Income distribution, aggregate demand and current account: a sectoral perspective*

Jan Behringer
Macroeconomic Policy Institute (IMK)
University of Würzburg

Till van Treeck
University of Duisburg-Essen
Macroeconomic Policy Institute (IMK)

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Abstract

We analyse the link between income distribution and aggregate demand through a descriptive analysis for the G7 countries and a series of panel estimations for the G7 countries and a larger sample of 20 countries for the period 1972-2007. We find that, firstly, rising personal inequality leads to a decrease of household net lending and the current account, *ceteris paribus*. The effect is strong for top household income shares, but much weaker for the Gini coefficient of household income. This finding is consistent with consumption externalities resulting from upward-looking status comparisons. Secondly, an increase in the corporate financial balance leads to an increase in the current account, *i.e.*, consumers do not fully 'pierce the corporate veil'. There is also tentative evidence that the corporate net lending and the current account increase as a result of a decline in the share of wages in value added. The joint effects of changes in personal and functional income distribution contribute to a significant degree to explaining the global current account imbalances prior to the Great Recession.

Keywords: Income distribution, current account determinants, household saving, corporate saving, panel data analysis

JEL Classifications: C23, E2, E21, F32, F41, G3

*Address for correspondence: Jan Behringer, Macroeconomic Policy Institute (IMK), Hans-Böckler-Straße 39, 40476 Düsseldorf, Germany. Email: Jan-Behringer@boeckler.de. Till van Treeck, University of Duisburg-Essen, Universitätsstr. 12, R12 R06 B05, 45117 Essen, Germany. Email: till.vantreeck@uni-due.de. Financial support of the Institute for New Economic Thinking (INET) is gratefully acknowledged. We would like to thank Alexander Belabed, Eckhard Hein and Thomas Theobald for helpful comments. Of course, all errors are ours.

1 Introduction

In this paper, we reconsider an issue with a long tradition in economics: the link between income distribution and aggregate demand. Our approach is based, firstly, on a descriptive presentation of some basic, but largely neglected, stylised facts about the relationship between measures of functional and personal income distribution on the one hand, and sectoral financial balances and national current account balances on the other hand. Secondly, we estimate a number of simple panel regression models for the G7 countries (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and for a larger panel of 20 developed and emerging economies. Specifically, we relate the current account balance and sectoral (household and corporate) financial balances to various measures of functional and personal income distribution. We also conduct a number of robustness checks. Our analysis has implications for several related, but so far rather segmented, debates in the existing literature. This includes the following questions: Can the secular rise in (top-end) income inequality help to explain recent trends in household saving and the current account across countries? Are top household income shares, on which much of the recent literature has focused, an accurate proxy of economic inequality? More specifically, how do top income shares relate to measures of functional income distribution (profits vs. wages)? Do households 'pierce the corporate veil'? In other words, is there a role for the functional income distribution in explaining trends in consumption, aggregate demand and the current account?

A tentative answer to these interrelated questions as suggested by our empirical results may be succinctly summarised as follows. Firstly, there is a strong negative link between top-end income inequality (the top 1% or the top 5% income share) and the current account balance, controlling for a standard set of other explanatory variables. Not surprisingly, this negative link also exists for the household saving rate and the household financial balance. This result is in line with recent evidence about the link between rising income inequality and the decline in saving (and rise in household debt) prior to the Great Recession (e.g. Rajan, 2010; Frank et al., 2010; Kumhof et al., 2012). Interestingly, the adverse effect on the current account is strong for top household income shares, but much weaker for the Gini coefficient of household income. This finding is consistent with consumption externalities resulting from upward-looking status comparisons (e.g. Frank, 2007).

Secondly, however, sole reliance on top income shares, which have been the focus of much of the recent literature on economic inequality (Piketty and Saez, 2006; Atkinson et al., 2011), would miss important differences across countries in terms of the specific nature of inequality.

In fact, since the distribution of corporate wealth is highly skewed, changes in top income shares underestimate the degree of rising inequality to the extent that household disposable income declines at the expense of corporate income. Yet, we observe a negative (positive) link between the change in net corporate lending (the share of wages in national income) and top household income shares for the most important countries in our sample.

Thirdly, we find that households do not fully pierce the corporate veil, but an increase in the corporate financial balance leads to an increase in the current account, controlling for standard explanatory variables. We also find tentative evidence that a decline in the share of wages in national income is linked to an increase of the current account (via the corporate financial balance). This finding is consistent with the intuition emanating from macroeconomic theories in the underconsumptionist tradition. Moreover, together with the finding of a significant effect of the fiscal balance in the current account estimations, these results confirm the importance of the analysis of sector accounts for understanding macroeconomic trends (e.g. Godley and Lavoie, 2007).

Finally, our findings can be related to the specific empirical cases of a number of countries which have played important roles in the global current account imbalances, which are largely held to be an important structural cause of the recent global financial crisis. On the one hand, the United States and the United Kingdom have experienced very strong increases in top household income shares since the early 1980s, while the functional distribution between corporate and household income has been roughly constant over the same period. In these countries, household saving has strongly declined, while household leverage has rocketed, resulting in a personal debt crisis. On the other hand, in countries such as Germany and Japan top household income shares have not increased nearly as much as in the Anglo Saxon countries, according to the World Top Incomes Database, but the household and labour income shares have declined much more strongly and the corporate sector has persistently run financial surpluses. Similarly, the strong increase of the current account in China can also be partly explained by the declining household (labour) income share. In sum, due to the apparent significance of the corporate veil, different aspects of growing inequality (personal vs. functional inequality) seem to have had different, but interrelated, implications for the global current account imbalances prior to the Great Recession.

The remainder of this paper is structured as follows. In Section 2, we review in turn the different strands in the literature as sketched above. In Section 3, we illustrate the relevance of our main hypotheses in a descriptive fashion, before discussing the estimation strategy and results. This is followed by some concluding remarks in Section 4.

2 A critical review of the literature

2.1 Income distribution, saving and aggregate demand

The view that 'the rich save more than the poor' is intuitively appealing, although it does not fit well with standard models of rational consumers, where the propensity to consume out of (permanent) income is independent of income distribution. Dynan *et al*. (2004) found a strong positive relationship between personal saving rates and lifetime income. Their results have recently been confirmed by Alvarez-Cuadrado and Vilalta (2012). Possible theoretical explanations include different degrees of patience across income groups (Mankiw, 2000), bequest motives and asset-based means testing (Dynan et al., 2004), wealth in the utility function or capitalist spirit (Carroll, 2000; Zou, 1995), or positional externalities in consumption (Frank, 2007).

Leigh and Posso (2009, p. 58), for example, argue that "(i)f the rich save more than the poor, then a mean-preserving transfer from poor to rich would raise aggregate savings rates." Yet, the opposite may be true in the presence of strong demonstration effects when households with declining relative incomes reduce their saving by so much as to overcompensate the increased saving of the richer households. In particular, the "expenditure cascades" model by Frank et al. (2010) is based on the notion that "people generally look to others above them on the income scale rather than to those below" (Frank et al., 2010, p. 7). Therefore, the negative effect of rising inequality on saving will be the more pronounced, the further a shift in inequality occurs towards the top of the income distribution, as this may trigger expenditure cascades going all the way down the income ladder.

