Herzog-Stein, Alexander; Lindner, Fabian; Zwiener, Rudolf

Research Report

Is the supply side all that counts?

IMK Report, No. 87e

Provided in Cooperation with:
Macroeconomic Policy Institute (IMK) at the Hans Boeckler Foundation

Suggested Citation: Herzog-Stein, Alexander; Lindner, Fabian; Zwiener, Rudolf (2013) : Is the supply side all that counts?, IMK Report, No. 87e, Hans-Böckler-Stiftung, Institut für Makroökonomie und Konjunkturforschung (IMK), Düsseldorf, https://nbn-resolving.de/urn:nbn:de:101:1-2014030716075

This Version is available at:
https://hdl.handle.net/10419/106110

IMK
Institut für Makroökonomie
und Konjunkturforschung
Macroeconomic Policy Institute

November 2013 87e

Report

Is the supply side all that counts?

How Germany's one-sided economic policy has squandered opportunities and is damaging Europe

Alexander Herzog-Stein, Fabian Lindner, Rudolf Zwiener

At a glance

- Over the past ten years, Germany's economic policy has focused too much on the supply side at the expense of the demand side.
- Stagnating wages and cuts in social security have taken the pressure off employers but are severely hampering Germany's domestic economy. Fiscal policy has failed to stimulate demand, which has come primarily from abroad as a result of import surpluses among Germany's trading partners. As a result, Germany's economic performance was for many years substantially poorer than that of other European countries. This situation began to change only in 2009, when the government implemented a more active policy to boost demand.
- This paper uses simulations to present alternative economic scenarios, showing what damage would have been done to Germany's economy if, among other factors, the countries currently hit by the crisis had imported less. It also demonstrates that Germany's economy would have fared better with higher wage growth and a different social security and fiscal policy.

Many researchers, policy makers and media commentators view the intensification of Germany's supply-oriented economic policy over the last ten years – culminating in a series of welfare state and labour market reforms known as 'Agenda 2010' – as a model for success (FAZ 2012; Blum et al. 2008; Klinger et al. 2013). Its reforms of the labour market and welfare state, together with longer-term stagnation in real wages and a restrictive fiscal policy, are being recommended to the crisis countries in the Eurozone and sometimes even imposed on them.

Germany's supply-oriented economic policy has focused primarily on reducing companies' costs (wages, social security contributions and taxes) to give business an incentive to create jobs. Labour market reform, for example, was aimed explicitly at cutting pay for low earners and expanding the country's low-wage sector, while reforms of unemployment and health insurance and the pension system were intended to bring down non-wage labour costs.

Such a policy concentrates purely on reducing costs and focuses solely on the supply side, neglecting the economy's demand side. Even if a company or, indeed, the corporate sector of an entire country can bring down its costs by cutting its wage bill, social security contributions and taxes, it still needs enough effective demand to translate these lower costs into an economic advantage. After all, wages, social security contributions and taxes are not just costs that businesses have to meet; they also make up the income out of which both individual consumers and states pay for the goods that these businesses produce.

Companies may even find that lower costs translate directly into lower earnings and that there is no improvement in their overall position. If consumer demand collapses because household incomes fall, companies are able to boost sales only if demand comes from a different source.

Economic policy has the capacity to strengthen demand in two ways. First, the state can boost its own expenditure to compensate the drop in consumer spending and stabilise demand that way. Second, a country's central bank can cut interest rates to stimulate corporate demand for capital goods and, thereby, support demand.

If a country's efforts to cuts its costs are not mirrored in all its trading partners, or if its currency does not appreciate, then lower domestic costs will boost demand for exports and increase profits.

This paper considers whether, and how, supply-oriented and demand-oriented policy approaches have been impacting on each other in Germany. It will analyse economic policy – both supply- and demand-oriented – across the board over the last 10 to 15 years to demonstrate that structural reform has depressed macroeconomic demand in Germany over a lengthy period without the support of a sufficiently compensatory demand-oriented policy – something that has been a major factor in the long-term stagnation in domestic demand.

Over this period, virtually the only growth stimulus to Germany's economy has been demand from abroad. This, however, has produced imbalances in the current account funded by debt on the part of the importing countries, itself partly provided by German banks. As the current Eurozone crisis shows, this is not a sustainable strategy.

By contrast, the global financial crisis of 2009 demonstrated that an active demand-oriented policy can be effective. At that time, the German government successfully supported consumer demand through economic programmes and short-time working; this, along with a corporatist policy of employment protection implemented in conjunction with employers and unions, enabled Germany to survive its most serious economic crisis since the Second World War and provided stability of employment, the benefits of which are being felt to this day.

Supply-oriented policy over the past ten years

Social security and labour market reforms, coupled with a restrictive policy on demand, reduced incomes and weakened earnings expectations both of households and of companies manufacturing for the domestic market, with a resulting major impact on Germany's domestic economy until 2008 and negative consequences for employment.

Between 2002 and 2005, Germany passed four separate laws designed to liberalise the labour market, known collectively as the 'Hartz laws'; they implemented far-reaching labour market reforms and changes to the institutional framework. Atypical working arrangements, particularly agency work and 'mini-jobs' (which involve low pay and restricted hours and an exumption from social security contribution), were de-regulated; statutory protection against dismissal was reduced; and there was a root and branch reform of the employment placement system. New labour market tools were also introduced, such as a business start-up allowance for the self-employed and '1 Euro jobs' – a scheme designed to get the long-term unemployed back into work. Meanwhile, supplementary benefit was merged with the income support system; in the case of wage-replacement benefits, unemployment benefit was restricted in duration, and the rules on accepting job offers and sanctions for job-seekers were tightened up.

As a package, these measures had the effect on both those in work and the unemployed of lowering their expectations of pay and job security; indeed, that was their explicit aim. One of the central planks of the reforms relating to low earners and the unemployed in particular was cutting the reservation wage – the minimum wage level for a worker to be prepared to offer his or her labour (SVR 2002/03, p. 12).

Across the board, these reforms intensified an existing trend towards more atypical forms of employment and low-wage employment, cutting incomes for low earners especially. Low-paid, part-time employment in particular became more common, both for main breadwinners and second earners, rising from 13 % of all those in employment before the Hartz reforms were implemented to 20 % by 2009 (Keller and Seifert 2011). This kind of employment is particularly problematic: neither the workers nor their employers pay social security contributions, so these workers, if they have no other source of employment, fall outside the scope of social security coverage (Eichhorst et al. 2010).

As a result, the low-wage sector has expanded considerably, from around one fifth of all employees in 1998 to around one quarter in 2011 (Kalina and Weinkopf 2013), making Germany's low-wage sector one of the largest in the European Union (Rhein 2013).

Pension and sickness benefits were also cut in an attempt to bring down non-wage labour costs. Employer and employee contributions had previously risen markedly, largely because the reunification of

Germany was financed to a large extent by the social security system.[1]

To enable the government to reduce the contribution rates to Germany's statutory pension insurance scheme, the value of the pension was reduced by stages by changing the formula used to calculate pensions (in particular, the 'Riester factor' – Riester pensions are state-subsidised voluntary individual pension savings accounts – and what is known as the 'sustainability factor'). These cuts in pensions will result in huge numbers of low earners in particular facing poverty in old age in the future[2] Germany will become one of the OECD countries with the lowest level of pension income (OECD 2009). Before these reforms were implemented, Germany's pension system had been markedly more successful than other OECD countries in reducing poverty in old age.

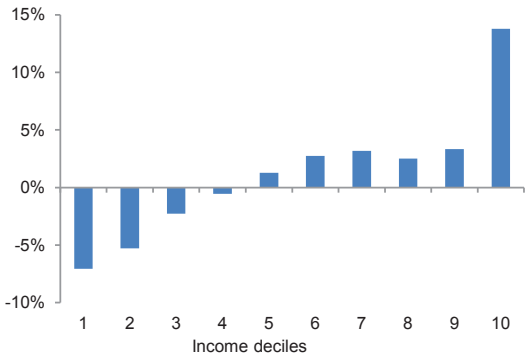
The introduction of voluntary, state-subsidised Riester pensions, to which employers do not contribute, will not be sufficient to offset the drop in value of future pensions. Many low earners have seen their real-terms income drop by such an extent that they cannot afford to take out additional private pension insurance. And as Riester pensions are offset against basic old-age provisions, the latter will automatically be reduced by the value of any Riester pension payable. After 10 years of pension cuts and Riester pensions, it is clear that the promise of pensions that would protect living standards has been broken and that millions of future pensioners will be facing poverty in old age (Joebges et al. 2012).

In 2005, the sickness insurance scheme moved away from equal contributions for employers and employees and unilaterally increased employee contributions by 0.9 percentage points, as well as introducing a range of cost-cutting measures. Long-established provisions were repealed, and a 'practice fee' of EUR 10 was introduced for medical consultations, along with cash payments for medicines and medical appliances. Overall, social security for employees was reduced substantially in order to cut companies' costs.

FIGURE 1

Percentage change in equivalence-weighted real net household income

1999 - 2010



Sources: SOEP; IMK calculations.

Cuts in both actual earnings and the earnings expectations of large numbers of people mean that this policy has produced a drastic reduction in consumer spending and in domestic demand, as we shall explain in greater detail in the next section.

Figure 1 illustrates the growth in real-terms net household income[3] for different income groups between 1999 and 2010. Over this period, when social security and labour market reforms were in full swing, the poorest 40 % of households lost income – some of them massively – while the richest households saw their incomes rise particularly sharply. The rise in incomes among the richest 10 % of households can be attributed primarily to increases in income from capital (dividends and interest) and the substantial reduction in taxation on such income, particularly for high earners (Schmid and Stein 2013).

As a result, inequality has risen more sharply in Germany than in any other OECD country over this period (OECD 2008). As recently as the 1980s, income distribution was as equitable in Germany as in many Scandinavian countries and was markedly better than the OECD average. It has now fallen back to the OECD average.

This shift in income distribution is likely to have

1 In the aftermath of German reunification, unemployment in the former East Germany rose sharply and the former East German sickness and pension insurance schemes ran up substantial deficits. A large part of the cost of reunification was borne by employers and employees who were contributing to social security schemes. If these costs – which were extraneous to the insurance schemes themselves – had been funded from increases in taxation rather than in contribution rates, the rise in contributions would not have been so high and it would not have been necessary to cut pensions, sickness benefit and unemployment benefit (Meinhardt and Zwiener 2005).

2 The risk of current pensioners facing poverty, compared with the risk faced by the population as a whole, has so far been classified as 'average' (Goebel and Grabka 2011). However, this applies only to needs-weighted disposable household income and not to single-person households.

