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Financialisation and the Financial and Economic Crises: The Case of Germany

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Financialisation and the Financial and Economic Crises: The Case of Germany

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Abstract: This study on Germany examines the long-run changes between the financial and the non-financial sectors of the economy, and in particular the effects of these changes on the macroeconomic developments that have led or contributed to the financial crisis starting in 2007 and the Great Recession in 2008/09. The first part provides some descriptive statistics on real GDP growth, on the growth contributions of the main demand aggregates, and the financial balances of the macroeconomic sectors since the early 1980s, and it classifies the German type of development as 'export-led mercantilist'. The second part examines the effects of an increasing dominance of finance since the early/mid 1990s on income distribution, investment in capital stock, consumption and the current account in more detail. The third part links the long-run developments with the financial and economic crisis and examines the causes of the quick recovery in Germany.

Key words: current account imbalances, distribution of income, finance-dominated capitalism, financialisation, financial and economic crisis, Germany, Kaleckian distribution theory, trade balance

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Introduction

This study on Germany examines the long-run changes between the financial and the non-financial sectors of the economy, and in particular the effects of these changes on the macroeconomic developments, which have led or contributed to the financial crisis starting in 2007 and the Great Recession 2008/09. The first part provides some descriptive statistics on real GDP growth, on the growth contributions of the main demand aggregates (private consumption, public consumption, private investment, public investment, net exports), and the financial balances of the macroeconomic sectors since the early 1980s. This gives a first impression about the drivers of aggregate demand and growth, which in the case of Germany has been mainly net exports, starting with the early/mid 1990s. Since then, the macroeconomic development in Germany can be classified as 'export-led mercantilist', which is characterized by positive financial balances of the domestic sectors as a whole, negative financial balances of the external sector, and thus, current account surpluses, only small positive growth contributions of domestic demand, but relatively high growth contributions of the balance of goods and services. We will argue that such an economy was extremely vulnerable to the world-wide financial and economic crisis through the foreign trade channel and through the financial contagion channel.

The second part will then deal with the long-run effects of financialisation, or the increasing dominance of finance, on the German economy in more detail. It will examine to which extent the channels through which financialisation is expected to affect economic development can be found in Germany.[1] First, the effects of financialisation on income distribution will be explored. In the related theory it has been argued that financialisation contributes to redistribution at the expense of (lower) wage incomes through several channels: higher overhead costs, lower bargaining power of workers, change in the sectoral composition of the economy, in particular. Second, the effects of financialisation on investment in capital stock will be examined. For this purpose, the focus will be on the two main effects of financialisation on real investment, highlighted in the theoretical literature: 1. Shareholders impose higher distribution of profits on firms, i.e. higher dividend payout ratios, and hence, lower retention ratios and/or lower contributions of new equity issues to the financing of investment, or even share buybacks. Thus, internal means of finance for real investment are reduced, and the ability to invest suffers ('internal means of finance channel'). 2. Managers' (firms') preference for capital stock growth is weakened due to remuneration schemes based on short-term profitability and financial market results. Therefore, the preference for growth, and hence, the willingness to invest in capital stock suffers as well ('preference channel'). The latter channel includes a preference for financial investments generating short-run profits, rather than for real investment that probably generates only long-run profits with higher uncertainty. Third, the relationship between financialisation and household consumption will be analysed in detail. Finance-dominated capitalism is said to have generated increasing potential for wealth-based and debt-financed consumption. In several countries stock market and housing price booms have each increased notional wealth against which households were

[1] For a macroeconomic approach towards 'financialisation' or 'finance-dominated capitalism' highlighting the four channels mentioned below, see Hein (2012).

willing to borrow. Changing financial norms, new financial instruments (credit card debt, home equity loans), and deterioration of creditworthiness standards triggered by securitisation of mortgage debt and 'originate and distribute' strategies of commercial banks, made increasing credit available to low income, low wealth households, in particular. This allowed consumption norms to rise faster than median income, driven by habit persistence and social visibility of consumption ('keeping up with the Joneses'),. Simultaneously it has generated problems of latent over-indebtedness of private households. Fourth, the deregulation and liberalisation of international capital markets and capital accounts has created the potential to run and finance persistent current account deficits in one group of countries, and to run the respective current account surpluses in another group of countries. Simultaneously it has created the problems of rising foreign indebtedness of current account deficit countries, speculative capital flows, exchange rate volatilities and related potentials for crises.

The third part of this study will trace the transmission mechanism of the financial and economic crisis, which started in the US in 2007, into the German economy in a more detailed way. Three aspects will be important: 1. contagion effects of the financial crisis through international financial markets, 2. transmission of the economic crisis via international goods markets, i.e. exports and imports, 3. the role of economic policies in dampening the financial and economic crises. The fourth and final part of this study will then summarise and conclude.

I. Long-run developments in the era of financialisation since the early 1980s and the economic and financial crises

As analysed in detail in Detzer et al. (2013), the most important changes in the German financial sector which contributed to an increasing dominance of finance took place in the course of the 1990s: in 1991 the abolition of the stock exchange tax, in 1998 the legalisation of share buybacks, in 2002 the abolition of capital gains taxes for corporations, and in 2004 the legalisation of hedge funds, among others. While financialisation is often associated with an increase in the share of the financial sector in value added, employment and profits in the economy, this phenomenon could not be observed in the German economy. Net value added of financial corporations fluctuated between 3.5 and 5.5 per cent in the period 1991 to 2012 and has rather been declining since 2000. Employment in the financial sector also fluctuated around 4 per cent and has shown a downward trend since the early 2000s. The increased dominance of finance can however be observed in other quantitative and qualitative indicators. Stock market capitalisation and trading activity have grown strongly, even though they are still moderate compared to Anglo-Saxon, but also to other European countries. The overall amount of financial assets has increased strongly and particularly striking is the strong expansion of bank balance sheets in the course of the 1990s (from 130 to 270 per cent of GDP between 1991 and 2001). At the same time, the importance of institutional investors in Germany has increased strongly. Mutual funds increased their funds under management from 20 per cent to over 80 per cent of GDP between 1991 and 2001 (Detzer et al. 2013). Also, private equity funds and activist hedge funds became more important and active in Germany and have increasingly taken direct influence on non-financial firms' management (Detzer

2014). Increased financial activity of non-financial firms, another feature associated with financialisation, can also be found in Germany. While real investment of non-financial firms has been low, their investment in financial assets and, therefore, the share of financial profits in total profits in those firms has increased rapidly in the course of the 2000s. This will be analysed more extensively below.[2] Therefore, while financialisation is less advanced and less visible in Germany than in other countries, like the US or the UK, there are clear indications for the increasing relevance and even dominance of finance in Germany, too.

Table 1: Real GDP growth in Germany (in percent) and growth contributions of the main demand aggregates (in percentage points), 1961 – 2013, cyclical averages

	1961 - 1966	1967 - 1974	1975 - 1981	1982 - 1992	1993 - 2002	2003 - 2008	2009 - 2013
Real GDP growth, per cent	4.49	3.82	2.40	2.77	1.40	1.59	0.66
Growth contribution of (percentage points)							
domestic demand including stocks	4.49	3.59	2.36	2.52	0.93	0.94	0.58
private consumption	2.47	2.25	1.55	1.42	0.72	0.28	0.60
public consumption	1.03	0.84	0.70	0.21	0.28	0.17	0.26
gross fixed capital formation	1.28	0.47	0.38	0.69	0.04	0.40	-0.10
change in inventories and net acquisition of valuables	-0.29	0.03	-0.28	0.20	-0.11	0.10	-0.19
the balance of goods and services	-0.01	0.23	0.04	0.25	0.47	0.64	0.08

Notes: The beginning of a trade cycle is given by a local minimum of annual real GDP growth, 1961 – 1966 and 2009 – 2013 are incomplete cycles.
Source: European Commission (2014a), our calculations

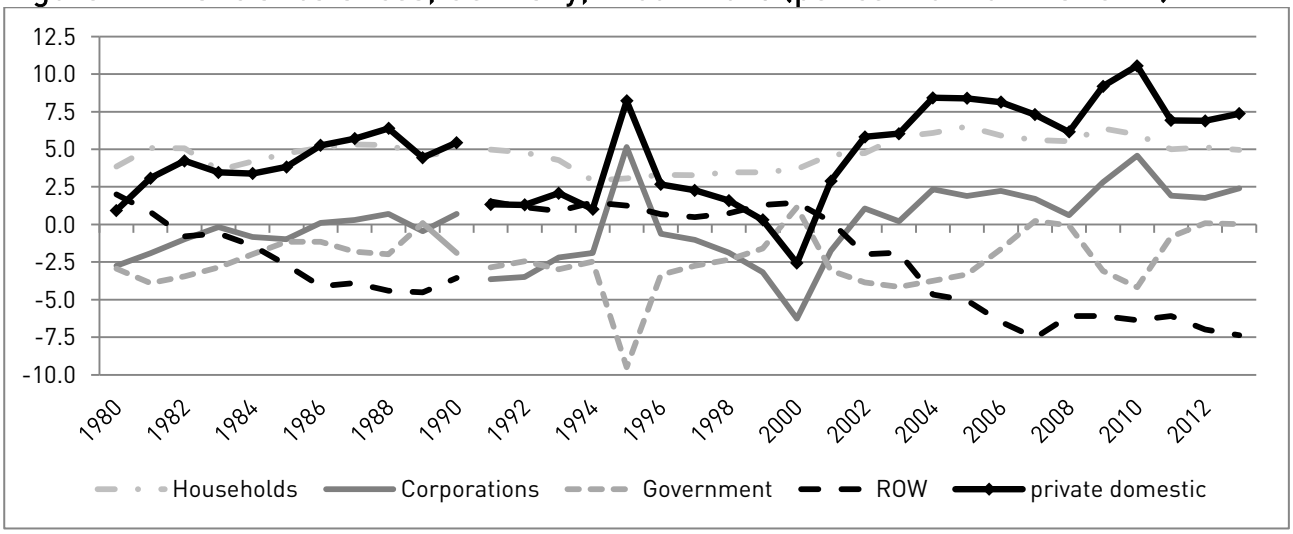
This development was accompanied by considerable redistribution of income at the expense of the wage share and of low income households, in particular, as we will show in detail in Section II of this paper. Against this background, severe changes in real GDP growth and its composition, as well as in the trends of the financial balances of the main macroeconomic sectors could be observed. Comparing the development of the two trade cycles from the early 1990s until the Great Recession with the previous trade cycles, we find that average real GDP growth over the cycle slowed down considerably with the increasing dominance of finance and the associated redistribution of income (Table 1). Whereas average real GDP growth was between 2.4 and 3.8 per cent in the trade cycles of the late 1960s until the early 1990s, it went down to 1.4 per cent in the cycle of the 1990s and 1.6 per cent in the cycle of the early 2000s. Furthermore, the relevance of the growth contributions of the main demand aggregates changed significantly. Real GDP growth in the cycles of the 1960s, 1970s and even the 1980s was mainly driven by domestic demand, and the balance of goods of services only contributed up to 0.25 percentages points to real GDP growth which only meant 10 per cent of total GDP growth. In the trade cycles of the 1990s and early 2000s, however, the growth contributions of net exports went up to 0.47 and 0.64 percentage points, respectively, which meant 33 and 40 per cent of real GDP growth. In the course of this process the degree of openness of the German economy

[2] An earlier more extensive analysis can be found in chapter 11 of Detzer et al. (2013).

exploded: the share of exports in GDP increased from 24 per cent in 1995 to 51 per cent in 2013, and the share of imports rose from 23 per cent in 1995 to 44 per cent in 2013 (European Commission 2014a).

Growth was thus increasingly driven by net exports and the relevance of domestic demand declined dramatically. This was equally true for private consumption and for investment. The average growth contributions of private consumption were between 1.42 and 2.25 percentage points in the trade cycles of the 1960s, 1970s and 1980s and they went down to 0.72 and 0.28 percentage points on average in the trade cycles of the 1990s and early 2000s. The average growth contributions of investment in capital stock were between 0.38 and 0.69 percentage points in the trade cycles of the 1960s, 1970s and 1980s and they fell to 0.04 and 0.4 percentage points on average in the trade cycles of the 1990s and early 2000s.

Figure 1: Financial balances, Germany, 1980 – 2013 (per cent of nominal GDP)



Notes: West Germany until 1990. In 1995 the deficit of the 'Treuhandanstalt' was shifted from the corporate sector to the government sector. In 2000 the payments for UMTS licences from the corporate sector to the government sector are included. RoW is 'Rest of the World'.
Source: European Commission (2014a), our calculations

The increasing reliance on net exports as the driver of growth since the early/mid 1990s finds its expression in the development of the financial balances of the main macroeconomic sectors (Figure 1). The financial balance of the external sector (RoW), which had turned positive in the 1990s after German re-unification when Germany ran trade and current account deficits financed by capital inflows, became negative in the early 2000s and decreased to -7.5 percent of nominal GDP in 2007. German growth was thus relying on current account surpluses – the counterpart of the deficits of the external sector – which had never before been observed in German history. The largest surplus in the current account (and thus deficit of the financial balance of the external sector) had been at 4.5 per cent in 1989, just before German re-unification. The financial balances of the German private households have a long tradition of being in surplus. But these surpluses even increased in the early 2000s, indicating weak consumption demand, and were accompanied by positive and rising financial balances of the corporate sector in this

period, too, which indicates weak investment in capital stock. This meant large and increasing financial surpluses of the private sector as a whole, which were only temporarily and partly compensated by government sector deficits: the public sector was balanced in 2007, just before the Great Recession.

Based on this short description, the German type of development from the early/mid 1990s, and from the early 2000s in particular, until the Great Recession can be classified as 'export-led mercantilist'.[3] The export-led mercantilist type of development is characterised by positive financial balances of the domestic sectors as a whole, negative financial balances of the external sector, thus current account surpluses based on restrictive wage policies, low inflation and weak domestic demand. This means only small positive growth contributions of domestic demand, but relatively high growth contributions of the balance of goods and services.

It was, therefore, increasing net exports and current account surpluses, which allowed for the decoupling of profits and investment in Germany, since the early 1990s, in particular (Figure 2).[4] From a macroeconomic perspective the following equation, derived from national income accounting, has to hold, as pointed out by Kalecki (1971, p. 82):

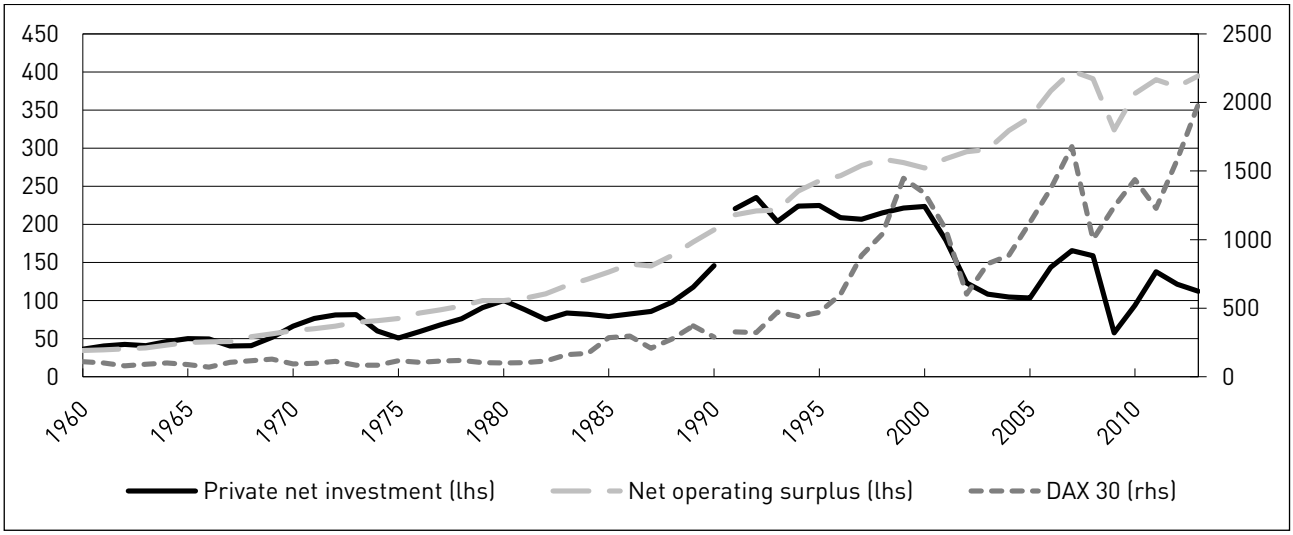
$$\begin{aligned}\text{Gross profits net of taxes} &= \text{Gross investment} \\ &+ \text{Export surplus} \\ &+ \text{Government budget deficit} \\ &- \text{Workers' saving} \\ &+ \text{Capitalists' consumption.}\end{aligned} \qquad (1)$$

Therefore, with weak investment and consumption, as in the case of Germany, the realisation of profits, and hence a 'profits without investment' regime mainly depends on the export surplus and on government budget deficits. As we will analyse in more detail in the following sections, the foundations for rising German net exports were laid, on the one hand, by extreme nominal wage moderation, which increased the price competitiveness of German producers in international markets, and even more so, on the other hand, by low domestic demand, caused by redistribution at the expense of labour and low income households and by restrictive fiscal policies, making imports fall short of rising exports.

[3] For a classification of 'export-led mercantilist', 'debt-led consumption boom' and 'domestic demand-led' types of development or regimes and its application to different sets of countries, see, for example among others, Hein (2012, Chapter 6), Hein/Mundt (2012, 2013), Stockhammer (2010a, 2010b, 2012a, 2012b), and van Treeck/Sturn (2012, 2013), with slightly different terminologies.

[4] It could be argued that this tendency already started in the early 1980s, but was then interrupted by the German re-unification boom of the late 1980s/early 1990s.

Figure 2: Investment, profits, and share prices, Germany, 1960 – 2013 (Index 1980 = 100)



Source: European Commission (2014a), Börse.de (2014), our calculations.

Contrary to public and political opinion before the financial and economic crises, this German 'export-led mercantilist' model generating a 'profits without investment regime' was as fragile as the 'debt-led consumption boom' type of development in the US, the UK and other countries. The moderate growth rates were dependent on the dynamic growth of export markets, and hence an expansion of the world economy. A collapse of the latter would therefore have major effects on German growth, in particular. At the same time, increasing capital exports to the more dynamic economies carried the risk of contagion in the case of a financial crisis in these markets. And both channels became effective during the 2007-09 crisis, as will be analysed in detail further below in Section III.

Let us finish this section by underlining that we do not argue that the German type of export-led mercantilist development before the crisis was exclusively due to the increasing dominance of finance in the German economy. As has been analysed in more detail by Bibow (2003, 2005), Herr and Kazandziska (2011) and Hein and Truger (2005, 2007a, 2009), among several others, restrictive macroeconomic policies have contributed significantly to depressed investment and consumption demand, and hence to the mediocre growth and employment performance in Germany starting in the mid 1990s and, in particular, after the recession in the early 2000s. Increasing uncertainty, caused by policies of 'structural reforms' and deregulation in the labour market (Agenda 2010 and Hartz-laws), subsidies for capital-based private pension schemes ('Riester'- and 'Rürup'-pensions), and redistribution at the expense of (low) labour income and in favour of profits and high income recipients associated with nominal wage moderation, have led to an increase in the propensity to save of private households since 2001, and contributed to weak consumption demand which also negatively affected investment in capital. Finally, high unemployment and pressures on trade unions caused moderate wage increases and contributed to inflation rates below the Euro area average, leading to above average real interest rates. This made Germany particularly vulnerable to the 'anti-growth' bias (Bibow 2002, 2006, 2007; Hein 2002; Hein/Truger 2007b) in the monetary policies of the European

Central Bank (ECB) in the period from 1999 until the Great Recession. And the attempts of fiscal policies to balance the budget by means of expenditure cuts in periods of weak private demand, in particular in the early 2000s until the Great Recession, reinforced weak domestic demand without directly reaching the consolidation target. With this in mind, in what follows we will concentrate on the effects of the increasing dominance of finance on this development through the channels outlined in the introduction.

II. Long-run effects of financialisation on the economy through different channels

1. Financialisation and income distribution

The period of finance-dominated capitalism has been associated with a massive redistribution of income. First, functional income distribution has changed at the expense of labour and in favour of broad capital income in several countries (Table 2). The labour income share, as a measure taken from the national accounts and corrected for the changes in the composition of employment regarding employees and self-employed, shows a falling trend in the developed capitalist economies considered here, from the early 1980s until the Great Recession, if we look at cyclical averages in order to eliminate cyclical fluctuations due to the well-known counter-cyclical properties of the labour income share. As can be seen, the fall in the labour income share was considerable in Germany, in particular from the cycle of the 1990s to the cycle of the early 2000s. However, redistribution was even more pronounced in several other countries, as for example Austria, France, Greece, Ireland, Italy, Spain and Japan.

Second, personal income distribution has become more unequal in most of the countries from the mid-1980s until the mid-2000s. Taking the Gini coefficient as an indicator, this is true for the distribution of market income, with the Netherlands being the only exception in the data set (Table 3). Germany is amongst those countries showing a considerable increase in inequality, which was only exceeded in Finland, Italy, Portugal the UK and Japan. If re-distribution via taxes and social policies by the state is included and the distribution of disposable income is considered, Belgium, France, Greece, Ireland, and Spain have not seen an increase in their Gini coefficients. In Germany, redistribution via taxes and social transfers has been considerable and not been decreasing over time. However, this did not prevent the Gini coefficient for disposable income from increasing. On the contrary, together with Finland, Italy, Portugal, Sweden and the US the increase in Germany was among the most pronounced. In fact, according to the OECD (2008) applying further indicators for inequality, Germany is one of the countries where the inequality of disposable income increased the most in the early 2000s before the Great Recession. And as can be seen in Table 4, this redistribution was mainly at the expense of those with very low incomes. While the P90/P10 ratio for disposable income increased significantly, the P90/P50 ratio hardly increased. The P50/P10 ratio also slightly increased.[5]

[5] See Anselmann/Krämer (2012), Bach/Corneo/Steiner (2009), Grabka/Goebel (2014) and SVR (2011, pp. 334-348) for more detailed studies on personal or household distribution of income in Germany.