Some studies have attempted to analyse the effects of changes in personal inequality on saving or household spending empirically. Schmidt-Hebbel and Serven (2000) estimate a panel of 19 developed and 33 developing countries and find no link between the Gini coefficient and gross national saving. Leigh and Posso (2009) find a strongly negative relationship between lagged top 1% and 10% income shares and current national saving rates in a panel of 11 developed countries for the period 1921-2002. The relationship only holds, however, when the model is estimated with pooled ordinary least squares (POLS), and disappears, when country and time fixed effects are added to the model. Frank et al. (2010), on the other hand, find indirect evidence in support of the expenditure cascades model, using data for the 50 U.S. States and 100 most populous counties. In a similar vein, Bertrand and Morse (2012) conclude that up to a quarter of the decline in the U.S. household saving rate over the last three decades could be attributed to "top-down consumption spillover effects". Kumhof et al. (2012) find evidence of a negative

relationship between the share of total household income accruing to households at the top (1% or 5%) and the current account in a panel regression analysis for 14 countries OECD countries for the period 1968-2008. These results are confirmed by Al-Hussami and Remesal (2012) who estimate a larger panel including developing countries and add an interaction term between personal income inequality and a measure of financial development. Similarly, Alvarez-Cuadrado and Vilalta (2012), using a small macro-panel of six major economies over the period 1955 to 2007 household survey data, find evidence of rising income inequality interacting with the level of financial development in reducing household saving.

Several analyses also find evidence of a positive relationship between income inequality and private household debt and other measures of financial distress (Iacoviello, 2008; Cynamon and Fazzari, 2008; Frank et al., 2010; Mian and Sufi, 2009; van Treeck, forthcoming, for a survey).

Interestingly, the focus in much of the recent literature on inter-household inequality is in stark contrast to the Classical theories of underconsumption which were mainly concerned with the functional distribution of income. A common fear was that a falling share of wages in national income would lead to insufficient aggregate demand and oversaving due to a lack of purchasing power of the 'consuming classes' (e.g. Malthus, 1820; Conant, 1900; Hobson, 1909).

In our view, the relation between different measures of personal income inequality and the functional distribution of income is often not accurately dealt with in the more recent literature. Leigh (2007), for example, argues that top income shares are closely related to other measures of personal inequality such as the Gini coefficient of household income and recommends the use of top income shares in panel regression analyses when other measures of inequality are not available for a sufficient number of countries and over long enough time spans. However, as noted above, in terms of the expenditure cascades model, this recommendation is clearly not warranted, because an increase in, e.g., the Gini coefficient, which is relatively insensitive to changes at the tails of the distribution, will have very different (less strongly negative) effects on household saving than a rise in top income shares. Kumhof et al. (2012), on the other hand, make no distinction between the personal and the functional distribution of income. In their model there are two types of agents: investors (the top 5% of all households) and workers (the bottom 95%). Investors represent both rich households and firms, yet in the model calibration top income shares are obtained from the World Top Incomes Database and are defined as the top 5% of all tax units in (pre-tax) personal income. No adjustments are made for investors' claims on corporate wealth.

In fact, in some important countries with only modest increases in top income shares such as China, Germany, or Japan, overall measures of income inequality such as the Gini coefficient

of household disposable income increased rather dramatically prior to the global financial crisis (OECD, 2008, 2011). Even more importantly for our purposes, there has been a strong decline in the household and labour income shares while the corporate sector has increased its net lending rather than passing on its rising returns to households in the form of top executive remuneration, bonuses, or dividends. In the United States and the United Kingdom, by contrast, the distribution between corporate and personal income has been roughly constant over the past decades.

In the presence of a corporate veil, it does make a difference for shareholders' consumption demand whether they obtain a notional capital gain as a result of positive corporate net saving or whether their current income increases as a result of higher wages or profit payouts (Atkinson, 2009. In a mechanical sense, then, aggregate demand is adversely affected by a rise in corporate income at the expense of household income, when the marginal propensity to spend out of current income is higher for households than for firms.

The available empirical evidence for the significance of the corporate veil is mixed. Denison (1958) noted the relative constancy of national saving independent of changes in corporate saving. Feldstein (1973) and Feldstein and Fane (1973) argued that households were indeed able to pierce the corporate veil, since they found a positive marginal propensity to consume from retained earnings. However, the estimated marginal propensity to consume from income was higher than that from corporate retained earnings, implying only incomplete piercing of the corporate veil. Similar results were found by Sumner (2004), based on a 'Feldstein specification' and a life-cycle specification of the aggregate consumption function for the United Kingdom. Poterba (1991) and Monogios and Pitelis (2004) report evidence of a significant corporate veil for different Anglo Saxon countries. While the aforementioned studies rely on aggregate time series data, Baker et al. (2007) use household survey data from the CEX and trading records from a discount brokerage and find strong evidence of a corporate veil. One obvious problem with the CEX is that information on consumption income and corporate wealth holdings are top-coded, so that only a small fraction of wealth, which is highly skewed, is accounted for in the analysis.

The link between functional income distribution and sectoral saving behaviour also plays a major role in Post Keynesian models of distribution and growth in the tradition of Kalecki (1954) and Kaldor (1966). More recently, various attempts have been made to assess the extent to which aggregate demand in particular countries has been 'wage-led' or 'profit-led' (Bhaduri and Marglin, 1990; Lavoie and Stockhammer, forthcoming, for theoretical discussions). Recent econometric contributions to this literature include Hein and Vogel (2008), Onaran et al. (2011), Hartwig (2013). A wage-led pattern of aggregate demand implies that a rise in the wage share

is typically linked to a decrease in the current account.

An obvious problem with approaches focusing solely on functional distribution is that they are, by construction, unable to explain the rather strong private consumption demand and secular rise in the consumption-to-GDP ratio in a number of such important countries as the United States or the United Kingdom, where the labour and household income shares have not shown a long-run tendency to rise. What is largely absent in the existing literature is the joint analysis of the implications of personal and functional income distribution on aggregate demand.

2.2 Different measures of saving and financial balances: a digression

Different authors have used different measures to analyse the effect of income distribution on saving or aggregate demand empirically. Edwards (1996) note that since most theories about savings and inequality relate to household behavior, an ideal measure of savings would be based on household surveys. Dynan et al. (2004) in their analysis of the link between lifetime income and personal saving derive various saving measures from the Consumer Expenditure Survey (CEX), the Panel Study of Income Dynamics (PSID), and the Survey of Consumer Finances (SCF). Applying similar methods, Alvarez-Cuadrado and Vilalta (2012) use the PSID. There are, however, a number of problems with household survey data. First, they are available only for a small number of countries and for short time periods. Equally important for our purpose, top income households are almost always underrepresented in surveys due to top-coded data. Finally, information on consumption and personal saving from household surveys are sometimes of low quality and difficult to compare with national accounts data (Attanasio et al., 2007, and Heathcote, 2010, for comparisons of the CEX and NIPA consumption series).

An alternative to household survey data are measures of personal saving from the national accounts. Alvarez-Cuadrado and Vilalta (2012) estimate a saving equation for a panel of six developed countries using the personal saving rate and find a significant negative effect of the top 5% income share.

Several studies focus instead on national savings, a measure which is also seen to be of greater policy interest than household saving, since it indicates the "total amount of savings available in the economy" (Leigh and Posso, 2009, p. 60, see also Alesina and Rodrik, 1994). Schmidt-Hebbel and Serven (2000) regress gross national saving on different measures of household inequality and find no significant effects in a panel of 20 industrial and 62 developing countries. Similarly, Leigh and Posso (2009), who compile a data set over a period of more than 80 years (1921-2002) for 11 countries, use national saving defined as the sum of investment (private

and public) and the current account.

Yet, one problem with the use of aggregate saving measures is that it is difficult to interpret the estimation results in terms of economic theory. In particular, it is unclear whether the link between household inequality on aggregate national saving, if any, is due to a direct impact on individual consumption decisions or to more complex macroeconomic effects such as lower investment as a result of low aggregate demand, redistributive taxation, or a bad business climate due to political tensions (Alesina and Rodrik, 1994).

