

Hein, Eckhard; Truger, Achim

Working Paper

Future fiscal and debt policies: Germany in the Context of the European Monetary Union

Working Paper, No. 24/2013

Provided in Cooperation with:

Berlin Institute for International Political Economy (IPE), Berlin School of Economics and Law

Suggested Citation: Hein, Eckhard; Truger, Achim (2013) : Future fiscal and debt policies: Germany in the Context of the European Monetary Union, Working Paper, No. 24/2013, Hochschule für Wirtschaft und Recht Berlin, Institute for International Political Economy (IPE), Berlin

This Version is available at:

<https://hdl.handle.net/10419/75289>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



Institute for International Political Economy Berlin

Future Fiscal and Debt Policies: Germany in the Context of the European Monetary Union

Authors: Eckhard Hein and Achim Truger

Working Paper, No. 24/2013

Editors:

Sigrid Betzelt ■ Trevor Evans ■ Eckhard Hein ■ Hansjörg Herr ■
Martin Kronauer ■ Birgit Mahnkopf ■ Achim Truger

Future Fiscal and Debt Policies: Germany in the Context of the European Monetary Union^{*}

Eckhard Hein and Achim Truger

Berlin School of Economics and Law and Institute for International Political Economy (IPE) Berlin, Germany

Abstract

Currently fiscal policies in Germany seem to be in a very comfortable position and the German Debt Brake is regarded as an institutional precondition for this success and has been exported to the Euro area in the guise of the Fiscal Compact. In this paper we scrutinize German fiscal policies and its new national and European institutional constraints from a macroeconomic perspective. We start by reiterating the requirements for fiscal policies of member countries in a currency union like the Euro area from a Post-Keynesian perspective and examine German fiscal policies in the period from 1999 until 2007 against this theoretical background. We then turn to German fiscal policies during the Great Recession, the German Debt Brake, the Fiscal Compact and future perspectives, and analyse the associated problems and risks. Finally, we discuss alternative scenarios which could avoid the deflationary pressures of the German Debt Brake and the Fiscal Compact on domestic demand and contribute to internally rebalancing the Euro area.

Keywords: Fiscal policy, government deficits and debt, debt brake, fiscal compact, Germany, Euro area

JEL Classification: E61, E62, E64, E65, H62, H63

Prof. Dr. Eckhard Hein Berlin School of Economics and Law Badensche Str. 50-51 10825 Berlin Germany e-mail: eckhard.hein@hwr-berlin.de	Prof. Dr. Achim Truger Berlin School of Economics and Law Badensche Str. 50-51 10825 Berlin Germany e-mail: achim.truger@hwr-berlin.de
---	---

^{*} We would like to thank Philip Arestis, Trevor Evans and Malcolm Sawyer for helpful comments, and Henriette Heinze, Christoph Paetz and Daniel Zeng for most valuable editing and research assistance. Remaining errors are, of course, ours.

1. Introduction

From a mainstream macroeconomic point of view German fiscal policy seemed to be in a very comfortable position in the years after the Great Recession. After the stimulus packages to counter the recession in 2009 and 2010 the fiscal exit was quick and apparently smooth: the 2010 budget deficit of 4.1 per cent of GDP had been turned into a small surplus of 0.1 per cent of GDP within only two years by 2012. At the same time the German economy had recovered very strongly from the crisis with comparatively low and even decreasing unemployment. The perceived reason behind the German success story seemed to be the fact that Germany had already incorporated a debt brake into its Constitution back in the summer of 2009, just before the onset of the Euro crisis. According to the brake, from 2020 onwards the structural government deficit must not be higher than 0.35 per cent of GDP.

It might, therefore, seem logical to regard the German Debt Brake as a tried and tested instrument of a successful and solid fiscal policy and declare it a shining example and role model for the future of all European countries. The inclusion into the German Constitution of stringent limits on sovereign debt, it is argued, enhances the country's credibility on the financial markets, leading to lower risk premiums and, hence, easier public sector financing (see Heinemann et al. 2011). This logic suggests that exporting the German Debt Brake or similar fiscal rules to the Euro-area countries currently in crisis would be a major contribution to solving the euro crisis – a view quite prominent in the German discussion (see e.g. Heinemann et al. 2011). When most EU governments pledged at the end of 2011 to introduce stricter limits on public debts and deficits, where possible incorporating them into the Constitution, this resulted primarily from an acute sense of panic in the face of the continuing escalation of the euro crisis. For the first time, even the bonds of hitherto unaffected countries had come under pressure in the financial markets. But the fact that European governments resorted to the German approach of constitutionally fixed debt brakes certainly also has something to do with the allegedly easily demonstrable success of the German example.

However, in our view, this interpretation is flawed for several reasons. On the one hand, even without questioning the general macroeconomic logic of the debt brake it seems far too early to consider Germany a successful case: the debt brake has only been in place for a few years and under quite favourable macroeconomic circumstances. On the other hand, and more importantly, from a sound macroeconomic perspective the whole concept of the debt brake lacks a convincing justification. Firstly, restricting fiscal deficits and government debts ignores basic macroeconomic accounting identities and implicitly demands corresponding reactions of the other macroeconomic sectors, the private sector and the external sector, if depressing short- and long-run effects on aggregate demand, output and employment are to be avoided. Secondly, imposing strict 'one size fits all' restrictions of government deficits and

debts on the member countries of a currency union, which is as heterogeneous as the Euro area deprives member countries of the most important tool left to counter asymmetric shocks in the short run and to balance current accounts within the currency union in the long run. Therefore, and thirdly, the introduction of debt brakes à la Germany carries severe risks for future macroeconomic developments, in Germany and in the Euro area. Under realistic parameter constellations, it imposes severe deflationary pressure on domestic demand in Germany, and in the other countries which (have to) follow this role model, and it is difficult to see how this will be compensated for by increasing external demand from the rest of the world. It prevents the internal rebalancing of current account imbalances within the Euro area, and finally, it prevents adequate fiscal responses in Euro area member states – and thus also Germany – in the face of the current and of future cyclical downturns or periods of prolonged stagnation.

In this paper we will scrutinize fiscal policies in Germany from a macroeconomic perspective. In Section 2 we will reiterate the requirements for fiscal policies of member countries in a currency union like the Euro area from a Post-Keynesian perspective. Section 3 will then examine German fiscal policies in the period from 1999 until 2007, that is from the introduction of the euro until the Great Recession, and we will show that fiscal policies contributed considerably to the German ‘export-led mercantilist’ type of economic development, which is one of the causes of the deep euro crisis. In Section 4 we will then turn to German fiscal policies during the crisis, the German Debt Brake in association with the European Fiscal Compact and the debt reduction rule of the Excessive Deficit Procedure, and future perspectives. This section will briefly cover the unexpected counter-cyclical fiscal reactions towards the crisis and will then analyse the German Debt Brake as well as the Fiscal Compact and the associated risks in more detail. Section 5 will then turn to alternative scenarios which could avoid the deflationary pressures of the new national and European institutional constraints for government deficits on domestic demand and contribute to internally rebalancing the Euro area. Section 6 will conclude.

2. Requirements for fiscal policies in a currency union – a Post-Keynesian perspective

Fiscal policy has a major role to play in a Post-Keynesian macroeconomic policy assignment in general and has to be carefully coordinated with the other areas of macroeconomic policy making, i.e. monetary policy and wage policy (Hein and Stockhammer, 2010; Arestis, 2013). This is particularly true in a currency union such as the Euro area, where monetary policies are centralised and the base interest rate, the main tool of the central bank, cannot be geared towards the requirements of individual countries or regions, where wage policies are difficult to coordinate across the currency area, and where fiscal policies are still the responsibility of

the national governments of the member countries. In this section we will outline a benchmark for fiscal policies under these circumstances and in the context of the coordination of the macroeconomic policy mix as a whole. We will first outline an optimal policy mix aimed at maintaining high non-inflationary employment and roughly balanced current accounts of the member countries within the currency area. Then we will briefly address necessary variations and deviations, which are required in a situation of huge current account imbalances, as those that have piled up prior to the euro crisis and which have to be at least partially rebalanced.¹

Regarding monetary policies, in contrast to the New Consensus Macroeconomics,² the Post-Keynesian approach (Hein and Stockhammer, 2010) advocated here recommends that the central bank's interest rate policies should abstain from attempting to fine tune unemployment in the short run and inflation in the long run. This has several reasons. In the short run, the effectiveness of interest rate policies in achieving macroeconomic targets in terms of employment and inflation is asymmetric. Raising the base interest rate in a constellation of accelerating inflation will finally also make credit and financial market rates increase and will therefore be able to choke off any investment boom. But if accelerating disinflation and finally deflation prevail in a downturn and in a depression, monetary interest rate policies will be ineffective due to the zero lower bound of the nominal interest rate, due to rising mark ups in the setting of interest rates in credit and financial markets by banks and financial intermediaries, because of increasing risk and uncertainty premiums, and due to interest rate inelasticities of real investment of firms in a disinflationary or deflationary climate. Furthermore, taking long-run cost and distribution effects into account, rising interest rates, applied successfully in order to stop accelerating inflation in the short run, will feed conflicting claims inflation again in the long run, because price setting of surviving firms will have to cover higher interest costs. Therefore, central banks should generally focus on targeting low real interest rates in credit and financial markets in order to avoid unfavourable cost and distribution effects on firms and workers.³ A slightly positive long-term real rate of interest, below the long-run rate of productivity growth or the long-run growth rate of real GDP, seems to be a reasonable target. Rentiers' real financial wealth will be protected against inflation, but redistribution of income in favour of the productive sectors and at the expense of the rentiers will take place, which should be favourable for real investment, employment and

¹ See Hein (2012, Chapter 8) and Hein et al. (2012) for an analysis of the euro crisis and the role of the internal current account imbalances.

² For the NCM see Goodfriend and King (1997), Clarida et al. (1999) and Woodford (2003), and for detailed critiques of the NCM and its application in economic policy making in the EU, see Arestis (2009, 2011a, 2011b), Arestis and Sawyer (2004a), and Hein and Stockhammer (2010).

³ See Rochon and Setterfield (2007) for a review of Post-Keynesian suggestions regarding the 'parking it' approach towards interest rate policies of central banks and the rate of interest central banks should target.

growth. Furthermore, the central bank has to act as a ‘lender of last resort’ in periods of liquidity crisis, not only for the private and public banking sector, but also for the governments. As the recent euro crisis has shown, this is extremely important for the member countries of a currency union. If the central bank unconditionally guarantees the public debt of the member countries of a currency area, these countries can go into debt in their ‘own currency’ and can avoid excessive risk premiums imposed by rentiers in financial markets. Different institutional solutions for this are possible and have been suggested for the ECB and the Euro area. In Hein (2013) it was suggested that the ECB could simply announce that it will intervene into secondary government bond markets as soon as the rate of nominal interest on government bonds exceeds the long-run nominal rate of growth of the respective country. These open market operations would give the central bank of the currency area the opportunity to target different interest rates, in particular if long-run growth trends of member countries of the currency union persistently deviate. Palley’s (2011) proposal of a European Public Finance Authority issuing joint debt of Euro area member countries, which the ECB is then allowed to trade, may be an alternative to this suggestion. Here is not the place and space to go into any deeper discussion. What is important for the purpose of the present paper, focussing on fiscal policies in a currency union, is that the central bank of the currency union guarantees the public debt of the member countries without limitations and thus allows member countries to fulfil the fiscal policy tasks which we will specify below.⁴

Incomes and wage policies should take care of nominal stabilisation, i.e. stable inflation at some policy determined target rate. Since accelerating inflation is always the result of unresolved distribution conflicts, distributional claims of workers, firms, rentiers, government, and the external sector have to be consistent with each other. Therefore, if the claims of the other actors are constant, as a guideline nominal wages in each country should rise according to the sum of long-run growth of labour productivity in the relevant country plus the inflation target for the currency union as a whole. On the one hand, this would keep distributional shares in each country constant, and on the other hand, this would mean that each country would obtain the target rate of inflation in the medium to long run. Following such a policy would, therefore, prevent ‘beggar-thy-neighbour’ strategies. In order to achieve the targets for nominal wage growth, a high degree of wage bargaining co-ordination at the macroeconomic level, and organised labour markets with strong trade unions and employer associations seem to be a necessary condition.⁵ Government involvement in wage bargaining

⁴ Therefore, those proposals for introducing Eurobonds of different types in the Euro area, which are focusing on joint guarantees for only parts of government debt of member countries (Brunnermeier et al. 2011; Delpla and von Weizsäcker 2010; European Commission 2011) or even combine this with fixed rules for government debt repayment (SVR 2011), are inappropriate for the policy mix we have in mind.

⁵ See Hein (2002) for a review of the related theoretical and empirical literature.

may be required, too. In particular, minimum wage legislation and a minimum wage following the wage norm pointed out above, especially in countries with highly deregulated labour markets and increasing wage dispersion, will be helpful for nominal stabilisation at the macroeconomic level, apart from its usefulness in terms of containing wage inequality. Deregulation of the labour market, weakening labour unions, and reductions in the reservation wage rate by means of cutting unemployment benefits, however, will be detrimental to nominal stabilisation and will rather impose deflationary pressures on the economy.

With the assignment of monetary and wage policies as in the previous paragraphs, fiscal policies will have to take the responsibility for real stabilisation, full employment and also a more equal distribution of disposable income. This has the following implications. By definition the excess of private saving (S) over private investment (I) at a given level of economic activity and employment has to be absorbed by the excess of exports (X) over imports (M) (including the balance of primary income and the balance of income transfers, thus the current account balance) plus the excess of government spending (G) over tax revenues (T):

$$(1) \quad S - I = X - M + G - T.$$

Therefore, with balanced current accounts within the currency area, government deficits ($D = G - T$) have to permanently take up the excess of private saving over private investment in order to assure a high desired level of employment:

$$(2) \quad D = G - T = S - I.$$

This is, of course, the ‘functional finance’ view, pioneered by Lerner (1943).⁶ As is well known from Domar (1944), a constant government deficit-GDP ratio (D/Y) with a constant long-run GDP growth rate (g) will make the government debt-GDP ratio (B/Y) converge towards a definite value. A constant government debt-GDP ratio (B/Y) requires that government debt and GDP grow at the same rate:

$$(2) \quad g = \frac{\Delta B}{B} = \frac{\Delta Y}{Y}.$$

Since the government deficit is $D = G - T = \Delta B$, it follows that:

$$(3) \quad g = \frac{D}{B} = \frac{D/Y}{B/Y},$$

and hence:

$$(4) \quad \frac{B}{Y} = \frac{D/Y}{g}.$$

Therefore, there will be no problem of accelerating public debt-GDP ratios if governments follow the functional finance view. Furthermore, if the central bank targets low interest rates –

⁶ See also Arestis and Sawyer (2004b).

falling short of GDP growth and hence of tax revenue growth – and intervenes in government bond markets such that low interest rates are obtained in this market, government debt service will not mean a redistribution in favour of the income share of rentiers. This underlines the importance of appropriate policy coordination, here between monetary and fiscal policies.