Table 2: Labour income share as percentage of GDP at current factor costs, average values over the trade cycle, early 1980s – 2008

	1. Early 1980s – early 1990s	2. Early 1990s – early 2000s	3. Early 2000s – 2008	Change (3. – 1.), percentage points
Austria	75.66	70.74	65.20	-10.46
Belgium	70.63	70.74	69.16	-1.47
France	71.44	66.88	65.91	-5.53
Germany[a]	67.11	66.04	63.34	-3.77
Greece[b]	67.26	62.00	60.60	-6.66
Ireland	70.34	60.90	55.72	-14.61
Italy	68.31	63.25	62.37	-5.95
Netherlands	68.74	67.21	65.57	-3.17
Portugal	65.73	70.60	71.10	5.37
Spain	68.32	66.13	62.41	-5.91
Sweden	71.65	67.04	69.16	-2.48
UK	72.79	71.99	70.67	-2.12
US	68.20	67.12	65.79	-2.41
Japan[b]	72.38	70.47	65.75	-6.64

Notes: The labour income share is given by the compensation per employee divided by GDP at factor costs per person employed. The beginning of a trade cycle is given by a local minimum of annual real GDP growth in the respective country.
[a] West Germany until 1990
[b] adjusted to fit in 3 cycle pattern
Data: European Commission (2010a)
Source: Hein (2012, p. 13)

Third, as data based on tax reports provided by Alvaredo et al. (2014) have shown, there has been an explosion of the shares of the very top incomes since the early 1980s in the US and the UK, which, prior to the financial crisis and the Great Recession, have again reached levels of the mid-1920s in the US and the mid-1930s in the UK. Although Germany has not yet seen such an increase for the top 1 per cent, top 0.1 per cent or top 0.01 per cent income shares (Figure 3), it should be noted that the share of the top 0.1 per cent, for example, has been substantially higher in Germany than in the US or the UK for longer periods of time and that it was only surpassed by the US and the UK in the mid-1980s and the mid-1990s, respectively (Hein 2014a). Furthermore, if we take a look at the top 10 per cent income share, including capital gains, a rising trend from the early 1980s until 2007 can be observed. It reaches the level of the early 1930's, excluding capital gains for the earlier time period.

Table 3: Gini coefficients for market income and disposable income, mid-1980s – mid-2000s

Gini coefficient for households' market income						
Country	mid-1980s	around 1990	mid-1990s	around 2000	mid-2000s	Change from mid-1980s/around 1990/mid-1990s until mid-2000s
Austria	..	..	..	..	0.433	..
Belgium	0.449	..	0.472	0.464	0.494	0.045
Finland	0.387	..	0.479	0.478	0.483	0.096
France	..	..	0.473	0.490	0.485	0.012
Germany	0.439	0.429	0.459	0.471	0.499	0.06
Greece	0.426	..	0.446	0.466	0.454	0.028
Ireland	..	..	..	..	..	..
Italy	0.420	0.437	0.508	0.516	0.557	0.137
Netherlands	0.473	0.474	0.484	0.424	0.426	-0.047
Portugal	..	0.436	0.490	0.479	0.542	0.106
Spain	..	..	..	..	..	..
Sweden	0.404	0.408	0.438	0.446	0.432	0.028
UK	0.419	0.439	0.453	0.512	0.500	0.081
US	0.436	0.450	0.477	0.476	0.486	0.05
Japan	0.345	..	0.403	0.432	0.443	0.098
Gini coefficient for households' disposable income						
Country	mid-1980s	around 1990	mid-1990s	around 2000	mid-2000s	Change mid-1980s/around 1990 until mid-2000s
Austria	0.236	..	0.238	0.252	0.265	0.029
Belgium	0.274	..	0.287	0.289	0.271	-0.003
Finland	0.209	..	0.218	0.247	0.254	0.045
France	0.300	0.290	0.277	0.287	0.288	-0.012
Germany	0.251	0.256	0.266	0.264	0.285	0.034
Greece	0.336	..	0.336	0.345	0.321	-0.015
Ireland	0.331	..	0.324	0.304	0.314	-0.017
Italy	0.309	0.297	0.348	0.343	0.352	0.043
Netherlands	0.272	0.292	0.297	0.292	0.284	0.012
Portugal	..	0.329	0.359	0.356	0.385	0.056
Spain	0.371	0.337	0.343	0.342	0.319	-0.052
Sweden	0.198	0.209	0.211	0.243	0.234	0.036
UK	0.309	0.354	0.336	0.352	0.331	0.022
US	0.337	0.348	0.361	0.357	0.38	0.043
Japan	0.304	..	0.323	0.337	0.321	0.017

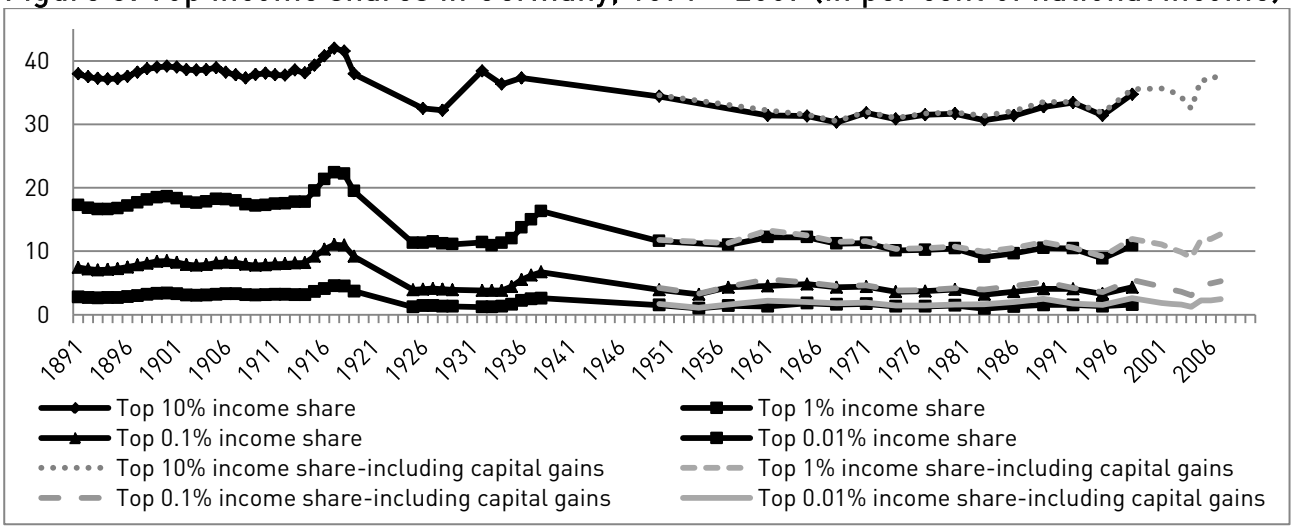
Note: Gini coefficient is based on equivalised household income
Source: OECD (2012b), our calculations

Table 4: Percentile-ratios for disposable income in Germany, 1985 - 2008

	1985	1990	1995	2000	2004	2008
P90/P10	3	3	3.3	3.2	3.4	3.5
P90/P50	1.7	1.8	1.8	1.8	1.8	1.8
P50/P10	1.7	1.7	1.8	1.8	1.9	1.9

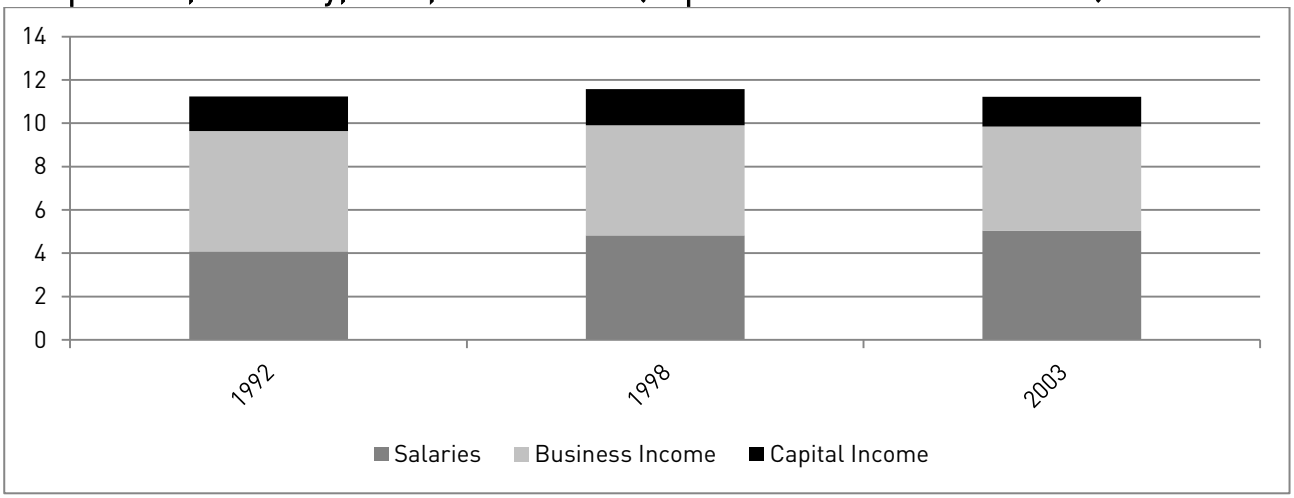
Notes: The P90/P10 ratio is the ratio of the upper bound value of the ninth decile (i.e. the 10% of people with highest income) to that of the upper bound value of the first decile.
The P90/P50 ratio is the ratio of the upper bound value of the ninth decile to the median income.
The P50/P10 ratio is the ratio of median income to the upper bound value of the first decile.
Source: OECD (2014)

Figure 3: Top income shares in Germany, 1891 – 2007 (in per cent of national income)



Source: Alvaredo et al. (2014), our presentation

Figure 4: The top 1 per cent income share in gross market income and its composition, Germany, 1992, 1998 & 2003 (in per cent of national income)



Notes: Business income refers to the taxable income from agriculture, forestry, unincorporated business enterprise, and self-employed activities, including professional services. Capital income includes all capital income from private investments, except income from business activity.
Source: Dünhaupt (2011, p. 27) based on data from Bach/Corneo/Steiner (2009)

Taking a look at the composition of top incomes, the increase in the income share of the top 0.1 per cent in the US has mainly been driven by an increase in top salaries (wages and salaries, bonuses, exercised stock-options and pensions) since the 1970s, and, since the mid 1980s also in entrepreneurial income (Alvaredo et al. 2014; Hein 2014a). Remuneration of top management ('working rich') has therefore contributed significantly, but not exclusively, to rising inequality in the US in the period of finance-dominated capitalism. Whereas top management salaries have contributed up to more than 50 per cent to the income of the top 0.1 per cent income share in the US, in Germany top management salaries have so far played a minor role. However, their share increased from 15 per cent in 1992 to 22.4 per cent in 2003 (Bach/Corneo/Steiner 2009). Anselmann and Krämer (2012) also point out that in Germany the rise in top income shares was driven largely by an increase in salaries, rather than capital income. This development can be explained by the increasing compensation for top managers and financial professionals. Similar results were also found by Dünhaupt (2011) when decomposing the gross market income of the top 1 per cent of the income share for Germany (Figure 4). Although the data provided does not extend beyond 2003, one can see the increase in the relative importance of top management salaries compared with capital income and business income. The trend towards higher top management salaries is also confirmed by Detzer (2014), considering payments of management boards in the 30 top-listed Germany companies (DAX30). While those salaries increased only moderately from 1987 until 1995, with an average of 5 per cent per year, from then until 2007 they increased strongly, averaging 15 per cent per year.

To what extent can these tendencies towards redistribution in Germany be related to the increasing dominance of finance? Hein (2014a) has reviewed the recent empirical literature on the determinants of income shares against the background of the Kaleckian theory of distribution, in order to identify the channels through which financialisation and neo-liberalism have affected functional income distribution (Table 5). According to the Kaleckian approach (Kalecki 1954, Part I; Hein 2014b, Chapter 5), the gross profit share in national income, which includes retained earnings, dividends, interest and rent payments, as well as overhead costs (thus also top management salaries) has three major determinants.

First, the profit share is affected by firms' pricing in incompletely competitive goods markets, i.e. by the mark-up on unit variable costs. The mark-up itself is determined by: a) the degree of industrial concentration and by the relevance of price competition relative to other instruments of competition (marketing, product differentiation) in the respective industries or sectors, i.e. by the degree of price competition in the goods market; b) the bargaining power of trade unions, because in a heterogeneous environment with differences in unit wage cost growth between firms, industries or sectors, the firm's or the industry's ability to shift changes in nominal unit wage costs to prices is constrained by competition of other firms or industries, which do not have to face the same increase in unit wage costs; and c) overhead costs and gross profit targets, because the mark-up has to cover overhead costs and distributed profits.

Second, with mark-up pricing on unit variable costs, i.e. material plus wage costs, the profit share in national income is affected by unit (imported) material costs relative to

unit wage costs. With a constant mark-up, an increase in unit material costs will thus increase the profit share in national income.

And third, the aggregate profit share of the economy as a whole is a weighted average of the industry or sector profit shares. Since profit shares differ among industries and sectors, the aggregate profit share is therefore affected by the industry or sectoral composition of the economy.

Integrating some stylized facts of financialisation and neo-liberalism into this approach and reviewing the respective empirical and econometric literature for different sets of developed capitalist economies, Hein (2014a) has argued that there is some convincing empirical evidence that financialisation and neo-liberalism have contributed to the rising gross profit share, and hence to the falling labour income share since the early 1980s, through three main channels.[6]

First, the shift in the sectoral composition of the economy, from the public sector and the non-financial corporate sector with higher labour income shares towards the financial corporate sector with a lower labour income share, has contributed to the fall in the labour income share for the economy as a whole in some countries.

Second, the increase in management salaries as a part of overhead costs, together with rising profit claims of the rentiers, i.e. rising interest and dividend payments of the corporate sector, have in sum been associated with a falling labour income share. Since management salaries are part of the compensations of employees in the national accounts and thus of the labour income share, the wage share excluding (top) management salaries has fallen even more pronounced than the wage share taken from the national accounts.

Third, financialisation and neo-liberalism have weakened trade union bargaining power through several channels: increasing shareholder value and short-term profitability orientation of management, sectoral shifts away from the public sector and the non-financial business sector with stronger trade unions in many countries to the financial sector with weaker unions, abandonment of government demand management and full employment policies, deregulation of the labour market, and liberalisation and globalisation of international trade and finance.

These channels should not only have triggered falling labour income shares, but should also have contributed to the observed increases in inequality of personal/household incomes. The major reason for this is the (even more) unequal distribution of wealth, generating capital income, which then feeds back on the household distribution of income when it comes to re-distribution between labour and capital incomes.

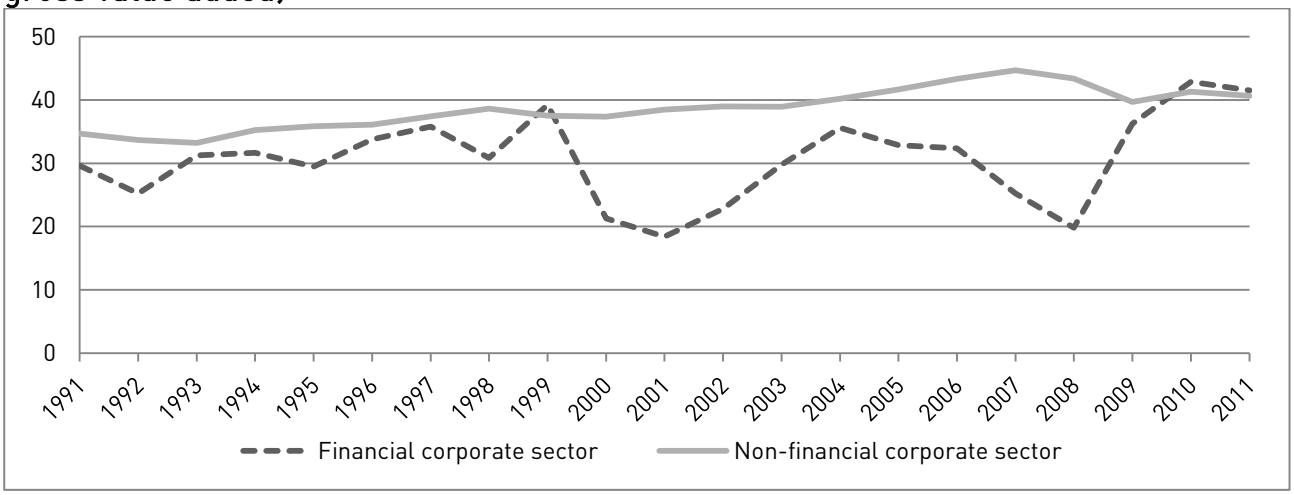
[6] See in particular the recent panel econometric studies on the determinants of functional income distribution including data for large sets of countries or industries by Dünhaupt (2013), Kristal (2010), Stockhammer (2009, 2013a, 2013b) and Tomaskovic-Devey/Lin (2013).

Table 5: Financialisation and the gross profit share – a Kaleckian perspective

	Determinants of the gross profit share (including (top) management salaries)				
	1) Mark-up			2) Price of imported raw materials and semi-finished products	3) Sector composition of the domestic economy
Stylized facts of financialisation (1.-7.) and neo-liberalism (8.-9.)	1.a) Degree of price competition in the goods market	1.b) Bargaining power and activity of trade union	1.c) Overhead costs and gross profit targets		
1. Increasing shareholder value orientation and short-termism of management	...	+	+	...	...
2. Rising dividend payments	...	...	+	...	...
3. Increasing interest rates or interest payments	...	...	+	...	...
4. Increasing top management salaries	...	...	+	...	...
5. Increasing relevance of financial to non-financial sector (investment)	...	+	...	...	+
6. Mergers and acquisitions	+	...	...	...	...
7. Liberalisation and globalisation of international finance and trade	–	+	...	+/–	+/–
8. Deregulation of the labour market	...	+	...	...	...
9. Downsizing of government	...	+	...	...	+

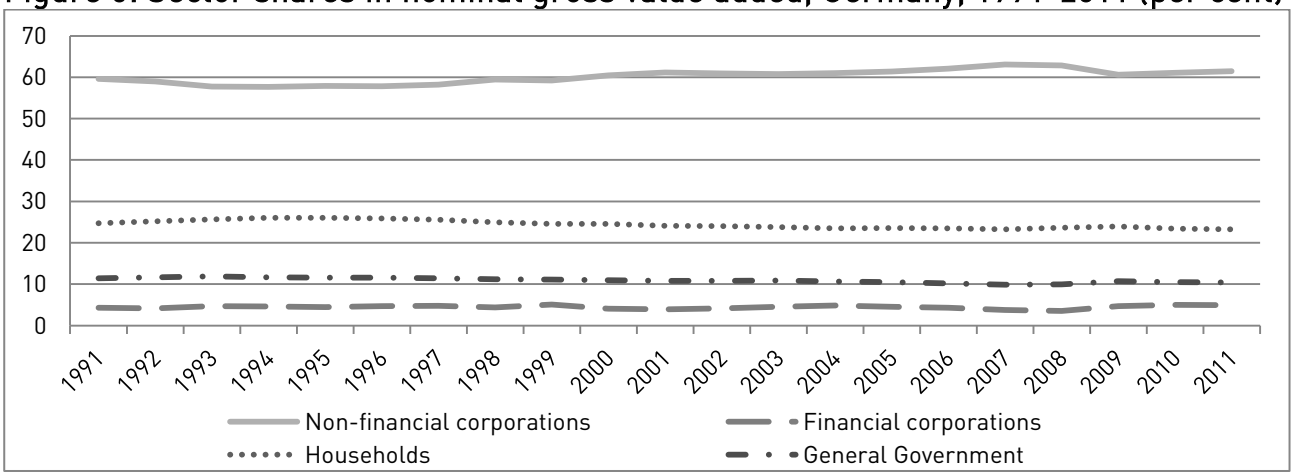
Notes: + positive effect on the gross profit share, – negative effect on the gross profit share, ... no direct effect on the gross profit share
Source: Hein (2014a, p. 15)

Figure 5: Sector gross operating surplus, Germany, 1991-2011 (per cent of sector gross value added)



Source: Statistisches Bundesamt (2012b), our calculations and presentation

Figure 6: Sector shares in nominal gross value added, Germany, 1991-2011 (per cent)



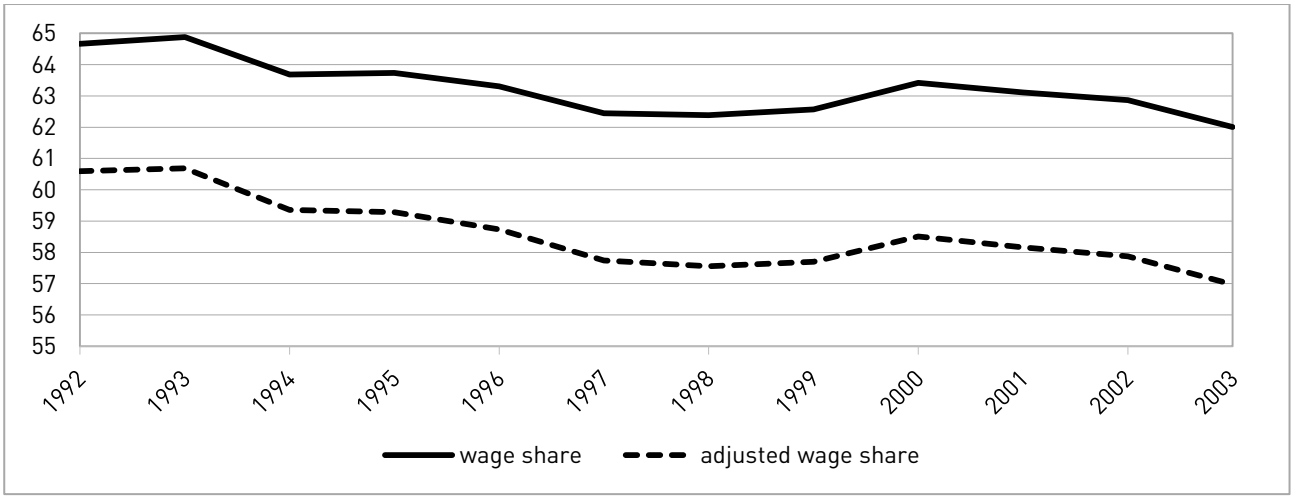
Source: Statistisches Bundesamt (2012b), our calculations and presentation

Checking the relevance of these channels for the German case, with respect to the first channel we find that neither the profit share of the financial corporate sector was higher than the profit share in the non-financial corporate sector in the period of the increasing dominance of finance starting in the early/mid 1990s (Figure 5), nor was there a shift of the sectoral shares in gross value added towards the financial sector (Figure 6). However, the share of the government sector in value added has seen a tendency to decline, from 12 per cent in the mid-1990s to below 10 per cent in 2007. Ceteris paribus, this means a fall in the aggregate wage share and a rise in the aggregate profit share, because the government sector is a non-profit sector in the national accounts.