As noted above, some recent studies (Kumhof et al., 2012; Al-Hussami and Remesal, 2012) include measures of personal income inequality in otherwise standard estimations of the determinants of current account balances, an approach pioneered by Faruqee and Debelle (1996) and Chinn and Prasad (2003). The current account is a more accurate measure for analysing differences in the pattern of aggregate demand across countries than aggregate national saving. A falling (rising) current account in one country signals relatively strong (weak) aggregate demand, compared to its trading partners. By contrast, changes in national saving relative to national income can reflect a weak domestic demand due to weak private consumption and a current account surplus as much as high domestic investment financed by domestic saving. There is also a strong empirical link between current account deficits and macroeconomic instability related to credit booms and assets price bubbles (Mendoza and Terrones, 2012; Frankel and Saravelos, 2012; Milesi-Ferretti and Lane, 2011).

From the point of view of the present paper, another advantage of the current account balance is that it is by definition equal to the sum of the sectoral financial balances of the private household sector, the corporate sector and the government. We can thus use the sectoral financial balances to further investigate our hypotheses about the link between personal and functional income distribution on the one hand and the spending and financing decisions of the household and corporate sectors, on the other hand. Moreover, from an aggregate demand perspective a cash flow measure of household spending, which underlies the household financial balances, is preferable to the treatment of consumption and saving in the national accounts. In particular, housing investment while being an important part of aggregate demand and affecting the private household financial balance, is treated as saving in the national accounts (see also Cynamon and Fazzari, 2013).[1]

[1]The national accounts treat only the imputed flow of services from the existing housing stock as consumption.

3 Empirical analysis

3.1 Empirical illustration of the main hypotheses

Based on our review of the literature and on the descriptive analysis presented below, our main hypotheses can be succinctly summarised as follows:

Hypothesis 1 *Rising (falling) personal inequality in one country (relative to its trading partners) leads to a decrease (increase) of the current account, ceteris paribus.*

(a) *This effect stems from a negative link between top household income shares and private household net lending.*

(b) *The more (less) inequality rises towards the top of the income distribution, the stronger (weaker) the effect on private household net lending and the current account.*

Hypothesis 2 *The corporate veil affects the current account.*

(a) *An increase in corporate net lending is not fully compensated by a simultaneous decrease in household net lending.*

(b) *A falling (rising) wage share in one country (relative to its trading partners) is linked to an increase (decrease) of the current account via its effect on the corporate financial balance.*

Hypothesis 3 *The joint effects of changes in personal and functional income distribution contribute to a significant degree to the explanation of the global current account imbalances prior to the Great Recession.*

The broad relevance of our hypotheses can be nicely illustrated for the G7 economies and China. These eight countries accounted for more than 60% of global GDP in 2007. Figure 1 shows the development of the current account balances in these eight countries for the period 1972-2007. The United States, the United Kingdom, China, Germany and Japan were those countries with the largest current account balances worldwide just before the Great Recession.

Figure 2 shows the evolution of top household income shares and the financial balance of the private household sector for these countries. As is apparent from the figure, household net lending declined in those countries where there has been a rising trend in top income shares

(United States, United Kingdom, Canada, Italy, Japan), but not in Germany and France, where top income shares have remained relatively stable before the Great Recession.

In Figure 3, we also see a negative relation between the adjusted wage share and the financial balance of the corporate sector. This link is apparent for all countries, but in Canada, Japan, Germany the corporate sector has even turned to a net lending position for extended periods of time. By contrast, in the United States and the United Kingdom the trends in the evolution of the wage share (downwards) and the corporate financial balance (upwards) have been far less pronounced (except for the most recent period).

Figure 4 plots the change in the corporate financial balance and, respectively, the adjusted private sector wage share, against the change in the top 5% income share, using four year non-overlapping averages for 1980/3-2004/7. In those countries where top income shares have increased relatively strongly (United States, United Kingdom), the corporate financial balance (the wage share) has increased (declined) less. By contrast, in countries where the corporate sector balances has more strongly increased and the wage share has fallen more substantially (Germany, Japan, China), the surge in top household income shares has been relatively minor.

3.2 Estimation strategy

Our econometric specifications extend the standard panel estimation literature on current account determinants, which includes amongst many others Faruqee and Debelle (1996), Chinn and Prasad (2003), Jaewoo et al. (2008), Gruber and Kamin (2007), Chinn and Ito (2007, 2008), Cheung et al. (2010), Ito and Chinn (2009), Kerdrain et al. (2010), and Chinn et al. (2011). While some important long-run determinants of national current accounts can be derived from the standard model of the representative, intertemporally optimising household, it has proven difficult in panel regression analyses to explain the widening of current accounts during the decade or so before the Great Recession with standard fundamentals. This is especially true with respect to the United States, China and Germany, which are the three quantitatively most important countries in terms of the global imbalances.[2] We therefore extend the standard model by introducing measures of personal income inequality and the corporate veil/functional income distribution.

The following variables are used in our estimations, in line with the exisiting literature (see

[2]Chinn et al. (2011, p. 18) conclude: "[T]he U.S. current account deviated from the predicted path significantly in the 1996-2000 and 2001-05 periods [...]. Germany's and China's current accounts are well outside the confidence interval. These results suggest the possibility of missing variables that are not captured by the estimation model as far as the last period is concerned."

Appendix A for a detailed description of data).

- **Net foreign assets:** Theoretically, the initial level of net foreign assets can have either a positive or negative effect on a country's current account balance. On the one hand, countries with relatively high net foreign assets can afford to run higher trade deficits for an extended period which may create a negative link between net foreign assets and the current account. On the other hand, economies with relatively high net foreign assets experience higher primary income flows from abroad, potentially leading to a positive relationship with the current account.

- **Relative per capita GDP:** To capture stage of development effects, the variable relative *per capita* income is routinely included in current account regressions. We use the ratio of GDP per capita relative to the U.S. level. In anticipation of real convergence, private agents increase external borrowing to smooth their long-term consumption at an early stage of development. In addition, capital productivity is expected to be higher at low levels of capital stock.

- **Fiscal balance:** The Keynesian model assumes that a lower government financial balance, as a result of lower taxes or higher government spending, induces a higher current account deficit (or a lower current account surplus), since it raises disposable income and thereby aggregate consumption. However, this result does not hold when private agents behave in a Ricardian manner. In the particular case of full Ricardian equivalence, a rise in government fiscal deficit is fully compensated by additional private saving.

- **Demographics:** The demographic situation in a country is proxied by the old-age dependency ratio and population growth. According to the life-cycle-hypothesis, a higher share of the economically inactive population will reduce saving and decrease the current account balance because the young and the old are net consumers. However, various factors such as the desire of the elderly to leave bequests, uncertainty about the lifespan and the financial support required after retirement may urge the old-age population to save rather than spend. Hence, the link between demographics and current account balance may be positive or negative.

- **Financial development:** The effect is theoretically ambiguous. On the one hand, it can be argued that the development of the financial system affords more efficient investment opportunities and thereby induces more savings leading to a higher current account. At the

same time, however, the process of deregulation in financial markets could be associated with lower levels of private saving, as the relaxation of credit constraints opens up more borrowing opportunities. We use the private credit-to-GDP ratio as a proxy of financial development.

- **The corporate veil/functional income distribution:** The corporate financial balance should be positively related with the current account balance in case of a significant corporate veil. As proxies for the functional income distribution, we use the private sector wage share and the manufacturing sector wage share. The wage share should be negatively linked to the current account, if households (workers) have a higher propensity to spend out of income than firms (capitalists).

- **Personal income distribution:** As proxies for personal income distribution, we use the top 1%, top 5% and top 10% income shares as well as the Gini coefficient for household disposable income. We expect a negative effect on the current account, which should be stronger for the top income shares than for the Gini coefficient.