3 This considers 'equivalence-weighted real-terms net household income'. Equivalence-weighting controls for the composition of individual households, so that a household's entire income is divided by the weighted number of people it includes; children, for example, are weighted less heavily than adults.

hampered economic growth. Households with low incomes typically spend their full income, so when it falls, so does their spending. Higher incomes for the wealthiest cannot, however, offset this fall in spending by the poorest, since better-off households save proportionally more of their income and spend less of it (Klär and Slacalek 2006). Fichtner et al. (2012) calculate that between 2002 and 2010, the increasingly unequal distribution of incomes boosted the average savings ratio markedly, driving down consumer demand. They estimate that without this inequality, German consumer spending would have been up to EUR 10 billion a year higher.

Nor was the drop in demand by private households offset by efforts on the part of the state to implement a strong demand-oriented policy. After 2001, when the German government massively reduced taxes (especially for companies and higher-income households), deficits arose, which it sought to remedy by cutting public expenditure from 2003. The increase in value-added tax in 2007 helped to balance the public accounts but had a drastic effect on purchasing power and, especially, on spending by lower-income households.

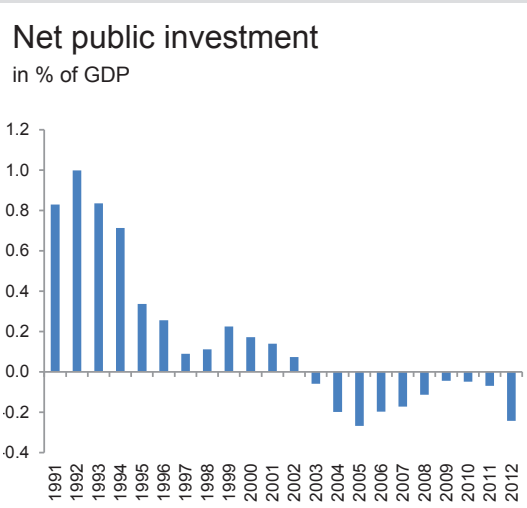
Public sector investment was hit particularly hard by the drop in public expenditure. Such investment is more prone to being cut than many other forms of spending that are underpinned by statutory protection and that cannot be reduced rapidly, at least in the short term. As a result, public net investment – calculated as gross investment minus depreciation – was consistently negative from 2003 onwards and, as a result, the public capital stock shrank (Figure 2).

Local communities and local government were the largest losers from these cuts in taxation. They account for the lion's share of public investment. Surveys among local government directors of finance have found that by 2012, there was a backlog of EUR 128 billion of investment, particularly in spending on road and transport infrastructure and on schools (KfW 2013).

The German Institute of Urban Affairs (Difu) has also calculated a significant shortfall in essential investment, particularly in transport infrastructure and schools, which it puts at EUR 47 billion a year between 2006 and 2020 (Bracher et al. 2008). In 2007 and 2008, Germany had the second lowest investment ratio of all the 27 EU Member States; only Austria had a lower ratio (Deutsche Bundesbank 2009).

Below, we provide more detailed analysis of the impact this policy has had on growth and employment in Germany.

FIGURE 2



A cyclical comparison of growth and employment

To illustrate the impact that economic policy has had over time, we shall now compare key economic indicators over the three economic cycles since 1999. An economic cycle includes an upturn and a downturn.[4] By comparing the three cycles it can be shown that economic policy – both supply-oriented and demand-oriented – has had an impact on growth and employment.

The first of these three cycles covers the period from the upturn in Q1 1999 to Q1 2001 and the subsequent long period of stagnation that lasted into Q2 2005. This four-year stagnation was the longest in the Federal Republic's history and included the reform programme introduced by the 'red/green coalition' of Social Democrats and Greens that was in power at the time.

Recovery began in Q2 2005, marking the start of the second economic cycle. This upturn, however, lasted only until Q1 2008, when the global financial crisis triggered the most serious recession in the Federal Republic's history and saw the country's GDP fall by 6.8 %. The downturn was, however, much shorter than the downturn during the first cycle, lasting just five quarters (Figure 3 – GDP).

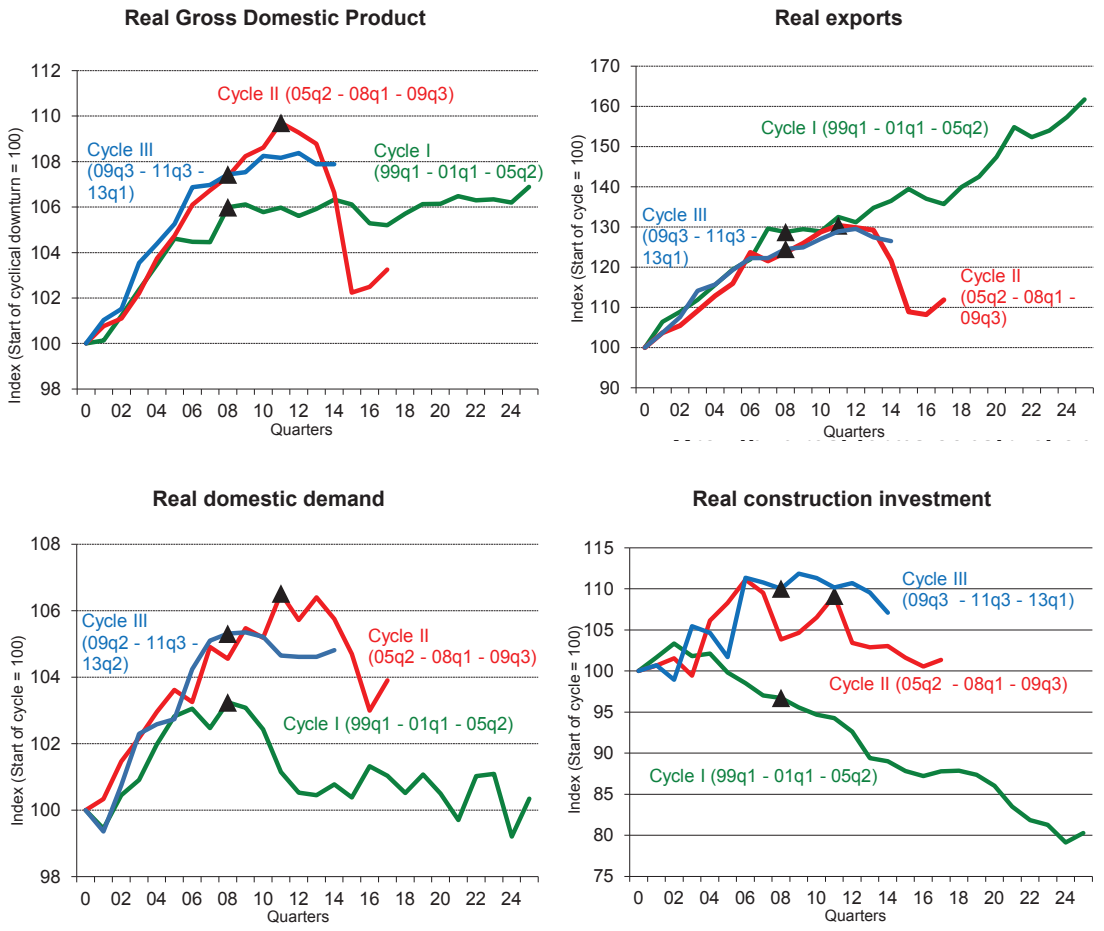
The third and most recent economic cycle then began in Q3 2009, reaching its peak in Q3 2011. There are currently signs that the third cycle may have come to an end in Q1 2013. The downturn was markedly less damaging than the downturn du-

4 The dating of the economic cycles follows the method described by Herzog-Stein (2010) and is based on 'relative output gaps' as determined by means of a range of statistical filtering procedures. See also Herzog-Stein and Logeay (2010) and Herzog-Stein et al. (2013).

FIGURE 3

Cyclical comparison I

adjusted for seasonal and calendar variations



▲ Peak of the relevant cycle.

Sources: German Federal Statistical Office; IMK calculations.

IMK

ring the other two cycles, despite the ongoing crisis in the Eurozone.

So why were the three cycles so different? In all three cycles, exports grew substantially during the upturn (Figure 3 – Exports). In the second and third cycles, the start of the downturn was heralded by a drop in exports, whereas there was actually a marked rise in exports during the first cyclical downturn. Exports therefore provided a substantial expansionary impetus for the German economy during the long period of stagnation. In other words there is no evidence of any weakeness of international competitiveness that would have demanded by supply-oriented measures to cut costs.

The key difference between the cycles lies, in fact, in growth in domestic demand. From Q3 2000, demand initially stagnated and then fell, and it was not until early 2005 that real-terms domestic demand recovered to its level of early 1999 (Figure 3 – Domestic demand).

Real-terms domestic demand is made up of private and public consumption spending and investment. All three components were implicated in the collapse in demand. One major cause was the one-sided, supply-oriented economic policy – in other words, the 'red/green coalition' actually provoked the long period of stagnation.

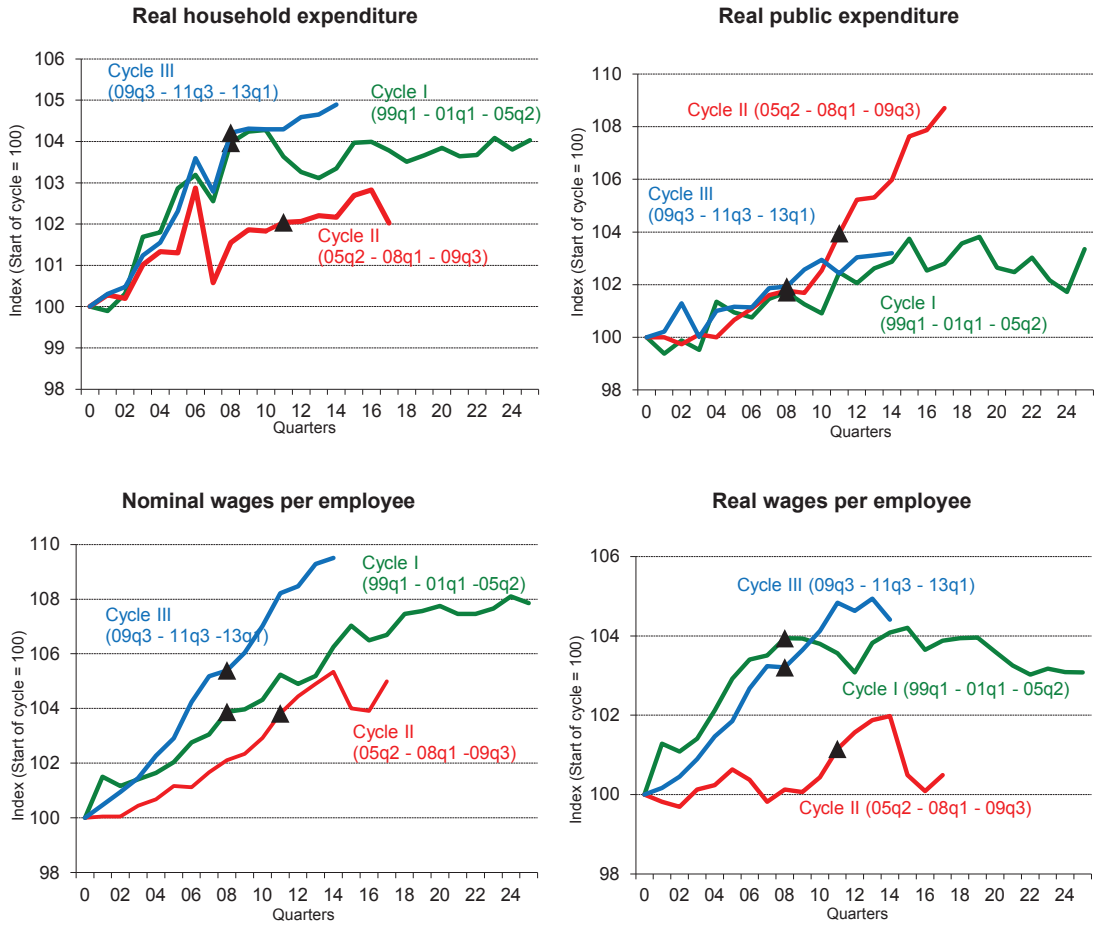
There was a particularly marked fall in gross fixed capital formation, which was around 6.5 % lower in mid-2005 than at the beginning of 1999. The 2009 financial crisis triggered huge falls in such investment, but even towards the end of that period, there was still modest growth taken over the economic cycle as a whole.