If governments want or are forced to contain or reduce government deficits and the concomitant debt without missing the targets of full employment economic activity with balanced current accounts, private investment will have to be stimulated and/or private saving will have to be reduced. The latter can be achieved by a redistribution of income from the top income households, with higher propensities to save, to the bottom, with lower propensities to save and/or by redistributing income from capital, with a high propensity to save, to labour, with a low saving propensity.

In Hein and Truger (2007a) we have suggested coordinating fiscal policies among member countries of the currency union by means of long-run expenditure paths for non-cyclical government spending, i.e. those components of spending, which are under control of the government. And in Hein et al. (2012) we have then argued that such expenditure paths should aim at stabilising aggregate demand in the currency area at full employment levels, and automatic stabilisers plus discretionary counter-cyclical fiscal policies could be applied to fight demand shocks. In order to follow the requirements of the functional finance view outlined above, these expenditure paths would have to make sure of the following: On average over the cycle, with the average net tax rate (including net social transfers) in each member country given, as a first approximation, the government deficits in each of the countries would have to be roughly equal to the excess of private saving over private investment in the respective country. This would mean that the current accounts are roughly balanced at a high level of aggregate demand and employment, and GDP growth is close to what Thirlwall (1979; 2002, Chapter 5) called the ‘balance of payments constrained growth rate’ of the individual country. In Hein et al. (2012) we have also argued that deviations from this norm should be accepted, if they are associated with long-run productivity catching-up processes, provided that stable long-run financing mechanisms are established within the currency union. In this case fiscal policies in high growth catching-up countries would not have to dampen aggregate demand in order to achieve a balanced current account and could thus accept current account deficits, whereas fiscal policies in the mature low growth countries would not have to aim at completely eradicating current account surpluses by means of stimulating the economy.

Permanent government deficits should be directed towards public expenditure (including public employment), providing the economy with public infrastructure, and public education in order to promote structural change towards an environmentally sustainable long-

run growth path. Apart from this permanent role of government debt, which also supplies a safe haven for private saving and thus stabilises financial markets, counter-cyclical fiscal policies – together with automatic stabilisers – should stabilise the economy in the face of aggregate demand shocks. At the same time, progressive income taxes, relevant wealth, property and inheritance taxes, as well as social transfers, should aim at redistributing income and wealth in favour of low income and low wealth households. On the one hand, this will reduce excess saving at full employment and thus stabilise aggregate demand – without generating problems of unsustainable indebtedness for private households. Progressive income taxation and relevant taxes on wealth, property and inheritance thus also reduce the requirements for government deficits. On the other hand, redistributive taxes and social policies will improve automatic stabilisers and thus reduce fluctuations in economic activity.

In a situation of massive current account imbalances, as they have developed in the Euro area from 1999 until 2008/9, some deviations from the norms for fiscal and wage policies outlined above are required in order to contribute to internally rebalancing the currency union. Current account surplus countries should use more expansionary fiscal policies to increase domestic demand such that current account surpluses are reduced and even temporary current account deficits might arise – and the actual growth rate adjusts towards and even exceeds the balance of payments constrained growth rate temporarily. This would lift external growth for the current account deficit countries and would thus allow these countries to reduce their deficits. For a transitional period, the current account surplus countries should also increase their rates of inflation relative to the rates of inflation in the current account deficit countries. Nominal wage growth in the surplus countries should therefore exceed the sum of national productivity growth plus the Euro area inflation target during the adjustment process.

The major task for the current account deficit countries is to improve their balance of payments constrained growth rates. This means, on the one hand, to contribute to a reduction of the inflation differentials with respect to the surplus countries, by means of nominal wage growth below the sum of national productivity growth plus the inflation target. The inflation target for the currency area as a whole should allow for room of manoeuvre and prevent the risk of deflation in these countries during the process of adjustment. Fiscal policies in a transition period should undercut the norm we have outlined above. However, more importantly these countries have to increase the income elasticity of demand for their exports and to reduce the income elasticity of demand for imports by means of industrial, structural and regional policies; this means they have to improve their non-price competitiveness.

3. German fiscal policies in the macroeconomic context of 1999-2007

Elsewhere we have classified the German type of development, in particular from the introduction of the euro in 1999 until the financial and economic crises starting in 2007/08 and culminating in the euro crisis since 2010, as ‘export-led mercantilist’ (Hein 2012, Chapters 6 and 8; Hein et al., 2012). In this type of development rising export and current account surpluses stabilise aggregate demand and take care of the realisation of rising profits against the background of redistribution at the expense of (low) labour incomes and stagnating real investment.⁷ This is for each significant feature of finance-dominated capitalism, which has been prevailing in the major countries of the developed capitalist world since the 1980s/1990s.⁸ Apart from Germany, this type of development dominated in Euro area countries like Austria, Belgium and the Netherlands, and also in countries like China, Japan, South Korea and Indonesia at the global level (Hein and Mundt 2012). The necessary counterpart to this type is the ‘debt-led consumption boom’ type, where increases in notional wealth triggered by stock market or housing market booms, together with liberalised financial markets, new financial instruments and weakened conditions of creditworthiness, were conducive to soaring private consumption, flourishing aggregate demand, the realisation of rising profits, but also to high and rising current account deficits. This regime could be found in Euro area countries, like Greece, Ireland and Spain, and also in the UK, the US, Australia and Mexico at the global scale (Hein and Mundt 2012). In between these two types we have the ‘domestic demand-led’ type, which neither relies on export surpluses, which distinguishes it from the first type, nor on flourishing debt-financed consumption, which distinguishes it from the second type. The ‘domestic demand-led’ type has been found in Euro area countries like France, Italy and Portugal, but also in India, Turkey and South Africa (Hein and Mundt 2012). Interestingly, the Euro area as a whole, that is the initial EA-12, has shown domestic demand-led features before the beginning of the recent crises (Hein et al. 2012).

The major characteristics of the German ‘export-led mercantilist’ regime can be outlined with the help of the data provided in Table 1, which contains the average key macroeconomic variables for the period from the introduction of the euro in 1999 until 2007, the year before the start of the financial and economic crises. The German data are compared to the EA-12, i.e. the initial Euro area (including Greece) before its later enlargements, which of course includes Germany as the largest economy.

⁷ Note that from national accounting we obtain: Gross profits net of taxes = Gross investment + Export surplus + Government budget deficit – Workers’ saving + Capitalists’ consumption (Kalecki, 1971, p. 82).

⁸ For a discussion of the effects of finance-dominated capitalism on income distribution and investment in capital stock, see Hein (2012, Chapters 2 and 3) and the references provided there.

Table 1: Key macroeconomic variables in Germany and the EU-15, average values for 1999-2007

	Germany	EA 12
Real GDP growth, per cent	1.7	2.2
Growth contribution of domestic demand including stocks, percentage points	0.8	2.1
Growth contribution of private consumption, percentage points	0.5	1.1
Growth contribution of public consumption, percentage points	0.1	0.4
Growth contribution of gross fixed capital formation, percentage points	0.2	0.6
Growth contribution of the balance of goods and services, percentage points	0.9	0.1
Net exports of goods and services as a share of nominal GDP, per cent	3.8	1.6
Financial balances of external sector as a share of nominal GDP, per cent	-2.7	-0.5
Financial balances of public sector as share of nominal GDP, per cent	-2.2	-1.9
Financial balance of private sector as a share of nominal GDP, per cent	4.9	2.3
Financial balance of private household sector as a share of nominal GDP, per cent	5.2	...
Financial balance of the corporate sector as a share of nominal GDP, per cent	-0.2	...
Inflation (HCPI growth rate), per cent	1.6	2.1
Growth rate of nominal unit labour costs, per cent	-0.1	1.5
Growth rate of nominal effective exchange rates (Germany: relative to EU 15 + 9 industrial countries; EA-12: relative to 12 industrial countries), per cent	0.9	2.5
Growth rate of real effective exchange rates (Germany: relative to EU 15 + 9 industrial countries; EA-12: relative to 12 industrial countries), per cent	-1.3	0.3
Annual change in labour income share, as percentage of GDP at current factor costs	-0.5	-0.3
Short-term real interest rate, percent	1.6	1.2
Long-term real interest rate, percent	2.7	2.4
Short-term real interest rate minus real GDP growth, percentage points	0.0	-1.1
Long-term real interest rate minus real GDP growth, percentage points	1.1	0.1
Years with pro-cyclical fiscal policies	4	2
Pro-cyclically restrictive	3	1
Pro-cyclically expansive	1	1

Source: European Commission (2013), authors' calculations

As should be clear from what has been outlined in the previous paragraph, the EA-12 is composed of quite heterogeneous countries, contains all the three types of development

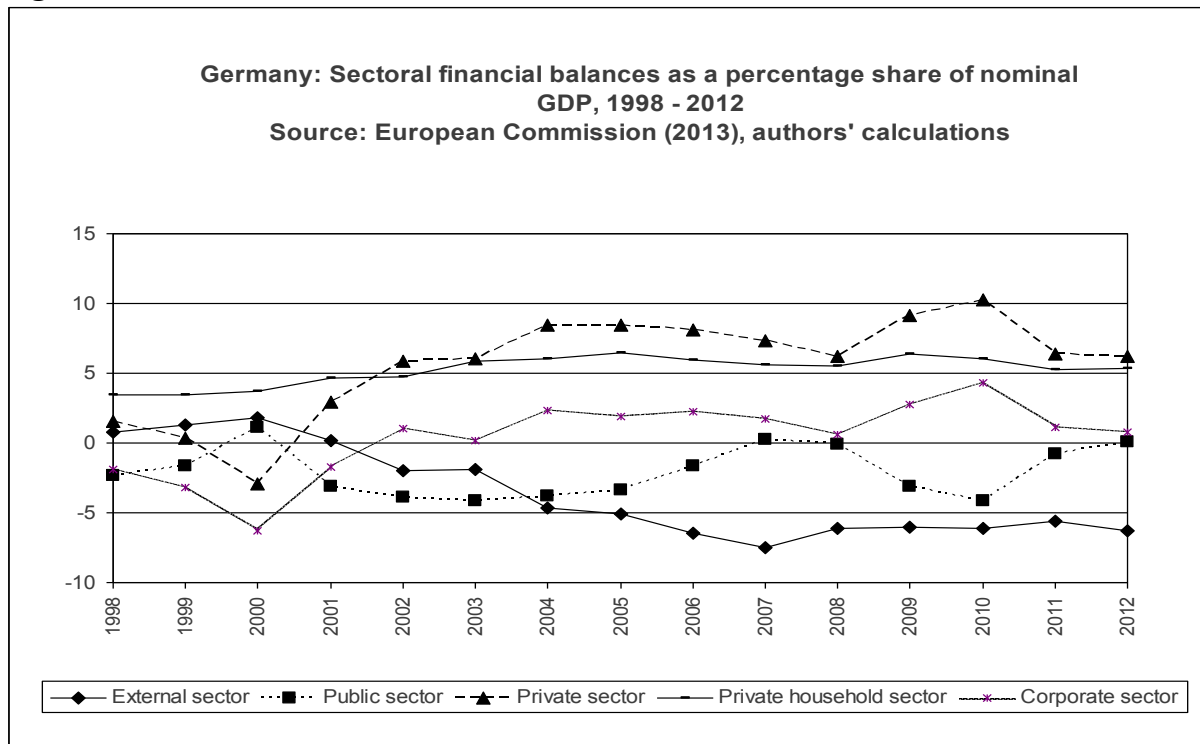
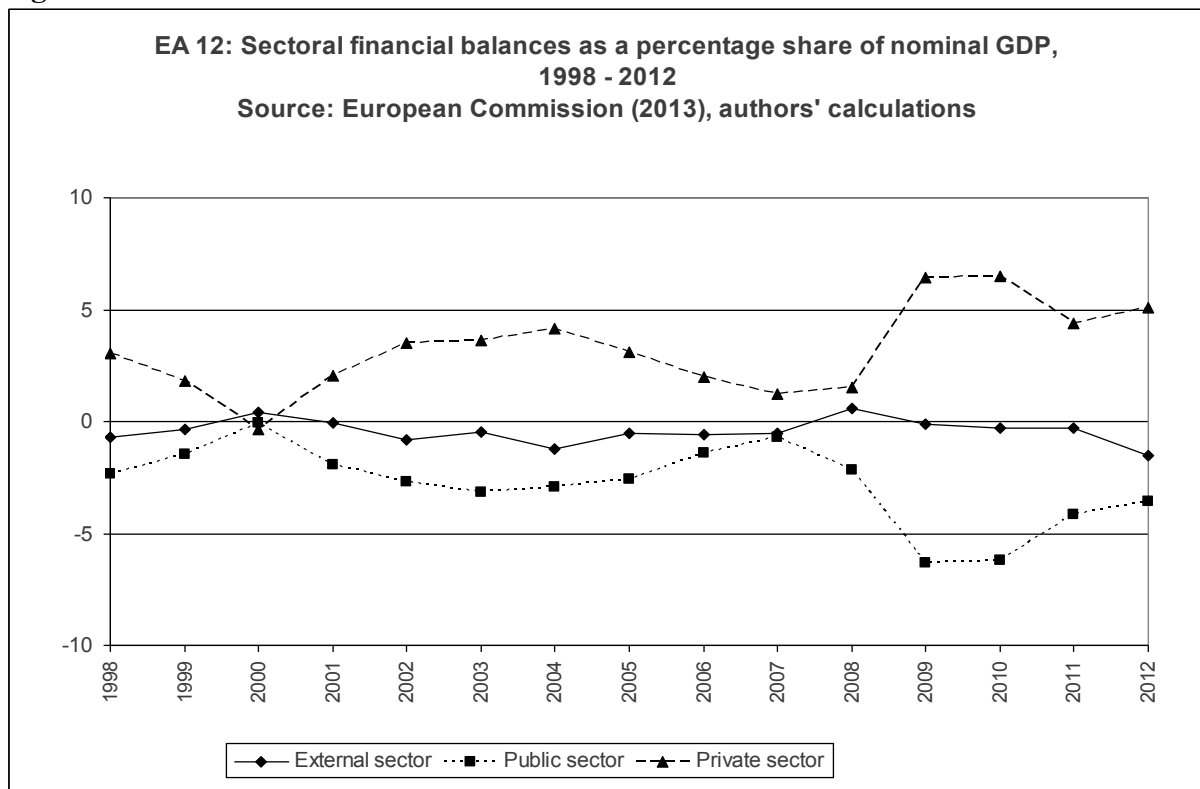
outlined above, and has thus been suffering from major internal imbalances, which have been at the roots of the euro crisis.⁹

As can be seen in Table 1, German GDP growth in the period before the crises was well below EA-12 average. With weak domestic demand, more than 50 per cent of German growth was contributed by net exports, whereas EA-12 growth was almost exclusively driven by domestic demand. This was reflected by a considerably higher share of net exports in nominal GDP in Germany as compared to the EA-12 as a whole, where this share was rather modest.