Regarding the second channel, the increase in top management salaries and higher profit claims of financial wealth holders, there are several indicators supporting the validity of this channel for Germany. Dünhaupt (2011) has corrected the wage share from the national accounts for the labour income of the top 1 per cent by assuming that the latter represent top management salaries, following the examples by

Buchele/Christiansen (2007) and Glyn (2009) for the US and Atkinson (2009) for the UK.[7] The resulting wage share for direct labour shows an even steeper downward trend than the wage share from the national accounts: the difference between the two wage shares increased from 4 percentage points in 1992 to 5 percentage points in 2003 (Figure 7). An increase in the share of top management salaries is thus associated with a decline of the share of wages for direct labour in national income.

Figure 7: Wage share adjusted for the labour income of top 1 per cent, Germany, 1992 – 2003 (per cent of net national income)



Note: The wage share adjusted for the labour in come of the top 1 per cent is constructed by taking the three data points from Figure 4 and interpolating the missing years
Source: Dünhaupt (2011, p. 27)

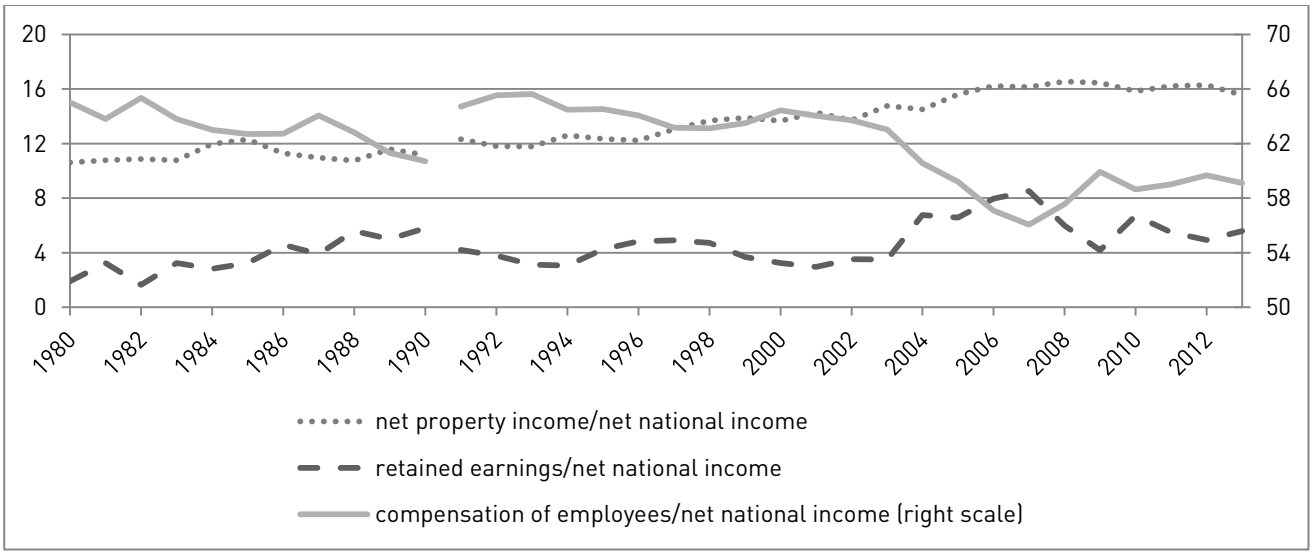
Extending another analysis provided by Dünhaupt (2012), we also find that, in the long-run perspective, there is substantial evidence that the increase in the profit claims of rentiers came at the expense of the workers' share in national income (Figure 8). In the 1980s, the fall in the wage share (compensation of employees as a share of national income, as retrieved from the national accounts) was accompanied by an increase of both the share of rentiers income (net property income consisting of interest, dividends and rents) and the share of retained earnings of corporations. However, from the 1990s, after German re-unification, until the Great Recession, the fall in the wage share benefitted mainly the rentiers' income share. Only during the short upswing before the Great Recession did the share of retained earnings also increase at the expense of the wage share. Decomposing the rentiers' income share (Figure 9), it becomes clear that the increase was almost exclusively driven by a rise in the share of dividends, starting in the mid-1990s, when we observe an increasing relevance of finance and shareholders in the German economy.

In an econometric study for Germany (1960-2007), Hein and Schoder (2011) find a highly significant and strong effect of the net interest payments-capital stock ratio of the non-financial business sector on the profit share, thus confirming the notion of an interest

[7] Recently, also the OECD (2012a, Chapter 3) has presented such corrected wage shares for Canada, France, Italy, Japan, the Netherlands and the US.

payments-elastic mark-up affecting the distribution between capital and labour. This means that rising interest rates and costs in the 1980s contributed to the observed fall in the wage share. In the 1990s, however, the decrease in the share of net interest income in net national income would have allowed for a rise in the wage share, which, however, was prevented by the even more pronounced rise in the share of dividends in net national income, suggesting a dividend-elastic mark-up in firms' pricing, too.

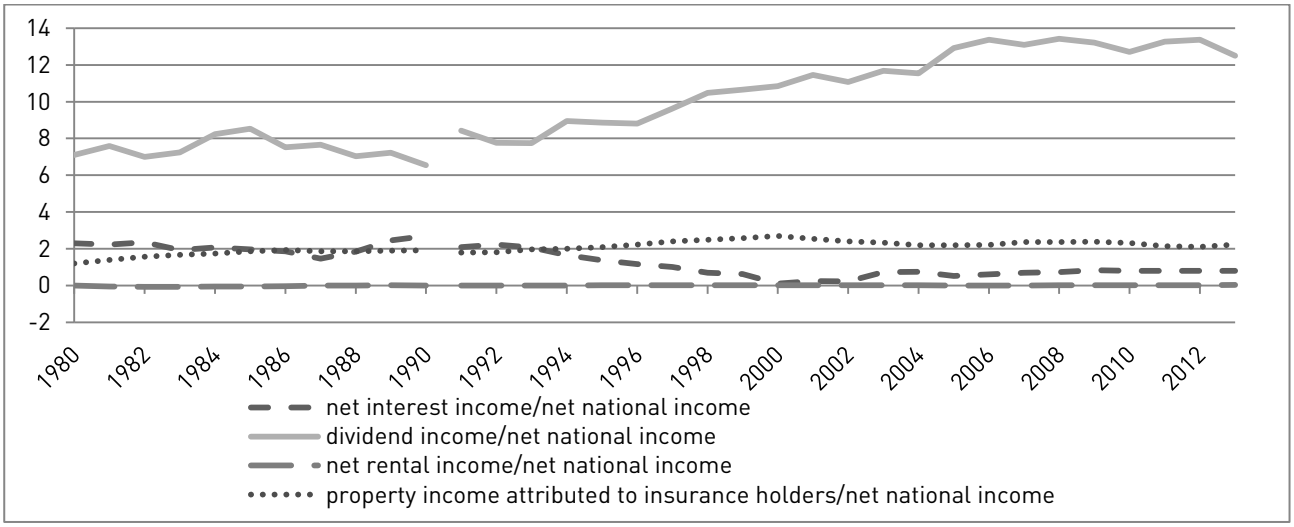
Figure 8: Income shares in net national income, Germany, 1980 – 2013 (per cent)



Note: West Germany until 1990

Source: Statistisches Bundesamt (2014), our presentation based on data provided by Petra Dünhaupt.

Figure 9: Components of rentiers' income as a share in net national income, Germany, 1980 – 2013 (per cent)



Note: West Germany until 1990

Source: Statistisches Bundesamt (2014), our presentation based on data provided by Petra Dünhaupt

Regarding the third channel, the weakening of trade union bargaining power, we find that several indicators for this apply to the development in Germany from the mid-1990s until

the Great Recession. First, starting in the early/mid 1990s, downsizing the government sector, as shown above, and the switch towards restrictive macroeconomic policies focussing exclusively on achieving low inflation and (close to) balanced public budgets meant low growth and rising unemployment, in particular in the stagnation period of the early 2000s, as analysed extensively by Bibow (2003, 2005), Herr and Kazandziska (2011) and Hein and Truger (2005, 2007a, 2009), for example.

Table 6: Indicators related to trade unions, labour market regulation and unemployment benefits, 1990 – 2013, Germany

	1990 - 1994	1995 - 1999	2000 - 2004	2005 - 2009	2010 - 2013
Trade Unions					
Union density rate (per cent)	32.7	27.0	23.4	20.1	18.3
Union coverage of workplaces or establishments (per cent)	57.4	49.0		43.0	
Bargaining (or union) coverage, adjusted for occupations and sectors without right for bargaining (per cent)	85.0	74.2	67.9	63.9	61.1
Employment protection					
Strictness of employment protection – individual dismissals (regular contracts) (index)	2.6	2.7	2.7	2.9	2.9
Strictness of employment protection – collective dismissals (additional restrictions) (index)		3.6	3.6	3.6	3.6
Strictness of employment protection – temporary contracts (index)	3.3	2.6	1.7	1.0	1.0
Unemployment benefits					
Gross replacement rate (per cent of average production worker wage[1])	28.3	26.2	29.2	24.2	
Gross replacement rate (per cent of average wage[2])			32.3	22.6	20.8
Net replacement rate summary measure of benefit entitlements (excl. social assistance and housing benefits) (per cent)			60.1	45.3	42.2
Net replacement rate summary measure of benefit entitlements (incl. social assistance and housing benefits) (per cent)			63.1	57.6	53.7

Notes: Averages were calculated for the 5 year periods indicated. Sometimes data was not available for all years in the 5 year periods, [1] refers to the average wage in sector D (Manufacturing) of the International Standard Industrial Classification of All Economic Activities (ISIC), Rev.3; [2] refers to the average wage in sectors B to N of the ISIC, Rev.4.
Source: OECD (2014), Visser (2013), our calculations

Second, policies of deregulation and liberalization of the labour market (Hartz-laws, Agenda 2010) explicitly and successfully aimed at weakening trade union bargaining

power through lowering unemployment benefits (replacement ratio and duration), establishing a large low-paid sector, as well as reducing trade union membership, collective wage bargaining coverage and coordination of wage bargaining across sectors and regions (Hein/Truger 2005, 2007a). Table 6 summarises some supportive data on these developments. As can be seen, as a result of the reforms, unemployment benefits were drastically reduced, so that net- as well as gross-replacement rates declined considerably in the 2000s, even when other transfers like social assistance and housing benefits are included. While indicators for employment protection show a slight increase in employment protection for regular contracts since 2000, temporary contracts have been heavily deregulated, contributing to the emergence of a dual labour market in Germany. The weakening of trade unions in the 2000s can be seen by the decline in membership, but particularly by the decline in bargaining coverage, which went down from 74 per cent in the late 1990s to only 61 per cent in 2011. While the indicators still show high degrees of coordination of wage bargaining, a trend towards decentralisation of collective bargaining can be observed, too. Krämer (2008) notes that bargaining coverage of branch level agreements has declined. At the same time so-called opening clauses were used more extensively, which allow firms to diverge from collectively agreed standards under certain circumstances.

Third, trade and financial openness of the German economy increased significantly and put pressure on trade unions through international competition in the goods and services markets and through the threat effect of delocalisation. The foreign trade ratio (exports plus imports as a share of GDP) an indicator for trade openness, increased from 39.1 per cent in the mid-1990s to 71.4 per cent in 2007, just before the Great Recession (Statistisches Bundesamt 2011a). The foreign assets/foreign liabilities-GDP ratios, as indicators for financial openness, increased from 56 per cent/40 per cent in 1991 to 200 per cent/174 per cent in 2007 (Deutsche Bundesbank 2014).

Fourth, shareholder value orientation and short-termism of management rose considerably, thus increasing the pressure on workers and trade unions. According to Detzer (2014), two institutional changes were important in this respect. First, ownership of non-financial corporations changed. The share of stock directly held by private investors halved between 1991 and 2007, while the share held by institutional investors increased significantly. Similarly, strategic investors reduced their ownership share and investors who are more likely to have purely financial interests increased it. Furthermore, fewer strategic block holders, which might shield managers from market pressure, are present on corporate boards. Additionally, activist hedge funds and private equity firms, which directly pressure management to favour shareholder value, have become more active in Germany. Second, the development of a market for corporate control put pressure on managers to pursue shareholder value friendly strategies in order to protect themselves against hostile takeovers. For Germany, data on mergers and acquisitions and hostile takeover attempts show that the activity in this market increased considerably in the 1990s and early 2000s. Important factors facilitating this were legal changes in the 1990s and early 2000 which gradually removed obstacles to takeovers and the gradual dissolution of the German company network. In particular the big banks actively reduced their central role in the network since the 1990s due to their increased preference for investment

banking activities. Further indicators for the increase in shareholder value orientation and short-termism of management in Germany, affecting distribution between capital and labour, on the one hand, and investment in capital stock, on the other hand, will be considered in the following section.

2. Financialisation and investment in capital stock

In the financialisation literature, the effects of an increasing dominance of finance on investment in capital stock has been discussed extensively and has been reviewed in Hein (2012, Chapter 3) and Hein and van Treeck (2010), among others. Financialisation has been characterised by increasing shareholder power vis-à-vis management and workers, an increasing rate of return on equity and bonds held by rentiers, and an alignment of management with shareholder interests through short-run performance related pay schemes, such as bonuses, stock option programmes, and so on. On the one hand, this has imposed short-termism on management and has caused decreasing managements' animal spirits with respect to real investment in capital stock and long-run growth of the firm. On the other hand, it has drained internal means of finance for real investment purposes from corporations, through increasing dividend payments and share buybacks in order to boost stock prices and thus shareholder value. These 'preference' and 'internal means of finance' channels should have each had partially negative effects on firms' real investment in capital stock, and hence on long-run growth of the economy to the extent that productivity growth is capital embodied.

Econometric evidence supplied so far is mainly on the US. In an earlier study, Stockhammer (2004) has taken the share of interest and dividends in profits of non-financial business as an indicator for the relevance of short-term profits in management's preferences. The share of dividends and interest in profits should thus be negatively associated with real investment. Using annual data for the business sector and applying time series estimations for France (1978-1997), Germany (1963-1990), the UK (1970-1996), and the US (1963-1997), Stockhammer finds evidence in favour of his hypothesis for France, the US, and maybe also the UK, but not for Germany. The results for Germany are not surprising, because the regulatory changes associated with financialisation only started in the 1990s. Van Treeck (2008) has introduced interest and dividend payments, each in relation to the capital stock, into the estimation of the determinants of the rate of capital accumulation in the non-financial corporate sector of the US (1965-2004). He finds that dividend and interest payments each have a statistically significant negative effect on capital accumulation, indicating the validity of the finance constraint given by internal means of finance. The value of the negative coefficient on dividend payments also exceeds the one on interest payments, which is interpreted as evidence for 'shareholder value orientation' of management. Onaran/Stockhammer/Grafl (2011) in their time series study for the US (1962-2007) find a positive effect of the non-rentier profit share on real gross private domestic investment, but a negative effect of the rentier profit share (net dividends and net interest payments of the domestic industry as a share of nominal GDP), which severely dampens a positive impact of unit gross profits on investment through the 'internal means of finance' channel. Orhangazi (2008) has used firm-level data on non-financial firms in the US (1972-2003) with a focus on the manufacturing sector in a

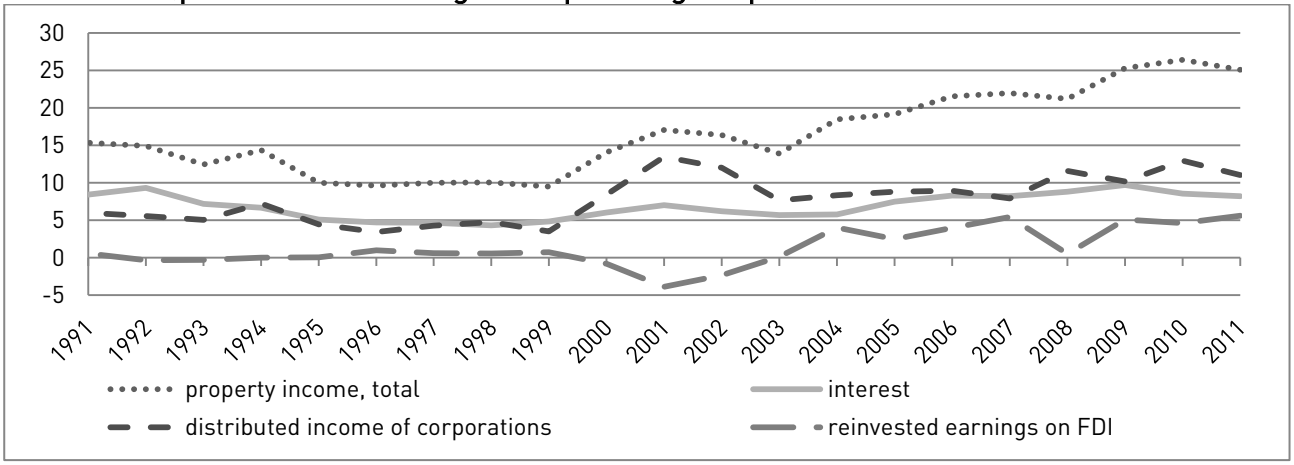
dynamic panel-estimation approach. He finds that financial profits (the sum of interest and equity income in net earnings) have a negative impact on real investment for large firms, indicating short-termism in favour of short-term financial profits and at the expense of long-term profits from investment in capital stock. For small firms, however, the effect of financial profits on real investment is positive, because financial profits seem to ease the financing constraint for these firms. The effect of financial payments (interest expense, cash dividends, purchase of firms' own stock) on investment is negative for the whole panel.

To what extent can indicators for the existence of the 'preference channel' and the 'internal means of finance channel' of financialisation and increasing shareholder power on real investment be found in the German development from the early/mid 1990s until the Great Recession? As we have already noted in Section I of this study, this period can be viewed as a 'profits without investment' regime in Germany, with rising profits but stagnating investment in capital stock and hence low growth contributions of investment. Different from other countries, like the US for example, in Germany this development was neither associated with a rise in the relevance of the financial sector and a falling share of non-financial corporations in GDP nor with the profit share in the non-financial sector falling behind the profit share in the financial corporate sector, as we have shown in Section II.1 (Figures 5 and 6). Therefore, we can focus here on the non-financial corporate sector, its sources and uses of funds and on investment and capital stock financing of this sector.[8]

The empirical analyses of the effects of financialisation on investment in capital stock of non-financial corporations, outlined above, have taken the financial profits of non-financial corporations as an indicator for the 'preference channel' of financialisation and increasing shareholder value orientation of managements. Rising financial profits indicate an increased preference of management of non-financial business for short-term profits obtained from financial investment, as compared to profits from real investment, which might only be obtained in the medium to long run. As Figure 10 shows, this is exactly what can be found for German non-financial corporations starting in the late 1990s/early 2000s. Property income, consisting of interest, distributed income of corporations (i.e. dividends, property income attributed to insurance policy holder and rents) and reinvested profits from FDI, increased significantly as a share of gross operating surplus. This increase was driven considerably by an increase in interest payments received in a period of low interest rates and by an increase in dividend payments obtained. The increase in the relevance of both types of financial profits indicates an increasing relevance of financial investment, as compared to investment in real capital stock of non-financial business.

[8] On sources and uses of funds, as well as investment and capital stock finance of German non-corporate business and small- and medium sized enterprises see Detzer et al. (2013, Chapter 11).

Figure 10: Sources of operating surplus of non-financial corporations, Germany, 1991-2011 (per cent of sector gross operating surplus)



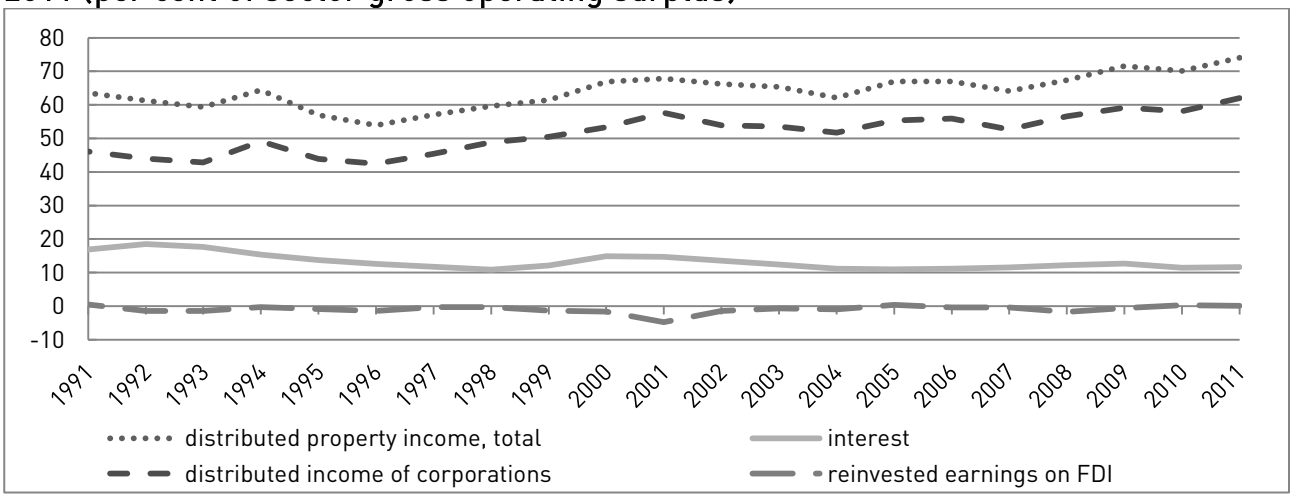
Note: Total property income includes additionally property income attributed to insurance policy and rents
Source: Statistisches Bundesamt (2012b), our calculations

Another indicator for the effects of an increasing shareholder value orientation of management on investment in capital stock is the share of profits distributed to shareholders. Retained profits are an important determinant of investment in capital stock, because they lift the finance constraints firms are facing in incompletely competitive financial markets.[9] Therefore, an increasing share of profits distributed to shareholders may hamper real investment through the 'internal means of finance channel'. Figure 11 shows that such a phenomenon can be observed for German non-financial corporations, too. The share of distributed property income in the gross operating surplus displays a tendency to rise starting in the mid 1990s. This increase was driven almost exclusively by an increase in the share of distributed income of corporations, i.e. dividends, whereas the share of interest payments in the gross operating surplus stagnated or even declined.