We estimate the following model:

$$\begin{aligned} CA_{i,t} = \beta_0 + \beta_1 NFA_{i,t-1} + \beta_2 FISCAL_{i,t} + \beta_3 RelGDP_{i,t} + \beta_4 DEP_{i,t} + \beta_5 POP_{i,t} \\ + \beta_6 CREDIT_{i,t} + \beta_7 CORP_{i,t} + \beta_8 INEQ_{i,t} + \varepsilon_{i,t} \end{aligned} \tag{1}$$

where the current account balance in per cent of GDP ($CA_{i,t}$) is regressed against net foreign assets one period lagged ($NFA_{i,t-1}$), the fiscal balance ($FISCAL_{i,t}$), relative per capita GDP ($RelGDP_{i,t}$), the old-age dependency ratio ($DEP_{i,t}$) and population growth ($POP_{i,t}$), the private credit-to-GDP ratio ($CREDIT_{i,t}$), measures of the corporate veil or functional income distribution ($CORP_{i,t}$), and measures of personal income inequality ($INEQ_{i,t}$). $\varepsilon_{i,t}$ is a random disturbance, i and t represent country and time.

We work with an unbalanced panel that includes 20 countries for which series for top income shares and wage shares are available for the period 1972-2007. The sample consists largely of advanced economies but also a few emerging economies. The following countries are included in the sample: Australia, Canada, China, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, South Africa, Spain, Sweden, Switzerland, United Kingdom and the United States. For Germany macroeconomic variables have been chained with growth rates for West-Germany prior to 1991 where necessary. Variable definitions and data sources are provided in Appendix A.

In order to reveal the main macroeconomic, financial and structural factors that influenced the current account, it is helpful to distinguish between their effects via the household financial balance and the corporate financial balance in per cent of GDP. For this purpose, the equations are re-estimated separately for the household financial balance and the corporate financial balance. In addition, we use the net saving rate of households and non-profit institutions as an alternative dependent variable. Due to data availability, these estimations are restricted to the sample of G7 countries.

An important issue in current account estimations concerns the way in which the explanatory variables ought to be transformed prior to the regression analysis. Since we are interested in the non-cyclical determinants of the current account and in order to deal with serial correlation, we use four year non-overlapping averages in all our estimations. With the sample period 1972-2007, we have a maximum of 9 observations per country. In some of the current account equations the explanatory variables (with the exception of net foreign assets and relative per capita income) are converted into deviations from a weighted sample mean. The rationale is to emphasise that current account balances are relative measures and their movements are influenced both by domestic and foreign economic conditions. We apply both GDP-weighted and trade-weighted demeaning. Details are provided in Appendix A. We then apply pooled ordinary least squares (POLS) regression to both untransformed and cross-sectionally demeaned variables.

As a robustness check, we also estimate our models with country fixed effects (FE). This has the advantage of controlling for unobserved, time-invariant characteristics such as country-specific saving norms. Hence, in principle, fixed effects estimations can identify how the change of inequality across time alone affects the current account. Yet, as noted by Chinn and Prasad (2003), removing the explanatory power of cross-section variation is often problematic in the context of current account estimations, since much of the variance in the data typically stems in fact from the cross-section dimension. Our preferred specification is therefore the POLS model.

3.3 Estimation results

We first discuss the estimation results for the G7 countries (Tables 1 and 2). While the sample is relatively small, it has the advantage of matching our descriptive analysis and it also allows us to experiment with different dependent variables for which data are not readily available for a larger sample.

For the estimations shown in Table 1, POLS has been applied without prior cross-sectional

demeaning. The current account is the dependent variable in Models 1.1-1.4. In Models 1.1 and 1.2, we use the corporate financial balance for the variable *CORP*, in Models 1.3 and 1.4 we use respectively measures of the private sector wage share and the manufacturing sector wage share. The top 5% income share is used as the measure of personal income inequality in Models 1.1, 1.3, and 1.4, and the Gini coefficient of household disposable income is used in Model 1.2. We find first evidence in support of our Hypotheses 1 and 2 in that the estimated coefficients on the corporate balance, the wage share and the measures of personal income distribution are of the expected sign. The estimates for the remaining explanatory variables are in line with previous findings in the literature. Notice that the estimated negative effect of the top 5% income share is considerably higher in absolute value than the estimated effect of the Gini coefficient,[3] in line with Hypothesis 1b). We will further investigate this interesting finding in greater detail below, when discussing the results for the larger sample. The estimated positive coefficient on the corporate balance is substantially higher in absolute value than the estimated negative coefficient on the private wage share. This is in line with our Hypothesis 2a and 2b, but requires further analysis. Our preferred specifications so far are Models 1.1 and 1.3.

In Models 1.5-1.10, different dependent variables are regressed on the same set of explanatory variables. The household financial balance (Models 1.5-1.6) and the household saving rate (Models 1.7-1.8) are found to be negatively affected by personal income inequality, as suggested in our Hypothesis 1a. However, this effect is significant only for the top 5% income share,[4] but not for the Gini coefficient. This finding is again consistent with our Hypothesis 1b.

In Models 1.9 and 1.10, the dependent variable is the corporate financial balance. While these specifications are likely suboptimal, our approach may be justified as an attempt to examine more closely the potential channels through which various factors may affect the current account balances.[5] In particular, the corporate financial balance is negatively related to the wage share (Model 1.9). However, using the manufacturing wage share as a robustness check yields an insignificant estimate. In sum, we may carefully interpret these findings as tentative evidence in support of our Hypothesis 2b.[6]

[3]This result is robust to using the top 1% or the top 10% income share instead of the top 5% income share.

[4]The result is also robust to using the top 1% income share.

[5]The current account is, of course, equal to the sum of the corporate, household and government financial balances. A similar approach is taken by Chinn and Prasad (2003), Cheung et al. (2010) and Kerdrain et al. (2010) who use the regressors from their current account estimations to analyse the determinants of national saving and investment separately.

[6]Interestingly, the corporate financial balance appears to be rather strongly affected, with a positive sign, by the measure of financial integration. By contrast, the household financial balance is negatively, but mostly insignificantly, affected by the degree of financial integration.

The results for the current account estimations with the cross-sectionally demeaned data are reported in Table 2. While the equations generally perform better than without cross-sectional demeaning, the estimates for the income distribution variables are very robust across the specifications. In sum, our Hypotheses 1 and 2 are strongly confirmed for this small sample of the G7 countries.

Table 3 shows the results for the current account regressions for the full sample of 20 countries for which the relevant data are available. The corporate financial balance is used for the variable *CORP* in all estimations, combined with four different measures of personal income inequality (top 1%, 5%, and 10% income shares and the Gini coefficient). This choice of specifications allows us to analyse Hypothesis 1b more rigorously. Tables B.1 and B.2 in Appendix A show the results for the same set of equations when the corporate financial balance is replaced by the private or manufacturing sector wage shares.

The estimations reported in Table 3 perform very well, with almost all coefficients significant and stable across the specifications.[7] In particular, the coefficient for the corporate veil are highly significant, ranging between roughly 0.4 and 0.5 depending on the specification. The estimates for the personal income distribution measures are also highly significant and robust across the different models. The results for the estimations using the private wage share for the variable *CORP*, shown in the Appendix, are somewhat less robust, at least for the demeaned data (Table B.1). The manufacturing sector wage share performs better (Table B.2). That is, the evidence in support of Hypothesis 2b is weaker than that for Hypotheses 1 and 2a.