The key factor in the sluggish growth in investment was not capital investment (for example in new plant) but investment in construction (Figure 3 – Construction investment), which fell by

FIGURE 4

Cyclical comparison II

adjusted for seasonal and calendar variations



▲ Peak of the relevant cycle.

Sources: German Federal Statistical Office; IMK calculations.

IMK

a total of 20 %, primarily as a result of the decline in private sector housing construction. This decline can be attributed to three key factors (Dullien and Schieritz 2011). First, towards the end of the 1990s, a property bubble burst, particularly in eastern Germany, where the government had pumped in high levels of subsidies to modernise the former GDR housing stock, leading to high levels of over-capacity. Second, the already poor situation facing the construction industry was exacerbated by the withdrawal of state subsidies, including subsidies for new buyers, as part of measures to consolidate public finances. And third, private sector construction activity relies heavily on household incomes and income expectations, which were seriously impacted as a result of the reforms. The state's budgetary consolidation once tax revenues began to fall in the wake of tax cuts also contributed to a drop in real-terms state spending and a long stagnation, which in turn damaged domestic demand.

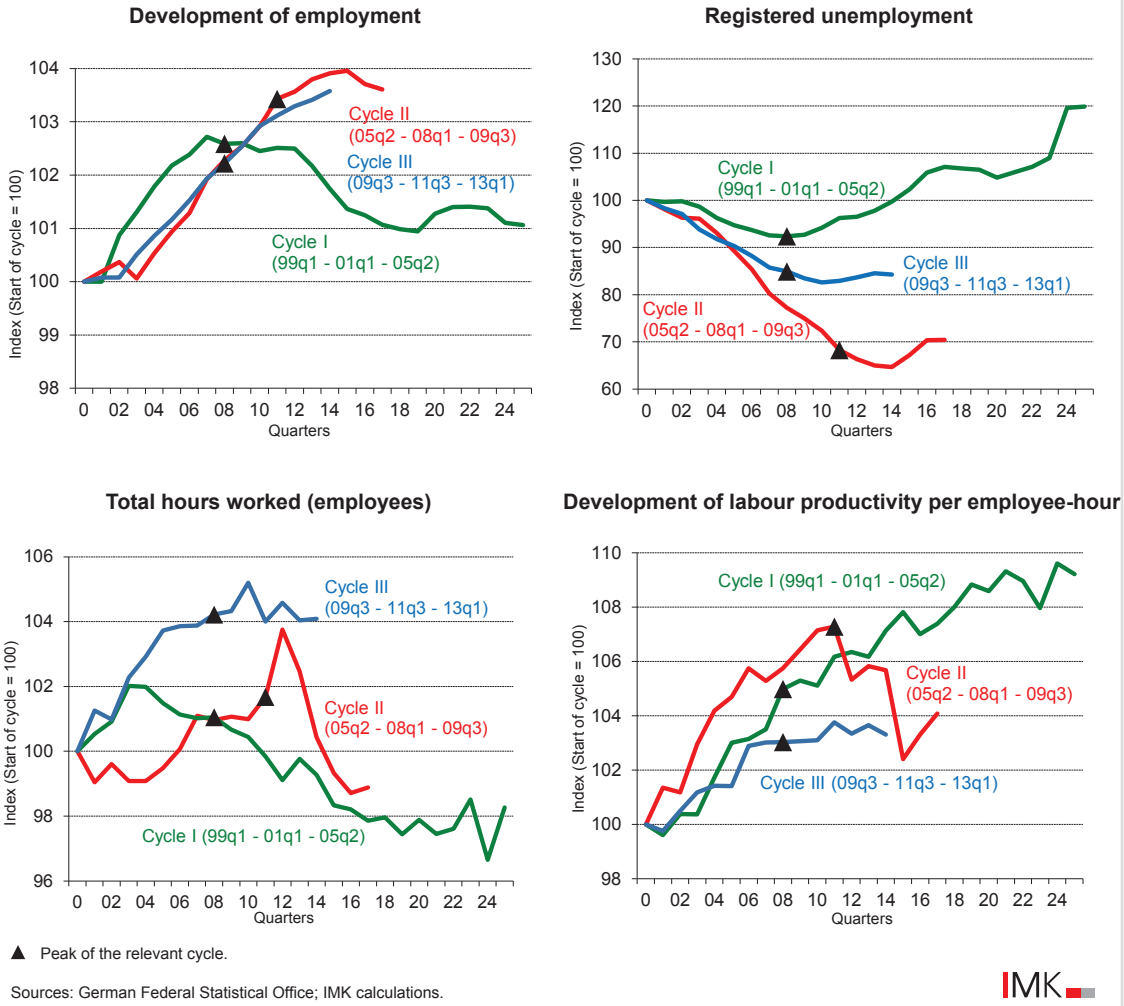
Private consumption spending – the largest element of GDP – stagnated between 2001 and the end of 2005. The key factor was stagnation and even at times a drop in real wages following the labour market reforms (Figure 4 – Real wages). This trend persisted for seven years, and throughout this period of stagnation and beyond, the key component of domestic demand was failing to provide any impetus for growth.

Private consumer spending also stagnated during the downturn in the second cycle, but it is important to note that this coincided with a dramatic global economic downturn, with the effect that – against such a backdrop – a lack of growth in consumer spending effectively had a stabilising effect. During the third downturn, consumer spending actually rose slightly, producing stabilising effects during this phase of the cycle.

FIGURE 5

Cyclical comparison III

adjusted for seasonal and calendar variations



▲ Peak of the relevant cycle.

Sources: German Federal Statistical Office; IMK calculations.

IMK

Growth in nominal wages per employee was modest in all three economic cycles (Figure 4 – Nominal wages). It is also, however, striking that nominal wages stagnated between 2003 and early 2006 but then grew more substantially in the third cycle (by around 9.5 % within three and a half years).

The number of people in employment rose in each of the three cycles, but the trend was markedly different in each. During all three economic upturns, the total number employed rose by the same proportion over eight quarters. However, it was only during the first cycle that it fell during the downturn; in the second and third cycles, it actually continued to rise (Figure 5 – Employment).

The main reason for this variation in growth in employment during the downturn is the economic and employment policy in force at the time. During the long stagnation that formed part of the first cycle, no such policy was in force. In the second cycle in particular – which coincided with the financial crisis – the government enacted two packages of economic measures and expanded the use of state-subsidised short-time work. Figure 4 (Public expenditure) illustrates how public expenditure rose during the second cycle, supporting both domestic demand and employment. Measures agreed by employers and unions to boost company flexibility such as 'working time accounts' were also a major factor in stabilising employment (Herzog-Stein et al. 2013a; Herzog-Stein et al. 2013b).

There was a marked fall in unemployment during all three upturns, but the scale of the fall was much more marked in the second and third upturns (32 % and 15 % respectively) than in the first, when unemployment fell by only 7.6 % over eight quarters (Figure 5 – Unemployment). However, some

special factors were at play, particularly in the second cycle, which followed the labour market reforms. In early 2005, the introduction of a basic benefit for job-seekers saw large numbers of people who had previously been on a form of income support ('Sozialhilfe') being classed as fit for work and as unemployed, a shift that subsequently proved to be mistaken and was corrected. Overall, this trend overstated the decline in the numbers registered as unemployed between 2005 and 2008 (Bundesagentur für Arbeit 2011, p. 9).

It is also likely that the labour market policy in operation – and especially the newly introduced '1 Euro jobs' – reduced overall unemployment, though probably by less than the total number of '1 Euro jobs': other labour market policy measures that were much more widely used before the Hartz reforms came into force, such as job creation programmes, were being scaled back at the time.

There was also a downward trend in the size of the potential labour force between 2006 and 2008, according to calculations by the German Institute for Employment Research, IAB (Fuchs et al. 2013, Table 1), which is likely also to have taken the pressure off unemployment. In the first upturn, by contrast, labour market policy measures actually tended to increase, rather than decrease, unemployment. The potential labour force also rose markedly in 2000 and 2001, which is likely to have further hampered efforts to reduce total unemployment.

Overall, the difference in the fall in unemployment was less marked between the first two upturns, which would seem to suggest growth in employment levels during these two upturns. There are indications that the labour market reforms boosted the efficiency of employment offices and of the labour market as a whole and that this helped to bring down unemployment (see, for example, Klinger and Rothe 2012).

Much more striking is the growth in registered unemployment during the last two downturns, particularly during the financial crisis, compared with growth in unemployment during the long period of stagnation. It was, indeed, only during the first economic cycle that unemployment rose so substantially that after 14 quarters it was once again higher than at the beginning of the first cycle. If an active economic and employment policy had been deployed so as to limit the duration of the first downturn to six quarters, as was the case in the subsequent two downturns, this rise in unemployment could have been avoided.

The positive outturn on the labour market in the second and third downturns, as measured by trends in employment and unemployment, cannot really be attributed to the labour market reforms implemented. These reforms tended to focus on measures like reducing dismissal protection and deregulating agency work in an attempt to boost external flexibility – that is, to enable companies to reduce their workforce more quickly than was previously the case. The reforms did not, though, help to boost the scope for internal flexibility by changing working time within companies.

