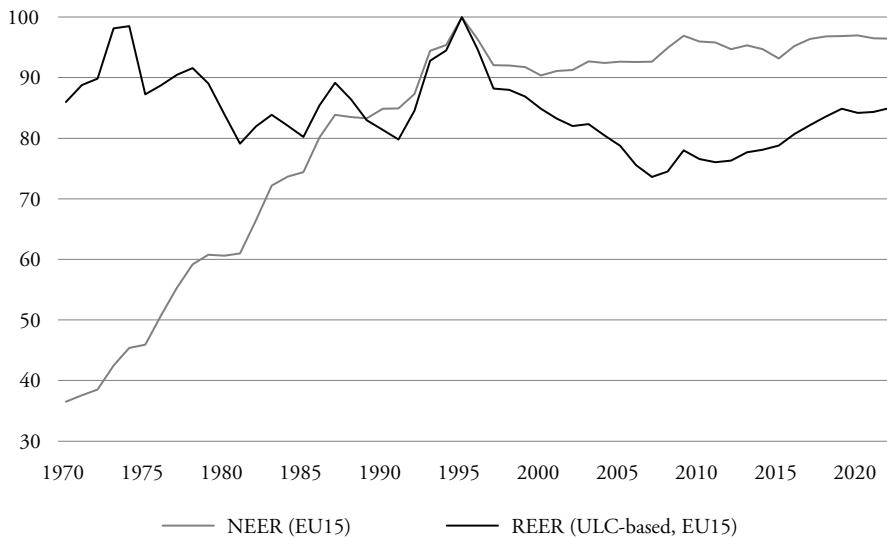
appreciation of the German currency against the currencies of its trading partners. As can be seen in this figure, the NEER appreciated continuously against the EU15 trading partners from 1970 until 1995, thereby counteracting the moderate labour cost developments of the 1980s and aggravating the higher increases from 1991 onwards.⁶

Yet, to judge a country’s price competitiveness, NEER developments between two trading partners have to be corrected for respective price and cost developments. The real effective exchange rate (REER), a weighted average of indexed nominal bilateral rates between countries, adjusted for the relative movements of price or cost indicators of the respective countries, is an indicator for the general price competitiveness of companies in a country. As can be seen in Figure 3, from the mid 1970s until 1991 the German REER improved overall against its EU15 trade partner countries. Appendix 1 provides NEER and REER developments for alternative samples of German trade partner countries and discusses the appropriateness of these indicators for judging a country’s competitiveness.⁷

From 1992 onwards, the price competitiveness of German exporters worsened markedly against EU15 trading partner countries until the mid 1990s, bottoming out in 1995 and indicating increasing price competitiveness problems for German exporters. Figure 3

6. Nominal exchange-rate appreciation dampens export success. The resulting effect on net exports might explain our seeming contradiction with Behringer et al. (2020), who consider the idea of a long-standing German export orientation to be a ‘myth’, as net exports never exceeded 4 per cent of GDP before the introduction of the euro. We consider the continuing net exports surplus of about 4 per cent of GDP, despite an appreciation of domestic exchange rate, to be high.

7. Appendix 1 also explains why we rely on the REER deflated by total economy ULCs.



Notes: Nominal (NEER) and real (REER) effective exchange rate; increase implies appreciation of currency. Exchange rates are weighted by trade with EU15 countries.

REER: nominal exchange rates are corrected for relative ULC developments. Euro developments linked to former mark series.

Source: Based on AMECO (data accessed October 2021).

Figure 3 NEER and REER for Germany, 1970–2021 (1995 = 100)

shows that the main reason for the strong loss in competitiveness during the period 1990–1995 arose from exchange-rate developments that were not mitigated by counteracting relative ULC developments during that period, as NEER and REER moved in tandem.

The strong deterioration of price competitiveness measured by the REER from 1991 to 1995 was, we contend, driven by unification in Germany, owing to the combination of two effects: First, by the already-outlined wage developments. Higher wage increases, which also pushed up ULCs, were a result of financing unification costs⁸ in the form of rising social security contributions, owing to jumps in unemployment and massive recourse to early-retirement schemes. Instead of financing these costs via taxation, affecting not only employees and employers but also public servants and the self-employed, the government decided to rely on increasing social security contributions. This wholly inadequate way of financing unification costs pushed up non-wage labour costs (see Meinhardt/Zwiener 2005; Sesselmeier 2005) that had risen since the 1970s (Streeck/Trampusch 2005). At the same time, trade unions were trying to increase wages in East Germany to decrease the gap to levels in West Germany (Hickel/Priewe 1994: 36–46).