The decomposition of the sources and the uses of the gross operating surplus of non-financial corporations suggest, therefore, that both the 'preference channel' and the 'internal means for finance' channel have contributed to weak private investment in Germany from the mid-1990s until the Great Recession.

[9] See Kalecki's (1937) on the 'principle of increasing risk' and the importance of own funds as a determinant of investment, as well as Stiglitz/Weiss (1981) on credit rationing in markets with imperfect information. For empirical support see Fazzari/Hubbard/Petersen (1988), Hubbard (1998), Ndikumana (1999) and Schiantarelli (1996).

Figure 11: Uses of operating surplus of non-financial corporations, Germany, 1991-2011 (per cent of sector gross operating surplus)



Note: Total property income includes additionally rents

Source: Statistisches Bundesamt (2012b), our calculations

Following a method proposed by Corbett and Jenkinson (1997), which focuses on net financial flows between macroeconomic sectors, van Treeck/Hein/Dünhaupt (2007) and van Treeck (2009) have examined gross investment finance of the German non-financial corporate sector from 1960 to 2005. Here, this type of analysis is extended to the most recent data available until 2010.[10] The method of calculation for the different sources of financing of gross investment is described in Table 7.

Table 7: Distribution of profits and financing of gross investment of non-financial corporations

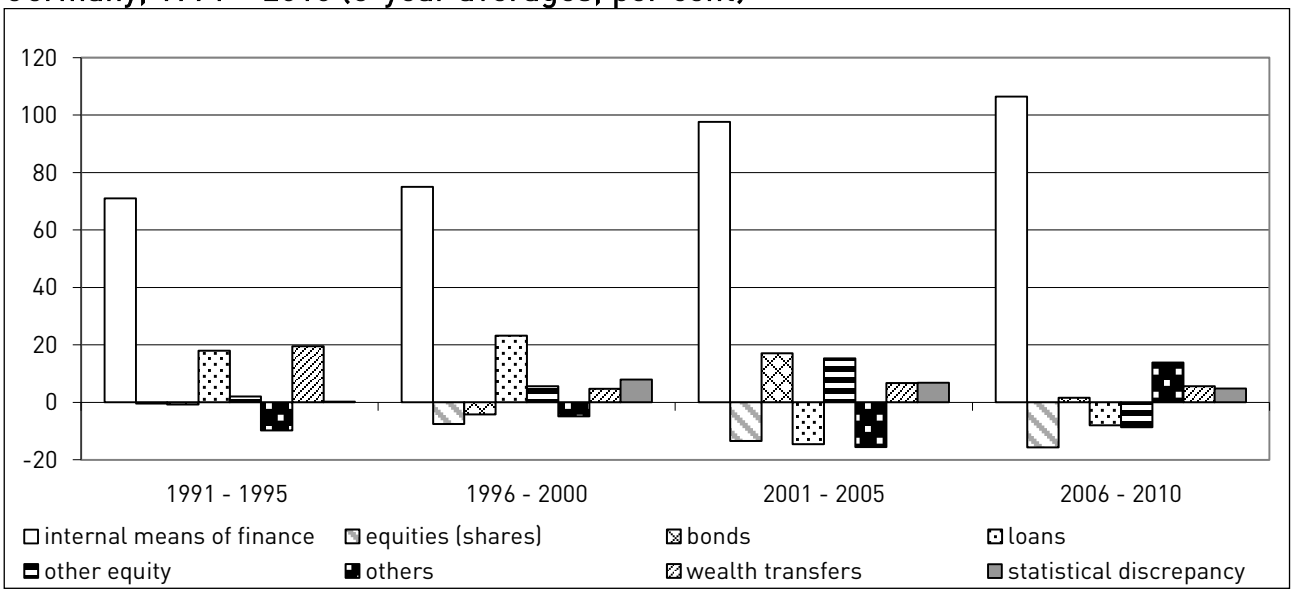
From net operating surplus to internal means of finance	The financing of capital investment
Net operating surplus	→ Internal means of finance
- Net interest payments	+ Net external finance raised
= Corporate profits before taxes	= Net increase in bank credit
- Corporate taxes	+ Net issuance of equities
- Net social contributions	+ Net issuance of bonds
- Net current transfers	+ Net increase in other liabilities
- Net dividend payments	- Net financial investment
= Corporate savings (incl. pension reserves)	
+ Capital consumption allowances	- Gross capital investment
= Internal means of finance	= 0

Source: our illustration based on van Treeck (2009, p. 921)

[10] In 2006 and 2007, the data show a very large acquisition of financial assets. According to the Bundesbank, this is related to a change of used primary sources for the flow of funds compilation. Those adjustments led to large discrepancies between the national accounts and the flow of funds accounts. The Bundesbank used other receivables as its correction position. Since there is no information provided how the correction has influenced the data, net acquisition of other assets in our sample is set equal to zero, which is close to the average of this position in the other years, to make the data fit with the data obtained from the national account data.

As van Treeck/Hein/Dünhaupt (2007) show, in the period from 1960 – 1989 the most important part of gross investment financing for the non-financial corporate sector as a whole in West Germany was internal means of finance, i.e. corporate savings plus capital consumption allowances. Between 70 and 90 per cent of gross investment finance was provided by these sources. External finance was mainly bank credit, which amounted to 10 – 20 per cent of gross investment finance. Equities and corporate bonds played only a negligible role; in some periods, the contribution of corporate bonds was even negative.

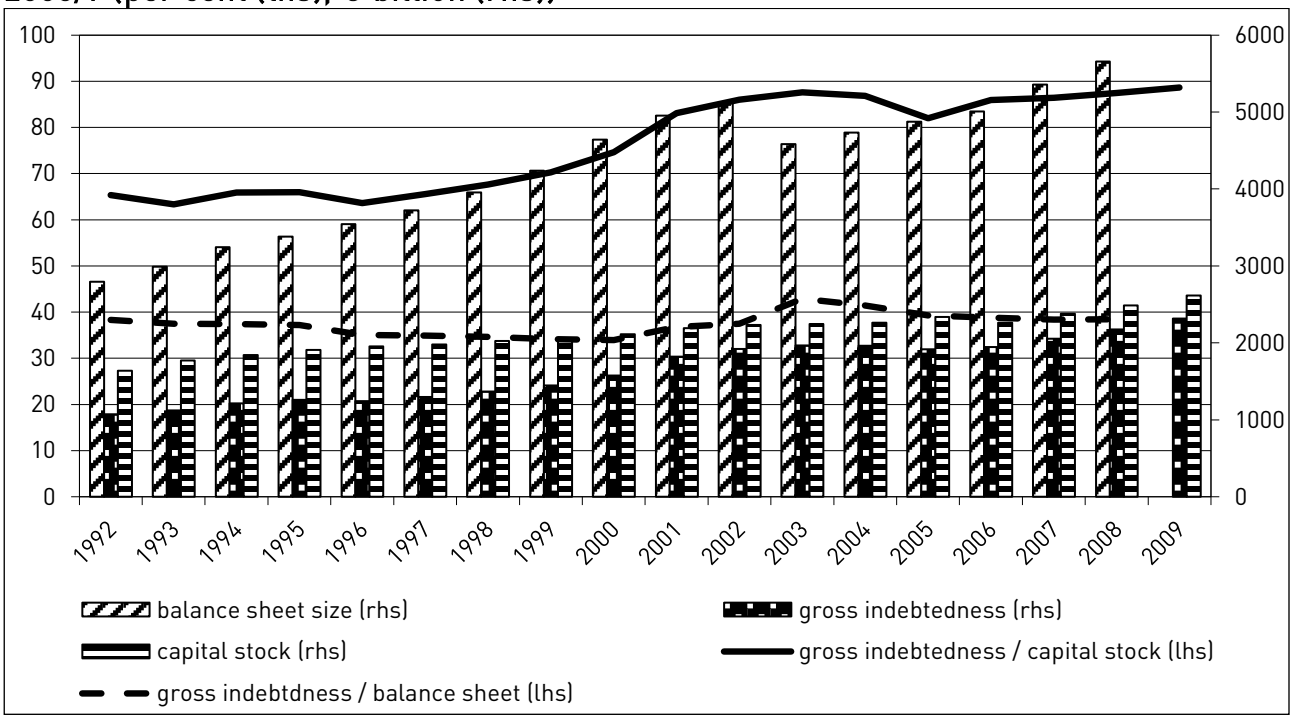
Figure 12: Finance of investment in gross capital stock of non-financial corporations, Germany, 1991 – 2010 (5-year averages, per cent)



Notes: In 1995 the deficit of the 'Treuhandanstalt' was shifted from the corporate to the government sector which meant a wealth transfer from the government to the non-financial corporate sector. The position 'others' sums up investment in investment certificates, insurance or derivatives, and the position other receivables and liabilities, which are positions occurring mainly as by-product of other economic activities (e.g. trade credit).
Source: Deutsche Bundesbank (2012), Statistisches Bundesamt (2011b), our calculations (with corrections)

As can be seen in Figure 12, the dominance of internal means for investment finance of non-financial corporations in united Germany continued from 1991 – 2010, with an even rising trend. In the last 5-year period considered, 2006 – 2010, internal means of finance even exceeded gross investment and were partly used to reduce the stock of external finance by means of share buybacks and the repayment of bank credit. The contributions of new equities have been negative since the mid 1990s, because corporations made extensive use of legislative changes in 1998 allowing for share buybacks. In the late 1990s and early 2000s negative finance contributions of new equities were associated with positive finance contributions of net changes in debt (net loans plus net bond issues), indicating a tendency towards a substitution of equity finance by debt finance. However, since the mid 2000s, the financing contributions of net credit plus bond issues have been negative, which means that non-financial corporations have reduced their stock of net debt.

Figure 13: Gross indebtedness of non-financial corporate sector, Germany, 1992 – 2008/9 (per cent (lhs), € billion (rhs))



Source: Deutsche Bundesbank and Statistisches Bundesamt (2010), our calculations

The effects of the pattern of development of investment finance of the non-financial corporate sector on the stock of gross debt, in relation to the capital stock and to the balance sheet of this sector, can be seen in Figure 13. Gross indebtedness, including bank credit and corporate bonds, had a tendency to increase from the early 1990s until 2010, with a brief exception in the early 2000s. The increase in the gross capital stock lagged behind so that a rising trend for gross indebtedness in relation to the capital stock emerged; the ratio increased from roughly 65 per cent in the early 1990s to close to 90 per cent in 2009, although net debt decreased since the mid 2000s, as we have argued above. The major part of this increase in gross debt took place in the second half of the 1990s during the "new economy" boom. With respect to the financing of the gross capital stock, a substitution of equity by debt has taken place, which makes corporations more vulnerable in times of economic stress, because debt is associated with fixed payment commitments, whereas equity is not. When gross debt is related to the total assets held by the non-financial corporate sector, no clear trend is visible. This ratio has remained around 40 per cent. From this we can conclude that non-financial corporations made use of additional debt in order to expand their holdings of financial assets.

Summing up this section, the decomposition of sources and uses of the operating surplus of the non-financial corporate sector reveals that indeed some evidence for the 'preference channel' and the 'internal means of finance channel', each constraining investment in capital stock under the conditions of financialisation and increasing shareholder value orientation of management, can be found for Germany since the mid/late 1990s. An increasing share of received financial profits in the operating surplus indicates an increasing orientation of management of non-financial corporate business

towards investment in financial assets, as compared to investment in capital stock. An increasing share of dividends paid out to shareholders in operating surplus indicates a decrease in internal means of finance available for capital stock investment purposes.

The examination of the development of investment and capital stock finance of non-financial corporations supports this assessment. Internal means of finance are the most important source of gross investment finance; the contributions of equity issues have historically been negligible and they have been negative since the mid 1990s, indicating share buybacks in order to keep share prices high in this period. Bank credit, as well as corporate bond issues as the major external source of finance in Germany, were not necessary for real investment finance but were used for the acquisition of financial assets since the mid 1990s taking the non-financial corporate sector as a whole: gross debt-gross capital stock ratios have increased significantly, whereas gross debt-balance sheet ratios have not.

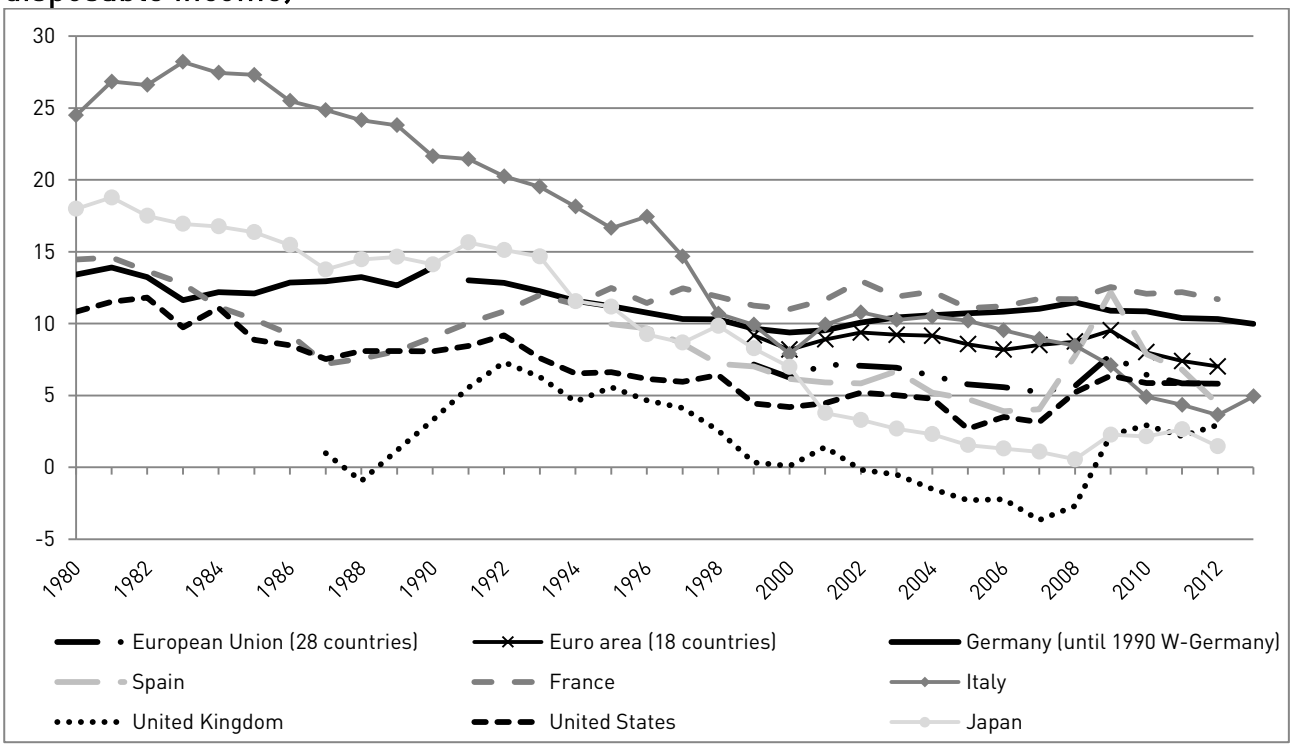
3. Financialisation and consumption

Finance-dominated capitalism is said to have generated increasing potentials for wealth-based and debt-financed consumption. In several countries stock market and housing price booms have each increased notional wealth against which households were willing to borrow. Changing financial norms, new financial instruments (credit card debt, home equity loans), and deterioration of creditworthiness standards triggered by securitisation of mortgage and credit card debt, as well as 'originate and distribute' strategies of commercial banks, made increasing credit available to low income, low wealth households, in particular. This allowed households at the bottom to maintain consumption in the face of falling real incomes, and for middle-income households it allowed consumption norms to rise faster than median income, driven by habit persistence, social visibility of consumption ('keeping up with the Joneses'), etc. (Barba/Pivetti 2009; Cynamon/Fazzari 2008). Several recent studies have again brought the focus to Duesenberry's ([1949]1962) relative income hypothesis when explaining household consumption and saving under the conditions of increasing inequality and improved access to consumer credit in financial markets (Frank/Levine/Dijk 2010; Iacoviello 2008; van Treeck 2014). Furthermore, wealth effects on consumption have been found extensively in econometric estimations (Boone/Girouard 2002). But all this does not seem to apply to the development in Germany: As we have already noticed in Section I of this study, in Germany private households were running considerable and increasing surpluses in their financial balances. Against the background of redistribution at the expense of the wage share and low income households, growth contributions of private consumption remained modest from the early/mid 1990s onwards and were particularly weak in the trade cycle of the early 2000s just before the Great Recession. In this section we shed some more light on the consumption behaviour of German households in this period.

Before German unification, the net saving rate of West German households out of disposable income was around 13 per cent (Figure 14), which was significantly above the saving rate in the US and the UK and also France, but below that of Japan and Italy. After unification, the saving rate for united Germany saw a tendency to decline in the course of

the 1990s and by 2000 had fallen below 10 per cent. However, when the "new economy" crisis hit in the early 2000s, this tendency was reversed and the saving rate has increased to well above 11 per cent since then.[11] Klär and Slacalek (2006) relate this increase to three main causes: 1. redistribution of income at the expense of the labour income share and low income households; 2. increasing precautionary saving since the early 2000s in the face of weak growth, high unemployment, and 'reform policies' aiming at the deregulation of the labour market and a reduction of social benefits (Agenda 2010, Hartz-Laws); and 3. the absence of any wealth effects on consumption.

Figure 14: Net saving of the household sector, Germany, 1980 – 2013 (per cent of net disposable income)



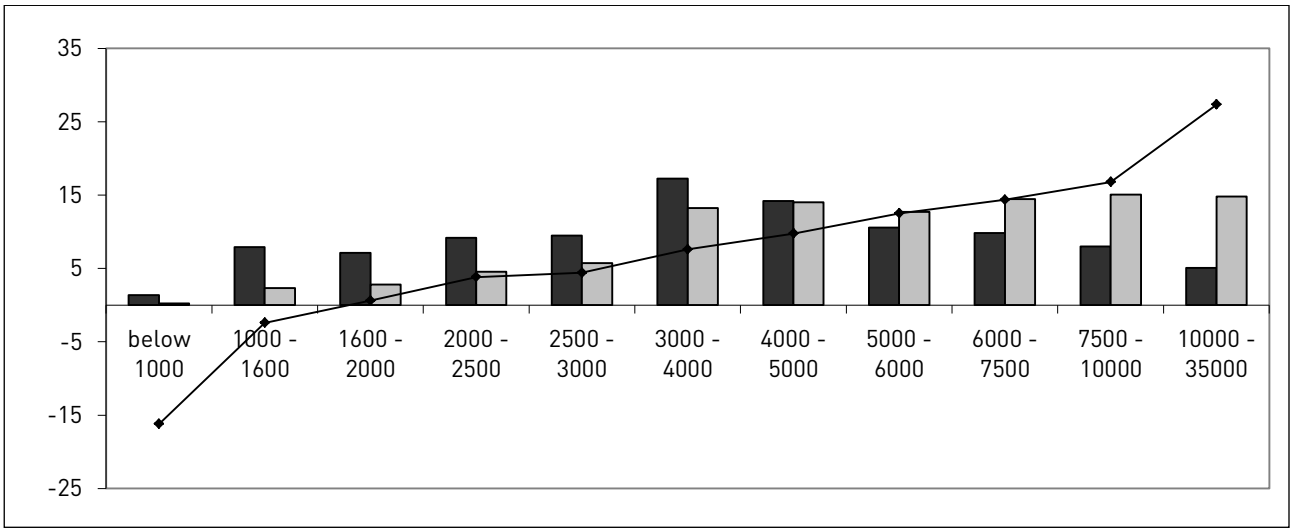
Note: West Germany until 1990

Source: European Commission (2014a)

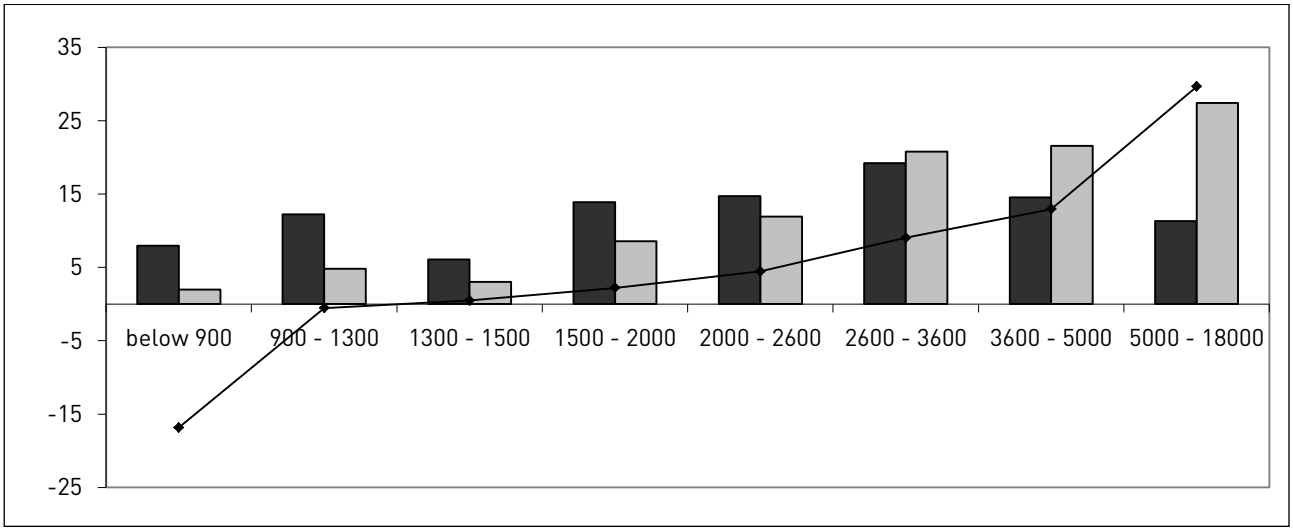
[11] Whereas the tendency of a falling saving rate was stopped and partly reversed in France, Italy and Japan after the "new economy" crisis, it continued in the US, the UK and even in Japan until the Great Recession.