However, alongside an active conter-cyclical and employment policy, the temporary reduction in working time was one of the key factors behind the success in maintaining employment during the financial crisis by bringing about a marked reduction in total hours worked without job losses (Figure 5 – Total hours worked). During the most recent downturn in the third cycle, too, companies were again using measures to boost internal flexibility, including 'working time accounts', and to protect jobs during this period of economic weakness (IAB 2013).

These measures also stabilised demand: 'working time accounts' and subsidies for short-time working kept employment high and boosted the security of household incomes despite the ongoing financial crisis. It was this factor that marked out Germany from virtually all the other countries affected by the crisis in helping to keep consumer spending stable and cushioning the economic downturn as well as making it easier to recover once the crisis was over.

Nor is there any evidence from the figures on growth in hourly productivity that labour market reforms secured a long-term change in employment. For any given level of economic growth, higher employment intensity normally results in lower growth in productivity, but there is no evidence of this having happened: during the second upturn, hourly productivity rose more strongly than during the first upturn, while the rise was less marked during the third upturn than during the first (Figure 5 – Labour productivity).

By contrast, there was a marked drop in productivity during the financial crisis, indicating that there was large-scale hoarding of labour of the kind evident in earlier severe recessions, such as in the early 1970s (Herzog-Stein et al. 2013).

Overall, a comparison of the three economic cycles provides substantial evidence for the argument that an unsuccessful macroeconomic and employment policy between 2000 and 2005 had a negative effect on labour market trends. However, the cyclical comparison provides less convincing evidence of the significance and effectiveness of labour market reforms as measured by better labour market outcomes in the last two economic cycles.

There are some indications that as well as higher economic growth, the successful corporatist economic and employment policy in operation during the financial crisis was also a contributory factor (Herzog-Stein et al. 2013).

International comparison of growth and employment

In the next section, we compare trends in growth, employment, pay, productivity, exports and consumer spending in Germany with the same indicators in selected European countries over the past ten years. Over this period, Eurozone countries have been subject to the same changes in the nominal exchange rate for the Euro, the same monetary policy (laid down by the ECB), and the same external pressures and influences, including oil prices. However, these countries had different wage and financial policies, and their economies were markedly more demand-oriented.

Figure 6 shows the trend in key macroeconomic variables. It is striking that, compared with other countries, wages have risen only modestly in Germany in absolute terms and by significantly less than the average since the launch of European Monetary Union (EMU). It was not until recently that wages began to rise again more substantially. At the same time, hourly productivity rose more substantially in Germany than in the Eurozone as a whole. Until the 2008/2009 crisis, Germany's productivity growth was higher than in the comparator countries and markedly higher than the Eurozone average. There was then a significant drop in productivity in 2008 and 2009, reflecting the specific measures Germany put in place to tackle the crisis and, in particular, the cuts in working time. Productivity then rose again by rather more than the Eurozone average.

By comparison with other Eurozone countries, it is also clear that the modest pay growth that resulted from this supply-oriented policy did not actually lead to a better outturn as far as employment was concerned (Logeay and Zwiener 2008). By comparison with other European countries, the total number of people in employment in Germany did not increase between the launch of the Eurozone and 2006; in fact, it has risen only in the past few years. Over the period from 2000 to the present day, indeed, it has consistently lagged behind the Eurozone as a whole and caught up with the Eurozone's employment growth rate only as the persistent crisis hit the Eurozone countries and prompted job losses in the worst-hit countries.

As a result, Germany's economic growth was among the lowest in the Eurozone for the entire ten-year period. These figures show that what has been portrayed as a successful supply-oriented policy was, in fact, a failure. Things did not begin to improve until the German government implemented an active demand-oriented policy in an attempt to tackle the crisis in 2008/2009 and pay growth subsequently picked up, enabling Germany to begin to close the substantial gap between itself and the rest of Europe in terms of growth, pay and employment.

The consequence of Germany's supply-oriented policy was the development over the last ten years of massive foreign trade imbalances. A modest current account deficit in 1999, when goods and services were already making a positive contribution to net exports, gave way to current account surpluses of between 5 % and 8 % of GDP. That, however, did not translate into increased prosperity because a significant proportion of these surpluses were then lost as a result of currency movements and value adjustments during the financial crisis (Klär et al. 2013).

Surpluses in the current account, which is primarily made up of the foreign trade balance, increase a country's net financial assets abroad: for the proportion of exports that is not offset by imports of the same value, an economy builds up financial claims on other countries (Klär et al. 2013). By this a country becomes dependend on the valuation of financial assets in other countries. By the end of 2012, the German economy had overall net financial assets abroad that – as a result of write-offs and exchange rate losses caused both by the global financial crisis in 2008/2009 and by the Euro crisis – were some EUR 409 billion lower than the accumulated current account surpluses for 2000 to 2012 indicated they should be. That is equivalent to a loss of more than 15 % of the 2012 GDP and 30 % of the total surpluses over this period; effectively, Germany was giving away large sums of money to other countries. There could, moreover, be further value adjustments to come, as a result of the Eurozone crisis.

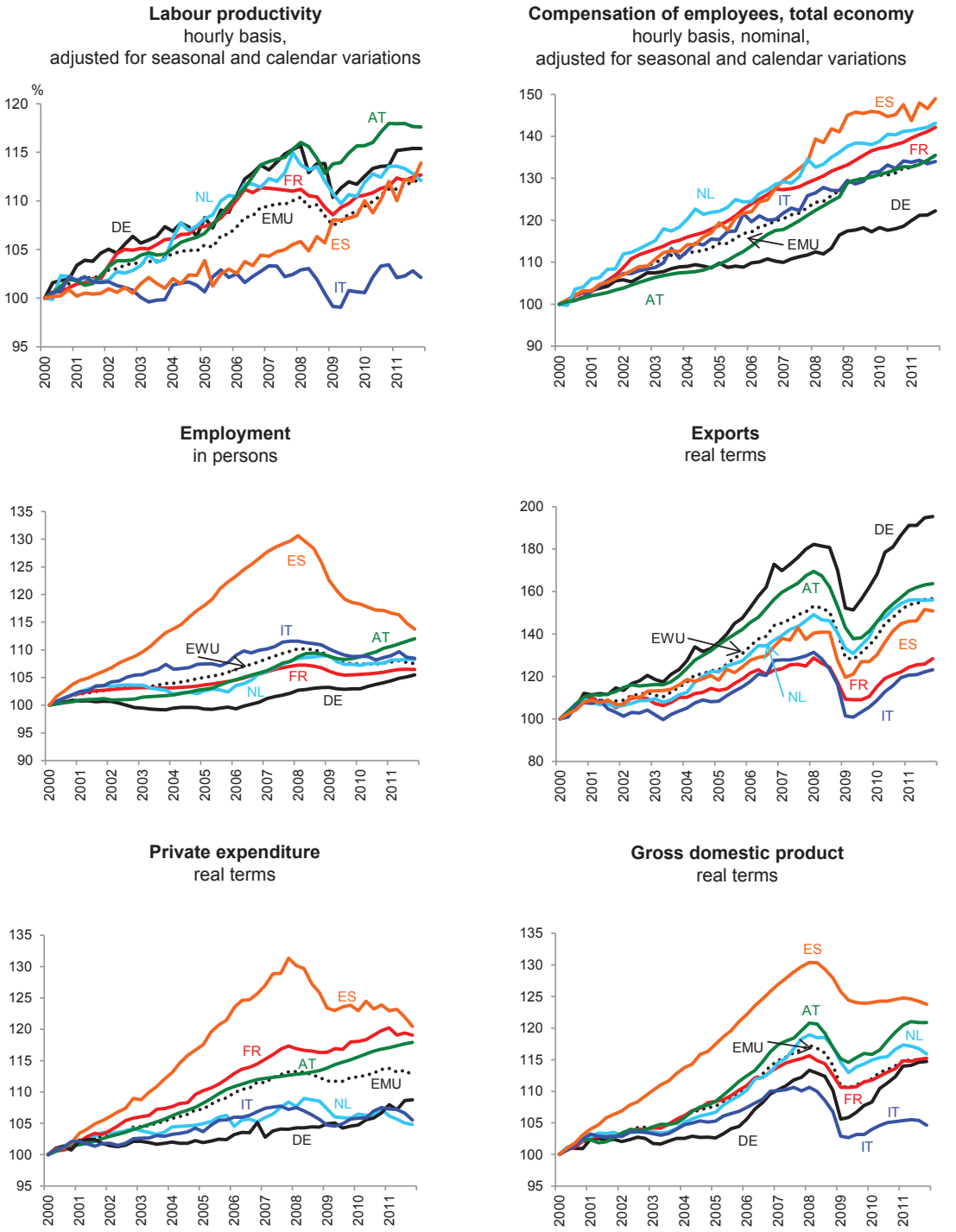
The impact of an alternative demand-oriented policy

In the next section, we use the IMK model (see the Infobox and Rietzler 2013) to conduct some macro-econometric simulations in an attempt better to quantify and explore the impact of Germany's policy mix on growth and employment and to consider how alternative policies would have impacted. We place particular emphasis on the influence of the three main areas of demand

FIGURE 6

Growth in macroeconomic variables in selected Eurozone countries

Q1 2000 = 100



EMU = European Monetary Union, DE = Germany, AT = Austria, ES = Spain, FR = France, IT = Italy, NL = Netherlands.

Sources: Macrobond (Eurostat); IMK calculations.

IMK

– foreign trade, pay, and the state. We shall model three counter-factual scenarios. To illustrate how dependent Germany has become on exports, we first demonstrate what would have happened if Germany had implemented its supply-oriented policy but its trading partners had been unwilling or unable to import German goods to the extent they actually did.

Two further scenarios will then explore how alternative wage and financial policies could have

boosted domestic demand over the past ten years. These scenarios will compare the actual supply-oriented policy with an alternative economic policy approach that would not have pushed the foreign trade balance as much as far out of equilibrium as actually occured.

Overall, we argue, Germany should have taken a rule-oriented approach to policy to reflect the fact that individual member states within a currency union are no longer able to devalue or revalue their currency in nominal terms to correct unfavourable trends. To do this it should have followed a macroeconomically-oriented wage policy (Herr and Horn 2012) with no attempt to use wage policy to create unacceptable competitive advantages at the expense of other member states.

This would also apply to tax policy. The 'race to the bottom' in terms of tax rates of the kind seen, among others, in Ireland, Cyprus and Slovenia should not have taken place. Measures to cut taxes at the expense of other Member States undermine the very foundation of Europe's social welfare model and force it to reduce social protection even in countries whose economies are growing.