Second, the mark had appreciated repeatedly in nominal terms since the 1970s but in an especially pronounced manner against several European currencies in the wake of the 1992–1993 crisis in the European Monetary System (EMS), the precursor of the European Monetary Union (EMU) (see Figure 3). German unification had indirectly provoked an EMS crisis, as the resulting demand boom in Germany prompted interest-rate hikes by the Bundesbank to fight potential inflation expectations. This attracted net

8. For a comprehensive description of the ‘price of unity’, see Ritter (2011).

capital flows and, as a result, produced upward pressure on the mark. Other European countries were in a less favourable economic position but had to follow German interest-rate hikes to keep their currencies in the system. As this dampened economic activity in these countries even further, speculative attacks provoked several currency realignments, and the pound sterling left the system entirely. Consequently, German companies were confronted by a strong appreciation of the mark against European trading partners' currencies during this period (see, for example, Hefeker 1994; Heine/Herr 2022: 35–36; Sinn 1996). Combination of strong nominal appreciation of the Mark with no-longer counteracting wage developments brought about a soaring REER (Figure 3), with 1995 marking the turning point for ULCs and price competitiveness as measured by the REER.

4 EFFECTS OF GERMAN LABOUR MARKET REFORMS ON UNIT LABOUR COSTS

The last section focused on the negative effects of German unification on price competitiveness of exporters. This section will focus on the resulting pressure for labour market reforms. Before turning to the additional effects of unification, it is important to bear in mind that, even before unification, wages were considered as high compared to the US and to Japan, especially for the labour-intensive services sector (Streeck 1997), and non-wage labour costs in Germany had increased since the 1970s (Streeck/Trampusch 2005). The additional increase in wage and non-wage labour costs after unification intensified the debate about the high labour costs of producing in Germany (*Standortdebatte*, see for example Hickel/Priewe 1994: 94–111). Streeck (1997: 237) considers German unification an additional shock for the 'German model', characterized as a 'distinctive kind of capitalist economy governed by nationally specific social institutions that made for strong international competitiveness at high wages, and, at the same time, low inequality of incomes and living standards'. According to him, the costs of unification alone might have eroded the system. Yet unification costs coincided with growing restrictions on national economic governance due to globalization, requiring reforms of the German model (Streeck 1997). The discussion about the perceived 'excessive' (non-wage) labour costs intensified when East German output and employment declined after unification and unemployment increased even further (Streeck/Trampusch 2005).

Given generally high unemployment rates in Europe, in 1993 the OECD amplified its call for structural labour market reforms that sought to encourage deregulation and increase flexibility (see, for example, OECD 1993: xiv–xv). This, together with risen non-wage labour costs, ramped up the debate about necessary labour market reforms required to lower unemployment in Germany.

The OECD employment database for labour market policies and institutions indicates several reforms that commenced in the 1980s and were stepped up during the mid 1990s (Bassanini/Duval 2006; Bothfeld 2007; Deutsche Bundesbank 2005: 25; Ebbinghaus/Eichhorst 2006). Beginning in the mid 1990s, reductions in social transfers were implemented in order to fight high non-wage labour costs that had been further increased by indirect unification costs, mainly provoked by high unemployment. To enhance employment prospects, tax incentives for companies were combined with lower social security contributions (see Streeck/Trampusch 2005).

With the fall of the Iron Curtain, the bargaining power of German labour unions was not only dampened by labour reforms but also by the threat of easier access to offshoring production to neighbouring low-wage East European countries (see Dustmann et al. 2014: 169; Möller 2012: 14). Baccaro (2018: 34) stresses that the threat of offshoring

alone ‘increased the workers’ willingness to make concessions in order to avoid firm relocation’, as only relatively few companies stopped producing in Germany. Decreasing trade union coverage as well as declining membership of companies in employers’ associations from the mid 1990s onwards proliferated escape clauses in collective wage and salary agreements (Behrens 2016; Bispinck 2006; Ellguth/Kohaut 2008; Kohaut/Schnabel 2003; Streeck/Rehder 2003). Whereas the increasing number of firm-level deviations from industry-wide agreements since the mid 1990s is taken as a sign of the flexibility of the German system by Dustmann et al. 2014 (and partly by Möller 2014), it is seen as evidence of the system’s erosion by others (see Bispinck/Schulten 2003; Brandt/Schulten 2008). The effect of repeated labour market reforms, firm-level deviations from industry-wide tariff agreements, and decreasing coverage of employers and employees by collective wage and salary agreements can be seen in wage and ULC developments since the mid 1990s: average nominal compensation per employee fell to very low levels, such that ULCs stagnated from 1995 until the financial crisis.