Figure 15: Propensity to save out of monthly disposable income by income group, Germany, 1993 – 2008 (in per cent)

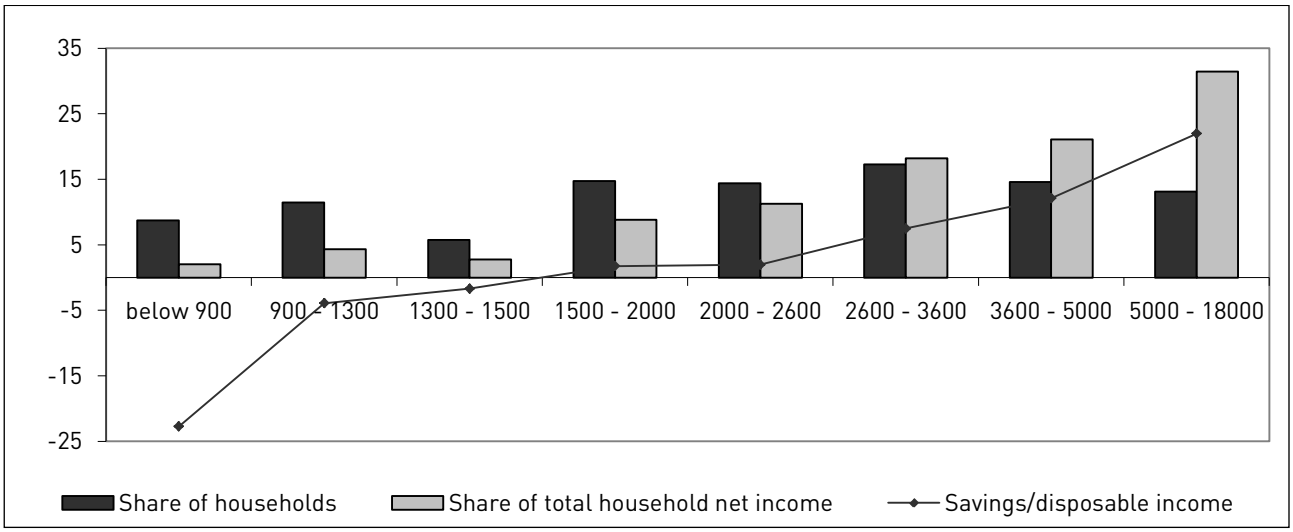
a) 1993 (in DM)



b) 2003 (in Euro)



c) 2008 (in Euro)



Source: van Treeck/Hein/Dünhaupt (2007, p. 76), Statistisches Bundesamt (2008), our calculations

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

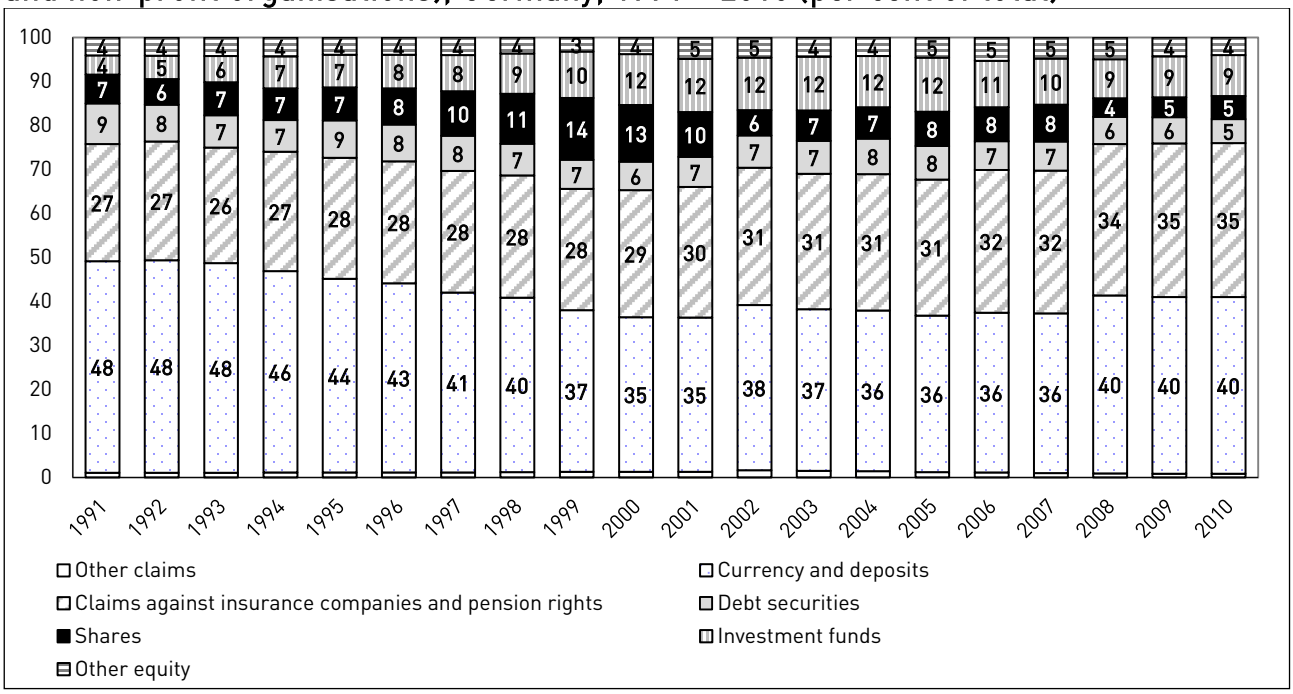
Saving rates out of profit income are generally higher than out of wages, and the propensity to save out of household income increases with the level of household income. Estimates of propensities to save (or to consume) out of wages and out of profits usually find differentials between 0.32 (Hein/Vogel 2008) and 0.5 (Onaran/Galanis 2012) for Germany. The decrease in the wage share has, therefore, contributed to the increase in the overall propensity to save. There is also considerable evidence that a higher propensity to save is associated with a higher level of household income, irrespective of the source of income, as Figure 15 suggests. Brenke (2011), drawing on data from the German Socio Economic Panel (GSOEP), reports that households in the bottom half of the distribution have slightly reduced their saving rates after 2000, whereas households in the upper half of the distribution, particularly in the top decile, have slightly increased their saving rates, which has overcompensated for the falling saving rates in the lower parts of the distribution. Van Treeck and Sturn (2012) conclude from this evidence that the relative income model, according to which consumption expenditure is affected by relative income ('keeping up with the Joneses'), has little explanatory power for Germany. Rising inequality rather led to a widespread feeling of insecurity even within the upper part of the middle class. The higher precautionary saving motive is attributed both to the worries about expected future income from the public pension system and to uncertainties about the effects of labour market reforms on job security.

Wealth effects on consumption have been examined extensively in the econometric literature. Studies have shown that (financial and housing) wealth is a statistically significant determinant of consumption in many countries (Boone/Girouard 2002; Ludvigson/Steindel, 1999; Mehra 2001; Onaran/Stockhammer/Grafl 2011). However, Dreger and Slacalek (2007) obtained that the marginal propensity to consume out of financial and housing wealth in capital-market based countries has been significantly higher than in bank-based countries. Therefore, they conclude that these effects are of minor importance in the case of Germany, a typical bank-based country. Furthermore, German households' wealth increases have been fairly moderate since the mid-1990s, German house prices have not seen any significant tendency to rise since then, and wealth distribution has been highly unequal. Let us therefore take a more detailed look at the types of wealth and its distribution.

Most of the financial wealth of German private households is held as currency and bank deposits, with a slight decline until the "new economy" crisis 2000/01 (Figure 16). The claims against insurance companies are the second most important form of financial wealth, with a slightly rising trend, particularly after the early 2000s when the pay-as-you-go pensions were cut and capital stock-based pensions became subsidised by the government (*Riester-Rente, Rürup-Rente*, etc.). The weight of shares increased in the second half of the 1990s until the "new economy" crisis, and has considerably lost in importance since then. The share of bonds slightly declined running up to the "new economy" crisis, gained in importance after it, and declined again after the Great Recession. The share of wealth held in investment funds increased significantly up to the "new economy" crisis, remained constant until 2005, and has declined since then. Taking direct and indirect (investment funds) wealth held in shares together, stock markets became more attractive to German households in the second half of the 1990s until the

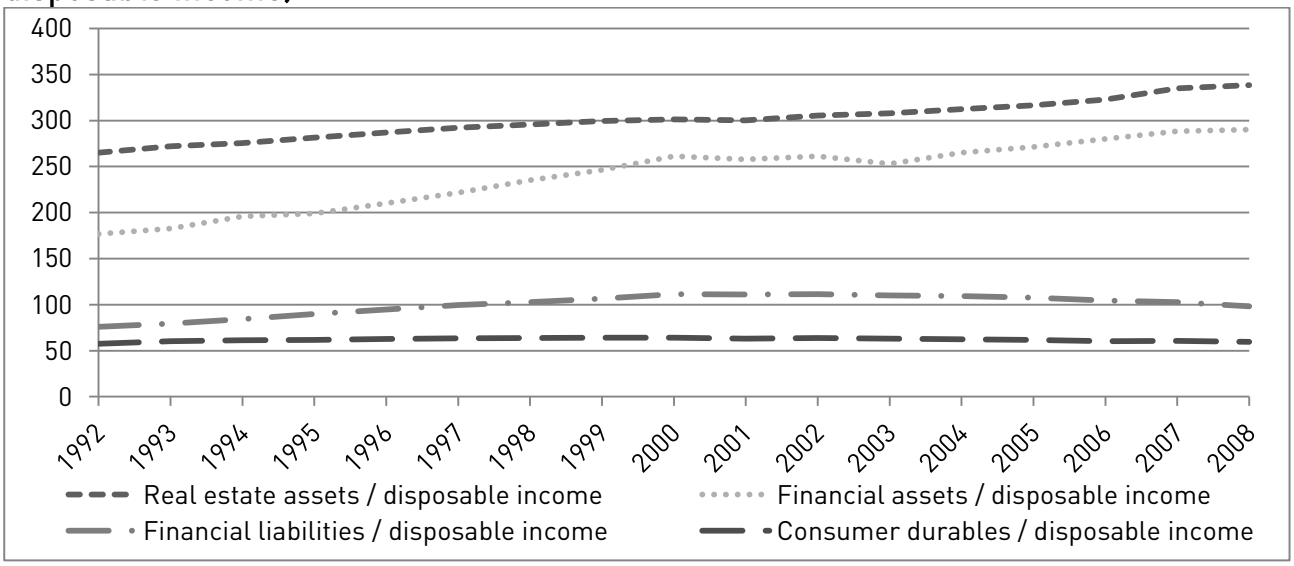
"new economy" crisis, but this tendency was very short-lived. Since the early 2000s the share of wealth held in shares and investment funds has been declining, and in particular so after the Great Recession.

Figure 16: Financial assets of private households (including non-corporate business and non-profit organisations), Germany, 1991 – 2010 (per cent of total)



Source: Deutsche Bundesbank (2012), our calculations

Figure 17: Assets and liabilities of households, Germany, 1992 - 2008 (per cent of disposable income)



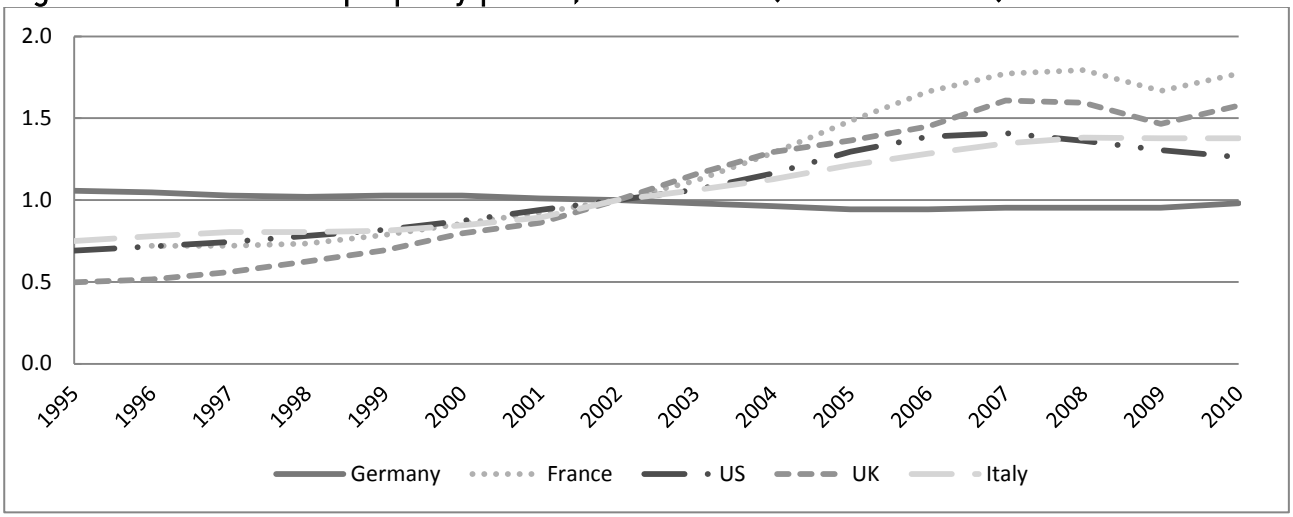
Source: Deutsche Bundesbank and Statistisches Bundesamt (2010), Deutsche Bundesbank (2012), our calculations

Considering both financial and real wealth in Figure 17, households' financial assets increased in relation to disposable income from the early 1990s up to the "new economy"

crisis 2000/01. This increase was mainly driven by private saving invested in financial assets, and, particularly in the second half of the 1990s, by the increase in the prices of shares (see also Figure 2 on a share price index). In the years after the "new economy" crisis, financial wealth in relation to disposable income stagnated because of positive saving but declining stock market prices, and it started to rise again from 2004 until the Great Recession.

The most important assets held by private households are real estate assets. The relation to disposable income continuously increased from the early 1990s until the Great Recession. This development was exclusively driven by new acquisition of real estate by private households, because residential property prices did not increase at all in Germany since the mid 1990s (Figure 18). On the contrary, unlike many other countries, the period from the early 2000s until the Great Recession even saw a slight decrease in the residential property price index. In this respect, the development in Germany completely differed from the ones in France, Italy, the UK and the US. Furthermore, the degree of house ownership in Germany increased from the early 1990s until the early 2000s, but has stagnated since then (Table 8) and is well below other similar countries.[12]

Figure 18: Residential property prices, 1995 - 2010 (Index 2002 = 1)



Source: Bank of International Settlements (BIS) (2012), our calculations

Table 8: Housing status of households, Germany, 1993 – 2008 (per cent)

Year Reference day: 1 January	Germany		Former territory of the Federal Republic		New Länder and Berlin-East	
	Tenant	Owner	Tenant	Owner	Tenant	Owner
	in percent					
1993	61.0	39.0	55.0	45.0	81.0	19.0
1998	59.7	40.3	56.4	43.6	74.1	25.9
2003	57.0	43.0	54.4	45.6	68.3	31.7
2008	56.8	43.2	54.3	45.7	67.5	32.5

Source: Statistisches Bundesamt (2012a)

[12] For comparable country data see for example European Commission (2014b).

Finally, real and financial net wealth (including real estate, net financial assets, claims against private insurance companies,[13] shares and ownership of firms, gold, jewelry, art objects, etc.) is extremely unequally distributed among households and individuals in Germany, and the degree of inequality had actually increased prior to the Great Recession, as a study by Grabka and Westermeier (2014) based on GSOEP[14] data has shown. The Gini coefficient for net wealth distribution among adults rose from 0.777 in 2002 to 0.799 in 2007 and decreased again to 0.78 in 2012. Despite the decrease Germany has the most unequal wealth distribution in the Euro area.[15] The median value was at 15,000 euro in 2002, at 14,818 euro in 2007 and at 16,663 euro in 2012. The medium value was at 79,941 euro in 2002, at 81,089 euro in 2007 and at 83,308 euro in 2012. In 2012 27,6 per cent of the adults did not have any wealth at all or were even in debt, whereas the upper 10 per cent had an average net wealth of 216,971 euro per person.

In an older study Frick and Grabka (2009) calculate that the wealthiest 10 per cent held 61.1 per cent of net wealth in 2007 (57.9 per cent in 2002), while the bottom 50 per cent had hardly any wealth (1.3 per cent of total net wealth in 2002, 1.2 per cent in 2007). Net wealth of the poorest decile was negative: -1.2 per cent in 2002 and -1.6 per cent in 2007.

4. Financialisation and the current account

While trade barriers have been reduced for a long time by most developed countries and increasingly also by developing and emerging countries, the liberalisation of capital accounts has only gained momentum since the 1980s. Also since the 1980s international financial markets have been increasingly deregulated and international capital flows have grown swiftly. This liberalisation of finance and the capital account allowed for the financing of persistent current account deficits in some countries and large current account surpluses in other countries. As we have seen in the first part of this study, Germany can be categorised as an 'export-led mercantilist' country, generating huge current account surpluses since the early 2000s, in particular. In the following we will examine the German external relations somewhat closer and try to identify the causes for the exorbitant growth of German current account surpluses.

In the period from the 1960s until the breakdown of Bretton Woods in 1973, Germany had a positive trade balance and the most important negative counterpart in those years were net current transfers (Figure 19). The current account had a positive balance of one per cent of GDP on average. This was maintained in the 1970s. But after the recession of the early 1980s net exports strongly increased and peaked at 5.5 per cent in 1990. This was accompanied by strong increases in current account surpluses, too. The positive current account balances lead to a rise in the net international investment position (Figure 20), which reinforced the current account surpluses by rising positive

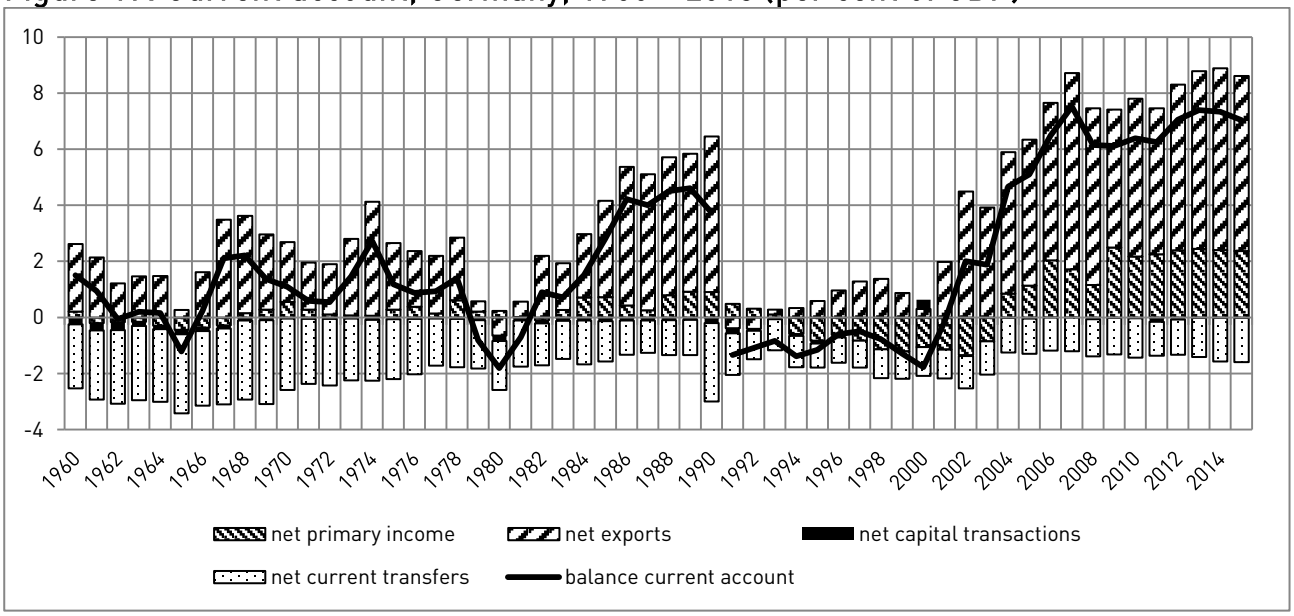
[13] Claims against the public pay-as-you-go pension system are not included.

[14] The data from the GSOEP has tends to underestimate very high wealth holdings and therefore the indicators presented should rather be seen as lower estimates of prevailing wealth inequality (Grabka/Westermeier 2014).

[15] The Gini coefficient for France was at 0.68, for Italy at 0.61 and for Slovakia at 0.45.