In order to further asses Hypotheses 1b and 3, we perform a contribution analysis, *i.e.*, we calculate the volume effects of changes in the explanatory variables. Figure 5 translates the results of Table 3 into estimated contributions of changes in the explanatory variables to the change in the current account for the G7 countries and China. Additional information is provided in Table 5. Changes are calculated for the period 1980/3-2004/7 (four year non-overlapping averages), or for the longest time span for which data are available for each country during this period. The graphs on the top of Figure 5 are based on estimations without cross-sectional demeaning, those in the middle are based on estimations using GDP-weighted demeaning, and those at the bottom on estimations using trade-weighted demeaning. Estimations underlying the graphs on the left hand side of Figure 5 include the top 1% income share as an explanatory variable, those underlying the graphs on the right hand side of Figure 5 include the Gini coefficient

[7] While these are our preferred specifications for the current account estimations, we do not report the results obtained from reestimating Equations 1.5-1.10 for a larger sample. Household saving rates are not readily available for a large number of countries. Estimating Models 1.5, 1.6, 1.9 and 1.10 for a larger sample yields results almost identical to those reported in Table 1.

of household disposable income.

As can be seen from Figure 5, the estimated contribution of changes in both personal and functional income distribution is quantitatively very important across the different specifications, at least for some important countries. In Models 3.1 and 3.4 (no cross-sectional demeaning), the increase in the corporate financial balance has exerted a positive effect, *ceteris paribus*, on the current account in all countries. The rise in the top 1% income share and the Gini coefficient has had the opposite effect, *ceteris paribus*. This latter effect has overcompensated the effect of the change in functional income distribution in the United Kingdom and in the United States (see Table 5). In Model 3.1, for example, the corporate veil and the top 1% income share together explain roughly half of the observed change in the current accounts for the U.S and almost three quarters for the United Kingdom. In China, Germany and Japan, the contribution of the change in $CORP$ to the change in the current account has been considerably larger in absolute value than the contribution of the change in $INEQ$. Taken together, the changes in these two variables explain more than one third of the actual change in the current account in Germany, and an even higher fraction for China and Japan (Table 5). Notice also that the explanatory power of the top 1% income share is significantly higher than that of the Gini coefficient.[8] For the United States, for example, the estimated effect joint effect of the corporate balance and the top 1% income share is -2.77 percentage points, while it is only -0.10 percentage points when the model is estimated using the Gini coefficient instead of the top income share (Table 5).

For the models estimated with demeaned variables, we obtain the same overall picture. Now, as a result of cross-sectional demeaning, the contribution of changes in both $CORP$ and $INEQ$ can be either positive or negative, even if changes in the raw series are of the same sign for the countries under consideration. This tends to increase the explanatory power of changes in income distribution especially for the two main current account surplus countries, Germany and Japan, where the demeaned top income share has declined over the period while the demeaned corporate balance has increased. In Model 3.5, for example, the changes in the distributional variables explain roughly half of the observed change in the current account for Germany, and more than 100% for China and Japan. Similar conclusions are obtained from Model 3.9. Again, we find that the top income share performs better than the Gini coefficient. While the demeaned top income shares point rather strongly in the direction of a higher current account for China and Germany in Models 3.5 and 3.9, this is not the case for the Gini coefficient which has increased relatively strongly in both countries compared to their trading partners. In the United Kingdom

[8] Again, this finding is robust to using the top 5% or the top 10% income share instead of the top 1% income share.

and in the United States, by contrast, top income shares have increased much more strongly, relative to their trading partners, than the Gini coefficient. For the United States, the combined changes in the corporate financial balance and the top 1% income share explains between a bit less than one third (Model 3.5) and a bit more than half (Model 3.9) of the actual change in the current account (Table 6). For the United Kingdom, the estimated contribution is negligible in Model 3.5, but substantial in Model 3.9. We conclude that there is strong evidence in support of Hypothesis 3, at least for the most important countries contributing to the global current account imbalances.

Rajan (2010) and Kumhof et al. (2012) conjecture that financial deregulation was endogenous to rising income inequality in the United States. If this mechanism is at least partly captured by private credit-to-GDP ratio in our estimations, the overall negative effect of income inequality on the current account would be even stronger, especially for the United Kingdom and the United States (see Figure 5).

In Table 6, we calculate the aggregate volume effect of changes in the different measures of personal income inequality. There is evidence in support of our Hypothesis 1a in that the explanatory power of top income shares is considerably higher than that of the Gini coefficient for the entire sample of countries. However, our results do not yield significantly different volume effects for the different top income share measures (top 1%, 5%, and 10%).

3.4 Robustness

We conducted a number of robustness checks. Firstly, due to the small number of data points in the estimations for the sample of G7 countries these models were estimated with yearly data instead of four year non-overlapping averages. Secondly, we reestimated all models while including only OECD countries in order to obtain a more homogeneous sample of high-income countries. We also experimented with different specifications combining our corporate veil and personal income inequality variables with different sets of control variables. The results of these additional regressions are available from the authors upon request. They are consistent with the results reported in the previous Subsection.

We also reestimated the models including country-specific fixed effects. The results are reported in Table 4 for the estimations using the corporate financial balance and in Tables B.3 and B.4 in the Appendix for the estimations using instead the private and manufacturing sector wage shares. The results of the fixed effects estimations in Table 4 are in line with previous estimation results. If anything, the effects of the corporate veil and personal income inequality

on the current account are estimated to be even stronger and more significant than in the POLS estimations. Moreover, the explanatory power of top income shares is again higher than that of the Gini coefficient. The results reported in Tables B.3 and B.4 are somewhat less significant, but in large part supportive of our hypotheses. This confirms our earlier conclusion that Hypothesis 2b requires additional research to be further substantiated.

4 Concluding remarks

In this paper, we have reconsidered the link between income distribution and aggregate demand through a descriptive analysis for the G7 countries and a series of panel estimations for the G7 countries and a larger sample of 20 countries.

Our results suggest the following conclusions: Firstly, rising personal inequality leads to a decrease of the current account, *ceteris paribus*. The estimated effect is stronger for top income shares than for the Gini coefficient of household disposable income. Coefficients for top income shares unlike those for the Gini coefficient are statistically significant with a negative sign in regressions of the household financial balance and the household saving rate on a standard set of explanatory variables in the sample of G7 countries. Moreover, the explanatory power of top income shares is significantly higher in the current account estimations for the sample of 20 countries. These findings are consistent with the expenditure cascades hypothesis (Frank et al., 2010): With upward-looking consumption norms, the decline in household saving (the rise in the expenditure-to-income ratio) will be stronger when inequality increases at the top of the distribution rather than further towards the middle.

Secondly, consumers do not fully pierce the corporate veil (and the government veil). That is, an increase in the corporate financial balance leads to an increase in the current account, *ceteris paribus*. Our estimations also provide at least tentative evidence that a decline in the share of wages in value added leads to an increase in the current account via its effect on the corporate financial balance.

Finally, the combined effect of changes in personal and functional income distribution account for a substantial fraction of the global current account imbalances observed prior to the Great Recession. As an overall conclusion, it is fair to say that there have been two different, but equally unstable growth models which are partly related to different trends in income distribution. In the United Kingdom and in the United States, strongly rising top-end household income inequality appears to have triggered pronounced expenditure cascades and contributed to the unsustainable rise in household debt and a large current account deficit. In Germany and Japan,

top-end household income inequality has increased far less, but the share of income accruing to the corporate sector has much more strongly increased than in the Anglo Saxon countries. According to our estimations, this has weakened aggregate demand via its effect on consumption both by reducing household income and, perhaps paradoxically, by containing the rise in top-end income inequality. The case of China is to some extent similar, even though the lack of reliable data makes it difficult to draw firm conclusions.

A number of important issues for future research should also be noted: Firstly, the link between top income shares, as collected in the World Top Incomes Database, and other measures of income distribution should be re-examined. Our results indicate that the substitutability of different measures of income inequality depends crucially on the question at hand. This calls into question Leigh's (2007) plead for using top income shares in all sorts of regression analyses whenever alternative measures are not available.

Secondly, perhaps the weakest link in our empirical analysis is that between the wage share and the current account balance (via the corporate financial balance). This calls for a more sophisticated analysis of the determinants of corporate saving, an issue that has recently gained renewed attention (Karabarbounis and Neiman, 2013).