The German sectoral financial balances display high surpluses of the private sector, that is high excesses of private saving over private investment, which to much less than 50 per cent were mopped up internally by public sector deficits and therefore required high external sector deficits to be maintained, i.e. high German current account surpluses (see also Figure 1). The less pronounced private sector surpluses of the EA-12 as a whole were mainly used internally by public sector deficits and only small external sector deficits and thus current account surpluses of the EA-12 arose (see also Figure 2). These findings imply that the major counterparts to the German current account surpluses were to be found within the Euro area. In Germany, the private sector surplus was generated by the private household sector – on average over the period 1999-2007 the financial balance of the corporate sector was slightly negative. However, taking a look at the development over time reveals that since 2002 the corporate sector balances have been positive, too (Figure 1).

The ‘export-led mercantilist’ development and high and persistent German current account surpluses were based on two factors. Firstly, the price competitiveness of German producers in international markets improved significantly (Table 1). This is true with respect to Euro area competitors but also to the competitors outside the Euro area. Although the nominal effective exchange rate increased in Germany, albeit to a lesser degree than for the EA-12, the real effective exchange rate fell remarkably in the period under consideration. The major reason for this was nominal wage moderation with even slightly falling nominal unit labour costs on average over the period 1999-2007, as compared to moderately rising values for the EA-12 as a whole, which also undercut the norm outlined in the previous section of this paper. The violation of the norm for wage policies within a currency union by Germany caused below EA-12 average price inflation and therefore considerable improvements in price competitiveness of German producers with respect to their Euro area competitors, in particular.

⁹ These imbalances together with the institutional deficiencies, i.e. the lack of an explicit and unconditional guarantee of public debt of member countries by the ECB and the lack of stable and sustainable transfers among member countries, are the main explanations for the current euro crisis (Hein et al., 2012; Hein, 2012, Chapter 8; 2013).

Figure 1:**Figure 2:**

Secondly, the German ‘export-led mercantilist’ model was based on weak domestic demand and thus low growth contributions from domestic sources. There are several reasons for this. Re-distribution at the expense of the labour income share was even more accentuated than in the EA-12 as a whole, which caused weak consumption demand, because the

propensities to consume out of labour income are way above the respective propensities from profit income.¹⁰ Furthermore, since inflation was lower than in the EA-12, German real interest rates were above EA-12 average. And even more importantly, since German real GDP growth fell short of EA-12 average, the differentials between real interest rates and real GDP growth were less favourable here. In particular, the difference between the long-term real interest rate and the real GDP growth rate remained significantly positive on average over the period 1999-2007 in Germany, whereas for the EA-12 as a whole it was close to zero, and therefore close to the norm for monetary policies outlined in Section 2. Single monetary policies by the ECB thus had restrictive long-run effects in Germany, whereas they were almost neutral for the EA-12 as a whole. Finally, also fiscal policies contributed significantly to weak domestic demand and thus to the German ‘export-led mercantilist’ model. This has two aspects.

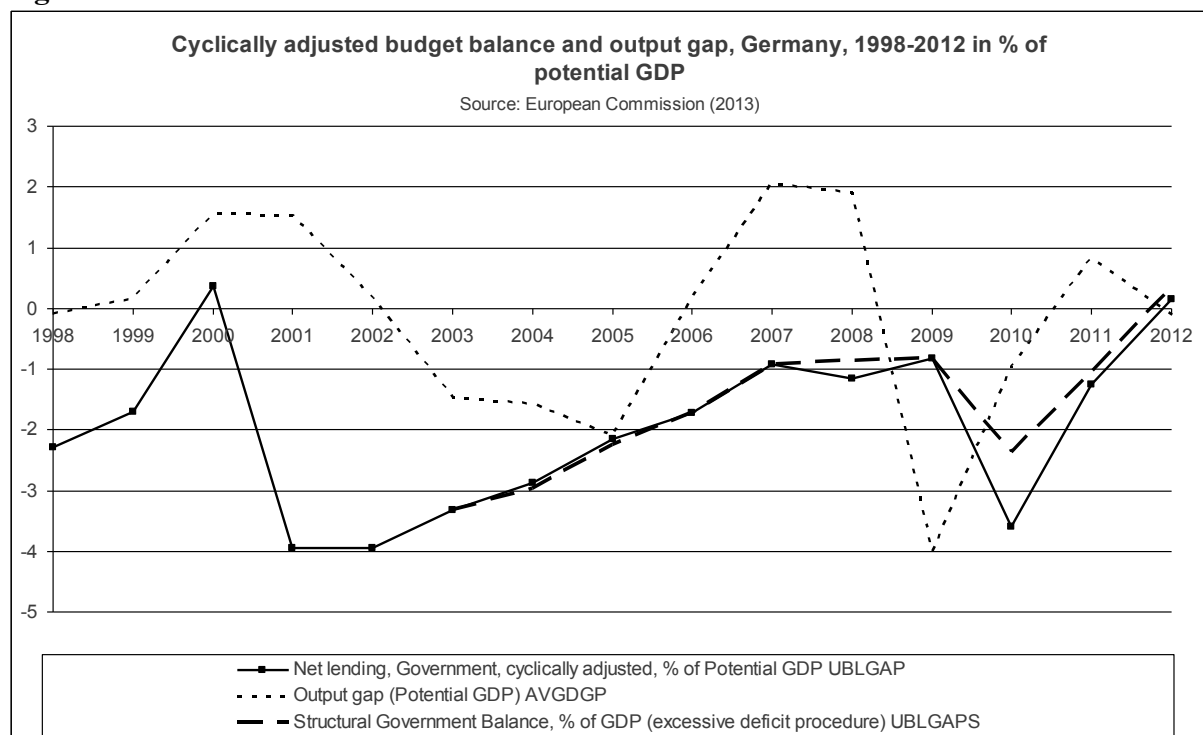
Taking a long-run perspective, fiscal deficits fell short of the norm for the members of a currency union outlined in the previous section. In Germany, fiscal deficits only absorbed less than half of the excess of private saving over private investment, whereas in the EA-12 as a whole the absorption rate was more than 80 per cent. The German constellation would have required fiscal deficits of around 5 per cent of GDP, which was of course prevented by the regulations of the European Treaties and the Stability and Growth Pact (SGP), mainly initiated by Germany itself. But also in a short-run perspective, German fiscal policies were overly restrictive. We assess the extent to which fiscal policy exerts a stabilising or destabilising influence on the business cycle by comparing changes in the output gap and the cyclically adjusted budget–balance ratio to potential GDP (CBR), using the relevant estimates by the EU Commission (2013). The output gap serves as an indicator of the current state of economic activity. If it is positive, capacity is outstripped, if it is negative, capacity is not fully utilised. Consequently, a positive change in the output gap indicates a cyclical upturn, whereas a negative change points to a cyclical downturn. If there is a positive (negative) change in the CBR, then structural deficits fall (rise) or structural surpluses rise (fall), and fiscal policy provides a restrictive (expansive) stimulus to demand. If the CBR remains constant in the face of a changing output gap, fiscal policy is neither expansive nor restrictive and the automatic stabilisers are simply left to take effect. In that way using the movements of the cyclically adjusted structural budget balance and the output gap as indicators, it turns out that in four out of nine years in the period 1999-2007 fiscal policies in Germany were procyclical (Figure 3).¹¹ From 2002 to 2004 the structural budget balance was substantially

¹⁰ See the econometric results by Naastepad and Storm (2007), Hein and Vogel (2008; 2009), Stockhammer et al. (2011) and Onaran and Galanis (2012).

¹¹ The underlying output gap calculations can be criticised on a number of theoretical and empirical reasons and should therefore be interpreted with great care. Theoretically, they are very close to the idea embedded in the

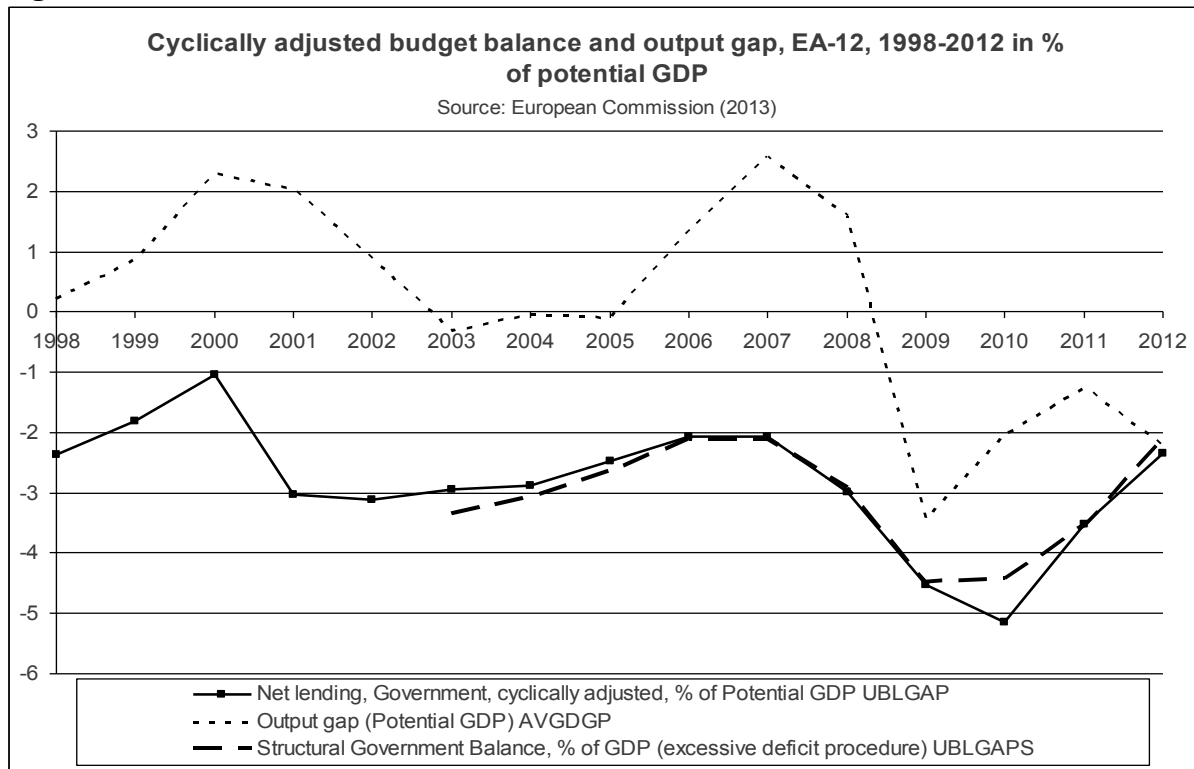
improved and fiscal policies were thus restrictive although the output gap fell and the economy was in a downturn.¹² In one year (2001) expansionary fiscal policies, i.e. a falling structural budget balance, were applied although the economy was still in an upturn, i.e. the output gap was highly positive and not falling. For the EA-12 the cyclical responses of fiscal policies were more appropriate (Figure 4). Only in two years we find pro-cyclically restrictive policies, in 2003 and 2005, and also to a much lesser degree than in the German case. In addition, the German pro-cyclical consolidation strategy was very much focussed on the expenditure side: Very significant tax cuts, many of them favouring wealthy households and corporations were overcompensated by increases in social security contributions and – above all – by strong cuts on the expenditure side (see Jacoby and Truger 2002; and Truger et al. 2010, pp. 28-48). However, it has to be noted that these are aggregate values, which potentially hide inappropriate fiscal policies in the individual member countries, i.e. overly restrictive policies in the current account surplus countries, as in Germany, and overly expansive policies in the current account deficit countries.

Figure 3:



standard NAIRU models: There is a long-run equilibrium, determined by structural characteristics of the labour market, which is independent of the short-run fluctuations generated by demand shocks or macroeconomic policy. We do not share this view. Empirically, these measures are very sensitive to the exact method used and to the choice of observation period. The separation of a cyclical from a potential or trend component can be biased because the potential component is endogenous. After years with unexpectedly high (low) growth caused by ‘short-term’ demand side measures or ‘shocks’, the potential or trend growth will be adjusted upwards (downwards).

¹² In this particular case the fiscal stance calculated by using the cyclically adjusted deficit is confirmed by estimates based on actual discretionary measures (see Truger et al. 2010: 28-48).

Figure 4:

Summing up, fiscal policies in Germany over the period 1999-2007 contributed significantly to the ‘export-led mercantilist’ regime in this country. Restricted by the European Treaties and the SGP, fiscal deficits did not compensate for private sector surpluses in the medium to long run and did thus not contribute to generating sufficient domestic demand and to avoiding current account surpluses, which were at the roots of the severity of the Great Recession at the global scale and of the following euro crisis. Also in a short-run perspective, fiscal policies being pro-cyclically restrictive in several years did not manage to stabilise the economy to a sufficient degree. Being a major cause for insufficient domestic demand, fiscal policies contributed to meagre German real GDP growth and high unemployment. This put further pressure on wages and the labour income share, which reinforced weak domestic demand growth in Germany, low unit labour cost growth and thus low inflation rates and hence contributed to the regional and global imbalances before the crisis.

4. Fiscal policies during the crisis, the Debt Brake and future perspectives

4.1 Fiscal policies during the crisis 2009: unexpected counter-cyclical action

Ever since the late 1970s German fiscal policy has had a restrictive bias. And it had built up a more than 25 year old tradition of pro-cyclical restriction in previous recessions (Hein and Truger 2007b). However, when the Great Recession hit in 2009 the totally unexpected happened and fiscal policy reacted in a remarkably counter-cyclical way. After some hesitation and some merely ‘cosmetic’ measures, in the first months of 2009 a substantial

stimulus package for 2009 and 2010 was enacted (Table 2). Overall, the packages and some additional measures included substantial increases in public investment as well as tax reliefs for businesses and households. The cumulative stimulus for 2009 and 2010 amounted to 3.1 per cent of 2008 GDP with 1.2 per cent in 2009 and 1.9 per cent in 2010 so that the discretionary fiscal stance was 1.2 per cent and 0.7 per cent respectively in 2009 and 2010.¹³ The package was quite large in international comparison and certainly above the Euro area average level (OECD 2009).

It is possible to criticise the stimulus packages with respect to timing, structure, and also the overall volume, but given Germany's fiscal policy history, it cannot be denied that the stimulus packages were quite a remarkable achievement in terms of stabilising the economy in a deep recession. Above all the substantial subsidies for short time work schedules in combination with flexible working time accounts proved to be very successful in preventing unemployment spikes and in helping to bridge the crisis in the labour market. Overall it seems that whereas the stimulus packages were certainly not fast enough to be responsible for the quick recovery, the labour market measures and some other measures helped to bridge the crisis, and when the recovery came due to the improved external demand many of the lagged stimulus measures helped to strengthen and sustain the upswing.