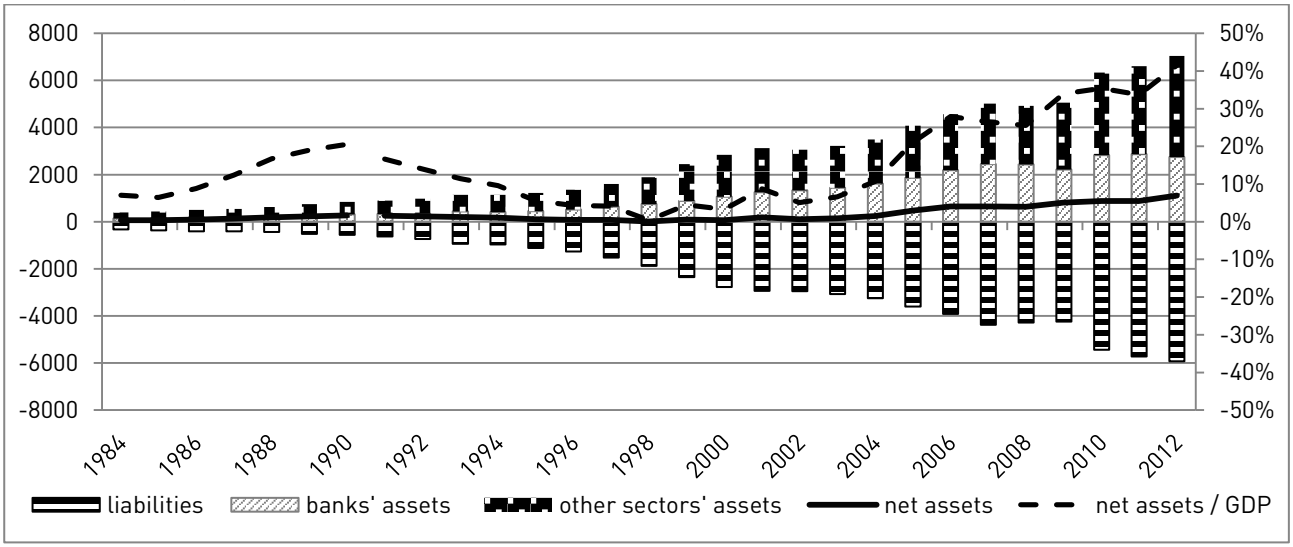
contributions of the net primary income balance. Germany's net international investment position peaked at 21 per cent of GDP in 1990. This trend was interrupted by the reunification of Germany. For the united Germany the trade balance turned negative as did the current account. While the trade balance recovered and turned positive in 1993 again, the current account remained negative until 2001. Germany's international investment position deteriorated from a positive balance of 21 per cent of GDP in 1990 to zero in 1998. Despite a still negative current account from 1999 to 2001 the net international investment position improved mainly due to strong valuation gains of foreign assets driven by the stock market booms at the end of the 2000s (Klär/Lindner/Šehović 2013). From 2001 on net exports increased rapidly until 2007, when they peaked at 7 per cent of GDP, and the current account surplus reached 7.5 per cent of GDP. The net international investment position increased rapidly as well and reached 26 per cent of GDP in 2007. This pushed the primary income balance into positive territory from 2004 onwards, reinforcing the already high current account surpluses. During the crisis net exports decreased but recovered relatively quickly after 2009. Net-primary income also stabilised, after a short decline in 2008, and has added about 2.5 per cent of GDP to Germany's current account balance since 2009. The latter reached pre-crisis levels again in 2012.

Figure 19: Current account, Germany, 1960 – 2013 (per cent of GDP)



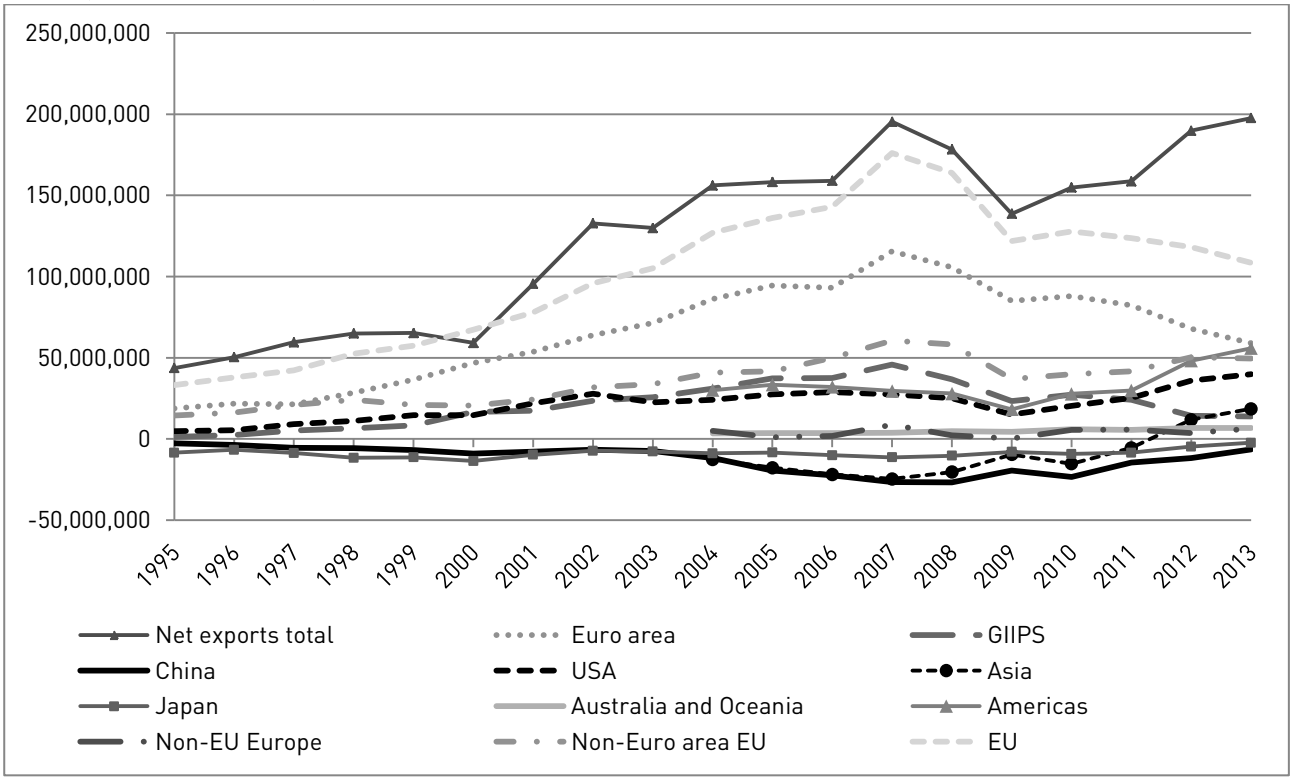
Notes: WestGermany until 1990.
Source: European Commission (2014a)

Figure 20: International investment position, Germany, 1984 – 2012 (billion euro, per cent of GDP)



Notes: West Germany until 1990.
Source: Deutsche Bundesbank (2013)

Figure 21: Net exports of goods to different regions and countries, Germany, 1995 – 2013 (thousand euro)



Source: Statistisches Bundesamt (2007–2012), Statistisches Bundesamt (2013)

Considering the regional dispersion of German trade surpluses (Figure 21),[16] we find that the largest part of the surplus was with EU countries, particularly with other Euro area countries. Smaller surpluses have been achieved against the Americas, and here in particular the USA. Before the crisis Germany had witnessed a rising deficit with much of Asia, driven by increasing deficits with China, in particular, and a constant deficit with Japan as well. The decline of the overall trade surplus during the 2008/09 crisis was largely due to decreasing net exports to advanced economies, while the deficit with Asia was reduced, which dampened the effect on total net exports. The fast recovery after the crisis seems largely to have been driven by increasing surpluses/decreasing deficits against non-EU countries – in particular Asia and the Americas. In contrast, the poor growth performance of many Euro area and EU countries has fed back on Germany through a shrinking surplus with these country groups.

To assess the developments of the German trade balance, as the main driver of the current account, it is useful to take Thirlwall's (1979, 2013) concept of a balance of payment constrained growth rate (BoPCGR) as a starting point.[17] If growth exceeds that rate, a country will incur current account deficits, and if growth falls short of that rate it will gain current account surpluses. The BoPCGR depends, first, on the price competitiveness of a country. Here the price elasticity of exports and imports, the inflation differential between a country and its trading partners and the development of the nominal exchange rate are important. Thirlwall considers this channel to be irrelevant in the long run. According to Thirlwall the more important factors in the BoPCGR are GDP-growth of a country's trading partners and the income elasticities of imports and exports. Those are determined by the structure of production, the quality, technical sophistication, and marketing of the produced goods.

Therefore, assuming that the respective elasticities have not substantially changed since the early/mid 1990s, in order to explain the development of Germany's trade and current account balances, three factors seem to be important: the development of external demand for German export goods, the price competitiveness of German producers in international markets, and the actual growth rate of domestic demand in Germany itself. The development of domestic demand has been extensively analysed in the previous sections. We have shown that the increasing dominance of finance, coupled with restrictive macroeconomic policies, led to considerable re-distribution of income at the expense of the labour income share and low income households and to weak domestic demand growth from the early/mid-1990s until the Great Recession. This was true both for private consumption demand as for firms' investment demand, and therefore also for imported consumption and investment goods.

[16] Due to lack of data availability we neglect services here. However, the largest parts of German trade surpluses are in goods. The service balance was normally in deficit and much smaller than the balance on goods. However, it should be noted that since 1999 it has moved from a negative balance of -46 billion euro to a small surplus of 2.4 billion in 2013 and has therefore also contributed to the recent current account surpluses.

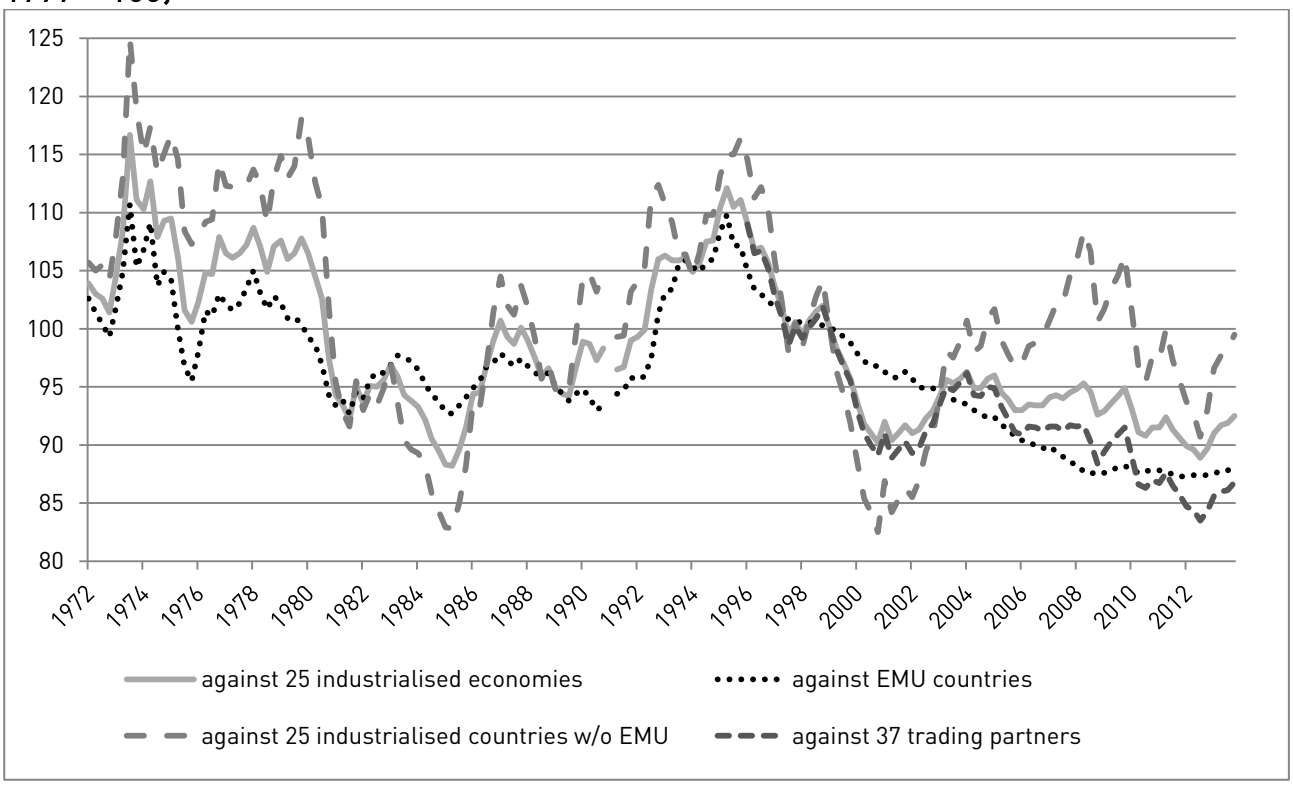
[17] See Hein/Truger/van Treeck (2012) for an application of this approach to the explanation of current account imbalances in the Euro area.

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800

Let us therefore take a closer look at the potential determinants of German exports next, and let us start with the long-run development of price competitiveness since the early 1970s (Figure 22). With the end of Bretton Woods in the early 1970s, and the strong appreciation of the deutschmark, Germany lost price competitiveness against most of its trading partners. This changed in the early 1980s when the dollar appreciated heavily against the deutschmark after Volcker raised interest rates in the US. However, the 1980s saw again a trend of real appreciation of the deutschmark and hence a loss in price competitiveness. This was continued during the reunification process and the subsequent boom in Germany. The reaction was tight nominal wage moderation starting in the early/mid-1990s (Hein/Truger 2005; Danninger/Joutz 2007), which was supported by a depreciation of the deutschmark against the US-dollar, so that when the euro was introduced, price competitiveness was almost at the level where it had been before reunification. However, with the initial weakening of the euro 1999-2000, Germany's competitiveness against non-Euro area countries increased significantly. With the appreciation of the euro in the early 2000s price competitiveness decreased again. When the financial crisis started in the US and confidence in the US-dollar diminished initially, the euro appreciated even more and Germany's competitiveness against non-Euro area countries declined further. This changed when the euro crisis undermined confidence in the euro, which started depreciating in 2009. Looking at the price competitiveness against the other Euro area countries, Germany continued with its restrictive nominal wage policies after 1999. This trend was reinforced by the labour market reforms during the 2000s under the Schröder government. With the exchange rate fixed, Germany constantly gained in price competitiveness against the other Euro area countries until 2008. Price competitiveness has remained at that level since then.

Interestingly, the two periods with rapid increases in German net exports, the 1980s and the 2000s until the Great Recession (Figure 19), were not associated with improved price competitiveness against the main trading partners. In the 1980s price competitiveness rather deteriorated. And in the early 2000s it remained constant, because the improvement with respect to the other Euro area member countries, which received less than 50 per cent of German exports, was more or less compensated for by a deterioration of German price competitiveness with respect to the non-Euro trading partners, which received more than 50 per cent of German exports. Thirlwall's conclusion, that international price competitiveness is of minor importance for the determination of the BoPCGR and thus for observed current account imbalances, seems to be supported by these observations for Germany.

Figure 22: Indicator of price competitiveness of the German economy against selected countries, based on the deflators of total sales, 1972 – 2013 (Index, March 1999 = 100)



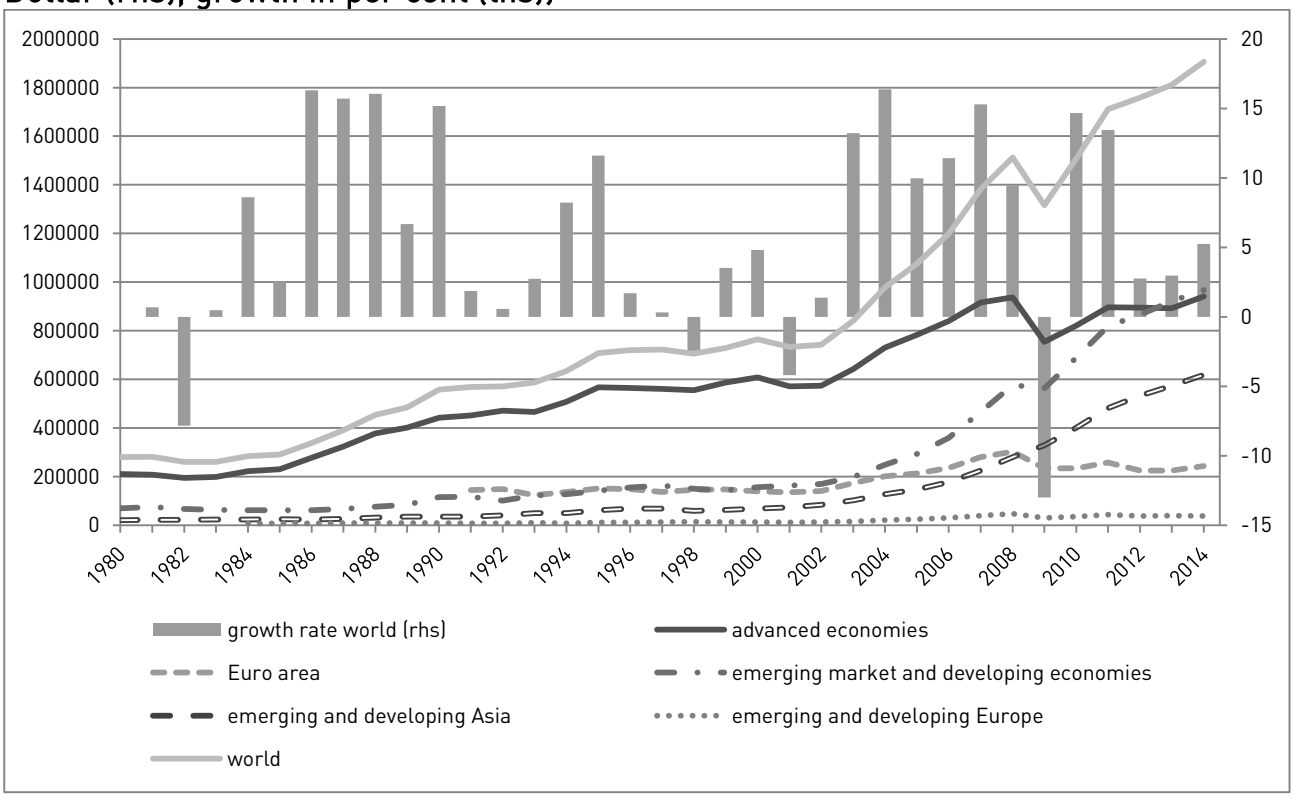
Notes: West Germany until 1990.
Indicator with 25 countries includes: Belgium, Denmark, Estonia (from 2011), Finland, France, Greece (from 2001), UK, Ireland, Italy, Latvia (from 2014), Luxembourg, Malta (from 2008), the Netherlands, Austria, Portugal, Sweden, Slovakia (from 2009), Slovenia (from 2007), Spain, Cyprus (from 2008), Norway, Switzerland, Japan, Canada and USA;
For the indicator with 36 countries additionally: Australia, Bulgaria, China, Croatia, Czech Republic, Hong Kong, Hungary, Lithuania, Poland, Romania, Singapore, South Korea;
Decrease of the indicator is an increase in competitiveness
Source: Deutsche Bundesbank (2014)

Regarding non-price competitiveness, the German economy, unlike other developed economies, has a relatively high share of manufacturing in net value added (24 per cent in 2007, France: 12 per cent, UK: 12 per cent, US: 13 per cent (OECD 2014)). Besides large industrial firms, the German economy contains a vibrant sector of small and medium sized companies, both focused on the production of high quality, R&D intensive products. Additionally, production is comparatively heavily geared towards the production of capital goods.[18] According to Jannsen and Kooths (2012), this focus on top quality segments of R&D intensive products provides German exporters with high non-price competitiveness. Storm and Naastepad (2014) relate this ability to produce in the high quality segment to the German corporatist model, which they claim still exists, despite political attempts to

[18] The share of investment goods production in total value added for Germany was about 12.5 per cent, Japan was at only 10 per cent, Spain 7 per cent, US 6 per cent, UK 6 per cent (Grömling 2014). See also European Commission (2010b).

change it, in particular in the course of the 1990s and the early 2000s. With this high non-price competitiveness of German exports the German BoPCGR can be assumed to be highly sensitive to dynamic growth of export markets and trading partners. Due to the focus on capital goods, German exporters can in particular benefit from high growth in catching-up countries with high rates of investment in capital goods (Storm/Naastepad 2014).[19]

Figure 23: Gross fixed capital formation for different country groups (Billion US-Dollar (rhs), growth in per cent (lhs))



Source: International Monetary Fund (2014), own calculations

Therefore, Germany's export performance and its current account position depend heavily on the dynamic development of demand in the rest of the world, and in particular on the development of investment in capital goods. Figure 23 shows the development of gross fixed capital formation in different regions of the world from 1980 until 2014. As can easily be seen, comparing Figure 23 and Figure 19, the acceleration of German net exports in the 1980s and the 2000s highly correlate with an acceleration of worldwide investment expenditures: After a relatively stagnant phase in the beginning of the 1980s, worldwide investment picked up in 1984, which allowed Germany to strongly increase net exports. A similar pattern can be observed when worldwide gross capital formation picked up rapidly in 2002. The extraordinary investment demand growth in this period was dominated by

[19] On the structure of German exports in the context of the European Union, see Simonazzi/Ginzburg/Nocella (2013).

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dynamic demand from emerging and developing countries, which had only contributed a relatively small part to total investment demand until then.[20]

To sum up, we would argue that the German economy, because of its institutional characteristics and its strong industrial sector can draw on high non-price competitiveness, which seems to be more important than competitive gains in nominal unit labour costs and related price competitiveness when it comes to the explanation of export and net export dynamics. This conclusion is supported by several results in the recent econometric literature. Storm and Naastepad (2014) and Schröder (2011) only find very small effects of price competitiveness on the German trade balance in their estimations for the periods 1996 – 2008 and 1991 – 2010, respectively. The development of the German trade balance is almost completely explained by the dynamics of foreign demand relative to domestic demand in their estimations. Other empirical studies that confirm the low elasticity of exports or net-exports to unit labour cost for Germany are for example Carlin/Glyn/van Reenen (2001) for the period 1970 – 1992 and Storm and Naastepad (2012, chapter 5) for the period 1960 – 2000. Further evidence is provided by the European Commission (2010b), which finds a comparatively small price elasticity for German exports using data for the period 1980 – 2008.[21]

High non-price competitiveness of German exporters provides a favourable position when world demand is strong. Germany's export performance is therefore highly dependent on global investment activity. When in the 1990s global demand for investment was depressed and at the same time Germany's internal demand growth lacked dynamism as well, the strategy of moderating wage growth to regain competitiveness made things worse. It depressed internal demand even further and only had minor effects on external demand. Therefore, Germany achieved only low growth rates in the 1990s and early 2000s. When, however, global investment demand in the early 2000s picked up, wage moderation and contractive fiscal policies contributed to depress import demand, while growing activity in the rest of the world stimulated export growth, explaining the widely praised export performance of the German economy. However, actual growth performance fell behind most other developed countries – and of course also behind Germany's BoPCR. The German 'export-led mercantilist' type of development in the period of increasing dominance of finance was thus based on high quality competitiveness in international markets and depressed domestic demand.