Additional reforms in the early 2000s stemmed primarily from supply-side considerations (see Herzog-Stein et al. 2013) and focused on reducing costs for companies – primarily wages, social security contributions, and taxes – with the aim of increasing incentives for employers to create jobs (ibid.). The Hartz employment reforms were four separate laws passed between 2002 and 2005, designed to modernize the labour market with the explicit goal of reducing wages, especially for low-wage earners, and expanding the German low-wage sector. These reforms intensified an existing trend towards more atypical forms of employment and low-wage employment. The share of employees in low-paid, part-time employment increased from 13 per cent before the Hartz reforms were implemented to 20 per cent by 2009 (Keller/Seifert 2011). In addition, reform of unemployment insurance, health insurance, and pensions also aimed at reducing non-wage labour costs.

The Hartz reforms only became fully effective from 2005 onwards, but their effect seems to have been negligible on aggregate wage and ULC developments. Nonetheless, we consider the Hartz reforms to have been an important factor in the continuation of stagnating ULCs, as they caused the German wage spread to significantly increase after 2004,⁹ with decreasing wages in lower percentiles (and for low-skilled workers) compensating hiking wages for high earners (and high-skilled workers). Dustmann et al. (2014: 170–172) provide figures for indexed wage growth, showing that wages for the lowest 15th percentile started to decline in absolute terms not only for the non-tradable sector but also for tradable services and manufacturing. Similarly, Möller (2012: 15) analyses wage developments by skill level, revealing that high-skilled wages increased, while those for the low-skilled started to drop from 2004 onwards.

The overall effects of these reforms can be seen in Figure 3, as price competitiveness measured by the REER improved from the mid 1990s up to 2007, before worsening thereafter. For developed economies, we consider a phase in which a country’s current-account balance is close to being balanced as the best way to determine a point of ‘neutral’ competitiveness. The Centre for European Policy Studies (CEPS) also emphasizes the importance of choosing the right starting point. Although 2003 would be adequate according to CEPS (Gros 2016: 5), we prefer 2001, as the German current account was almost balanced and current-account imbalances among euro area countries were small. Based on this criterion, the Hartz reforms even went too far, restoring competitiveness beyond the extent lost due to unification, while creating net export surpluses at the cost of trading partners and domestic economic developments (see the next section).

9. As the reforms led to a long-lasting effect on wage dispersion, we are more sceptical than Behringer et al. (2020), who seem to be convinced that the effects on net exports can be easily removed.

To sum up, we consider the period 1995–2007 to have been a new German market constellation characterized by notably low increases in or even stagnation of total ULCs (see Figure 2). Low ULC developments are considered as an important factor behind German export success (see Dustmann et al. 2014; Flassbeck/Lapavistas 2013). As labour costs in other countries increased during that period, price competitiveness of German exporters measured by the REER improved. The trigger for this new market constellation was the high cost of German unification, which provoked several labour market reforms.

5 MACROECONOMIC EFFECTS OF SUBDUED WAGE DEVELOPMENTS IN GERMANY

Some authors, such as Dustmann et al. (2014), praise the German system of industrial relations for allowing such flexibility in wage developments and consider the achieved decrease in ULCs as the pivotal element behind the German turnaround from ‘Sick Man of Europe to Economic Superstar’ (ibid.: 168). According to these authors, flexible German labour market institutions reacted to pressures from the mid 1990s onwards to allow for more decentralized, firm-specific wage-setting, which increased wage inequality and reduced pay increases. Meanwhile, other authors stress rather the negative effects of Germany’s repeated reforms on labour-income developments. Moderate wage developments and low fiscal spending compressed effective demand and furthered stagnation (see, for example, Hein/Martschin 2021; Hein/Truger 2005; Heine et al. 2006; Heise 2010; Herr/Kazandziska 2011: ch. 3.3; IMF 2019; Stockhammer et al. 2011).