¹³ It is important to note in this context that the representation of the fiscal stance given by the movement of the cyclically adjusted as well as the structural budget balance in Figure 3 is incorrect in the particular circumstances of the crisis years in Germany. In Figure 3 it seems that German fiscal policy was slightly restrictive or neutral in 2009 and then switched to very strong expansion in 2010 – in clear contradiction to the numbers of the stimulus packages in Table 2, which state that the larger part of the stimulus package had already been implemented in 2009. The most important reason for the contradiction is based in the procedure of cyclical adjustment. The procedure is based on the – empirically tested – assumption incorporated in the budget sensitivity that in a cyclical downturn revenues and unemployment benefits are affected by increases of unemployment. In a very strong crisis as the Great Recession, when the output gap fell by almost 6 percentage points from 2008 to 2009 therefore the estimated cyclical impact on the budget balance is quite high. If, however, as was the case in Germany in contrast to all previous crises, the crisis occurs without any major increase in unemployment, then the cyclical component will be overestimated leading to an underestimation of the cyclically adjusted budget balance and therefore also of the fiscal stance. Furthermore, with respect to 2010 the implied positive fiscal stance is exaggerated due to a one-off bank rescue package by 1.2 per cent of GDP. This latter effect can be taken into account in Figure 3 by looking at the graph of the structural budget balance which is the cyclically adjusted balance adjusted for one-off measures.

Table 2: Budgetary effects of fiscal packages and additional measures in Germany, 2009 – 2010, in billions of Euro

Fiscal Package I	2009	2010	09+10
1. Investment Support	1.3	1.4	2.7
public infrastructure (roads)	1.0	1.0	2.0
support for regions	0.2	0.1	0.3
credit programme for energy-efficient construction	0.1	0.2	0.3
further credit programmes	0.1	0.1	0.1
2. Tax Relief for Private Households	0.4	1.0	1.4
motor vehicle tax exemption	0.4	0.1	0.5
tax incentives for services in private households		0.9	0.9
3. Tax Relief for businesses	2.3	4.7	6.9
accelerated depreciation allowances (25%)	1.9	4.3	6.3
special depreciation for small and medium size enterprises	0.2	0.4	0.6
Sub Total	3.9	7.1	11.0
4. Measures by the Federal Labour Market Agency	0.3	0.5	0.8
Total	4.2	7.6	11.8
Fiscal Package II	2009	2010	09+10
1. Public Investment (local communities)	4.0	12.0	16.0
2. Support for innovational Research	0.5	0.5	0.9
3. Support for motor vehicle demand	5.0		5.0
4. Reform of the motor vehicle tax	0.1	0.2	0.3
5. Support for Mobility Research	0.3	0.3	0.5
6. Employment			
a) subsidies for short time work	1.6	1.6	3.1
b) activation programme	1.3	1.3	2.6
c) additional personnel for labour market agency	0.1	0.1	0.2
d) stabilising the unemployment insurance rate		1.0	1.0
7. Income Tax Cuts	2.9	6.1	9.0
8. Cuts Social Security Taxes (Health insurance)	3.0	6.0	9.0
9. expenditure for families			
a) transfer for children	1.8		1.8
b) higher social benefits for children	0.2	0.3	0.5
Total	20.7	29.2	49.9
Additional measures			
re-introduction of commuter tax relief	5.9	2.3	8.2
tax deductibility social security contributions		8.1	8.1
Fiscal Packages I + II + additional measures			
Total	30.7	47.2	78.0
in % of 2008 GDP	1.2	1.9	3.1

Note: ¹ Without macroeconomic repercussions

Source: Hein and Truger (2010).

4.2 The German Debt Brake: basic characteristics, problems and comparison with the Fiscal Compact

Despite the obvious success of this counter-cyclical use of fiscal policy, in the summer of 2009 the Grand coalition government – supported almost unanimously by the stubbornly anti-Keynesian German economics community – decided with the necessary two third majority in both houses of the German federal parliament to introduce a debt brake into the German Constitution; and hence an instrument that will severely constrain the counter-cyclical use of fiscal policy in the future.

The debt brake written into Germany's Constitution in 2009 is essentially comprised of three elements. The structural component imposes strict limits on structural government deficits – 0.35 per cent of GDP for the federal level (the *Bund*) and 0.0 per cent for the federal states (the *Länder*). The cyclical component increases or decreases these limits in accordance with the economy's cyclical position. An exception clause, finally, permits the rules to be broken in exceptional circumstances. The *Bund* also has an 'adjustment account', which ensures the debt brake applies not only when the country's budget is drawn up but also when it is implemented. Transitional periods for complying with these limits on structural deficits are written into the Constitution: 2016 for the *Bund* and 2020 for the *Länder*. The legislation also provides for consolidation aid for five *Länder* (Berlin, Bremen, Saarland, Saxony-Anhalt, and Schleswig-Holstein) under strict conditions regarding consolidation efforts.

It is perhaps not surprising that the German Debt Brake does not correspond with the functional finance view taken in Section 2 of this paper. However, it is quite remarkable that it poses problems also from a more mainstream perspective.

Firstly, the capping of structural government net borrowing at 0.35 per cent of GDP for the *Bund* and the banning of all structural deficits by the *Länder* is, economically speaking, completely arbitrary. It means that with an average annual growth in nominal GDP of 3 per cent, the national debt-to-GDP ratio will converge to just 11.7 per cent in the long run. We do not contest that there are some mainstream arguments for some ceiling on the debt ratio, but – if anything – recent empirical research indicates that the critical threshold beyond which government debt might harm growth is 80 per cent or even 90 per cent.¹⁴ By imposing artificial limits on what has traditionally been the safest form for financial investment, the debt brake will instead deprive capital markets of a crucial stability anchor and a vital benchmark. It is unclear in which financial assets, and to which countries, the traditionally high excess saving and the accumulated financial wealth of the German private sector (including the assets of private pension schemes) will be diverted in the future, but it is likely that this measure will contribute to more unstable financial markets.

Secondly, by using a debt brake, Germany's fiscal policy is ignoring a broadly accepted economic yardstick for the scale of national deficits – the Golden Rule – and thus turning its back on 60 years of theoretical common sense. This Golden Rule, or the 'pay-as-you-use' principle, is a growth-oriented rule for government deficits that permits structural deficits beyond the cycle equivalent to net public investment. The idea behind the rule is to

¹⁴ See for example Caner et al. (2011); Cecchetti et al. (2011); Checherita and Rother (2010); Kumar and Woo (2010); Ostry et al. (2010); Reinhart and Rogoff (2010). However, as Nersisyan and Wray (2010) have convincingly demonstrated, such studies suffer from serious methodological shortcomings and should, therefore, not be taken as a guideline for economic policy. The doubts as to the original contribution by Reinhart and Rogoff have recently been reinforced very much by the discovery by Herndon et al. (2013) of major flaws in the underlying calculations.

involve several generations in financing public capital accumulation, since future generations will benefit in terms of greater prosperity from the productive investments made today (see Musgrave 1959). It is true that the old rules governing borrowing by both the *Bund* and the *Länder* in the German Constitution were imperfect: They were unable to distinguish between gross and net investment and, moreover, they failed to include all forms of economically relevant investment. However, there was no discussion around a more workable definition or an estimate of depreciation – just as there was not with the Maastricht criteria or the European Stability and Growth Pact – and the government ignored recommendations made by the Council of Economic Experts (SVR 2007), a body not exactly known for endorsing runaway sovereign debt. Moreover, the downward trend in net public investment both in absolute terms and relative to GDP would have suggested writing into the country's constitution a rule to promote public investment. Net government investment has almost continuously fallen in Germany over the last 30 years – for several years the public capital stock has, in effect, been shrinking.

Thirdly, possibly the most serious problem associated with the debt brake is that it was introduced at a time when public budgets were markedly underfinanced in structural terms, as they have come under repeated strain from tax cuts for many years. The long-term tax reductions adopted in the wake of the global economic and financial crisis and Germany's 'Growth Acceleration Act' were in the order of almost EUR 30 billion (1.2 per cent of GDP) a year (Truger and Teichmann 2011). Where governments are expected to balance their budgets in structural terms – or to come very close to doing so – on a given date without already having closed the revenue gap, their budget policy faces years of stringent pressure on spending. In macroeconomic terms, this is an extremely risky course of action with potentially negative impacts on growth and employment as adjustments are made, particularly against the backdrop of the precarious economic situation in the Euro area as a whole. Furthermore, it will unquestionably go hand in hand with substantial cuts in the provision of public goods, services and welfare. And if this then leads (as it almost inevitably will) to the necessary public investment being scrapped or cut in future years, the much-vaunted principle of 'generational fairness' will be greatly damaged. Moreover, substantial spending cuts are difficult to justify with the argument that expenditure policy in the past has been wasteful: on the contrary, the debt brake affects German public sector budgets after a period of extremely moderate expenditure growth (Truger and Teichmann, 2011). The decision to implement the debt brake and couple it with generous, long-term tax relief was, therefore, worse than negligent in terms both of economic impact and of national policy.

Fourthly, the debt brake will ultimately have a pro-cyclical effect because of the way the commonly used cyclical adjustment method works and will, as a result, destabilise

economic development. During times of downturn, too much consolidation will be required while, conversely, too little will be required during periods of recovery (see section 4.3 below).

Fifthly, and finally, the impact of the debt brake is also, of course, critically dependent on its precise technical design and on how the underlying cyclical adjustment method and the applicable budget sensitivities are selected. Although the *Bund* has already opted for the method used by the European Commission as part of its own monitoring of member states' budgets, the decision as to the details of implementation is taken by the Ministries for Finance and Economics, so the mechanism is anything but transparent and is open to manipulation. As far as the *Länder* are concerned, for many of them detailed implementation is still an open question. And since, under Article 109 of the Constitution, there is considerable scope for local input; Germany could by 2020 have no fewer than 17 different debt brakes, one for the *Bund* and one for each of the *Länder*, all with widely differing designs and effects.

The critical points 3 and 4, the pro-cyclicality inherent in (almost) any method of cyclical adjustment of budget deficits in combination with the fixed deadlines for reaching the Constitution's target levels for structural deficits will be crucial for the future of German fiscal policy. This will be analysed further in Section 4.3 below.

As the German Debt Brake (GDB) served as a role model for the Fiscal Compact (FC) at the European level (European Council 2012), the question arises whether there are any differences between the two. In principle, they are indeed very similar. However, there are some relevant differences: First of all, the GDB targets, in fact, go a little further than is necessary to enable Germany to meet its medium-term national budget targets under the FC. Under the FC Germany is allowed a structural deficit equivalent to 0.5 per cent of GDP so that the GDB is slightly stricter. On the other hand, depending on the European Commission's recommendations and the Council's decision Germany might be required to reach the target values of the FC before 2020. Furthermore, the GDB applies only to the federal level and the federal states, excluding municipalities and social security budgets, whereas the FC includes both of them and sets the limits for the general government sector which may make it more ambitious. Finally, the FC sets the limits for the structural deficit regardless of how it is distributed between the different levels of government, whereas the GDB specifies the distribution between the federal level (0.35 per cent of GDP) and the federal states (0.0 per cent of GDP). What may be more relevant, however, is the fact that both the GDB and even more so the FC still lack implementation: Many federal states have not yet implemented the GDB in their own constitutions or state laws (see Deutsche Bundesbank 2011 and 2012). With respect to the FC it is only clear that the federal level will be held responsible for the

deficits of the social security budgets and the federal states for those of their municipalities with concrete strategies still missing.

4.3 Substantial risks for the future

The national German Debt Brake together with the rules of the Fiscal Compact and the reformed Stability and Growth Pact at the European level and the way they are implemented will, to a large extent, shape the future of fiscal policy in Germany.

It is a difficult task to outline the possible consequences of these highly complex and partially interdependent institutional constraints. Government deficits and debts in the EU are currently constrained by numerous rules. In their panic to calm down financial markets and prevent risk premiums for the crisis countries' government bonds from rising indefinitely, EU member states' governments kept on tightening the institutional constraints on public deficits and debt. Those constraints were certainly never simple in the past, but after the numerous hasty amendments they have become increasingly complex so that it is quite difficult to disentangle which of the constraints will most probably become binding for the different member countries and therefore also for Germany from 2013 onwards.¹⁵ Three sets of constraints at the European level in combination with the national debt brake seem to be most important in determining the German fiscal stance over the next 5 to 10 years.

Firstly, there is the **Excessive Deficit Procedure (EDP)** with respect to budget deficits within the Stability and Growth Pact (SGP), which is currently being applied to all Euro area members with the exception of Estonia, Finland, Germany, Luxemburg and Malta. It requires the general government budget deficit to be reduced to below 3 per cent of GDP. Member states under the EDP must bring their budget deficit below 3 per cent of GDP within a time period specified by the EU Council. Obviously, in the German case with the budget deficit being below 3 per cent of GDP since 2011, and the EU Commission's winter forecast (European Commission 2013, p. 43) expecting a more or less balanced budget by 2014, the Excessive Deficit Procedure is currently not binding. The EU Council closed the EDP on 22 June 2012. Of course, that does not mean that Germany will never again be subject to the EDP. However, given the past experience, it would need quite a strong recession or prolonged period of stagnation to bring Germany's budget deficit above the 3 percent limit. In the past, this happened in such episodes from 2001 to 2005 and from 2009 to 2010, but even then only in combination with strong discretionary tax cuts.

Secondly, there is the constraint for 'structural' (=cyclically adjusted) deficits under the **Fiscal Compact**. Member states that have not reached their medium term budgetary objective had already been obliged to decrease structural deficits annually by a minimum of

¹⁵ See Truger and Paetz (2012) for a more extensive preliminary analysis for the euro area member states.

0.5 per cent of GDP under the old SGP. The Fiscal Compact has made these prescriptions more binding by calling for institutionalised debt brakes on the national level that are to ensure that structural deficits are kept below 0.5 per cent of GDP. The compact has become effective in 2013 and calls for a fast transition to the new structural deficit targets with the exact deadlines still unclear and to be specified by the EU Council. However, Germany has already met the criterion in 2012 when the structural budget balance according to the European Commission's winter forecast amounted to 0.1 per cent of GDP (European Commission 2013, p. 43). For 2013 and 2014 the forecast values are 0.4 per cent and 0.3 per cent of GDP respectively. Although this does not mean automatically that the GDB's deficit limits are also met, the German general government seems to be quite successful with its consolidation efforts.