[20] Over the period 1980 – 2000 the share of emerging and developing economies in total gross fixed capital formation remained below 25 per cent, by 2007 it had reached 34 per cent and in 2013 it stood at 51 per cent.

[21] These findings seem to be also broadly in line with those by Kollmann et al. (2014) based on an estimated Dynamic Stochastic General Equilibrium (DSGE) model with three 'countries', Germany, the rest of the Euro area and the rest of the world (1995 – 2013).

III. Financialisation and the economic and financial crises as the crisis of finance-dominated capitalism

1. The transmission of the crisis starting in 2007 to Germany

As can be seen in Table 9, the 2008/09 recession in Germany proved to be particularly strong by international comparison. Whereas real GDP in the US – the country of origin of the financial crisis – dropped by 2.8 per cent, the fall in German real GDP was more than 5 per cent, and it was also clearly larger than in the Euro area as a whole. This was mainly due to the fact that, as a neo-mercantilist economy mainly driven by export demand, Germany was particularly hard hit by the global slowdown and the dramatically falling export demand, as can be seen in Table 10. One striking feature of the German slowdown, however, must be stressed: Although the recession was stronger in Germany than in many other economies, the loss in employment and the corresponding increase in the unemployment rate were much smaller (Table 11). This can be partially explained by a dramatic rise in short-time work, heavily subsidised by the government, and the extensive use of the so-called working-time accounts, allowing firms to flexibly adjust their labour volume without firing workers (see OECD 2010; SVR 2009b; Will 2011). Another striking feature was the fast recovery in Germany. After the large drop of GDP in 2009, growth picked up strongly in 2010 and 2011 and the unemployment rate fell to levels recently experienced only during the reunification boom. The main drivers of the recovery were initially (net) exports and then investment. Real exports had already completely recovered in 2010 from the collapse in 2009. Private consumption only accelerated considerably in 2011. Since 2012 this export-led recovery has made German current account-GDP ratios rise even above the pre-crisis ratios of 7.5 per cent of GDP (Table 10).

Table 9: Real GDP growth, 2007 – 2014 (per cent)

	2007	2008	2009	2010	2011	2012	2013	2014*
Germany	3.4	0.8	-5.1	3.9	3.4	0.9	0.5	1.9
Austria	3.7	0.9	-3.5	1.9	2.9	0.7	0.4	1.5
Belgium	2.9	1.0	-2.8	2.3	1.8	-0.1	0.2	1.5
The Netherlands	3.9	1.8	-3.7	1.5	1.0	-1.3	-0.8	1.0
Greece	3.5	-0.2	-3.1	-4.9	-7.1	-7.0	-3.9	-0.3
Ireland	5.0	-2.2	-6.4	-1.1	2.2	0.2	-0.3	1.9
Spain	3.5	0.9	-3.8	-0.2	0.1	-1.6	-1.2	1.0
Portugal	2.4	0.0	-2.9	1.9	-1.3	-3.2	-1.4	1.1
France	2.2	-0.2	-3.1	1.6	2.0	0.0	0.3	0.9
Italy	1.5	-1.2	-5.5	1.7	0.6	-2.4	-1.8	0.5
Euro area	3.0	0.2	-4.4	1.9	1.6	-0.6	-0.4	1.2
UK	3.4	-0.8	-5.2	1.7	1.1	0.3	1.7	3.2
US	1.8	-0.3	-2.8	2.5	1.8	2.8	1.9	2.6
Japan	2.2	-1.0	-5.5	4.7	-0.5	1.4	1.5	1.2
China	14.2	9.6	9.2	10.4	9.3	7.7	7.7	7.4

Note: * Forecast by the OECD
Source: OECD (2014)

Table 10: Key macroeconomic variables, Germany, 2007 – 2014 (percentage change if not indicated otherwise)

	2007	2008	2009	2010	2011	2012	2013	2014*
Real gross domestic product	3.4	0.8	-5.1	3.9	3.4	0.9	0.5	1.9
Real private final consumption expenditure	-0.2	0.7	0.3	1.0	2.3	0.7	1.0	1.4
Real government final consumption expenditure	1.4	3.2	3.0	1.3	1.0	1.0	0.7	1.6
Real gross fixed capital formation	5.0	0.6	-11.6	5.2	7.1	-1.3	-0.5	5.7
Real total domestic expenditure	1.9	1.0	-2.2	2.3	2.8	-0.2	0.5	1.6
Real exports of goods and services	8.3	2.3	-13.0	14.8	8.1	3.8	1.0	5.1
Real imports of goods and services	5.6	3.0	-7.8	12.3	7.5	1.8	1.0	4.8
Unemployment rate (per cent of labour force)	8.7	7.5	7.8	7.1	6.0	5.5	5.3	5.0
General government fin. balance (per cent of GDP)	0.2	-0.1	-3.1	-4.2	-0.8	0.1	0.0	-0.2
Short-term interest rate (per cent)	4.3	4.6	1.2	0.8	1.4	0.6	0.2	0.1
Nominal unit labour costs	-0.8	2.3	5.6	-0.9	0.9	3.0	2.2	0.9
Compensation per employee	0.8	2.1	0.1	2.4	3.0	2.6	2.0	2.4
Harmonised consumer price index	2.3	2.8	0.2	1.2	2.5	2.1	1.6	1.1
Current account balance (per cent of GDP)	7.5	6.2	5.9	6.3	6.8	7.5	7.6	7.9

Note: * Forecast by the OECD, nominal unit labour costs and compensation per employee by European Commission (2014a)
Source: OECD (2014), European Commission (2014a)

Table 11: Unemployment rate, 2007 – 2013 (per cent of labour force)

	2007	2008	2009	2010	2011	2012	2013	2014*
Germany	8.7	7.5	7.8	7.1	6.0	5.5	5.3	5.0
Austria	4.5	3.9	4.8	4.4	4.2	4.4	5.0	5.0
Belgium	7.5	7.1	7.9	8.3	7.2	7.6	8.4	8.4
The Netherlands	3.5	3.0	3.7	4.4	4.3	5.2	6.6	7.6
Greece	8.3	7.7	9.5	12.5	17.7	24.2	27.3	27.1
Ireland	4.6	6.0	12.0	13.9	14.6	14.7	13.0	11.4
Spain	8.3	11.3	18.0	20.1	21.6	25.0	26.4	25.4
Portugal	8.0	7.6	9.5	10.8	12.7	15.6	16.3	15.1
France	7.7	7.1	8.8	8.9	8.8	9.4	9.9	9.9
Italy	6.1	6.8	7.8	8.4	8.4	10.7	12.2	12.8
Euro area	7.4	7.5	9.4	10.0	10.0	11.2	11.9	11.7
UK	5.4	5.7	7.6	7.9	8.1	7.9	7.6	6.9
US	4.6	5.8	9.3	9.6	8.9	8.1	7.4	6.5
Japan	3.8	4.0	5.0	5.0	4.6	4.3	4.0	3.8

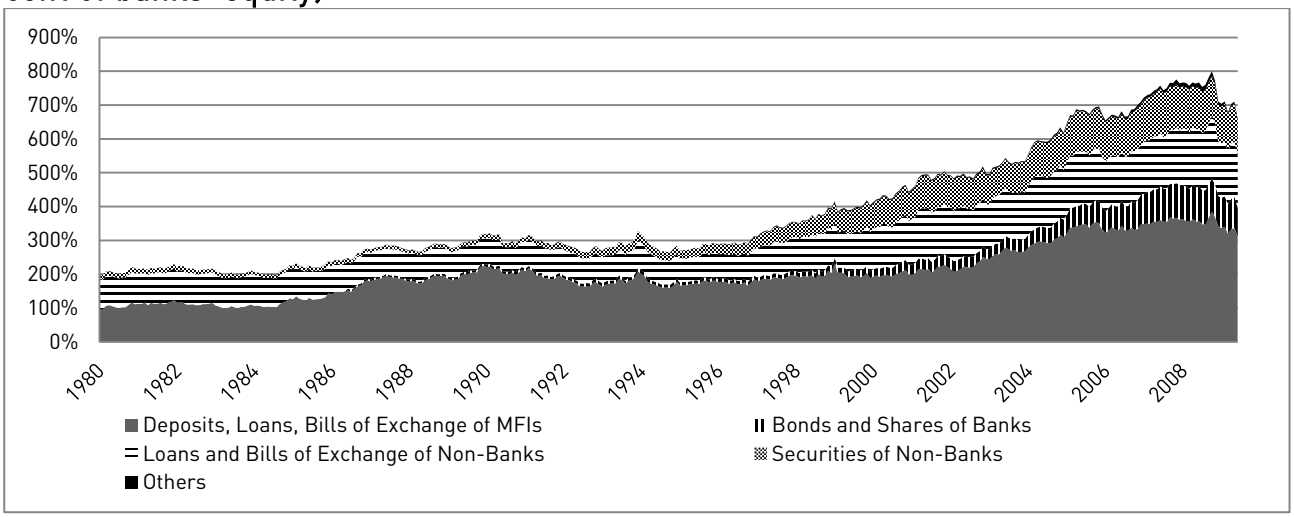
Note: * Forecast by the OECD
Source: OECD (2014)

The German Council of Economic Experts (SVR) has identified three potential channels by which the crisis could have been transmitted into the German economy (SVR 2009a):[22] the foreign trade channel, the financial market channel and the enterprise or direct foreign investment channel. According to this analysis, the foreign trade and the financial market channels were the most important ones, whereas there seems to be no indication that the

[22] See also Horn et al. (2009a, 2009b, 2009c) for detailed analysis of causes and transmission of the crisis to Germany.

enterprise/direct foreign investment channel had a specific role to play for Germany. It is argued that the foreign trade channel became particularly effective because of the rapid increase in the German dependence on exports, which was already highlighted above: between the mid 1990s and 2008, the share of exports in German GDP almost doubled. Furthermore, export specialisation in more volatile sectors and products (investment goods and cars in particular) contributed to the severity of the crisis in Germany. In case of the financial market channel, it is argued that a high correlation in changes of asset prices, for example in long-term interest rates and stock market price indices, could already be observed before the crisis. However, the direct economic effects of asset price collapses on Germany have been less important than in other countries, because wealth effects on consumption are estimated to be small or even non-existent, and the effects on investment via Tobin's q or the balance sheet channel have also been unclear in empirical studies.

Figure 24: Loans of German banks to foreign banks and non-banks, 1980 – 2009 (per cent of banks' equity)



Source: SVR (2009a, p. 93)

According to the SVR (2009a), however, a peculiar financial transmission channel of the crisis into Germany has been active, which is closely related to the rapidly increasing German current account surpluses in the course of the early 2000s. Net foreign financial assets held by German wealth owners rapidly increased up to 700 billion euro in 2007 (SVR 2009a, p. 91). Most of these foreign assets were held by German banks such that the ratio of foreign assets to equity of the German banking sector increased tremendously (Figure 24). While the entire foreign exposure stood at about 2.7 times banks' equity in 1995, it had increased to 7.6 times at the end of 2007. In particular, the amount of securities of foreign banks and non-banks increased in relative importance. The biggest absolute increase was, however, in loans to foreign banks. In particular, the German Landesbanken, which were among the first German financial institutions to get into trouble when the financial crisis started in the US in 2007, contributed to this development. However, later on also private financial institutions were affected by the crisis and had to record heavy losses.

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The write-offs of large German financial institutions (banks and insurance companies) directly related to the financial crisis amounted to 102 billion euros in the period from 2007 to August 2009 (SVR 2009a).

Overall, the SVR (2009a) concludes that the more intensive and particular integration of the German financial and non-financial enterprises into the global economy has contributed significantly to the more severe recession in Germany as compared to many of the other economies. This was intensified by global uncertainty associated with the crisis, increasing vulnerability due to integration in production, and the pro-cyclicality of the global financial system.

2. The bailout of the financial sector

The immediate political responses towards the financial crisis were the Financial Market Stabilisation Act (*Finanzmarktstabilisierungsgesetz*, FMStG), as well as the establishment of the Federal Agency of Financial Market Stabilisation (*Bundesanstalt für Finanzmarktstabilisierung*, FMSA) and the Special Financial Market Stabilisation Fund (*Sonderfonds Finanzmarktstabilisierung*, SoFFin) as part of the FMSA in October 2008 (SVR 2009b, chapter 4).[23] The SoFFin was endowed with 480 billion euro in order to re-capitalise banks and to provide them with guarantees. Later on in 2009, the SoFFin was also empowered to establish wind-down agencies, which could be used to transfer assets from banks' balance sheets to those newly created special purpose vehicles (Detzer/Herr 2014 chapter 12). The establishment of wind-down agencies was used by two banks. At the end of 2009 the Erste Abwicklungsanstalt (EAA, first winding-down agency) was established to enable the restructuring of the West LB, which first transferred a portfolio of 77.5 billion euro and then later additional assets with a nominal value of about 100 billion euro to the agency (EAA 2014). In 2010 the FMS-Wertmanagement (FMS-WM, FMS value management) was established. It took over a portfolio of 175.7 billion euro from the struggling Hypo Real Estate Group (FMS-WM 2014). By the end of 2010, the total volume of all these measures peaked at 323 billion euro. (FMSA 2014a). Guarantees and risk assumptions had been reduced to zero at the end of 2013 (Table 12) and according to an interim report, none of the guarantees was used and the SoFFin received fees of 2 billion euros for providing those guarantees. However, substantial risks from the capital provisions, which stood at 17.1 billion euro in June 2014, still exist, along with risks stemming from the bad banks, which still held assets with a nominal value of 233.8 billion euro at the end of 2013. The FMSA estimates that losses on those risks may reach a magnitude of 22 billion euro (Bundesministerium der Finanzen 2013a).

All these measures were sufficient to detain the financial crisis and to prevent a financial meltdown in Germany. Despite the stabilisation, there were widespread fears that the damaged financial sector would be curbing loans, thus causing a credit crunch which would affect the real economy. However, the diverse structure of the German banking sector in which public, cooperative and private banks as well as regionally, nationally and internationally active banks coexist helped to prevent such a scenario and no widespread credit crunch undermined the recovery (Detzer 2014b). However, the

[23] For the history and the details of the FMSA see FMSA (2014b) and Detzer/Herr (2014, chapter 3 and 12).

drawback of the financial rescue measures was a considerable contribution to the rise in the government gross debt-GDP ratio, which increased from 65.2 per cent in 2007 to a height of 82.5 per cent in 2010[24] and only decreased slowly thereafter (European Commission 2014a). This increase was also caused by the expansionary fiscal policies implemented in response to the crisis, which will be discussed in the following section.

Table 12: Stabilisation aid of SoFFin, Germany, 2008 – 2014 (€ billion)

	total volume of all measures	bad banks (nominal asset volume)			capital injections	guarantees	risk assumptions
		Total	FMS-WM	EAA			
31.12.2008	32.1				8.2	23.9	
31.12.2009	166.4				25.7	140.7	5.9 (06/10/09)
31.12.2010	323	238.1	174.3	63.8	29.3	55.6	0
30.06.2011	267.5	217.6	160.5	57.1	17.7	32.2	0
31.12.2011	259.7	211.7	160.7	51	19.8	28.2	0
30.06.2012	227.8	197	151.4	45.6	19.8	11	0
31.12.2012	302.7	280.2	136.9	143.3	18.8	3.7	0
30.06.2013	263	244.8	128.5	116.3	17.1	1.1	0
31.12.2013	233.8	216.7	119.1	97.6	17.1	0	0
30.06.2014	N/A	N/A	N/A	N/A	17.1	0	0

Notes: FMS-WM – FMS Wertmanagement, EAA – Erste Abwicklungsanstalt

Source: FMSA (2014a), our translation

3. Macroeconomic policies and recovery from the crisis

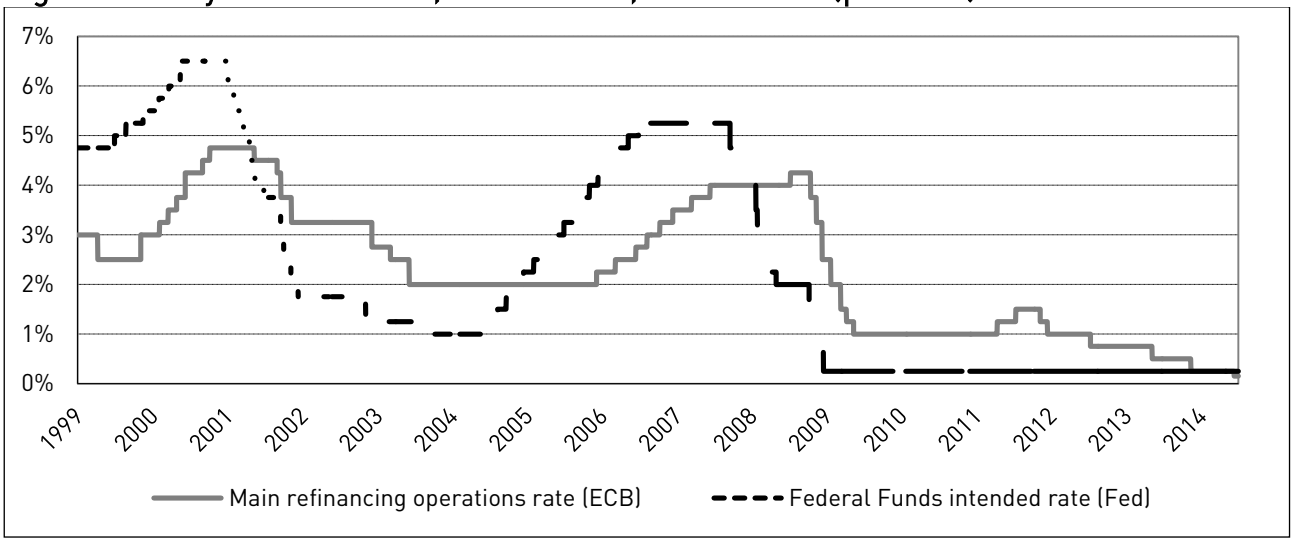
The global financial and economic crisis led to remarkably fast and strong economic policy reactions in many countries (OECD 2009). As an immediate measure, central banks provided extensive liquidity to money markets, thereby meeting their 'lender of last resort' functions. And, to a different extent in different economies, monetary policy and fiscal policy switched to expansion in order to tackle the crisis of the real economy. In what follows, a brief overview of the economic policy responses in Germany will be given, focussing on the years of the crisis and immediately after.

Since the start of the euro in 1999, of course, monetary policy has no longer been a German but a Euro area-wide policy in the hands of the ECB. With respect to its role as a lender of last resort, the ECB acted in a very fast and internationally coordinated manner, thereby saving the financial system from collapse. However, with respect to interest rate policy, the ECB basically followed 'business as usual', which can be described as 'too little too late' (Hein/Truger 2007b) as compared with the US Fed (Figure 25). In July 2008, when the dramatic economic slowdown could not be ignored any longer, the ECB even increased

[24] In particular the establishment of bad banks lead to an increase of gross debt. The SoFFin and the FMS-WM are accounted as special budgets and accounted for 11 per cent of total gross government debt. Generally, special budgets of the federal and the Länder governments increased from about 1.1 per cent of gross debt to 16.3 per cent in 2010. Since then it has declined and stood at 15.6 per cent in 2012 (Bundesministerium der Finanzen 2013b).

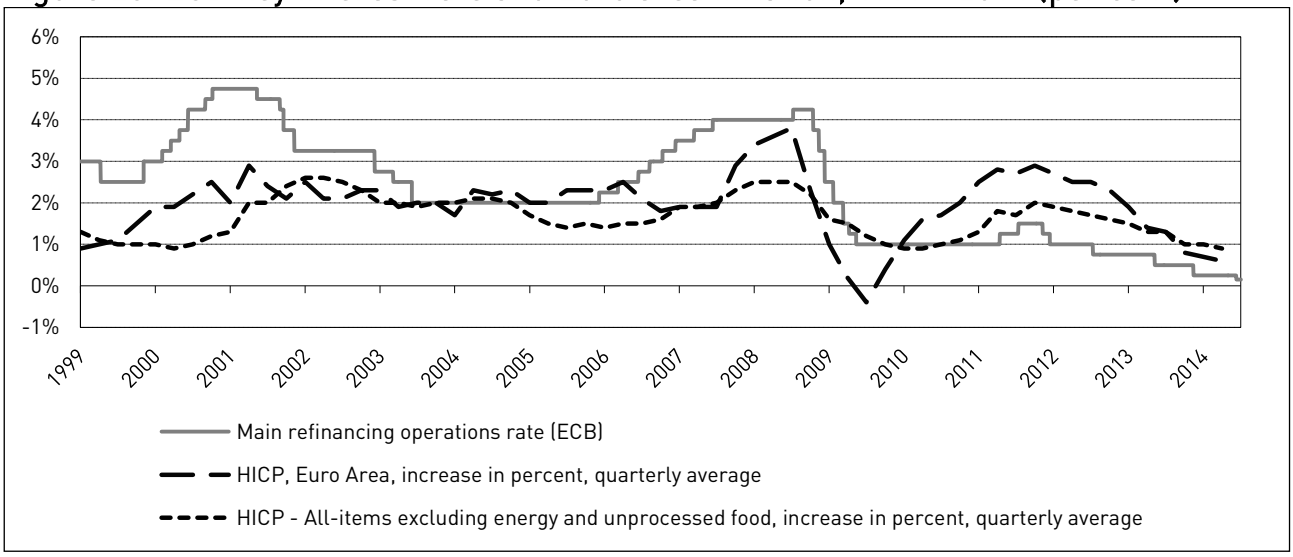
the key interest rate, the main refinancing rate, by 25 basis points to 4.25 per cent with recourse to 'inflationary dangers'. However, as Figure 26 makes clear, the strong increase of the Harmonised Index of Consumer Prices (HICP) since autumn 2007 has been due almost entirely to the rise in food and oil prices; and there were no clear signs of second round effects. The single-minded preoccupation of the ECB with inflation, and the ill-conceived concentration on head-line inflation as expressed by the HICP, is confirmed by the fact that the ECB started cutting interest rates only after oil prices – and consequently the HICP – had started to fall. The coming dramatic real economic slowdown was completely ignored initially: interest rate cuts came well after GDP had started to fall strongly, as can be seen in Figure 27. This late reaction of the ECB was disadvantageous in particular for those Euro area member countries which were hit hard by the crisis, like Germany. But the consistently low nominal interest rates since then (the slight increase in 2011 had to be reversed quickly) have favoured all Euro area member countries. This provided an additional impetus for countries like Germany in which economic expansion, driven by net exports in particular towards emerging market economies in Asia and the Americas (see section II.4), resumed quickly.