The negative effects of labour market reforms on economic development can be seen by comparing the period from the mid 1990s up to the financial crisis with post-crisis developments. Between 1995 and 2006 in Germany, employment subject to social security contributions by employers fell from 28.1 million to 26.5 million jobs, a more than 5 per cent decrease (Statistik der Bundesagentur fuer Arbeit 2020: 23–25). At the same time, the number of mini-jobbers¹⁰ increased significantly (ibid.: 23).

However, the financial crisis and resulting global recession put an end to this market constellation. In the following period until 2017, employment subject to social security contributions rose to 32.2 million, increasing over 20 per cent, and the number of mini-jobbers fell. During this period, wages and ULCs increased significantly (Albu et al. 2018: 8–9). Consequently, the period after the financial crisis and worldwide recession was one where higher wage increases were in line with greater employment creation and stronger economic prosperity.

Comparison of these two periods in Germany illustrates that real-wage increases below productivity gains can support the cost competitiveness of exports but must be balanced against the negative effect of lower domestic demand. For large economies like Germany, higher export growth cannot offset this negative effect, as Bhaduri/Marglin (1990) have shown theoretically. Meanwhile, Stockhammer et al. (2011) have performed empirical simulations for Germany, showing that the demand effect of a lower wage share outweighs the cost effect, depressing GDP growth. Similarly, macroeconomic simulations suggest that wage developments more in line with a macroeconomically oriented wage policy (close to the central bank’s inflation target plus average productivity increases) during the 2000s would likely have led to overall higher growth (see Herzog-Stein et al. 2013: 9–15 for the period 1999–2011; see Lindner et al. 2018 for the period 2001–2015).

10. Mini-jobbers are people in low-wage jobs who receive payment of no more than €400 per month on a regular basis (threshold during 2003 and 2013).

Wage developments in line with recommendations for macroeconomically oriented wage policy (wage increases close to the central bank's inflation target plus average productivity increases) would have made a major difference by delivering stronger domestic growth and having a tangible, positive impact on the distribution of income between capital and labour, with the wage share being significantly higher than it previously was. In addition, higher nominal and real growth and higher employment would have boosted government tax revenues, which would have widened the budgetary leeway for fiscal stimuli. Consequently, fiscal policy measures making use of the gained fiscal leeway would have been able to induce a strong growth effect – without increasing debt-to-GDP ratios – that at the same time would have dampened the current-account surplus (Lindner et al. 2018). Better GDP growth in Germany would have been achieved at lower net export surpluses and lower debt-to-GDP ratios.

6 CONCLUSIONS

We have argued that German unification changed the market constellation in Germany. It first initiated a short-lived boom that was followed by a new market constellation of compressed effective demand after the mid 1990s until the financial crisis. Key factors for changing the market constellation were several labour market reforms. High labour costs had been triggered by the political decision to shift the costs of German unification to wages, coupled with changing external conditions due to the EMS crisis and the upcoming introduction of the euro, which all together created strong pressure for labour market reforms. Beginning in the mid 1990s, a series of such reforms aimed towards regaining lost price competitiveness, culminating in the famous Hartz reforms. These reforms led to stagnating ULCs for the whole economy from the mid 1990s until 2007. As the ULCs of most competing trade partners were increasing, wage stagnation in Germany contributed towards increasing cost competitiveness, supporting its export success during the 2000s.

With Germany's excessive fixation on greater competitiveness and fighting unemployment via supply-side reforms, domestic demand was neglected, resulting in long-lasting negative effects on growth and employment. Although real-wage cuts increased exports, the growth effect was not high enough to compensate for lower domestic demand.

As ULC developments supported the current-account surplus with higher exports and lower imports due to lower demand, this market constellation meant additional negative side effects on the monetary union: unemployment was exported abroad and an unstable situation arose, the solution to which has come with high costs for all parties involved, as post-2009 developments have demonstrated. Even though we have argued that the German market constellation of compressed demand ended with the financial crisis, we see long-lasting effects of this long period of improving price competitiveness based on continuing net-export surpluses. Apart from wage increases that are more in line with a macroeconomically oriented wage policy, Germany's current-account surplus is still high, with international institutions such as the IMF (2019) insisting that it should increase wages even more in order to relieve the burden on other European countries and stabilize the EMU.