Thirdly, the new debt related branch of the EDP calling for a 1/20th annual reduction of the excess of the debt-GDP ratio over the 60 per cent threshold of the SGP. This rule will become effective after member states have left the EDP, because they have reached the 3 per cent target with respect to the budget deficit. The consequences of this rule are the most difficult to assess, because it requires many assumptions to be made. Given the initial debt-to-GDP ratio, in order to project the evolution of this ratio information about the evolution of the primary government balance, the nominal interest rate and the nominal GDP growth rate are necessary. The evolution of the debt-to-GDP ratio b can then be calculated using

$$(5) \quad b_t = b_{t-1} + (r_t - g_t)b_{t-1} + (G_t - T_t)/P_t Y_t$$

with r_t being the nominal long term interest rate in year t , g_t the nominal GDP growth rate, G_t government primary expenditures, T_t total government revenue (and accordingly $G_t - T_t$ the primary government balance) and $P_t Y_t$ nominal GDP.

Assuming that the German government manages to stick to the Fiscal Compact and its own debt brake this would mean that the 'structural' or average future primary surplus be somewhere around 2.5 per cent for the future. With mildly positive expectations about future nominal GDP growth after 2014 at 2.9 per cent annually and fixing the interest rate at the 2010 implicit average interest rate calculated as gross interest payments in relation to gross debt level of 3.2 per cent, then Germany would have no problem at all in reducing its debt level according to the EDP; in fact it would considerably overachieve this target (see Figure 5). According to a linear interpretation of the EDP prescription of debt reduction the 60 per cent threshold would have to be reached by 2033; in the scenario described this would happen as early as 2021.

Figure 5:

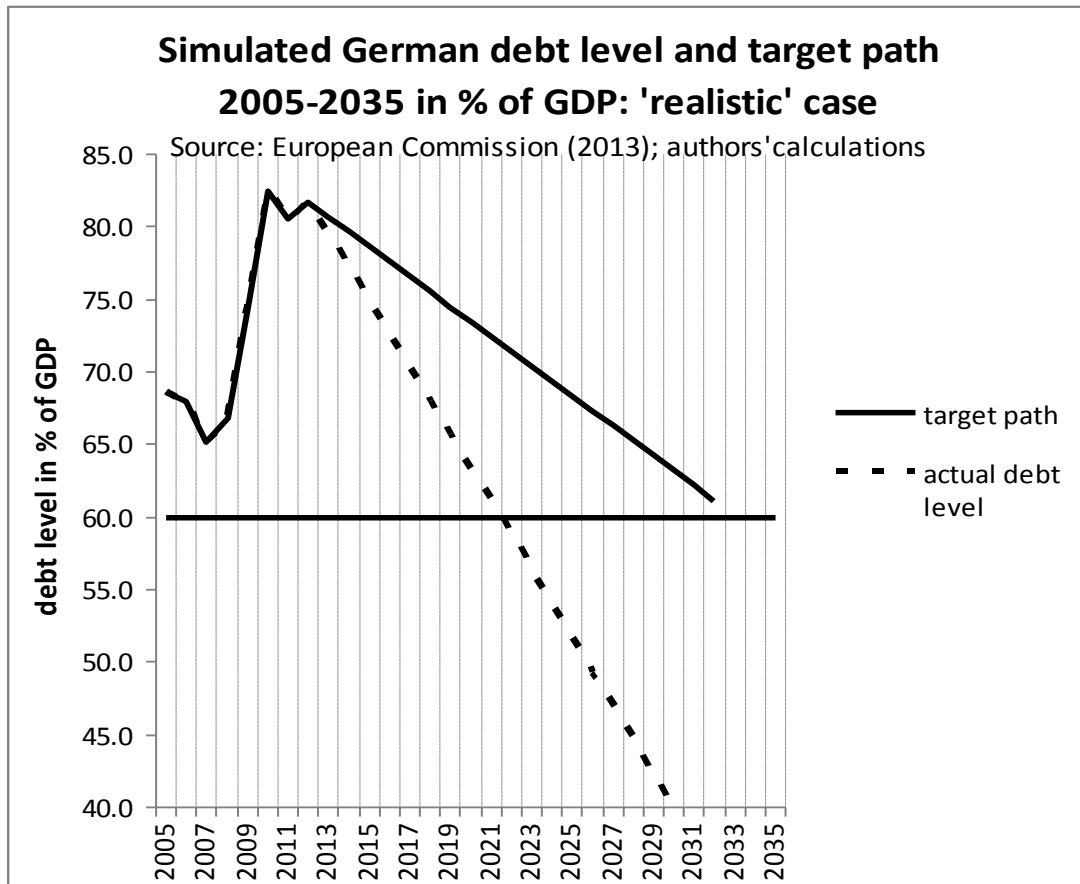
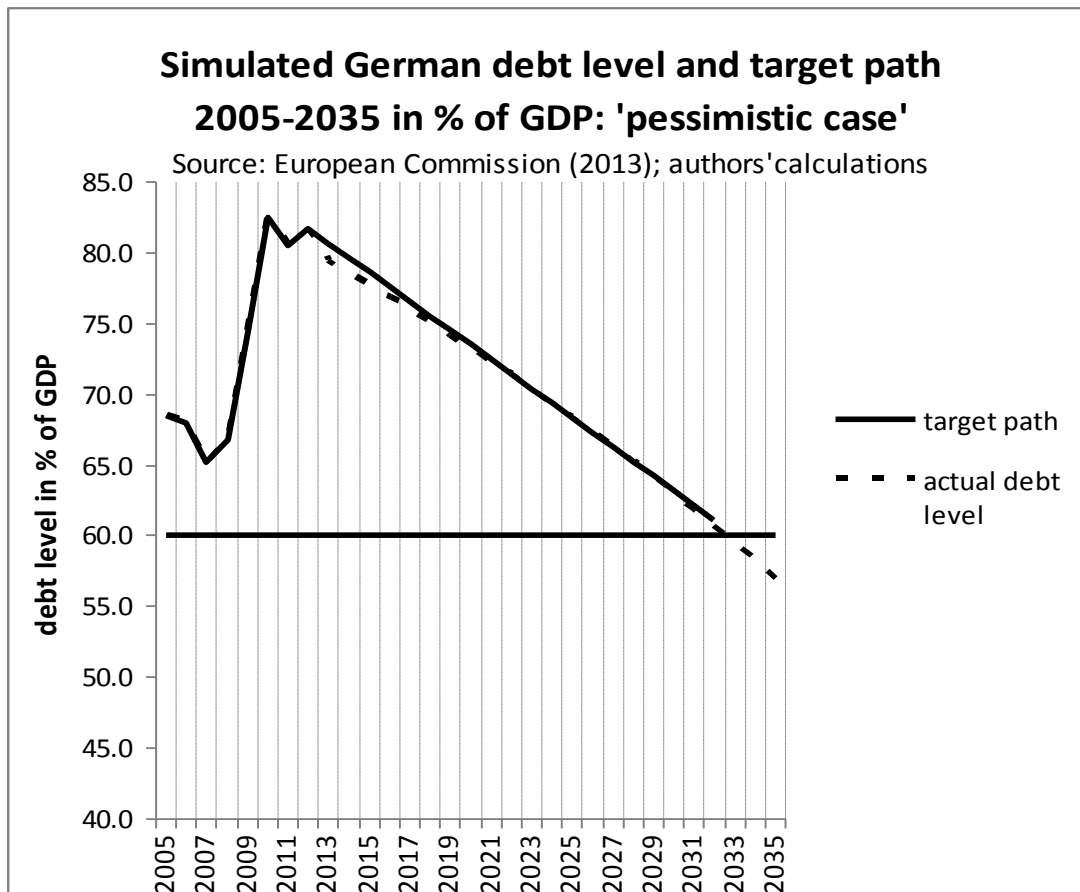


Figure 6:



Even if the assumptions made are regarded as too optimistic, the qualitative result is not very sensitive with regard to these assumptions. Taking the structural primary balance of 2.5 per cent of GDP and the interest rate as given, theoretically, Germany could ‘afford’ a very low annual nominal GDP growth rate of only 1.1 per cent and still manage to get its debt level below 60 per cent of GDP within 20 years and thus by 2033 (see Figure 6).

In what follows we focus, therefore, on the Fiscal Compact and – as it may even be slightly more demanding – on the German Debt Brake. Our focal point will be the question whether, in fact, it is plausible that the budget can be kept structurally balanced for a longer period of time. It turns out, that – although it may be possible – there are two major risks that will probably prevent the structural balance from being in accordance with the FC or the GDB for a longer time period and that in case of a deviation the necessary fiscal adjustments may very well end Germany’s current seemingly comfortable position.

The first – and somewhat minor – risk stems from the fact, that the process of structural consolidation of the general government budget balance until now has relied to a substantial extent on the municipalities, and even more so, on the social security budget. Figures 7 and 8 show the budget balance by the level of government. In Figure 8 the actual numbers from Figure 7 have been cyclically adjusted and have – in 2010 – been corrected for the very substantial one-offs that were due to bank rescue measures.

Figure 7:

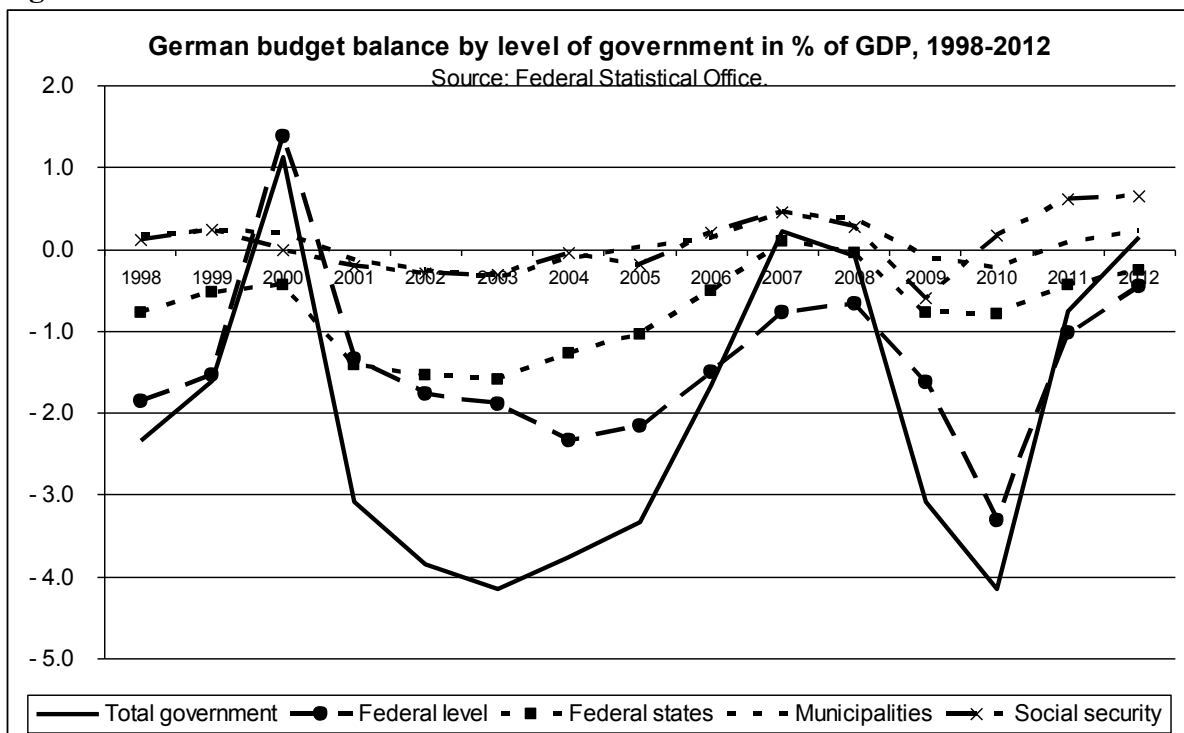
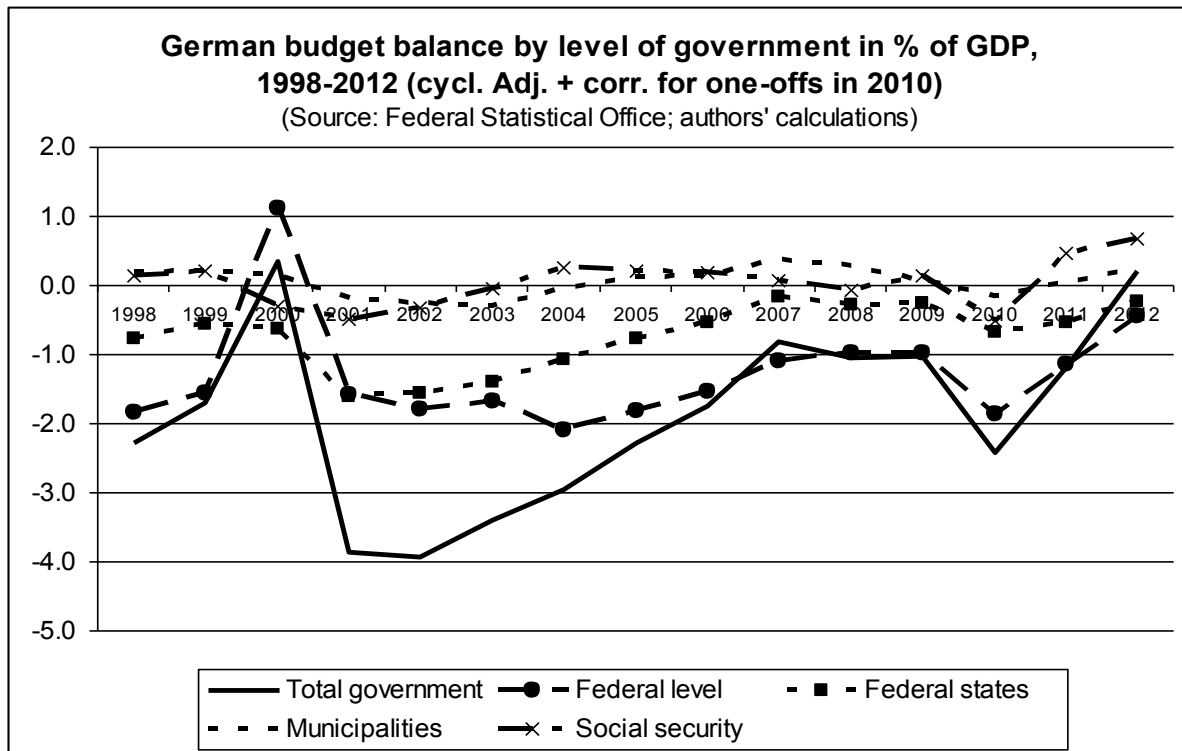


Figure 8:

As can be seen the overall consolidation of the structural balance by 2.6 per cent of GDP between 2010 and 2012 consisted of 1.2 and 0.4 percentage points contributed by the social security budget and the municipalities respectively. And the federal level as well as the federal states still had a structural deficit of 0.6 per cent of GDP in 2012. This means that in order to meet the GDB targets, both the federal level and the federal states will need some slight additional consolidation. Furthermore, it has to be taken into account that the structural as well as the actual surplus of the social security budget is extraordinary in historical perspective and, as a consequence of the pay-as-you-go character of the system, will have to be reduced in the near future by cutting contribution rates. This means that the consolidation efforts of the federal level may have to be increased in order to reach the FC's deficit target. In principle this should not cause serious macroeconomic problems as the negative stimulus of further federal consolidation will be compensated by cuts in the contribution rates. However, if the consolidation at the federal level is conducted mainly on the expenditure side, the resulting effect may be negative due to relatively higher expenditure multipliers. In principle, even this should not be worrying, because as long as the structural budget balance remains fixed, neither the GDB, nor the FC nor the EDP debt level targets should be violated.