Figure 25: Key interest rates, ECB vs. Fed, 1999 – 2014 (per cent)



Source: ECB (2014); Federal Reserve Bank of New York (2014)

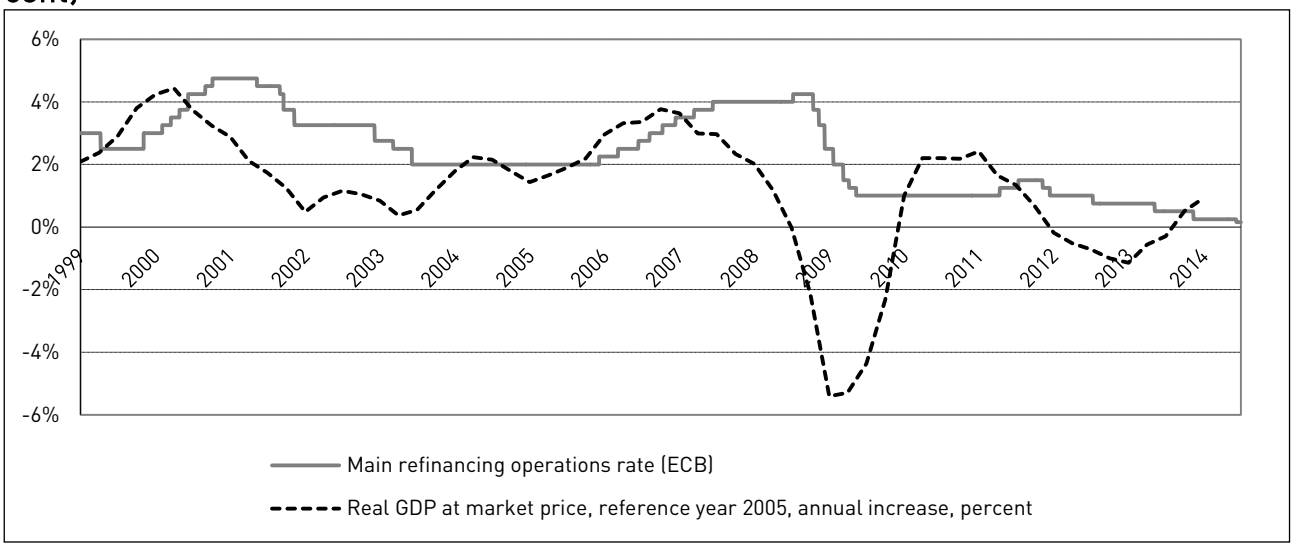
Figure 26: ECB key interest rate and Euro area inflation, 1999 - 2014 (per cent)



Notes: HICP – Harmonised index of consumer prices

Source: ECB (2014), own calculations

Figure 27: ECB key interest rate and Euro area real GDP growth, 1999 – 2012 (per cent)



Source: ECB (2014), own calculations

Wage policies did not actively help to stabilise the German economy during the crisis (Table 10). In the crisis year 2009, the compensation per employee only increased by 0.1 per cent. However, a normalisation of compensation growth in the years 2010 – 2013, compared to the years before the crisis,[25] has contributed to the recovery of private consumption demand. Nominal unit labour cost growth increased in 2008 and 2009 and thus contributed to the rise in German inflation. However, this was due to the usual decrease in labour productivity growth in the course of the crisis because of labour hoarding, in particular, actively supported by the government.

[25] From 2000 to 2007 compensation per employee increased by only 1 per cent on average.

Table 13: Budgetary effects of fiscal packages and additional measures, Germany, 2009-2010 (€ billion)[1]

Fiscal Package I	2009	2010	2009+2010
1. Investment Support	1.32	1.40	2.7
a) public infastructure (roads)	1.00	1.00	2.0
b) support for regions	0.20	0.10	0.3
c) credit programme for energy-efficient construction	0.04	0.22	0.3
d) further credit programmes	0.07	0.08	0.1
2. Tax Relief for Private Households	0.38	1.04	1.4
a) motor vehicle tax exemption	0.38	0.14	0.5
b) tax incentives for services in private households		0.90	0.9
3. Tax Relief for Businesses	2.18	4.70	6.9
a) accelerated depreciation allowances (25%)	1.94	4.33	6.3
b) special depreciation for small and medium size	0.24	0.37	0.6
Sub Total	3.87	7.13	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	2009+2010
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) subidies 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 Deductability 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

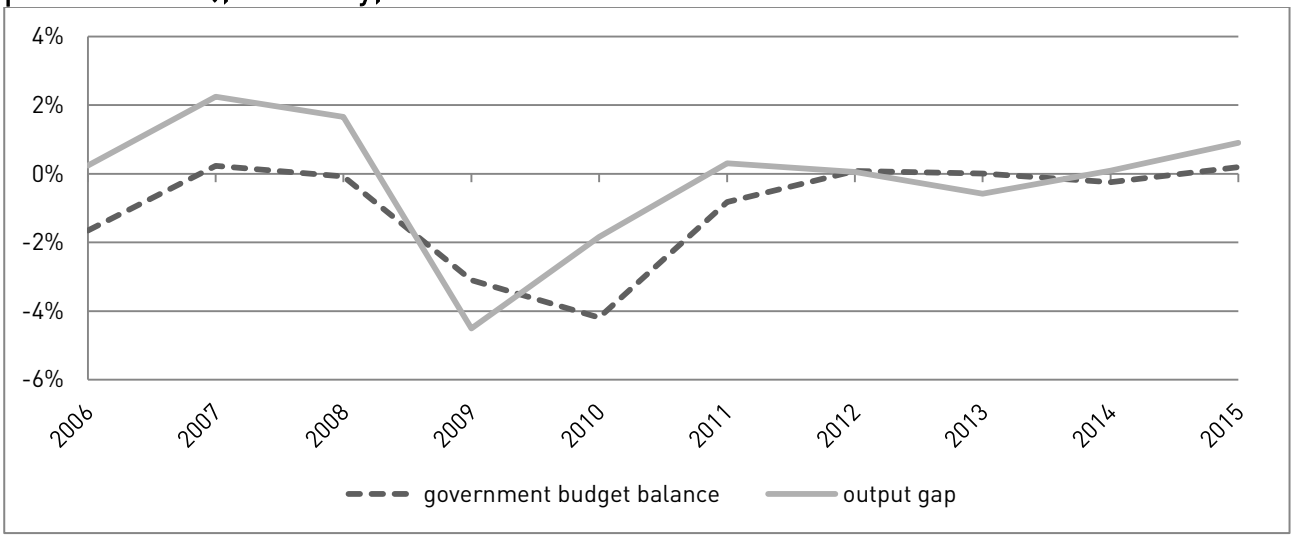
Notes: [1] Without macroeconomic repercussions
Source: Hein/Truger (2010, p. 209)

It was therefore fiscal policy which mainly contributed to the quick recovery, reacting in a remarkably counter-cyclical way. Ever since the late 1970s German fiscal policy had built

up a more than 25 year old tradition of pro-cyclical restriction in previous recessions (Hein/Truger 2007a). However, in the 2008/9 crisis, 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 13). Overall, the packages together with some additional measures included substantial increases in public investment, as well as tax relief for business and households. The cumulative stimulus for 2009 and 2010 amounted to 3.1 per cent of 2008 GDP, which is certainly above the Euro area average level (OECD 2009). However, the US stimulus package had a volume of more than 5 per cent of GDP in the period 2008-2010, and was therefore substantially bigger (OECD 2009).

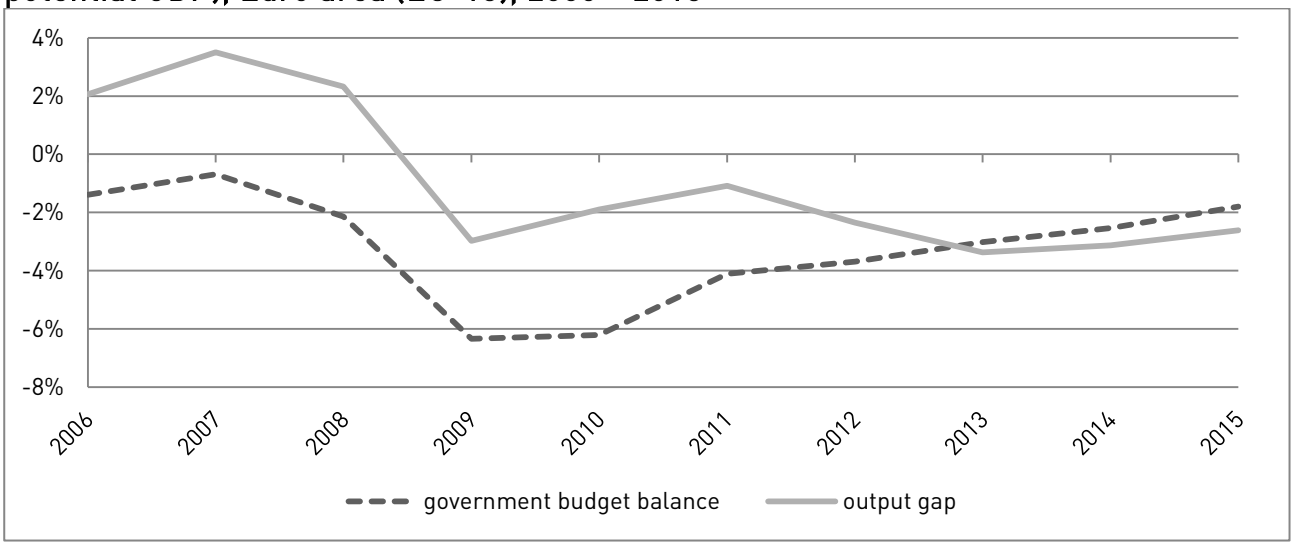
Figures 28a-c show the budget balance, as well as the output gap as a measure of the cyclical condition of the economy for Germany, the EU-15, and the US respectively. As can be seen, in 2009 the budget balance in the US responded more elastically to the crisis than in Germany or in the EU-15. In the US, the budget balance reacted by 1.22 per cent of GDP per one percentage point drop in the output gap. In Germany and the EU-15 the corresponding numbers were 0.49 and 0.79 per cent of GDP respectively. In 2010, however, German fiscal policies accepted a further increase in the budget deficits in the face of an improvement of the output gap and the recovery of the economy, whereas the Euro area and the US already started reducing the deficit, albeit from a higher level of the deficit-GDP ratio. With the fast recovery in Germany the output gap closed in 2011 and the government reduced its deficit accordingly. In the Euro area, after the output gap started to narrow in 2010 and 2011 it started widening from 2012 on and fell below -2.5 per cent. Despite this large deviation of output from its potential, governments in the Euro area acted highly pro-cyclically and introduced austerity packages to consolidate their budgets, therewith undermining a timely recovery and generating another recession in 2012/13.

Figure 28a: Government budget balance (per cent of GDP) and output gap (per cent of potential GDP), Germany, 2006 – 2015



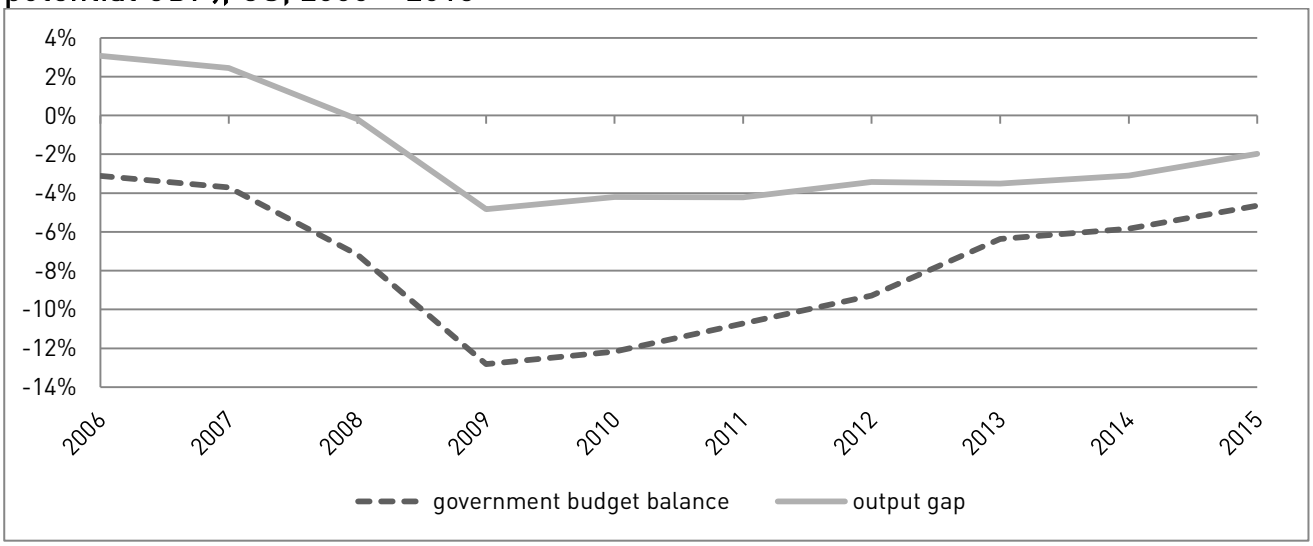
Notes: OECD projections for 2014 and 2015.
Source: OECD (2014)

Figure 28b: Government budget balance (per cent of GDP) and output gap (per cent of potential GDP), Euro area (EU-15), 2006 – 2015



Notes: OECD projections for 2014 and 2015.
Source: OECD (2014)

Figure 28c: Government budget balance (per cent of GDP) and output gap (per cent of potential GDP), US, 2006 – 2015



Notes: OECD projections for 2014 and 2015.
Source: OECD (2014)

From the analysis so far it can be concluded that the rapid German recovery since 2009 has been based on three main pillars. First, the successful containment of the crisis in the financial sector and the resilience of the three pillar banking system (public banks, cooperative banks, private banks) prevented a collapse of the financial system and a credit crunch. Second, the German neo-mercantilist type of development, which was a major cause for global imbalances before the crisis and the severity of the crisis in Germany itself, allowed for a rapid recovery via the net export channel as soon as the world economy recovered from the crisis and growth in emerging market economies of Asia and

the Americas picked up, in particular, as we have already indicated in Section II.4 above. Third, expansionary fiscal policies contributed to the quick recovery of the German economy by means of stabilising domestic demand, which then also induced real capital formation to rise (Table 10). Finally, in 2011, private consumption also contributed significantly to real GDP growth.

However, this German type of recovery suffers from two major drawbacks. First, to the extent that it is driven by net exports, it has to rely on the export-led neo-mercantilist type of development that considerably contributed to world and regional imbalances and to the severity of the crisis in Germany itself. It therefore contains the seeds for further imbalances, fragilities and future vulnerabilities of the German economy, and it contributes significantly to the persistent euro crisis (see Cesaratto/Stirati 2010; Uxo/Paul/Febrero 2011; Hein 2013/14; Hein/Truger/van Treeck 2012). Second, as a political precondition for the German stimulus packages, the so-called 'debt brake' was introduced into the German constitution. From 2016 onwards, the federal budget will only be allowed to run a cyclically adjusted deficit of 0.35 per cent of GDP. The federal states' (*Länder*) budgets will have to be structurally balanced from 2020 onwards. As the cyclically adjusted or 'structural' deficit will be determined by a variation of the European Commission's method of calculating structural deficits, it will exhibit the same strong sensitivity to short term revisions of GDP forecasts, and will therefore prevent the full working of automatic stabilisers. Discretionary fiscal policy will only be allowed under very restrictive conditions. This type of fiscal austerity has also been imposed on the Euro area via a tightened Stability and Growth Pact and the new Fiscal Compact. All this will severely limit the room for manoeuvre for German and European fiscal policies in the future, prevent current account rebalancing in the Euro area and constrain aggregate demand management in the Euro area as a whole (Hein/Truger 2014a, 2014b; Truger/Will 2012).

IV. Conclusions

In this paper we have studied the long-run changes between the financial and the non-financial sectors in Germany, and in particular the effects of these changes on the macroeconomic developments that have led or contributed to the financial crisis starting in 2007 and the Great Recession in 2008/09. In the first part we classified the development in Germany since the early/mid-1990s as 'export-led mercantilist'. This type of development is characterised by positive financial balances of the domestic sector as a whole, negative financial balances of the external sector, and thus, current account surpluses, only small positive growth contributions of domestic demand, but relatively high growth contributions of the balance of goods and services.

In the second part we then examined the long-run effects of financialisation on the German economy in more detail. We expected to find such effects for the period starting in the early/mid-1990s when major institutional changes regarding the financial sector were enacted. First, we explored the effects of an increasing dominance of finance on income distribution. We observed a change in the functional income distribution at the expense of the labour income share and increasing inequality in the personal or household distribution of income. We found some indications that the channels of re-distribution in favour of gross profits in the era of financialisation identified in the general literature were

operating in Germany, too: higher overhead costs and profit claims of rentiers, lower bargaining power of workers, and a change in the sectoral composition of the economy, at the expense of the public sector and in favour of the private sector.

Second, the effects of an increasing dominance of finance on investment in capital stock were examined. Again, we found some indications that the channels through which financialisation is said to dampen real investment were operating in Germany as well. First, we found higher dividend pay-out ratios and share buybacks in the non-financial corporate sector, each in favour of the interest of shareholders, which reduce internal means of finance for real investment. Second, we found a rise in the share of property income (interest and dividends) in profits of non-financial corporations, which indicates an increasing preference for financial investments generating short-run profits, rather than for real investment in the firm which might only generate long-run profits with more uncertainty.

Third, the relationship between financialisation and household consumption was analysed in more detail. In the case of Germany, no indication of significant wealth effects or emulation effects ('Keeping up with the Joneses') on consumption could be detected. Consumption expenditure was thus dominated by an increasing average propensity to save before the crisis, driven by re-distribution of income, on the one hand, and rising pre-cautionary saving triggered by policies of deregulation of the labour market and downsizing of the welfare state, on the other hand. The absence of wealth effects can be explained by the highly unequal distribution of real and financial wealth, on the one hand, and by the relatively low importance of wealth held as shares, investment funds but also housing ownership, on the other hand.

Fourth, we more closely examined the development and the determinants of the German balance of goods and services and the current account in the period of an increasing dominance of finance. Net exports were the main drivers of German growth, in particular in the trade cycle before the financial crisis and the Great Recession. We argued that Germany, due to the institutional setting and the strong industrial sector, benefitted from high non-price competitiveness, which provides a favourable position when world demand is strong. Price competitiveness only had a minor role to play. Therefore, when global investment demand picked up in the early 2000s, wage moderation policies and restrictive macroeconomic policies as a whole contributed to depress import demand, while growing activity in the rest of the world stimulated export growth, explaining the widely praised export performance of Germany. However, actual growth performance remained well below potential growth and lagged behind most other developed countries.

This specific integration of Germany into the world economy explains to a large extent the transmission of the international financial and economic crisis to Germany, which was more severely affected than other countries. In Section III of this paper we argued that Germany was particularly exposed to the international trade channel and the financial contagion channel of the crisis. However, the specific German export-led mercantilist type of development, relying on high-quality exports, was also able to provide the condition for a quick recovery, as soon as world demand, in particular in emerging market economies, accelerated again. Active counter-cyclical fiscal policies, as well as expansionary effects of low interest rate monetary policies contributed to this quick

recovery. However, we finally argued that this German type of recovery suffers from two major drawbacks. First, it has continued to rely on the export-led mercantilist type of development that has considerably contributed to world and regional imbalances, to the severity of the crisis in Germany itself, and also to the ongoing euro crisis. Second, as a political price for the active fiscal policies in the course of the crisis, Germany – and, under the pressure of Germany, the Euro area member countries – have implemented 'debt brakes' into their constitutions – or agreed to do so. This will mean continuously restrictive fiscal policies for the future, highly constrained rooms for manoeuvre in future crises, as well as severe obstacles to internal rebalancing of the Euro area.

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THE ABSTRACT OF THE PROJECT IS:

The research programme will integrate diverse levels, methods and disciplinary traditions with the aim of developing a comprehensive policy agenda for changing the role of the financial system to help achieve a future which is sustainable in environmental, social and economic terms. The programme involves an integrated and balanced consortium involving partners from 14 countries that has unsurpassed experience of deploying diverse perspectives both within economics and across disciplines inclusive of economics. The programme is distinctively pluralistic, and aims to forge alliances across the social sciences, so as to understand how finance can better serve economic, social and environmental needs. The central issues addressed are the ways in which the growth and performance of economies in the last 30 years have been dependent on the characteristics of the processes of financialisation; how has financialisation impacted on the achievement of specific economic, social, and environmental objectives?; the nature of the relationship between financialisation and the sustainability of the financial system, economic development and the environment?; the lessons to be drawn from the crisis about the nature and impacts of financialisation? ; what are the requisites of a financial system able to support a process of sustainable development, broadly conceived?'

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1 (Coordinator)	University of Leeds	UK
2	University of Siena	Italy
3	School of Oriental and African Studies	UK
4	Fondation Nationale des Sciences Politiques	France
5	Pour la Solidarite, Brussels	Belgium
6	Poznan University of Economics	Poland
7	Tallin University of Technology	Estonia
8	Berlin School of Economics and Law	Germany
9	Centre for Social Studies, University of Coimbra	Portugal
10	University of Pannonia, Veszprem	Hungary
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12	Middle East Technical University, Ankara	Turkey
13	Lund University	Sweden
14	University of Witwatersrand	South Africa
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