Finally, our analysis has downplayed the importance of country-specific social norms and institutions. In particular, it may be expected that the macroeconomic effects of the functional income distribution depend crucially on corporate governance structures (e.g. family-owned businesses in Germany vs. shareholder value orientation in the United States). Similarly, the way in which the personal income distribution affects household consumption and borrowing is likely linked to such factors as the development of financial markets (Kumhof et al., 2012), the provision of public goods (education, health care, etc.), or the degree of households' insurance against status loss (unemployment benefits, labour force participation, employment mobility, gender pay gap) (see Belabed et al., forthcoming).

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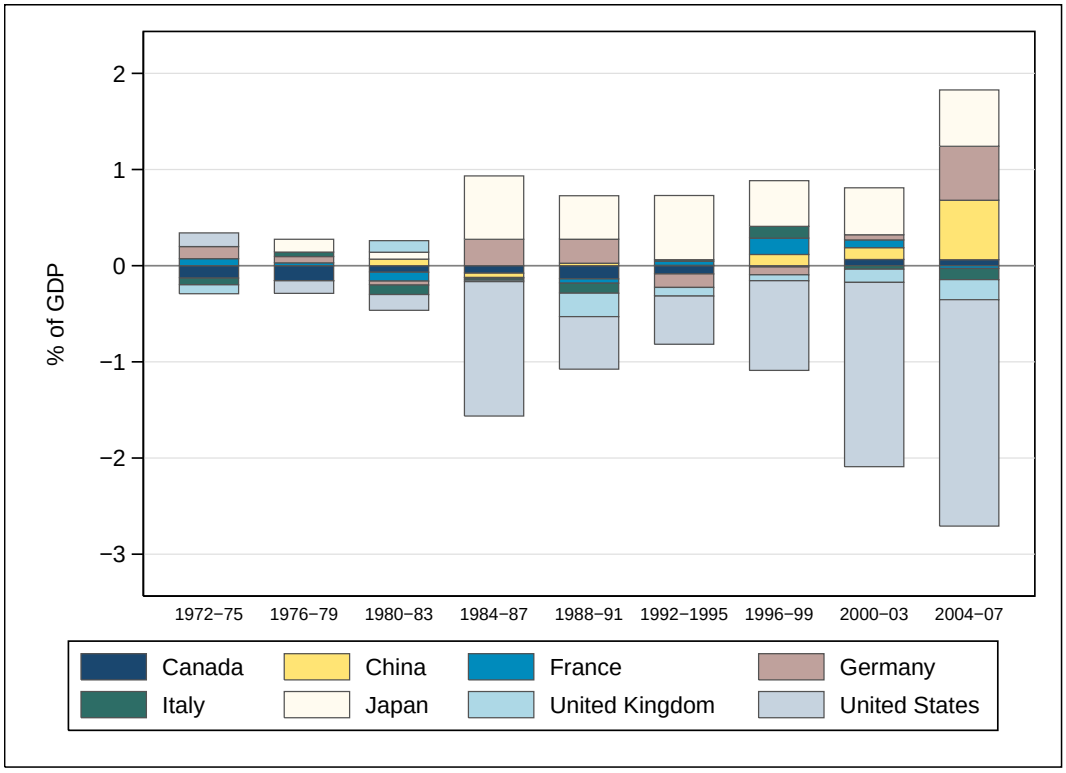


Figure 1: Current account balances, G7 and China, 1972-2007

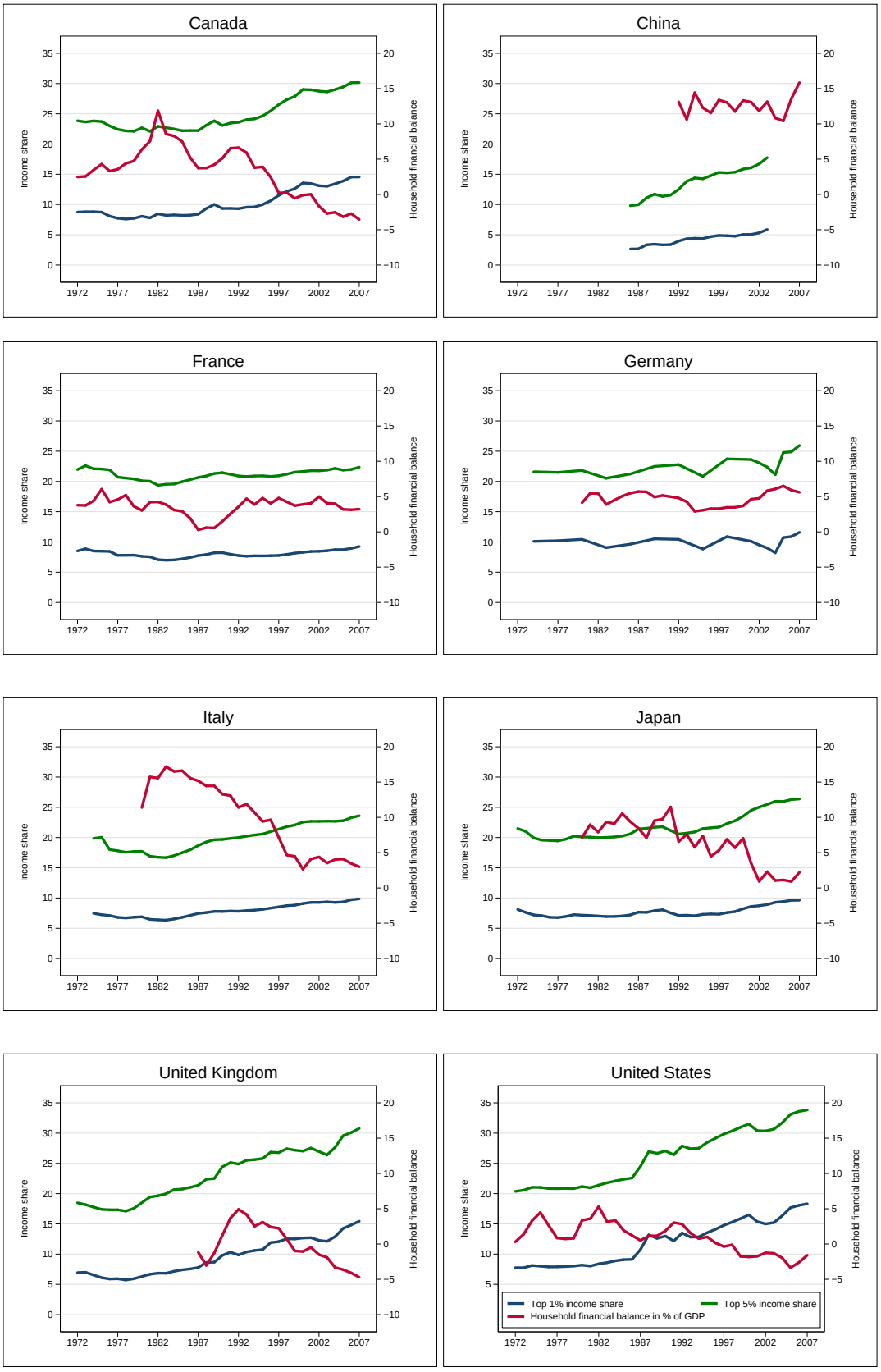


Figure 2: Top income shares and household financial balances, G7 and China, 1972-2007