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DATA SOURCE

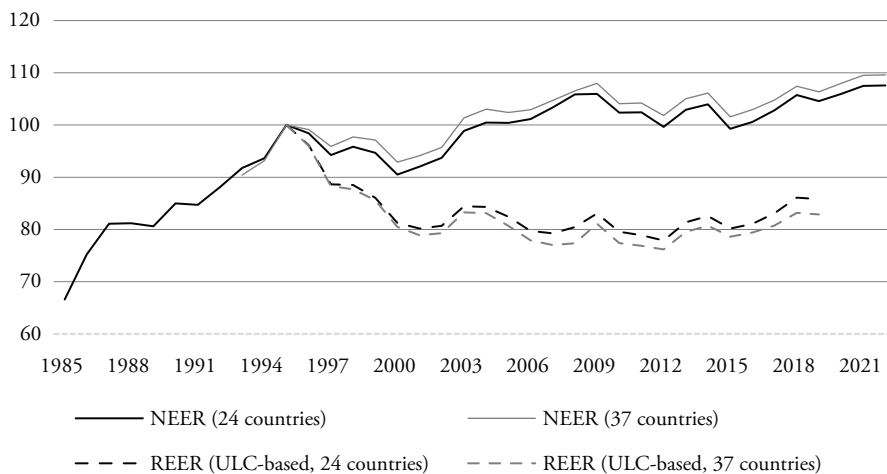
AMECO Database, Annual macro-economic database of the European Commission's Directorate General for Economic and Financial Affairs, URL: https://ec.europa.eu/economy_finance/ameco_dashboard.

APPENDIX 1 THE REER AS A PRICE-COMPETITIVENESS INDICATOR

In order to assess the price competitiveness of a given country, we use the real effective exchange rate (REER), a weighted average of indexed nominal bilateral rates between countries, adjusted for relative movement of price or cost indicators of the respective countries. A depreciating exchange rate can dampen rising national production costs in the eyes of foreign buyers. Recent studies stress the explanatory and forecasting power of broad-based cost (or price) indicators over narrowly defined ones (see, for example, Bayoumi et al. 2011; Deutsche Bundesbank 2016). We therefore stick to REER data based on total-economy ULCs over CPI-based REER.

As manufactured goods dominate German exports, some authors argue that ULCs of the exporting manufacturing sector would be a better cost indicator, especially after taking into account the cost-saving effects of inputs from other domestic sectors as well as imported inputs (Dustmann et al. 2014). Yet Albu et al. (2022) propose, in an input–output analysis of ULCs for the German exporting manufacturing sector, that total-economy ULCs can adequately reflect the sector’s costs.

We are, however, aware that concentration on ULCs ignores that there is no full pass-through of ULCs to final prices, as international trade is characterized by imperfect competition and pricing-to-market strategies (see, for example, Krugman 1986). Several studies have found evidence of pass-through of exchange-rate movements to final prices being incomplete (Anderton et al. 2004) or of changes in ULCs (EC 2013; Herzog-Stein et al. 2015: 8–13; IMF 2013). In addition, export growth not only depends on price or cost competitiveness, but also on non-price factors (see overviews in Altomonte et al. 2013; Karadeloglou/Benkovskis 2015). In addition, several authors argue that export



Notes: Nominal (NEER) and real (REER) effective exchange rate; increase implies appreciation. Exchange rates are weighted by main trading partner countries, comprising 24 or 37 countries, respectively.

REER: Nominal exchange rates are corrected for relative ULC developments. Euro developments are linked to the former mark series.

Source: AMECO, own presentation, data accessed October 2021.

Figure A1 Germany's nominal (NEER) and real (REER) effective exchange rates (1995 = 100)

performance is less about price competitiveness (see, for example, Gaulier/Vicard 2012; Gros 2016), stressing that strong world economic growth from 2003 up to the financial crisis in 2007–2008 provoked high demand for German products (see, for example, Allard et al. 2005; Gaulier/Vicard 2012; Horn et al. 2017), especially given the specific nature of German exports (Storm/Naastepad 2015). While we do not disagree about the relevance of such factors, the long-term effects of a longer period of price competitiveness on export success should not be downplayed either.