However, it is well known, that the structural balance will not remain unaffected by the cyclical conditions of the economy as by the very nature of the method of cyclical adjustment, potential output and structural budget balances are sensitive to variations in actual

output.¹⁶ In fact it turns out that a substantial part of the structural consolidation success in the German budgets is based on ‘presents’ made by the endogeneity of the method. For example, from its Spring 2010 to its Autumn 2012 forecast the European Commission revised its forecast of actual real GDP for the year 2011 by +4.1 percentage points. However, the estimated output gap increased only by 2.6 percentage points (European Commission, 2010 and 2012). This means that the estimate of potential output was increased by 1.5 percentage points due to the unexpectedly strong upswing. Multiplying this number with the budget sensitivity of 0.51 for Germany gives a ‘present’ in terms of structural consolidation of 0.75 percent of GDP. Furthermore, there is evidence that the budget sensitivity used – especially with respect to taxes that are particularly relevant for the federal and the federal states’ budgets – is much too small. Calculations with data from the German group of tax revenue forecasters show that from the Spring 2010 tax revenue forecast to the latest forecast, the general government tax revenue for 2011 was revised upwards by 59 billion Euros (2.3 per cent of GDP) after controlling for changes in the tax code. The forecast for real GDP over the same period was raised by 3.8 percentage points. This implies a sensitivity of tax revenues to real GDP of 0.56; however, the European Commission as well as the German federal government use a value of only 0.3 in their method of cyclical adjustment. Therefore, recent structural consolidation in Germany can be explained, to a large part, by endogenous technical revisions of potential GDP as a reaction to upward revisions of actual GDP and tax revenue.

This effect can also be seen in Figures 9 to 11. Figure 9 shows the development of actual nominal GDP growth as well as revenue and expenditure growth for the general government plus the European Commission’s forecasts for the respective variables for 2013 and 2014. Obviously, German government expenditure is expected to move on a higher trend than before the crisis. The fact that this is compatible with structural consolidation is that the nominal GDP trend seems to have increased and that the years 2011 and 2012 have seen an extraordinarily strong growth in revenues that was much stronger than the expansion of nominal GDP, which hints at the very high budget sensitivity of the tax system in recent years. Figure 11 shows in more detail the growth rates for different components of government expenditure. Obviously government consumption and investment are expected to move to a higher trend in comparison with the extremely modest growth rates between the mid-1990s and 2005. A look at Figures 10 and 12 shows, that Germany and the EA-12 seem to have undergone a reversal of roles. In the unsuccessful period of Germany as the ‘sick man of Europe’ EA-12 average nominal (as well as real) GDP was growing at a much faster rate and the same is true for expenditure growth in general and in the different categories. Now,

¹⁶ This result, of course, totally undermines the ‘structural’ budget approach as has forcefully been pointed out by Sawyer (2011).

after the Great Recession it is the respective EA-12 growth rates which are lagging behind the German ones.

The results of the analysis of the reasons for Germany's structural consolidation improvements in recent years suggest that the future of Germany's fiscal policy will depend to a large part on its future cyclical conditions. If the German economy continues to be lucky and to see more or less satisfactory growth rates without any major slowdown then the structural consolidation improvements will continue even in the absence of major consolidation programmes. If, on the other hand, the German economy will have to suffer from a major recession or a prolonged period of stagnation then the whole process of pro-cyclical revisions of GDP potential and with it of the structural budget balance will be reversed. It will start working in the opposite direction of a cyclical deterioration of the structural balance that would – given the fixed deadlines for the structural deficit limits – almost inevitably lead to pro-cyclically restrictive fiscal policies just as they were observable in the period from 2001 to 2005. The resulting further deepening and prolongation of the cyclical downswing will then create a further burden for fiscal consolidation. In fact, as shown by Truger and Will (2013) the version of the European Commission's cyclical adjustment procedure used by the German federal government is subject to endogenous revisions of potential output and therefore tends to be pro-cyclical.

It should be noted that the federal government still has some leeway for discretionary action as it is substantially overachieving with respect to the GDB's target value on the transition path due to earlier manipulation in the implementation of the debt brake (see Truger and Will 2013). However, this leeway would not last long in the case of a downswing. Furthermore, as many federal states currently do not even have concrete rules for the determination of the cyclical component of their deficits, they are ill-equipped in case of a sizeable economic downswing and might have to adopt pro-cyclical restrictions. It is not completely inconceivable that the federal governments and those of the federal states could use the exception clause of the GDB or of the FC in an attempt to counter a really strong slowdown. However, this would presuppose a macroeconomic vision, rationality and sensibility that most German governments, politicians and economists have been lacking for the past 30 years.

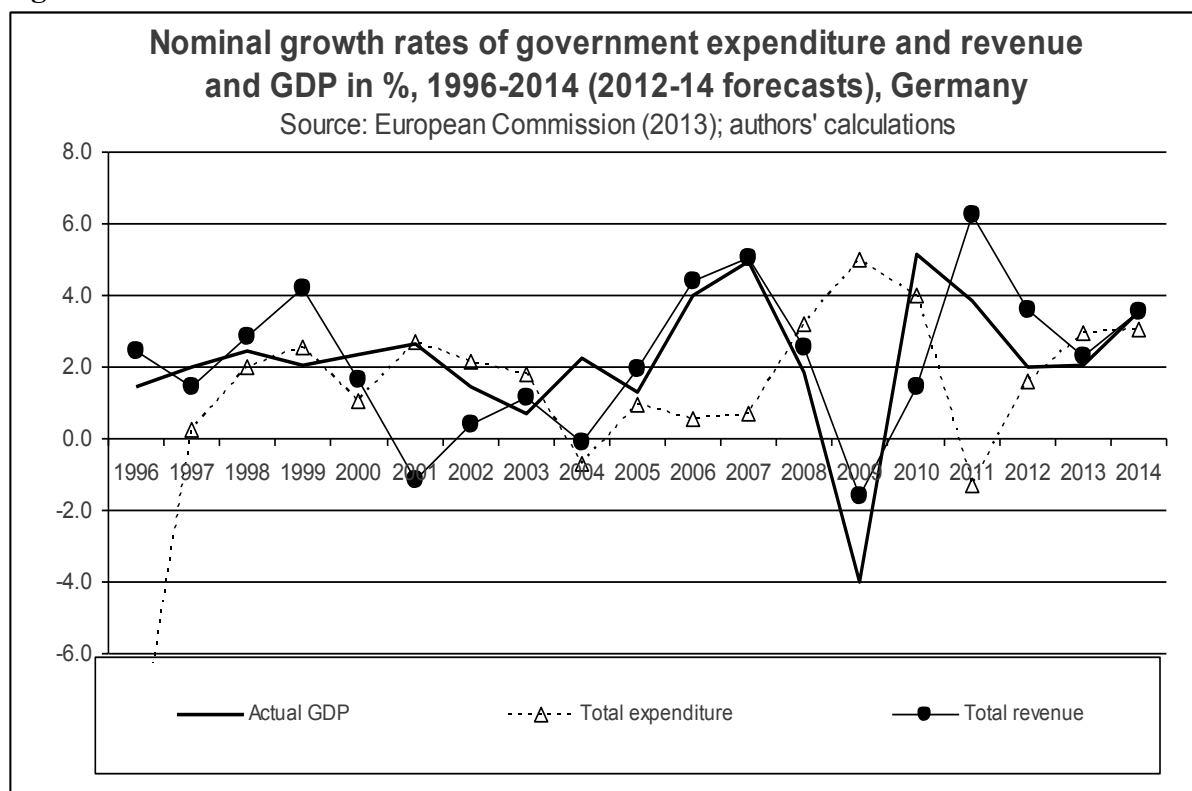
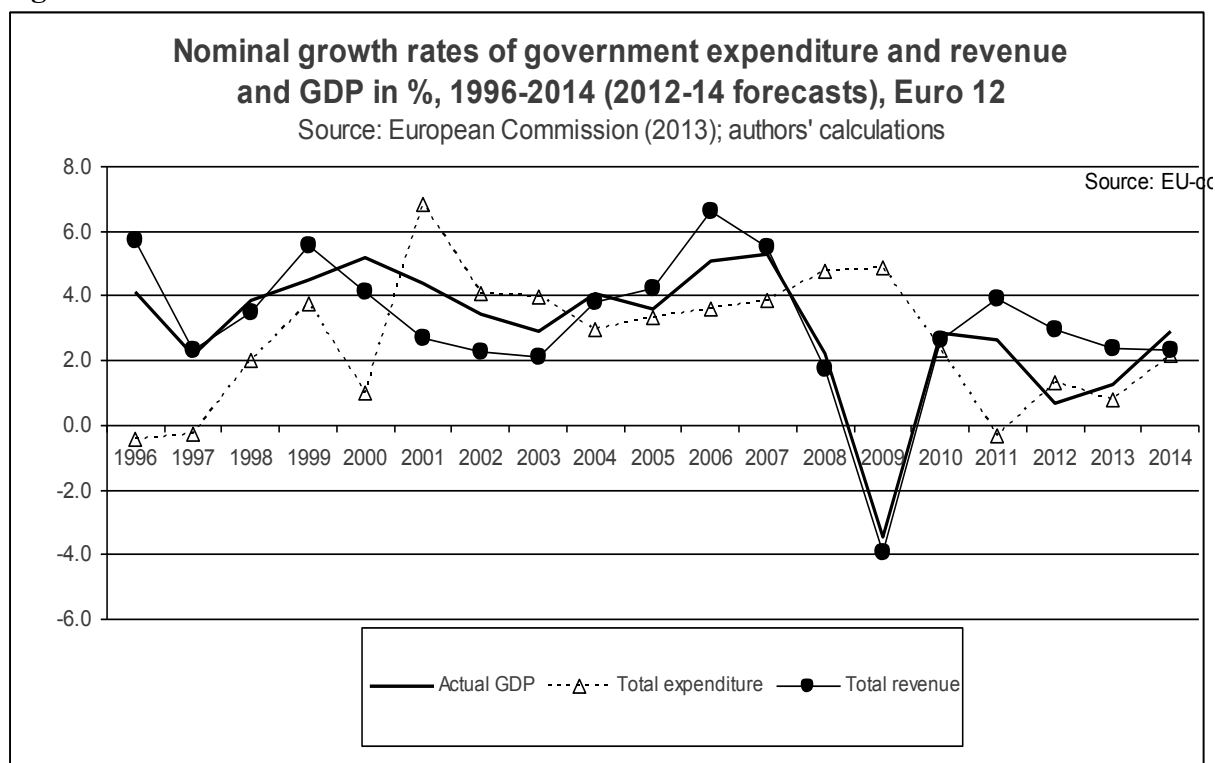
Figure 9:**Figure 10:**

Figure 11:

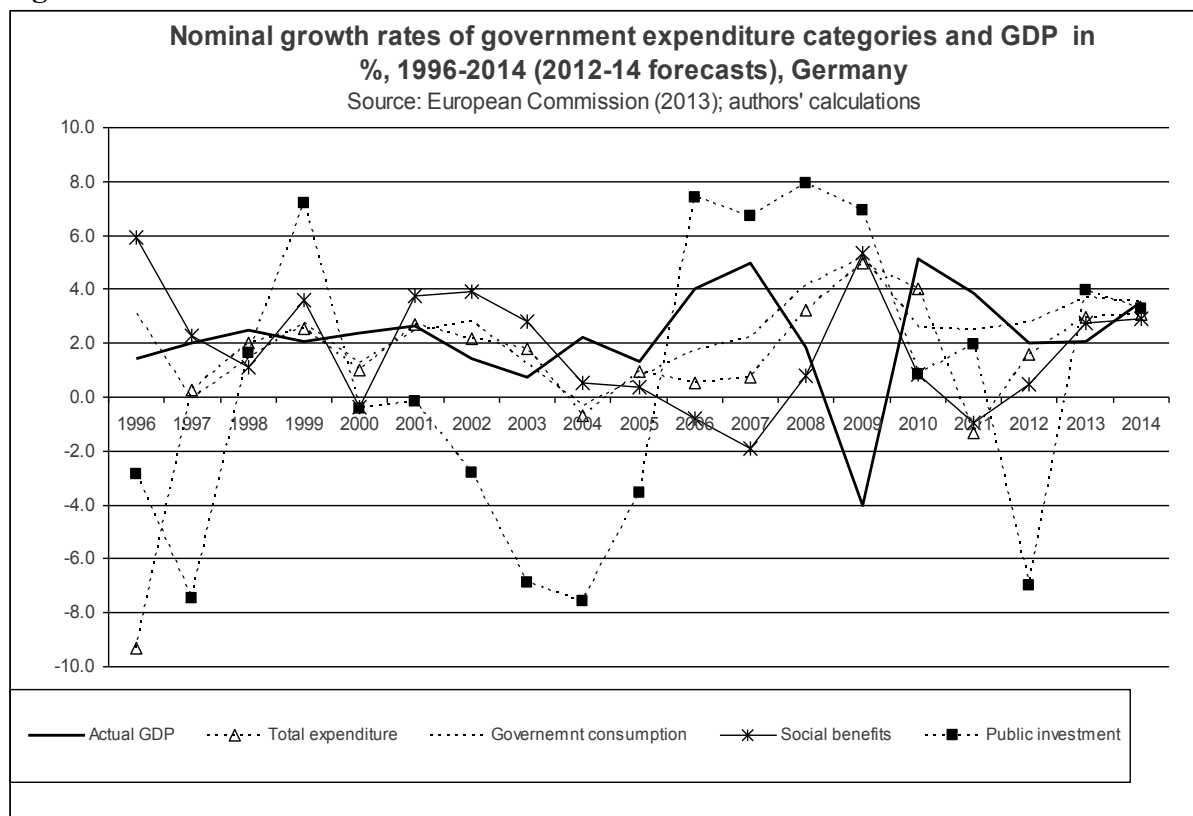
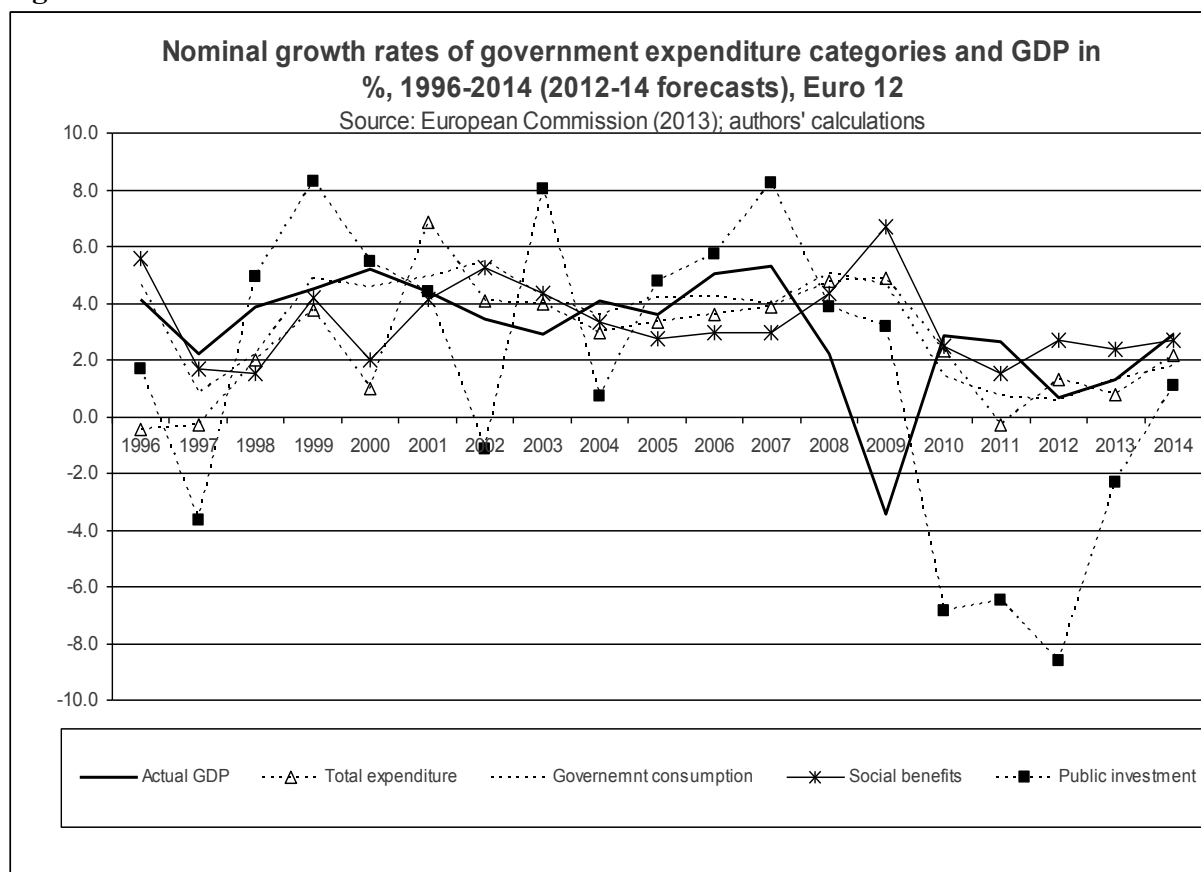