We use the IMK's macro-econometric model (see the Infobox). The baseline scenario is a simulation of actual trends between 1999 and 2011 that reproduces all the economic policy measures actually implemented at that time. There are three alternative scenarios, which demonstrate how alternative economic policies would have impacted on growth and employment.

Scenario 1 differs from the baseline scenario in only one respect: it assumes that other countries imported only as many goods and services as Germany actually exported – that is, it assumes that trade imbalances were avoided without at the same time stimulating the domestic economy.

Scenario 2 assumes that effective wages in Germany grew by substantially more than was actually the case. This scenario illustrates the stabilising effect of pay as a component of demand.

Scenario 3 includes higher wage growth and excludes the cuts in taxation and social security con-

INFOBOX 1

The IMK model

The IMK model is a structural macroeconometric model of the German economy. The IMK has been using it for the past eight years to make economic forecasts and analyse policy. Over this period, it has been updated and reassessed on a six-monthly basis and refined in a number of major areas. In contrast to the literature on modelling (Rietzler 2013), for example, the IMK model includes an improved estimating equation for the import of goods that takes account of long-term trends in consumer spending as well as price variables, exports and capital investment.

Virtually all the estimating equations in the model are specified as error-correction equations (Engle and Granger 1987; Banerjee et al. 1998). The critical values for the coefficients of error-correction equations are derived from Banerjee et al. (1998) as described in Hassler (2004).

Economic theory hypotheses are crucial to the model, particularly in relation to long-term relationships. Its specifications largely follow Keynesian theory. As well as the existence of nominal rigidities, economic policy is the main long-term influence on the real economy. Unemployment may persist in the long term; there is no model-immanent process that automatically brings it down. The determination of employment is therefore Keynesian theory in that demand for labour is reliant on economic growth. The impact of productivity on this relationship is the result primarily of additional investment; growth in real wages has only an indirect effect on demand for labour by influencing investment decisions.

The time series properties of the variables play a vital part in this model of the economic cycle. It is calculated on the basis of quarterly original series before seasonal adjustment with the use of seasonal dummies. There are normally no restrictions in relation to homogeneity, and the coefficients are not calibrated. The model contains no rational expectations.

The model uses highly aggregated time series from the national accounts for the demand and income variables, prices, employment, and the state sector. There are 48 stochastic equations and 61 defining equations. One further characteristic of the model, alongside its Keynesian orientation, is the disaggregated export determination: German exports of goods are broken down by region (Eurozone, UK, USA, and the rest of the world). Interest, nominal exchange rates, demographic growth, foreign price levels and export demand are exogenous variables.

tribution rates between 2001 and 2005. It also assumes that over the period covered by the simulation, public consumption rose consistently by slightly less than nominal Gross Domestic Product. In this scenario, the state would, therefore, have implemented a modified supply-oriented policy coupled with a more appropriate demand-oriented policy without increasing government deficits.

To gauge the influence of individual measures on the economy as a whole, we consider and analyse for each scenario the difference in trends for individual variables between the baseline scenario and the alternative scenarios.

Exports cannot offset the decline in demand arising from a supply-oriented policy (scenario 1)

The bulk of German growth was attributable to an increase in exports, specifically the surplus of exports over imports. This net export balance grew because Germany imported relatively little, reflecting weak domestic demand, but exported heavily, reflecting better price competitiveness and a high level of demand for German goods from foreign markets.

Since exports and imports exactly counterbalance each other at the global level, export surpluses for any one country must be offset by equal import surpluses in the remaining countries.[5] Countries that consistently import more than they export can continue to do so only either by funding the deficit themselves or by accumulating debt abroad, something that would be impossible without credit from abroad.

Germany's export surpluses were, therefore, possible only because those buying German goods were funding growth through credit, a policy that requires a credit source. Some of the major funders of debt in the Eurozone crisis countries – and also previously in the USA – were, and continue to be, German banks (Lindner 2013, Waysand et al. 2010). Without their provision of credit, the crisis countries would not currently have such high levels of debt, nor would they have been able to import goods and services from Germany on the same scale.

In this first scenario, we therefore explore what would have happened if the countries importing goods and services from Germany had not run up such high levels of debt and could have afforded fewer imports, restricting Germany's exports.

To illustrate this, scenario 1 assumes that the level of Germany's real net export balance as an approximation of the growth in the balance of payments is frozen at its 2000 level. Countries outside Germany are assumed to be importing only as much from Germany as Germany itself is importing from other countries. Against the backdrop of extremely weak domestic demand in Germany – the result of the country's economic policy – this necessarily creates much smaller growth in exports.

The simulation shows that, if the rest of the world had imported as low a level of goods from Germany as Germany itself was willing to import, from the rest of the world Germany would have lost more than five million jobs. The level of real Gross Domestic Product would have remained virtually unchanged over a decade – that is, there would have been no economic growth (Table 1). Exports would still have risen strongly, but after 13 years, they would still have been more than 20 % lower than was actually the case. The simulation demonstrates clearly the extent to which Germany took advantage of global economic growth and indebtedness in the countries now hit by the crisis (Figure 7).

Conversely, it also shows that a solely supply-oriented policy can hardly function without a stimulus to exports. That is currently the situation in the countries worst hit by the crisis. Virtually every Eurozone country has been forced to implement a supply-oriented policy to cut its costs and boost its exports, so it is impossible to create sufficient export momentum. The negative effect of a supply-oriented policy on the domestic economy is more pronounced than the effect of higher price competitiveness.

Stabilisation through wage policy (scenario 2)

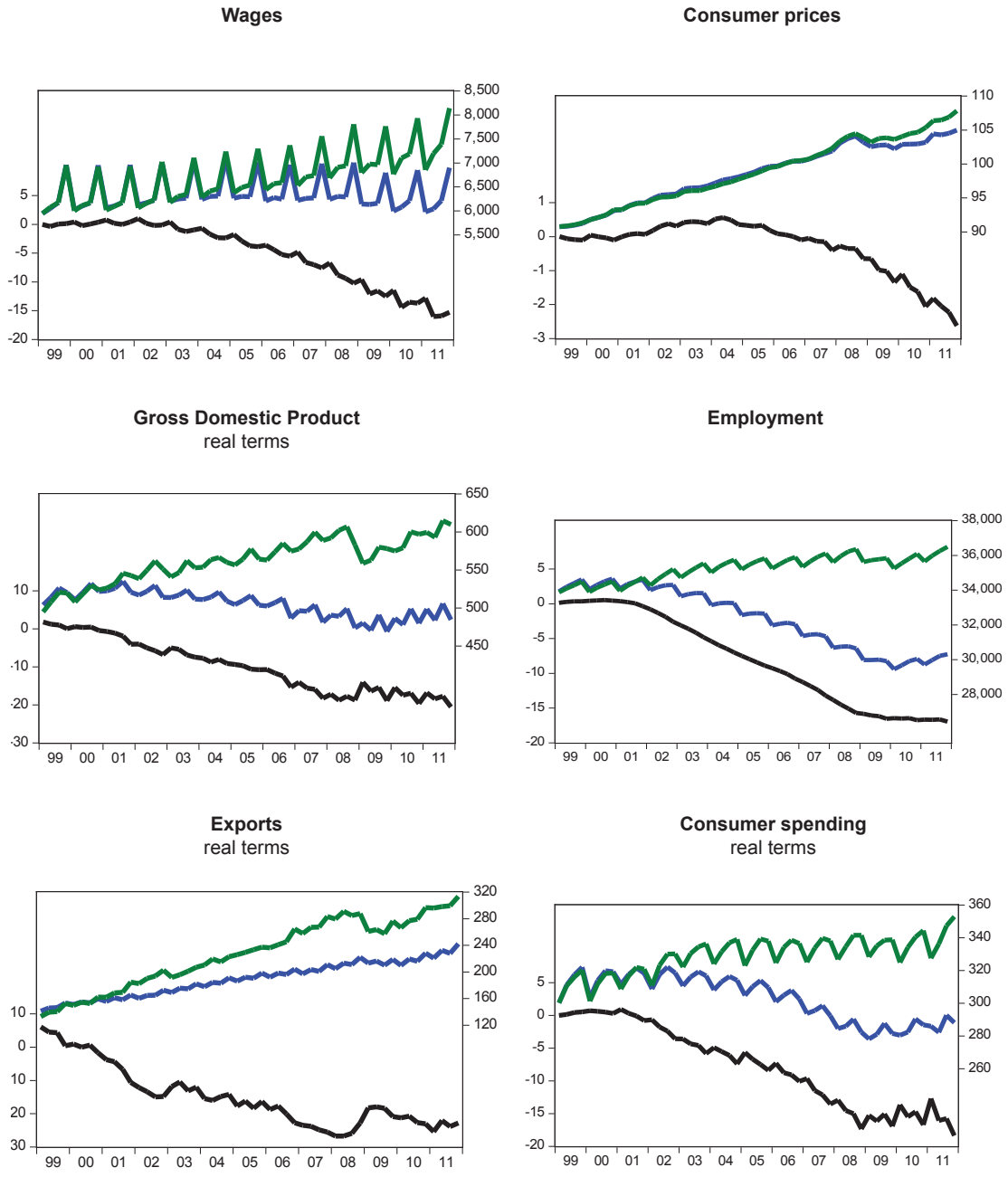
It has been striking over the past decade that wage growth in Germany has been extremely low by comparison with other Eurozone countries: nominal growth in wages per employee was only 17.5 % between the beginning of 2000 and the beginning of 2012, equivalent to just 1.4 % a year. The average figure for all Eurozone member states, by contrast, was 31 %, or 2.3 % a year.

These low rates of growth in nominal wages in Germany reflect mainly the impact of collective

5 In strict accounting terms, there cannot be imports without exports: that is, the total sum of exports is the same as the total sum of imports (Σex = Σim). Dividing exports and imports into those from/to Germany (D) and those from/to the rest of the world (RW) produces the following expression: exD+exRW = imD + imRW. A simple exchange of terms produces the expression exD- imD = imRW - exRW: that is, Germany's net exports are equal to the net imports of the rest of the world.

FIGURE 7

Balanced current account
Scenario 1



Sources: Simulations on the basis of the IMK economic model; Destatis (data).

pay bargaining, but bargaining is crucially determined by the institutional and political framework. Low rates of growth in actual wages reflect the limited bargaining power of trade unions, the increasing number of sectors falling outside the scope of collective bargaining, and high levels of unemployment.

They were also exacerbated by a combination of labour market policy, which introduced measures to deregulate (and, as a result, expanded) low-paid,

part-time work and agency work, the absence of a statutory minimum wage (Horn et al. 2008), and the fiscal and social security policy in force, whose emphasis on cost-cutting and redistribution placed a burden on workers and hobbled economic growth.