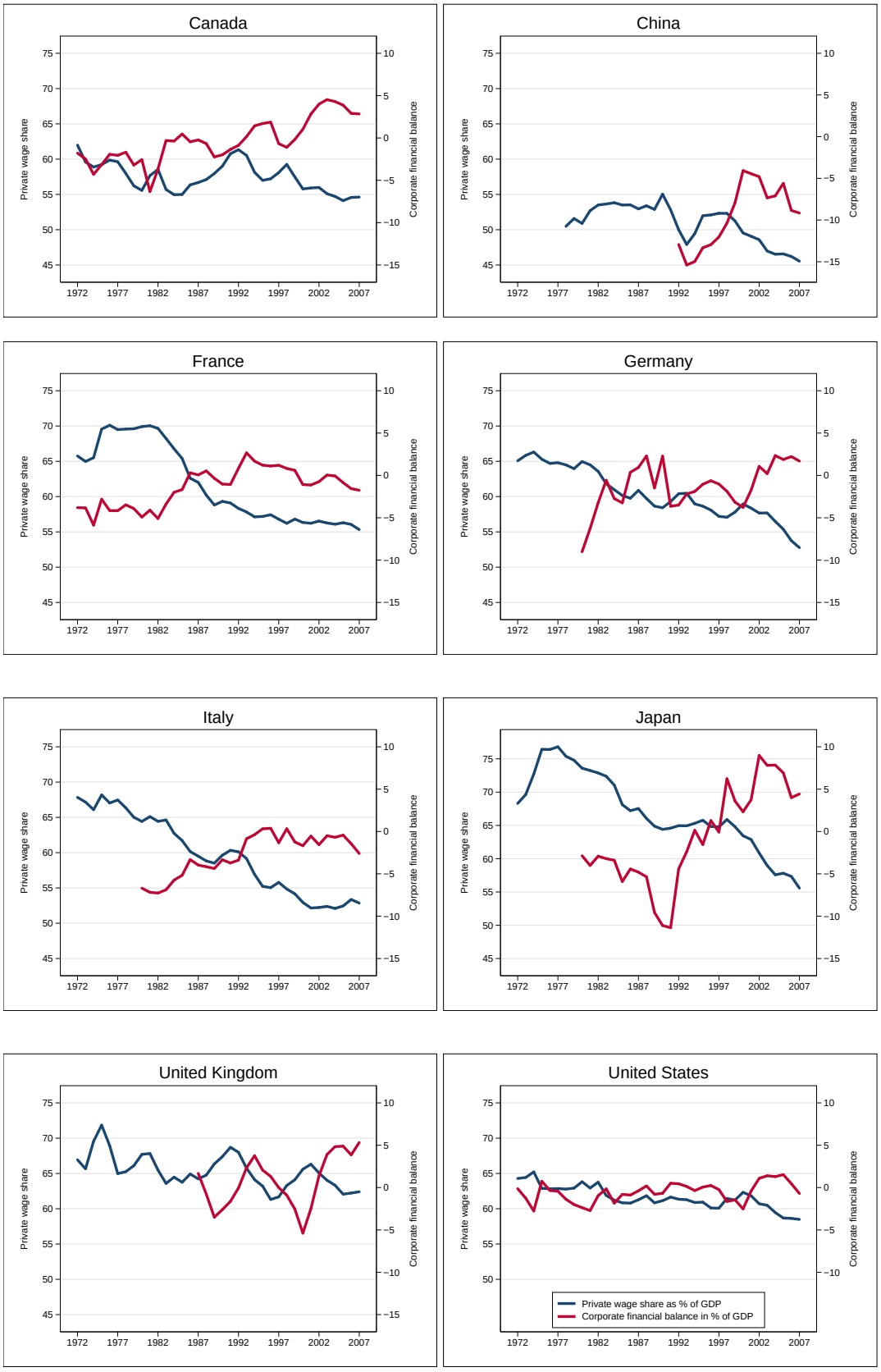
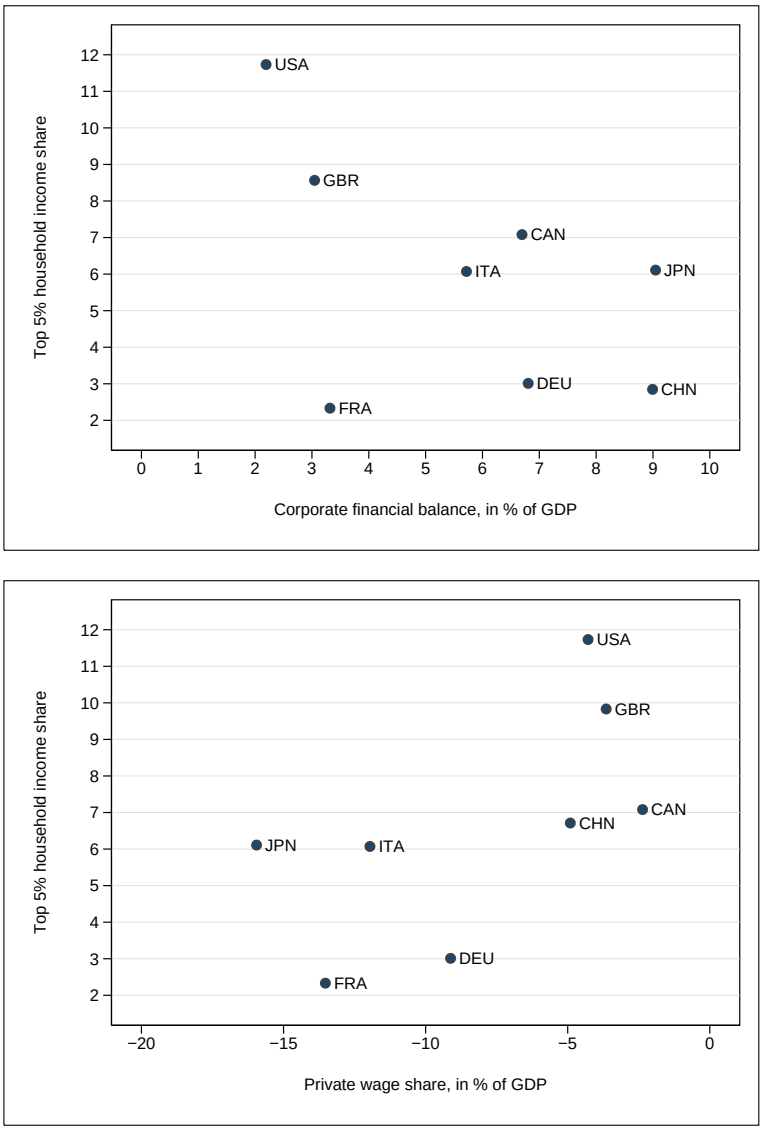
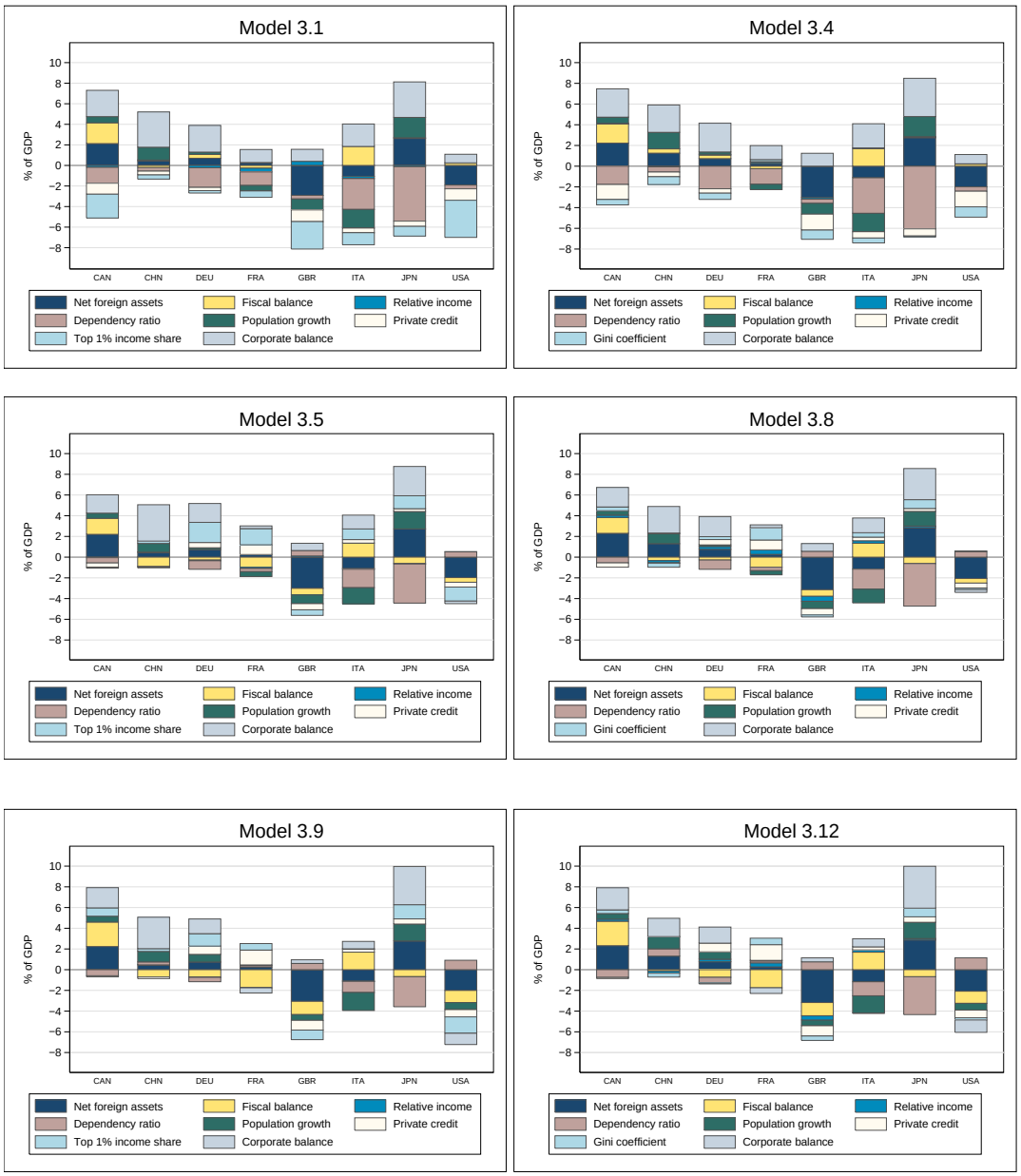