Figure 12:



5. Alternative strategies

What are the alternatives to fiscal policies following the GDB and the FC, aiming at close to zero long-run government financial balances and thus contributing to the German ‘export-led mercantilist’ model, to persistent imbalances at the European and the global level and to deflationary stagnation and depression in the Euro area? Of course, the first best solution would be to follow the rules and norms for member countries in a currency union, which we have outlined in Section 2 of this paper. This would mean that the medium- to long-run fiscal deficits should be roughly equal to the excess of private saving over private investment and thus to the private sector surplus in the respective economies. Since in Germany the average private sector financial balance surplus over the period 1999-2007 amounted to more than 5 per cent of GDP and was again in that region in 2011 and 2012 (Figure 1), this would require fiscal deficits around that level in order to balance the current account in the long run. However, such deficits would clearly violate the GDB and the regulations of the FC and would therefore require the abandonment of these regulations. This is extremely difficult to obtain, because the debt brake is in the German Constitution and a revision would require a two third majority in the German parliament. And also a revision of the Fiscal Compact, although not impossible, will be difficult to obtain, too.

Let us, therefore, discuss a second best solution, which would have to accept the limitations imposed on government deficits and debt and would accordingly have to look for other means of rebalancing the Euro area economies without crushing them.¹⁷ Obviously, such measures would have to address the private sector financial balances and would have to adjust these balances in line with the two constraints, that is a government and an external financial balance each close to zero. In the case of Germany, this would mean stimulating private investment and raising private consumption – and hence reducing private saving. In order to include the distributional implications of such an approach, we start with equation (1), distinguish the propensities to save from profits (s_{Π}) and from wages (s_w), and denote the share of profits in gross national income as h and the wage share accordingly as $1-h$.¹⁸ Equation (1) thus turns into:

$$(6) \quad S = s_w(1-h)Y + s_{\Pi}hY = I + X - M + G - T.$$

From this equation based on an accounting identity we obtain for the implied profit share, with given propensities to save out of wages and profits:

¹⁷ Different thought experiments concerning the conditions of rebalancing according to the requirements by the SGP have been conducted e.g. by Sawyer (2011), Brecht et al. (2012) and Semieniuk et al. (2012a and 2012b).

¹⁸ Different from Section 3, the wage share in this section is not corrected to include the labour income of the self-employed. It is, thus, a true wage share and not a labour income share. We have chosen this indicator for distribution, because most of the econometric studies referred to in this section have used the wage share and not the labour income share.

$$(7) \quad h = \frac{\frac{I}{Y} - \frac{T-G}{Y} + \frac{X-M}{Y} - s_w}{s_{\Pi} - s_w}.$$

Equation (7) can now be used to discuss different scenarios for the investment share in GDP (I/Y), the government financial balance as a share of GDP $[(T-G)/Y]$, the current account surplus as a share of GDP $[(X-M)/Y]$. We do so in relation to income distribution and hence the profit share in GDP (h), taking into account the restrictions of the German Debt Brake and the European Fiscal Compact, on the one hand, and the requirement of rebalancing the European and the world economy and hence a reduction of the German current account surplus, on the other hand. For these scenarios we need some information about the propensities to save from wages and from profits.

Several recent empirical studies have examined the effects of changes in functional income distribution on aggregate demand, including or focussing on Germany (Naastepad and Storm 2007; Hein and Vogel 2008, 2009; Stockhammer et al. 2011; Onaran and Galanis 2012). In the context of these studies the propensities to consume out of profits and out of wages were estimated starting from national account data and using gross profits (including depreciation, retained earnings, interest, dividends, rent) and wages (compensation of employees) before redistribution by the government. The results are thus appropriate for our exercise, which is also at the level of national account data and aggregates. The estimations carried out in these studies, based on annual data ranging from the early 1960s or 1970s to the early 2000s, find differentials between the propensities to save from profits and from wages within the range of 30 percentage points (Hein and Vogel 2008) and 50 percentage points (Onaran and Galanis 2012). On average over these studies the differential is 40 percentage points. Although the estimated differentials between the two propensities are in a rather narrow band, the levels of the saving propensities are widely different. For the propensity to save from wages they vary from 9 per cent (Naastepad and Storm 2007) to 46 per cent (Hein and Vogel 2008) and for the propensity to save from profits we have values ranging from 48 per cent (Naastepad and Storm 2007) to 82 per cent (Onaran and Galanis 2012).¹⁹

In order to base our scenarios on consistent data we have, therefore, chosen to calibrate the propensity to save from wages, using the robust differential of the saving propensities from profits and from wages of 40 percentage points obtained from the econometric studies, together with average data for Germany for the euro period before the crisis, i.e. for the period 1999-2007, taken from the national accounts. Rearranging equation (7), we have calculated the propensity to save from wages as follows:

¹⁹ Onaran and Galanis (2012) only provide the estimated elasticities and the differential in saving propensities. However, the marginal propensities to save out of profits and out of wages can be calculated from the data they provide.

$$(8) \quad s_w = \frac{I}{Y} + \frac{X-M}{Y} - \frac{T-G}{Y} - h(s_{\pi} - s_w).$$

We obtain from this that the propensity to save consistent with the data for the considered period and with the differential in saving propensities from previous econometric studies is very low and only about 5 per cent.

Using equation (7), we have generated five potential scenarios in Table 3, taking into account the requirement of balanced or close to balance government budgets, on the one hand, and the requirement of a balanced or only slightly in surplus current account for Germany, on the other hand. For these scenarios we have applied the propensity to save out of wages, calibrated as explained above, the differential of the propensities to save as obtained from the empirical literature, and we have started in the first scenarios with the average value for the share of gross fixed investment in nominal GDP in the period 1999-2007 obtained from the national accounts. It should be noted, however, that this is a rather optimistic setting, because the investment share has not yet been reached again since the crisis – in 2012 the share of investment in GDP was only at 18 per cent.

Table 3:

Scenarios	A	B	C	D	E
Gross fixed investment as a share of nominal GDP (I/Y), in per cent	19	19	19	21	19
Current account surplus as share of nominal GDP $[(X-M)/Y]$, in per cent	0	0	2	2	2
Government financial balance as a share of nominal GDP $[(T-G)/Y]$, in per cent	0	-0.5	-0.5	-0.5	-0.5
Propensity to save from wages (s_w), in per cent	5	5	5	5	3
Differential between propensity to save from profits and from wages ($s_{\pi} - s_w$), percentage points	40	40	40	40	40
Required profit share (h), in per cent	35	36	41	46	46
Average profit share (h) 1999-2008, in per cent	48	48	48	48	48
Required wage share ($1-h$), in percent	65	64	59	54	54
Average wage share ($1-h$) 1999-2008, in per cent	52	52	52	52	52
Redistribution requirements from profit share to wage share, percentage points	13	12	7	2	2

Source: European Commission (2013), authors' calculations

Scenario A strictly applies the requirements of a zero government financial balance and a zero current account surplus. In order to make the data consistent at a given level of GDP – and thus to prevent a collapse of the German economy – the associated loss in government and foreign demand would have to be compensated by an increase in consumption demand. And with given propensities to save from profits and from wages this would require a massive redistribution in favour of wages. The share of gross profits in nominal GDP would have to fall by 13 percentage points and the wage share would have to rise accordingly to a level of 65 per cent in nominal GDP. This has never been achieved in post-World War II German history, where the highest shares of the compensation of employees in nominal GDP were at 56.4 per cent in 1981 in West Germany and at 58.7 per cent in 1991 in united Germany (European Commission 2013).

Scenario B allows for a moderate government deficit of 0.5 per cent of GDP, in line with the Fiscal Compact but slightly exceeding the rules of the German Debt Brake. Everything else constant, the redistribution requirements to make the data consistent at a given level of GDP are still immense and the profit share would have to fall by 12 percentage points and the wage share would have to rise accordingly to levels unseen in post-World War II German history.

In Scenario C we also relax the requirement of a balanced current account and allow for a current account surplus of two per cent of GDP. In Hein et al. (2012) and Hein (2013) we have argued that in a heterogeneous currency union with catching-up processes of less developed members we would not expect current accounts to be exactly balanced. Rather current account surpluses in the mature economies with slower growth and current account deficits in the catching-up countries with higher growth should emerge and should be tolerated. However, to make these processes sustainable, stable financial transfers from surplus to deficit countries would have to be organised. But even if we allow for moderate current account surpluses in Germany, we would still need considerable redistribution, i.e. a reduction of the profit share by seven percentage points and an increase of the wage share to the level of the early 1990s.

Scenarios D and E set up such that they require hardly any redistribution in favour of the wage share. In Scenario D an increase in the share of investment in GDP to 21 per cent provides for the required demand. However, it remains unclear how this could be achieved, given the fact that since 2000 such values have no longer been reached in Germany (European Commission 2013). In united Germany, gross investment shares in GDP reaching or exceeding 21 per cent were only obtained during the German unification boom in the early 1990s and in the following years of the 1990s. And in West Germany, we have to go back to

the 1960s and 1970s to see such high values, whereas the 1980s before unification already had lower values.

And in Scenario E a decrease in the propensity to save from wages (and with stable differentials also in the propensity to save from profits) by 2 percentage points provides the required domestic demand compensating for the loss of government and foreign demand. But again it is difficult to see, how such a decline in the propensities to save could be obtained, given the notorious absence of wealth effects in private consumption in Germany and the tendency of precautionary saving to rise in periods of increasing uncertainty, as has already been observed before the recent crisis (Dreger and Slacalek 2007; Klär and Slacalek 2006; van Treeck and Sturn 2012).

These simple calculations based on national accounting identities including some empirical estimation results on the differentials between the propensities to save from profits and wages were meant to show how difficult a second best solution, respecting the debt brake and the Fiscal Compact and aiming at preventing ‘beggar thy neighbour’ policies will be to achieve in the case of Germany with its notorious private sector financial surpluses. Restricting the government to absorb these surpluses puts enormous pressure on the rest of the world to accept German current account surpluses and the associated deficit position. If this is to be avoided either unrealistically optimistic assumptions about future private investment or about behavioural changes with respect to consumption and saving have to be made. Alternatively major redistributions in favour of the wage share lifting it to levels not seen so far in modern German history would be required. Of course, instead of focussing exclusively on the functional distribution of market incomes, government redistribution by means of progressive income and wealth taxes and social transfers should be applied, too, as supplementary instruments. But the redistribution requirements are immense and will be politically hardly achievable.