As an alternative to the actual growth in wages (baseline scenario), the impact on the economy as a whole of higher growth in wages has been simulated using the IMK model (scenario 2). The starting-point for this alternative growth in wages is the launch of the single currency in 1999. Once a country has joined a monetary union, changes in pay no longer trigger automatic medium-term adjustments in the nominal exchange rate. Before the launch of the Eurozone, comparatively low growth in wages in Germany led after a while to higher current account surpluses, producing repeated and sudden nominal devaluations of the deutschmark that wiped out and, in some cases, actually reversed the country's competitive advantage.

This mechanism was deactivated once Germany and the other member states bacame members of a monetary union. The changes in the real exchange rate resulting from an ongoing low level of growth in German wages now produced a sustained and steadily growing price competitiveness that could no longer be corrected by nominal boosts to the value of the country's own currency, as had been the case in the past.

One yardstick for alternative wage-setting mechanisms is the concept of a macroeconomically oriented wage policy, which stipulates that wage growth should normally make full use of the scope represented by growth in productivity and the target rate of inflation set by the European Central Bank (ECB) (Herr and Horn 2012; Horn and Logeay 2004). Up to the 2008/2009 crisis, there was a medium-term increase in productivity of more than 1 % per employee per year, so with the ECB's target inflation rate at just under 2 %, wage growth across the economy should have been around 3 %.

Wage growth of this order across the German economy would not breach the ECB's inflation target. Moreover, with these rates of increase, Germany would face no risk to its price competitiveness within the Eurozone, provided other countries did not register even lower increases over the long term. If other countries exceeded their margin for wage increases, on the other hand, they would automatically be penalised by loss of price competitiveness.[6]

If per capita nominal gross wages in Germany had been governed by such a macroeconomically oriented wage policy, they would have grown by just under 3 % a year since the Eurozone was launched, taking growth in per capita wage levels to around 19 % by 2011 (Table 1). Although the price increases this would have triggered would have wiped out part of the nominal growth in wages (after 13 years, prices would have been 3.5 % higher than in the baseline scenario), real wages would have grown by almost 1.5 % a year, considerably more than the actual figure of just half of one percent each year (Figure 8).

This higher growth in wages would have given real consumer spending an extra boost of almost 7 %, which would have seen it increase considerably more than it actually did over the 13-year period (3 %). There would also have been modest increases in economic growth and employment (Table 1).

Improved domestic growth and higher prices translate into a substantial increase in state revenues. At the same time, the use of resources on the expenditure side of the budget produces additional positive macroeconomic effects, whereby some of those resources are required by institutional procedures. Over the simulation period, there is, however, also a discretionary financial policy margin that, in the simulation scenario, is used for additional state spending.

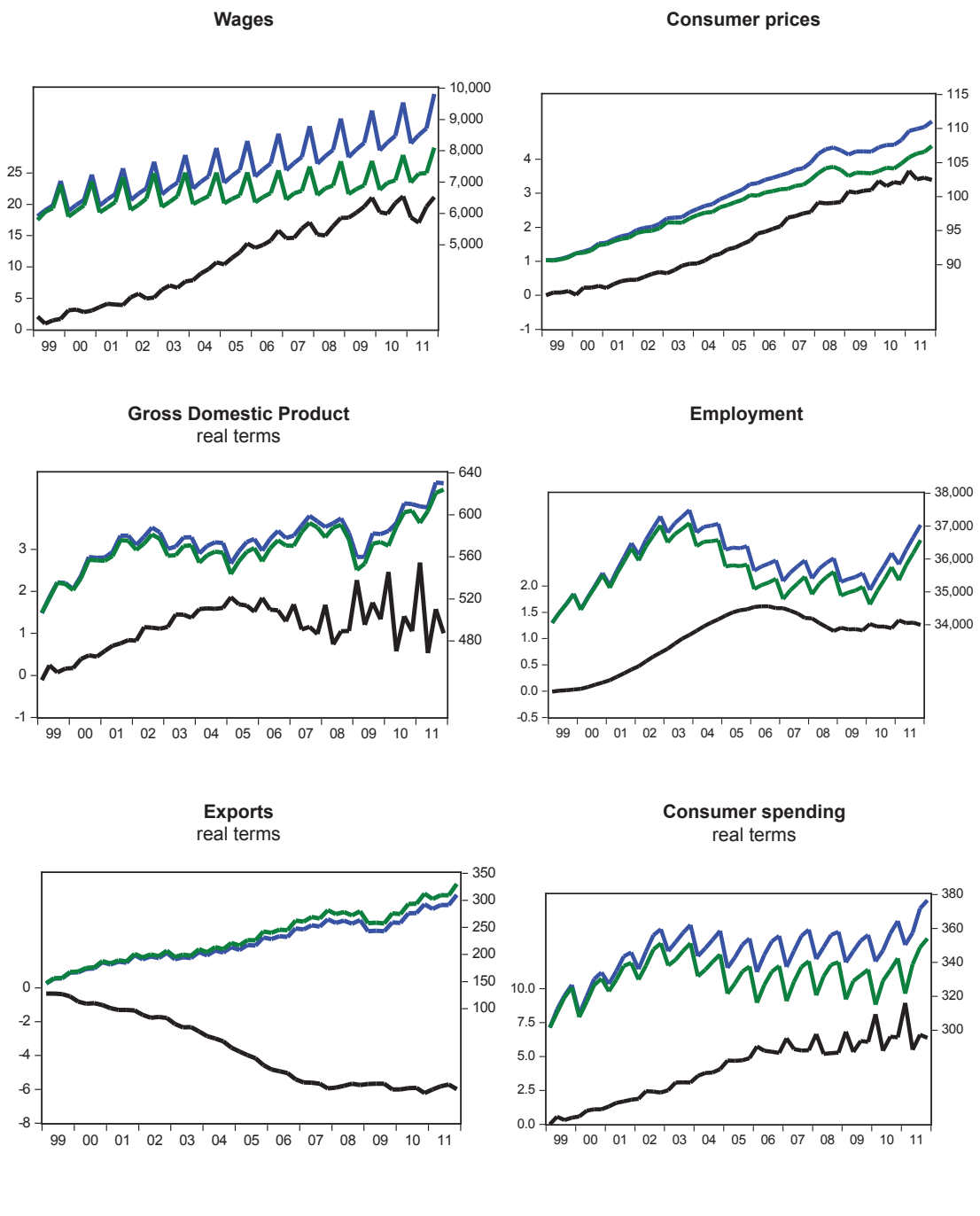
The model simulations show that a macroeconomically oriented wage policy has no negative impact on public finances. In other words, efforts to reduce government deficits remain but are adjusted to reflect higher incomes and the higher level of wages and prices, while the public debt ratio falls slightly by comparison with the status quo. Specifically, this means that nominal public spending would rise markedly – by 11 % compared with the baseline scenario. Overall, government revenues after 13 years would also be slightly more than 11 % higher than in the baseline scenario.

Of particular interest is the impact on foreign trade of higher wages and the resultant smaller improvement in price competitiveness (Table 1). Higher unit wage costs are, however, only partially reflected in export prices in this model. After 13 years, export prices would be just under 5 % higher than in the baseline scenario. The resultant

6 However, if too many countries do the same, the ECB may be forced to respond to the failure to meet the HICP target across the Eurozone with a more restrictive monetary policy and, therefore, higher interest rates. This would also impact negatively on Germany, even though Germany would not actually be responsible for it.

FIGURE 8

Alternative wage policy
Scenario 2



Sources: simulations on the basis of the IMK economic model; Destatis (data).

IMK

smaller improvement in price competitiveness would have meant a slightly smaller increase in real exports (just under 6 % lower after 13 years). Exports would, however, still have more than doubled over the period. Imports rise by almost 2 % in this simulation. Stronger growth in the domestic economy is able to over-compensate the slightly negative impact of lower exports on imports.

The rise in import prices – more than 1 % higher than in the baseline scenario – is initially surprising. Against the backdrop of slightly higher domestic prices, importers make full use of their margin for price-setting and do not pass on all the scope for cutting prices to consumers. The concept of 'pricing

TABLE 1

Macroeconomic simulations of the impact of wage, financial and social policy between 1999 and 2011

Impact 1999-2011 compared with the status quo in 2011, in %

Variable	Foreign trade balance[1]	Other: Wage policy[2]	Other: Wage, financial and social security policy[3]
Gross Domestic Product, real terms	-18,4	1,2	6,5
Employment	-16,7	1,2	4,4
Gross wages (per capita)	-15,0	18,9	18,9
Total gross profits	-26,6	-21,3	-10,2
Wage share	-1,3	12,3	9,9
Unit labour costs	-13,3	19,0	18,2
Consumer price index	-2,2	3,5	3,4
Transfers to private households	-8,2	16,2	23,2
Consumption, real terms	-15,7	6,7	11,5
Public expenditure, real terms	-9,0	5,2	14,4
Gross capital investment, real terms	-7,7	1,2	10,9
Exports, real terms	-23,5	-5,9	-5,7
Imports, real terms	-13,3	1,9	4,2
Gross Domestic Product, nominal	-23,2	6,3	12,6
Government revenue, nominal	-22,2	11,1	23,1
Government expenditure, nominal	-10,7	11,0	22,2
For information only			
Government fiscal surplus/deficit (nominal, change in EUR billion)	-120,2	-1,6	4,0
Export component (nominal, change in EUR billion)	-160,8	-55,6	-81,6

[1] Trading partners reject current account deficit.

[2] Annual wage growth of just under 3%.

[3] No tax and social security contribution rate cuts between 2000 and 2005 not reflected; public spending growth consistently by less than GDP.

Source: Simulations on the basis of the IMK's macro-econometric model.

to market' applies not only to German exporters, who gear their prices largely to the price levels on their target markets, but also to German importers. In nominal terms, imports rise by a further 3 % in the wake of the simulated wage growth. The nominal net export balance is, therefore, considerably lower after 13 years, falling by around EUR 55 billion compared with the actual figure of EUR 113 billion in 2011.

Particularly striking are the distributional effects of higher wages (Table 1). Gross incomes from paid employment and public transfer payments rise by 19 % and 16 % respectively compared with the baseline scenario, while gross profits are 21 % lower. Profits still, however, rise by around 10 % compared with 1999 in scenario 2, given a higher baseline. The wage share stops falling and, in fact, rises slightly.

Overall, higher wages would not have harmed either employment or economic growth in this scenario, contrary to the claims often made by neo-classical economists. Germany would, in fact, have benefited from a macroeconomically oriented wage policy. Exports would have risen less strongly, but the German economy would have been on a much more balanced growth path, with higher domestic growth offsetting weaker export demand, while growth and employment would both have been slightly higher. Germany's income distribution would have been more balanced than it currently is, while the current account surplus would have been substantially lower (Table 1 and Joebges et al. 2009).