6. Summary and conclusions

Currently (2013), fiscal policies in Germany seem to be in a very comfortable position and the German Debt Brake is regarded as an institutional precondition for this and has been exported to the Euro area in the guise of the Fiscal Compact. In this paper we have scrutinized German fiscal policies and its new institutional foundations from a macroeconomic perspective. In Section 2 we have started by reiterating the requirements for fiscal policies of member countries in a currency union like the Euro area with centralised monetary policies but decentralised fiscal policies from a Post-Keynesian perspective. From this perspective, fiscal deficits should be guided by macroeconomic requirements, which may be different in different member countries, and target fiscal deficits (surpluses) in the range of the excess of

private saving over private investment at full employment levels of economic activities in each of the member countries. In Section 3 we have examined German fiscal policies in the period from 1999 until 2007, that is from the introduction of the euro until the Great Recession. We have shown that fiscal policies have clearly violated the norm outlined in Section 2 and have contributed considerably to the German ‘export-led mercantilist’ type of economic development, which is one of the causes of the current account imbalances within the Euro area and one important root to the euro crisis. In Section 4 we have then turned to German fiscal policies during the crisis, the debt brake and future perspectives. We have sketched the unexpected counter-cyclical fiscal policy reactions towards the Great Recession and have then analysed the German Debt Brake in more detail, in association with the Fiscal Compact and the debt reduction rule of the Excessive Deficit Procedure. We have discussed the associated risks and potential future developments and have argued that seemingly successful German fiscal consolidation complying with the requirements of these new institutional regulations so far was fostered by favourable external circumstances and built in facilitations. Even with continuous moderate nominal GDP growth also in the future, Germany will be able to comply with these rules without further fiscal tightening. However, this will not be true in the case of deep recessions or prolonged periods of stagnation. But even if no further discretionary fiscal tightening will be required in the future, sticking to the German Debt Brake, the Fiscal Compact and the debt reduction rule of the Excessive Deficit Procedure will mean that German fiscal policies might continue to violate the macroeconomic requirements for fiscal policies in currency union outlined in Section 2, if there is no adjustment of the private sector financial balance. Therefore, in Section 5 we have taken the requirements of the Fiscal Compact as given and have discussed alternative scenarios, which would avoid the deflationary pressures of the debt brake on German domestic demand and contribute to internally rebalancing the Euro area. We have argued that either a tremendous re-distribution of income in favour of labour, not seen in German history, or a drastic increase in private investment, not seen since German re-unification, or a considerable decline in the average propensity to save against the long-run trend, even before the crisis, would be required. Therefore, none of these alternatives seem to be realistic options. Germany will, thus, continue to free-ride on external demand and German fiscal policies will contribute to deflationary pressure and imbalances at the European and the global level.

References

- Arestis, P. (2009), 'New Consensus macroeconomics and Keynesian critique.', in E. Hein, T. Niechoj and E. Stockhammer (eds.), *Macroeconomic Policies on Shaky Foundations. Whither Mainstream Economics?* (Marburg: Metropolis).
- Arestis, P. (2011a), 'Keynesian economics and the New Consensus in macroeconomics.', in E. Hein and E. Stockhammer (eds.), *A Modern Guide to Keynesian Macroeconomics and Economic Policies* (Cheltenham: Edward Elgar).
- Arestis, P. (2011b), 'European Economic and Monetary Union policies from a Keynesian perspective.', in E. Hein and E. Stockhammer (eds.), *A Modern Guide to Keynesian Macroeconomics and Economic Policies* (Cheltenham: Edward Elgar).
- Arestis, P. (2013), 'Economic theory and policy: a coherent Post-Keynesian approach', *European Journal of Economics and Economic Policies: Intervention*, Papers and Proceedings of Research Network Macroeconomics and Macroeconomic Policies, forthcoming.
- Arestis, P. and Sawyer, M. (2004a), *Re-examining Monetary and Fiscal Policy for the 21st Century* (Cheltenham: Edward Elgar).
- Arestis, P. and Sawyer, M. (2004b), 'On fiscal policy and budget deficits', *Intervention. Journal of Economics*, 1 (2), 61-74.
- Brecht, M., Tober, S., Truger, A. and van Treeck, T.(2012), 'Squaring the circle in Euro Land? Some remarks on the Stability Programmes 2010-2013', in Papadimitriou, D.B. and Zezza, G. (eds), *Contributions to Stock-flow Modeling. Essays in Honor of Wynne Godley* (Basingstoke: Palgrave Macmillan).
- Brunnermeier, M. et al. (2011), 'European Safe Bonds (ESBies)', 6 May (<http://euro-nomics.com/wp-content/uploads/2011/09/ESBiesWEBsept262011.pdf>)
- Deutsche Bundesbank (2011), 'Die Schuldenbremse in Deutschland – Wesentliche Inhalte und deren Umsetzung', *Monatsbericht Oktober 2011*, 15-40 (Frankfurt a. Main: Deutsche Bundesbank).
- Deutsche Bundesbank (2012), 'Zur Entwicklung der Länderfinanzen in Deutschland seit dem Jahr 2005', *Monatsbericht Oktober 2012*, 31-51 (Frankfurt a. Main: Deutsche Bundesbank).
- Caner, M., Grennes, T. and Koehler-Geib, F. (2011), 'Finding the tipping-point – when sovereign debt turns bad.', *World Bank Policy Research Paper* 5391.
- Cecchetti, S.G., Mohanty, M. S. and Zampolli, F. (2011), 'The real effects of debt.', *BIS Working Paper* 352 (Basel: Bank of International Settlements).

- Checherita, C. and Rother, P. (2010) 'The impact of high and growing debt on economic growth. An empirical investigation for the Euro Area.' *ECB Working Paper* 1237 (Frankfurt a. Main: European Central Bank).
- Clarida, R., Gali, J. and Gertler, M. (1999), 'The science of monetary policy: a New Keynesian perspective.', *Journal of Economic Literature*, 37, 1661-1707.
- Delpla, J. and von Weizsäcker, J. (2010), 'The Blue Bond proposal', *Bruegel Policy Brief*, 2010/3 (Brussels: Bruegel).
- Dreger, C., and Slacalek, J. (2007) 'Finanzmarktentwicklung, Immobilienpreise und Konsum', *DIW Wochenbericht*, 74, 533-536.
- European Commission (2010): European Economic Forecast – Spring 2010, European Economy 2 (Brussels: European Commission).
- European Commission (2011), *Green Paper on the Feasibility of Introducing Stability Bonds*, MEMO/11/820 (Brussels: European Commission).
- European Commission (2012), European Economic Forecast – Autumn 2012, *European Economy* 7 (Brussels: European Commission).
- European Commission (2013), European Economic Forecast – Winter 2013, *European Economy* 1 (Brussels: European Commission).
- European Council (2012), *Treaty on Stability, Coordination and Governance in the Economic and Monetary Union*, 2 March 2012, (Brussels: European Council). (http://www.consilium.europa.eu/media/1478399/07_-_tscg.en12.pdf.)
- Goodfriend, M. and King, R.G. (1997), 'The New Neoclassical Synthesis and the role of monetary policy.' in B.S. Bernanke and J.J. Rotemberg (eds), *NBER Macroeconomics Annual: 1997* (Cambridge, MA: MIT Press).
- Hein, E. (2002), 'Monetary policy and wage bargaining in the EMU: restrictive ECB policies, high unemployment, nominal wage restraint and inflation above the target', *Banca Nazionale del Lavoro Quarterly Review*, 55, 299-337.
- Hein, E. (2012), *The Macroeconomics of Finance-dominated Capitalism – and Its Crisis*. (Cheltenham: Edward Elgar).
- Hein, E. (2013), 'The crisis of finance-dominated capitalism in the Euro area, deficiencies in the economic policy architecture and deflationary stagnation policies', *Journal of Post Keynesian Economics*, forthcoming.
- Hein, E. and Mundt, M. (2012), 'Financialisation and the requirements and potentials for wage-led recovery – a review focussing on the G20.', *ILO Conditions of Work and Employment Series* 37 (Geneva: ILO).

- Hein, E. and Stockhammer, E. (2010), 'Macroeconomic policy mix, employment and inflation in a Post-Keynesian alternative to the New Consensus model', *Review of Political Economy*, 22, 317-354.
- Hein, E. and Truger, A. (2007a), 'Fiscal policy and macroeconomic performance in the Euro area: lessons for the future', in J. Bibow, and A. Terzi (eds), *Euroland and the World Economy. Global Player or Global Drag?* (Basingstoke: Palgrave Macmillan).
- Hein, E. and Truger, A. (2007b), 'Germany's post-2000 stagnation in the European context – a lesson in macroeconomic mismanagement', in P. Arestis, E. Hein, E. Le Heron (eds), *Aspects of Modern Monetary and Macro-economic Policies* (Basingstoke: Palgrave Macmillan).
- Hein, E. and Truger, A. (2010), 'Financial Crisis, global recession and macroeconomic policy reactions – The case of Germany', in S. Dullien, E. Hein, A. Truger, and T. van Treeck (eds.), *The World Economy in Crisis – The Return of Keynesianism?* (Marburg: Metropolis).
- Hein, E., Truger, A. and van Treeck, T. (2012), 'The European financial and economic crisis: Alternative solutions from a (Post-)Keynesian perspective.' in P. Arestis and M. Sawyer (eds), *The Euro Crisis. International Papers in Political Economy* (Basingstoke: Palgrave Macmillan).
- Hein, E. and Vogel, L. (2008), 'Distribution and growth reconsidered – empirical results for six OECD countries', *Cambridge Journal of Economics*, 32, 479-511.
- Hein, E. and Vogel, L. (2009), 'Distribution and growth in France and Germany – single equation estimations and model simulations based on the Bhaduri/Marglin-model', *Review of Political Economy*, 21, 245-272.
- Heinemann, F., Moessinger, M.-D. and Osterloh, S. (2011), 'Nationale Fiskalregeln – Ein Instrument zur Vorbeugung von Vertrauenskrisen?', in Federal Ministry of Finance Monthly Report August: 58-66.
- Herndon, T., Ash, M., Pollin, R. (2013): Does High Public Debt Consistently Stifle Economic Growth? A Critique of Reinhart and Rogoff, PERI Working Paper No. 322, Amherst, Massachusetts: Political Economy Research Institute._
- Jacoby, W. and Truger, A. (2002), 'Tax reforms and „Modell Deutschland“ – lessons from four years of red-green tax policy', *Working Paper on Political Economy of International Finance* 3, (Berkeley: University of California).
- Kalecki, M. (1971), *Selected Essays on the Dynamics of Capitalist Economy, 1933-1970*. (Cambridge: Cambridge University Press).

- Klär, E. and Slacalek, J. (2006), 'Entwicklung der Sparquote in Deutschland – Hindernis für die Erholung der Konsumnachfrage', *DIW Wochenbericht*, 73 (40), 537-543.
- Kumar, M. S. and J. Woo (2010), 'Public debt and growth', *IMF Working Paper* 10/174 (Washington: IMF).
- Lerner, A. (1943), 'Functional finance and federal debt', *Social Research*, 10, 38-51.
- Musgrave, R.A. (1959), *The Theory of Public Finance. A Study in Public Economy*, New York: McGraw-Hill.
- Naastepad, C.W.M., Storm, S. (2007) 'OECD demand regimes (1960-2000)', *Journal of Post Keynesian Economics*, 29, 211-246.
- Nersisyan, Y. and Wray, L.R. (2010), 'Does excessive sovereign debt really hurt growth? A critique of *This Time Is Different*, by Reinhart and Rogoff', *Working Paper* 603 (New York: The Levy Economics Institute).
- OECD (2009): Economic Outlook. Interim Report, March, Paris: OECD.
- Onaran, Ö. and Galanis, G. (2012), 'Is demand wage- or profit-led? National and global effects', *ILO Conditions of Work and Employment Series* 40 (Geneva: ILO).
- Ostry, J. D., Ghosh, A. R., Kim, J. I. and Qureshi, M. S. (2010), 'Fiscal space', *IMF Staff Position Note* 10/11 (Washington: IMF).
- Palley, T. (2011), 'Monetary union stability: the need for a government banker and the case for a European public finance authority', *IMK Working Paper* 2/2011, (Düsseldorf: IMK at Hans-Boeckler-Foundation).
- Reinhart, C. M. and Rogoff, K. S. (2010), 'Growth in a time of debt', *NBER Working Paper* 15639 (Washington: NBER).
- Rochon, L.-P. and Setterfield, M. (2007), 'Interest rates, income distribution and monetary policy dominance: Post-Keynesians and the 'fair rate of interest'', *Journal of Post Keynesian Economics*, 30, 13-42.
- Sawyer, M. (2011), 'Progressive approaches to budget deficits', in Niechoj, T. et al. (eds) *Stabilising an Unequal Economy? Public debt, Financial Regulation, and Income Distribution* (Marburg: Metropolis).
- Semieniuk, G., van Treeck, T. and Truger, A. (2012a), 'Towards reducing economic imbalances in the Euro area?', in H. Herr, T. Niechoj, C. Thomasberger, A. Truger and T. van Treeck (eds), *From Crisis to Growth? The Challenge of Imbalances and Debt* (Marburg: Metropolis).
- Semieniuk, G., van Treeck, T. and Truger, A. (2012b), 'Nothing learned from the crisis? Some remarks on the Stability Programmes 2011-2014 of the Euro area governments',

- in J. Jespersen and Madsen, M.O. (eds), *Keynes's General Theory for Today* (Cheltenham: Edward Elgar).
- Stockhammer, E., Hein, and Grafl, L. (2011), 'Globalization and the effects of changes in functional income distribution on aggregate demand in Germany', *International Review of Applied Economics*, 25, 1-23.
- SVR [Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung, German Council of Economic Experts] (2007): „Staatsverschuldung wirksam begrenzen. Study on behalf of the Federal Minister for Economics and Technology.” (Wiesbaden: Statistisches Bundesamt).
- SVR (2011), *Verantwortung für Europa übernehmen. Jahresgutachten 2011/12* (Wiesbaden: Statistisches Bundesamt).
- Thirlwall, A.P. (1979), 'The Balance of payments constraint as an explanation of international growth differences', *Banca Nazionale del Lavoro Quarterly Review*, 128, 45-53.
- Thirlwall, A.P (2002), *The Nature of Economic Growth* (Cheltenham: Edward Elgar).
- Truger, A. / Teichmann, D. (2011): *Zur Reform des Einkommensteuertarifs*. Ein Reader der Parlamentarischen Linken in der SPD-Bundestagsfraktion, Berlin / Düsseldorf.
- Truger, A. and Paetz, C. (2012), *The Economic Effects of Austerity Policies in Europe: Some back-of-the-envelope calculations*, Berlin School of Economics and Law, Berlin, 7 May, (http://www2.euromemorandum.eu/uploads/truger_paetz_fiscal_policy_in_the_euro_area.pdf).
- Truger, A., Rietzler, K., Will, H. and Zwiener, R. (2010), 'Alternative Strategien der Budgetkonsolidierung in Österreich nach der Rezession', *IMK Studies 2/2010*, (Düsseldorf: IMK at Hans-Böckler-Foundation).
- Truger, A. and Will, H. (2013), 'The German 'debt brake': A shining example for European fiscal policy?', *Revue de l'OFCE / Debates and Policies, The Euro Area In Crisis*, 127, 155-188.
- Van Treeck, T. and Sturn, S. (2012), 'Income inequality as a cause of the Great Recession? A survey of current debates', *ILO Conditions of Work and Employment Series 40* (Geneva: ILO).
- Woodford, M (2003), *Interest and Prices: Foundations of a Theory of Monetary Policy*, (Princeton NJ: Princeton University Press).

Imprint

Editors

Sigrid Betzelt ■ Trevor Evans ■ Eckhard Hein ■ Hansjörg Herr ■
Martin Kronauer ■ Birgit Mahnkopf ■ Achim Truger

ISSN 1869-6406

Printed by
HWR Berlin

Berlin June 2013