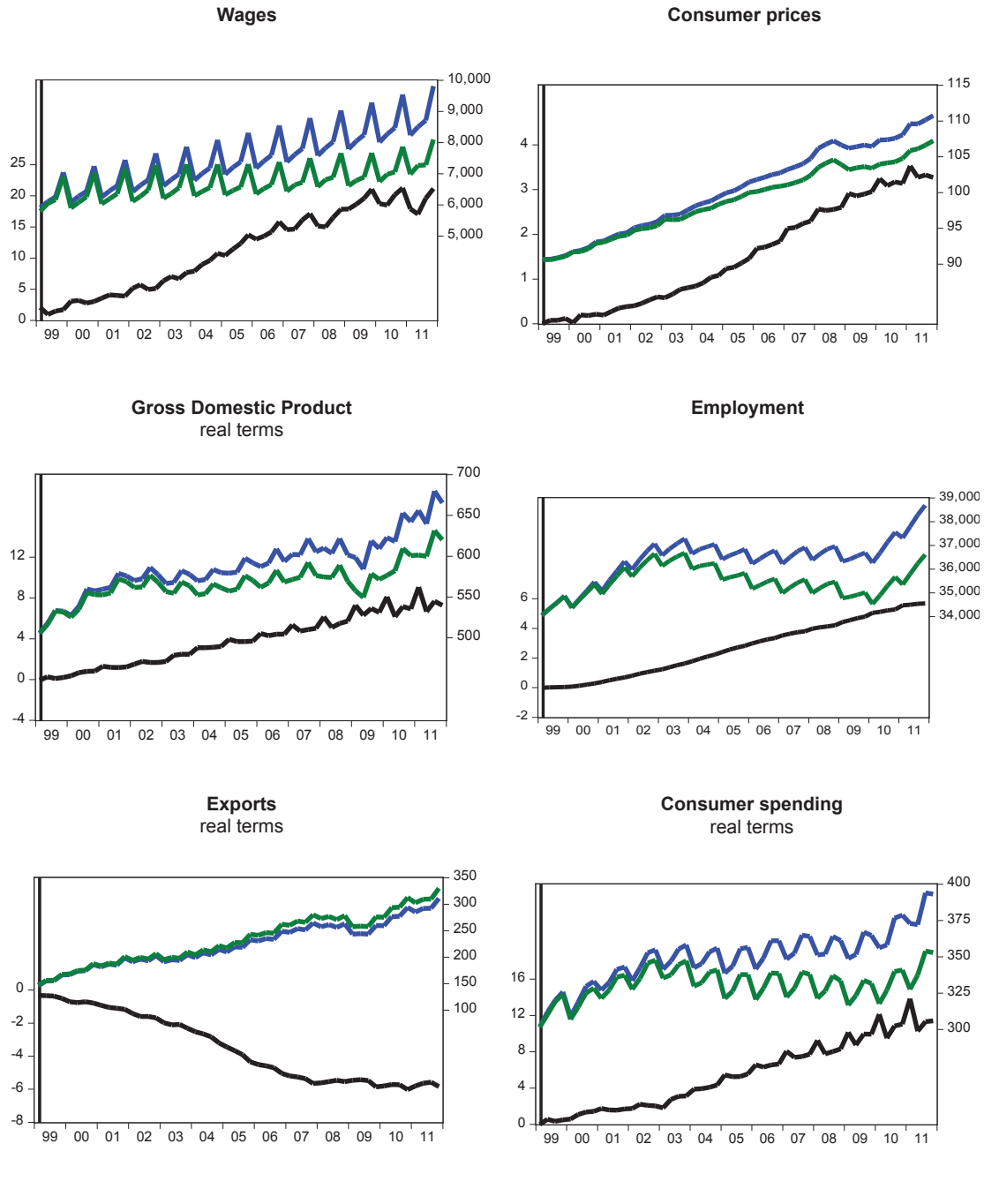
The impact of a financial and social policy designed to stabilise demand (scenario 3)

In this scenario, in addition to assuming a macro-economically oriented wage policy with annual wage growth of almost 3 %, the cuts in taxation and social security contributions between 2000 and 2005 are assumed not to have occured. Instead, it assumes steady growth in public spending at just below the level of nominal growth in GDP. This represents not an expansionary policy on the part of the state but, rather, a conservative approach. In this scenario, the government spending ratio is the same in 2011 as in 1999.

This fiscal policy approach is reproduced in the model in simplified form. Key aspects of the tax reforms and the cuts in direct taxation, especially in 2001 and 2004, and the reduction in state spending from 2003 onwards by a discretionary 2.5 % or so

FIGURE 9

Alternative wage, financial and social security policy
Scenario 3



Sources: simulations on the basis of the IMK economic model; Destatis (data).

are simply omitted in scenario 3.[7]

In terms of social security policy, the measures taken at the time are also omitted in scenario 3 by freezing employers' and employees' social security contribution rates at their 1999 level and using the additional income generated by not reducing contributions to fund increases in public transfer payments. This removes most of the social security cuts implemented at the time.

The subsidised Riester pension is assumed not

7 The model simulations were based on calculations of the value of tax cuts between 2001 and 2005 in line with Truger (2009), Table 3.1.

to have been introduced, reducing the savings rate of private households (Logeay et al. 2009). The simulation specification, in fact, reduces the savings ratio by half of one percentage point (Meinhardt et al. 2009). The analysis is designed to show how the strategy of cutting tax and social security contributions and reducing spending worked as part of a supply-oriented policy and what the effects of a stabilising fiscal policy would have been instead.

As an alternative to the financial policy in force at the time, a concept has been used for this scenario that orients public expenditure to medium-term growth in Gross Domestic Product (Vesper 2008, Brück and Zwiener 2006). State spending, as by far the largest expenditure heading, is increased over the analysis period by almost the same average growth rate as GDP. At the same time, public investment is boosted under scenario 3 because, in the past, Germany had significantly reduced its public capital expenditure, triggering a substantial backlog of investment.

In scenario 3, growth in state spending between 1999 and 2011 now virtually keeps pace with growth in Gross Domestic Product while, as in scenario 2, wages are assumed to rise by just under 3 % a year. Child benefit increases in 2002 are retained but not the tax cuts and social security contribution rate reductions introduced by the 'red-green coalition', nor the higher employee sickness insurance contributions. Compared with the actual supply-oriented policy, this consistent growth in expenditure produces significantly higher economic growth – six percentage points higher by the end of the simulation period – but without any increase in the government deficit. In the light of higher real-terms and nominal economic growth, the government debt ratio is markedly lower – more than 10 % lower, in fact. After 13 years, the numbers in employment are about 1.5 million higher, while the high net export balance is halved. It was naïve to believe that a combination of tax cuts and reductions in social security contributions could have boosted growth (Figure 9).

Lessons for future economic policy

Whenever an individual economy or the Eurozone as a whole is suspected of having structural problems, the response in line with the prevailing economic theory is to resort to supply-oriented policy approaches – a policy that relies on measures deemed to improve profitability on the part of the companies producing goods. Such measures include cutting taxation and social security contributions and keeping wages as low as possible. This has been the approach that Germany has taken over the past ten years and it is currently seen as the way out of the crisis besetting the Eurozone. It is, however, a mistaken approach because it fails to acknowledge the demand side, especially the incomes of private households.

The more strongly supply-oriented policy implemented in Germany over the past ten years or so, particularly under the impact of 'Agenda 2010', has had, and continues to have, negative economic effects in Germany and across Europe because its impact has been to reduce the real exchange rate compared with Germany's Eurozone partner countries. However, even in Germany, this one-sided policy mix has squandered growth and employment and produced a massive redistribution in favour of higher earners and capital owners.

The counter-argument – that Germany's employment situation is currently so favourable precisely because the government implemented a supply-oriented policy – is simply not persuasive. Such an argument fails to acknowledge that Germany's situation regarding growth and employment improved by comparison with its international comparators only when working time was cut massively during the financial crisis of 2008/2009 and the government introduced its two economic packages with their positive effect on demand. Since then, wages have been rising more strongly again and are stabilising domestic demand.

This demonstrates that to set an economy on a successful course requires the supply-oriented policy at least to work in conjunction with measures on the demand side. And that is exactly what is currently lacking in the Eurozone, where the countries worst hit by the crisis have had a one-sided supply-oriented policy imposed on them. It is a strategy that has triggered a far-reaching crisis and extremely high levels of unemployment.

Solving these problems requires a combination of supply-side measures that reduce the competitiveness problems suffered by individual economies and a demand-side policy that then gives them scope to translate improved competitiveness into higher sales, growth and employment. This requires re-establishment of a macroeconomically oriented wage policy in Germany – stabilising the existing collective bargaining system, stemming the growth in sectors wholly outside the scope of the bargaining system by extending the coverage of collective bargaining, and supporting pay growth from the bottom up by means of a nationwide statutory minimum wage. Second, a medium-term programme for growth spanning several years is required, with significantly higher spending, in par-

ticular in the form of investment in human capital and plant, along with a social security policy that boosts the statutory old-age pension rather than leaving large parts of the working population facing poverty in old age. All this will not only stabilise demand in Germany but also create markets for the rest of the Eurozone.

The requirement – backed by the German government – for a one-sided, supply-oriented policy and 'Agenda 2010' to be applied in the countries hit by the crisis – a restrictive policy on public spending and pay cuts in both the public and the private sector – is, however, currently hampering a robust recovery in Europe. Supply-oriented policy measures, inasmuch as they are deemed necessary, need to be supported by measures that will stabilise demand. Otherwise, they result in long-term and persistent economic difficulties and high unemployment. And the longer the crisis lasts, the more problematic it becomes to overcome these difficulties. Such a policy course must be rectified – and rapidly.

References

Banerjee, A. / Dolado, J. / Mestre, R. (1998): Error-Correction Mechanism Tests for Co-Integration in a Single-Equation Framework. In: Journal of Time Series Analysis, Vol. 19, No. 3, pp. 267-283.

Blum, U. / Franz, W. / Horn, G. A. / Logeay, C. / Schmidt, C. M. / Zimmermann, K. F. (2008): Agenda 2010 – Eine Zwischenbilanz. In: Wirtschaftsdienst, Vol. 88, No. 3, pp. 151-174.

Bracher, T. / Grabow, B. / Schneider, S. / Seidel-Schulze, A. / Reidenbach, M. (2008): Investitionsrückstand und Investitionsbedarf der Kommunen. Ausmaß, Ursachen, Folgen, Strategien. Edition Difu, Berlin.

Brück, T. / Zwiener, R. (2006): Fiscal Policy Rules for Stabilisation and Growth: A Simulation Analysis of Deficit and Expenditure Targets in a Monetary Union. In: Journal of Policy Modeling, Vol. 28, No. 4, pp. 357-369.

Bundesagentur für Arbeit (2011): Sockel- und Langzeitarbeitslosigkeit. Broschüre der Arbeitsmarktberichterstattung, Nuremberg.

Deutsche Bundesbank (2009): Zur Entwicklung der staatlichen Investitionsausgaben. In: Monatsbericht Oktober (Vol. 61, No. 10), pp. 15-34.

Deutsche Bundesregierung (2013): Lebenslagen in Deutschland. Der Vierte Armuts- und Reichtumsbericht der Bundesregierung. Bundeministerium für Arbeit und Soziales, Berlin.

Eichhorst, W. / Marx, P. / Thode, E. (2010): Atypische Beschäftigung und Niedriglohnarbeit. Benchmarking Deutschland: Befristete und geringfügige Tätigkeit, Zeitarbeit und Niedriglohnbeschäftigung. Bertelsmann-Stiftung, Gütersloh.

Engle, R. / Granger, C. (1987): Co-Integration and Error-Correction: Representation, Estimation and Testing. In: Econometrica, Vol. 55, No. 2, pp. 251-276.

Fichtner, F. / Junker, S. / Schwäbe, C. (2012): Die Einkommensverteilung: Eine wichtige Größe für die Konjunkturprognose. In: DIW-Wochenbericht, No. 22, pp. 3-10.

Frankfurter Allgemeine Zeitung (FAZ) (2012): Lob für Gerhard Schröder. In: Frankfurter Allgemeine Zeitung, 04.02.2012. http://www.faz.net/themenarchiv/wirtsch aft/arbeitsmarkt-und-hartz-iv/europa-und-die-agenda-2010-lob-fuer-gerhard-schroeder-11638143.html; last accessed 21.10.2013.

Fuchs, J. / Hummel, M. / Hutter, C. / Klinger, S. / Wanger, S. / Weber, E. / Weigand, R. / Zika, G. (2013): IAB-Prognose 2013/2014: Arbeitslosigkeit sinkt trotz Beschäftigungsrekord nur wenig. IAB-Kurzbericht No. 18.

Goebel, J. / Grabka, M. (2011): Entwicklung der Altersarmut in Deutschland. Vierteljahrshefte zur Wirtschaftsforschung, DIW Berlin, Vol. 80, No. 4, pp. 101-118.

Hassler, U. (2004): Leitfaden zum Testen und Schätzen von Kointegration. In: Gaab, W. / Heilemann, U. / Wolters, J. (eds.): Arbeiten mit ökonometrischen Modellen, Physica-Verlag, Heidelberg, pp. 85-115.

Herr, H. / Horn, G. A. (2012): Lohnpolitik heute. IMK Policy Brief, May.

Herzog-Stein, A. (2010): Das Jahr der Krise. In: Groß, H. / Seifert, H. (eds.): Zeitkonflikte. Edition Sigma, Berlin, pp. 17-36.

Herzog-Stein, A. / Horn, G. A. / Stein, U. (2013a): Macro-economic Implications of the German Short Time Work Policy during the Great Recession. In: Global Policy, Vol. 4, Supplement, pp. 30- 40.

Herzog-Stein, A. / Lindner, F. / Sturn, S. (2013b): Explaining the German Employment Miracle in the Great Recession. The Crucial Role of Temporary Working Time Reductions. IMK Working Paper No. 114.

Herzog-Stein, A. / Logeay, C. (2010): Labor Market Reforms, Hysteresis, and Business Cycles in Germany: A SVAR Approach to Explain Unemployment Developments. In: Applied Economics Quarterly, Vol. 61, supplement, pp. 89 -120.

Horn, G. A. / Joebges, H. / Zwiener, R. (2009): Von der Finanzkrise zur Wirtschaftskrise (II): Globale Ungleichgewichte als Ursache der Krise. IMK Report No. 40.

Horn, G. A. / Herzog-Stein, A. (2013): Erwerbstätigkeit auf Rekordniveau – Ergebnis richtiger Arbeitsmarktpolitik? In: Wirtschaftsdienst, Vol. 93, No. 3, pp. 143-158.

Horn, G. A. / Logeay, C. (2004): Kritik am lohnpolitischen Konzept des SVR. In: Wirtschaftsdienst, Vol. 84, No. 4, pp. 236-242.

Horn, G. A. / Logeay, C. / Zwiener, R. (2008): Wer profitierte vom Aufschwung? IMK Report No. 27.

Institut für Arbeitsmarkt- und Berufsforschung (IAB) (2013): Arbeitsvolumen 2012 leicht gestiegen. Presseinformation des Instituts für Arbeitsmarkt- und Berufsforschung vom 07.03.2013, http://www.iab.de/de/informationsservice/presse/presseinformationen/az12.aspx; last accessed 23.10.2013.

Joebges, H. / Schmalzbauer, A. / Zwiener, R. (2009): Der Preis für den Exportweltmeister Deutschland: Reallohnrückgang und geringes Wirtschaftswachstum. IMK Study No. 4.

Joebges, H./ Meinhardt, V. / Rietzler, K. / Zwiener, R. (2012): Auf dem Weg in die Altersarmut. Bilanz der Einführung der kapitalgedeckten Riester-Rente. IMK Report No. 73.

Kalina, T. / Weinkopf, C. (2013): Niedriglohnbeschäftigung 2011. Weiterhin arbeitet fast ein Viertel der Beschäftigten in Deutschland für einen Niedriglohn. IAQ-Report No. 1.

Keller, B. / Seifert, H. (2011): Atypische Beschäftigungsverhältnisse. Stand und Lücken der aktuellen Diskussion. In: WSI-Mitteilungen. Vol. 64, No. 3, pp. 138-145.

KfW Research (2013): KfW-Kommunalpanel 2012. Frankfurt a. M.

Klär, E. / Lindner, F. / Sehovic, K. (2013): Investitionen in die Zukunft? Zur Entwicklung des deutschen Auslandsvermögens. In: Wirtschaftsdienst, Vol. 93, No. 3, pp. 189-197.

Klär, E. / Slacalek, J. (2006): Entwicklung der Sparquote in Deutschland – Hindernis für eine Erholung der Konsumnachfrage. In: DIW-Wochenbericht, No. 40, pp. 547-543.

Klinger, S. / Bonin, H. / Horn, G. A. / Herzog-Stein, A. / Ehing, D. /Raffelhüschen, B. (2013): Erwerbstätigkeit auf Rekordniveau – Ergebnis richtiger Arbeitsmarktpolitik? In: Wirtschaftsdienst, Vol. 93, No. 3, pp. 143-158.

Klinger, S. / Rothe, T. (2012): Der Rückgang der Langzeitarbeitslosigkeit in Deutschland: Ein Erfolg der Hartz-Reformen oder konjunktureller Effekt? In: Schmollers Jahrbuch, Vol. 132, No. 1, pp. 89-121.

Lindner, F. (2013): Banken treiben Eurokrise. IMK Report No. 82.

Logeay, C. / Meinhardt, V. / Rietzler, K. / Zwiener, R. (2009): Gesamtwirtschaftliche Folgen des kapitalgedeckten Rentensystems. IMK Report No. 43.

Logeay, C. / Zwiener, R. (2008): Deutliche Realeinkommensverluste für Arbeitnehmer: Die neue Dimension eines Aufschwungs. In: WSI-Mitteilungen, Vol. 61, No. 8, pp. 415-422.

Meinhardt, V. / Rietzler, K. / Zwiener, R. (2009): Konjunktur und Rentenversicherung. Gegenseitige Abhängigkeiten und mögliche Veränderungen durch diskretionäre Maßnahmen. Forschungsprojekt im Auftrag der Deutschen Rentenversicherung Bund. IMK Study No. 3.

Meinhardt, V. / Zwiener, R. (2005): Gesamtwirtschaftliche Wirkungen einer Steuerfinanzierung versicherungsfremder Leistungen in der Sozialversicherung. Gutachten im Auftrag des DGB-Bundesvorstands, der Hans-Böckler-Stiftung und der Otto-Brenner-Stiftung. DIW Berlin: Politikberatung kompakt No. 7.

OECD (2008): Country Note Germany (in German): Deutschland. http://www.oecd.org/els/soc/41525386.pdf; last accessed 18.10.2013.

OECD (2009): Germany. Highlights from OECD Pensions at a Glance 2009. http://www.oecd.org/germany/43126017.pdf; last accessed 18.10.2013.

Rhein, T. (2013): Deutsche Geringverdiener im europäischen Vergleich. IAB-Kurzbericht No. 15.

Rietzler, K. (2013): The IMK's Model of the German Economy - A Structural Macro-Econometric Model. IMK Study No. 29.

Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung (SVR) (2002/03): Zwanzig Punkte für Beschäftigung und Wachstum. Metzler-Poeschel, Stuttgart.

Schmid, K. / Stein, U. (2013): Explaining Rising Income Inequality in Germany 1991-2010. IMK Study No. 32.

Schratzenstaller, M. (2013): Für einen produktiven und solide finanzierten Staat. Determinanten der Entwicklung der Abgaben in Deutschland. WISO Diskurs, Januar.

Schulten, T. (2013): WSI-Mindestlohnbericht 2013, Unterschiedliche Strategien in der Krise. In: WSI-Mitteilungen, Vol. 65, No. 3, pp. 124-130.

Stein, U. / Stephan, S. / Zwiener, R. (2012): Zu schwache deutsche Arbeitskostenentwicklung belastet Europäische Währungsunion und soziale Sicherung. Arbeits- und Lohnstückkosten in 2011 und im 1. Halbjahr 2012. IMK Report No. 77.

Truger, A. / Rietzler, K. / Will, H. / Zwiener, R. (2010): Alternative Strategien der Budgetkonsolidierung in Österreich nach der Rezession. In: Feigl, G. / Truger, A (eds.): Wirtschaftswissenschaftliche Tagungen der AK Wien Vol. 16, Orac, Vienna.

Vesper, D. (2008): Defizitziel versus Ausgabenpfad – Plädoyer für eine berechenbare Haushaltspolitik. WISO Diskurs, March.

Waysand, C. / Ross, K. / de Guzman, J. (2010): European Financial Linkages: A New Look at Imbalances. IMF Working Paper No. 295.

Original German version

completed on 23 October 2013

Impressum

Published by:
Macroeconomic Policy Institute (IMK) at the Hans Boeckler Foundation,
Hans-Boeckler-Str. 39, 40476 Duesseldorf

Telephone +49 211 7778-331, Fax +49 211 7778-266,
IMK@boeckler.de, **http://www.imk-boeckler.de**

Managing Editor: Andrew Watt
Press officer: Rainer Jung, +49 211 7778-150
ISSN 1861-3683