Figure 3: Adjusted private wage share and corporate financial balances, G7 and China, 1972-2007



Note: The figure shows the change in respectively the corporate financial balance in % of GDP and the private wage share (horizontal axis) against the change in the top 5% household income share (vertical axis), 1980/3-2004/7 (four-year averages). For the United Kingdom changes are shown for the periods 1984/7-2003/7 (Corporate balance in % of GDP) and 1980/3-2004/7 (Private wage share). For China changes are shown for the periods 1992/5-2000/3 (Corporate balance in % of GDP) and 1984/7-2000/3 (Private wage share).

Figure 4: Top household income shares and functional income distribution, G7 and China



Note: The figure shows the estimated contribution of the change in the explanatory variables to the change in the current account for the period 1980/3-2004/7 (four-year averages). For the United Kingdom results are shown for the periods 1984/7-2004/7 (Top 1 % income share and gini coefficient). For China results are shown for the periods 1992/5-2000/3 (Top 1 % income shares) and 1992/5-2004/7 (Gini coefficients).

Figure 5: Contribution analysis for the change in national current accounts, G7 and China

Table 1: POLS-Estimation results for G7 countries, no cross-sectional demeaning

	(1.1)	(1.2)	(1.3)	(1.4)	(1.5)	(1.6)	(1.7)	(1.8)	(1.9)	(1.10)
Regressor	CA	CA	CA	CA	HH_{BAL}	HH_{BAL}	HH_{SAV}	HH_{SAV}	$CORP$	$CORP$
Net foreign assets (% of GDP)	0.019	0.050**	0.072***	0.063***	-0.012	0.018	0.016	0.078*	0.022	0.011
	(0.024)	(0.019)	(0.016)	(0.015)	(0.039)	(0.039)	(0.046)	(0.039)	(0.026)	(0.022)
Fiscal balance (% of GDP)	0.310***	0.138*	0.204***	0.212***	-0.540***	-0.729***	-0.650***	-0.941***	-0.193	-0.227*
	(0.083)	(0.076)	(0.064)	(0.063)	(0.125)	(0.137)	(0.201)	(0.211)	(0.137)	(0.130)
Relative per capita income	-1.381	-3.034	-7.743***	-4.168*	0.910	-5.046	5.294	-7.543	-5.850	-5.224
	(4.344)	(4.696)	(2.424)	(2.448)	(6.176)	(7.792)	(7.048)	(6.937)	(4.433)	(4.127)
Old-age dependency ratio	-0.080	-0.122	-0.243***	-0.007	-0.630***	-0.516**	-0.964***	-0.863***	0.282	0.340**
	(0.091)	(0.099)	(0.085)	(0.081)	(0.194)	(0.200)	(0.294)	(0.211)	(0.203)	(0.159)
Population growth	-1.718**	-1.746*	-1.364*	-0.936	-3.989***	-4.262**	-1.769	-2.101	3.428*	3.785**
	(0.773)	(0.889)	(0.698)	(0.672)	(1.264)	(1.704)	(1.727)	(2.307)	(1.751)	(1.527)
Private credit (% of GDP)	0.013*	0.004	0.017***	-0.006	-0.004	-0.013	-0.018	-0.032*	0.028***	0.028***
	(0.007)	(0.007)	(0.005)	(0.007)	(0.013)	(0.011)	(0.020)	(0.017)	(0.008)	(0.008)
Corporate balance (% of GDP)	0.383***	0.215**								
	(0.112)	(0.101)								
Adjusted private wage share			-0.248***						-0.138*	
			(0.054)						(0.079)	
Manufacturing wage share				-0.114***						0.045
				(0.030)						(0.045)
Top 5% income share	-0.437***		-0.235**	-0.097	-0.866***		-1.446***			
	(0.123)		(0.103)	(0.120)	(0.207)		(0.205)			
Gini coefficient		-0.244**				-0.229		-0.148		
		(0.099)				(0.142)		(0.166)		
Constant	13.809***	13.697***	31.723***	15.661***	34.975***	27.308***	56.394***	40.599***	1.141	-12.158*
	(4.535)	(4.645)	(5.747)	(2.926)	(6.692)	(7.887)	(8.140)	(8.311)	(9.692)	(6.175)
Adjusted R^2	0.553	0.526	0.599	0.601	0.720	0.610	0.670	0.515	0.430	0.460
Countries	7	7	7	7	7	7	7	7	7	7
Observations	53	53	61	60	53	53	60	60	53	53

*Note: CA is the current account balance in % of GDP, HH_{BAL} is the household financial balance in % of GDP, HH_{SAV} is the household saving rate, CORP is the corporate financial balance in % of GDP. All regressions are estimated by pooled ordinary least squares. Robust standard errors are reported in parantheses. The Models 1.5, 1.7, 1.9 and 1.10 include time fixed effects. The estimates for the time fixed effects are not shown. *, **, and *** denotes significance at 10%, 5%, and 1% levels, respectively. See Appendix A for detailed description of the data.*

Table 2: POLS-Estimation results for G7 countries, cross-sectional demeaning

	GDP-weighted demeaning				Trade-weighted demeaning			
	(2.1)	(2.2)	(2.3)	(2.4)	(2.5)	(2.6)	(2.7)	(2.8)
Regressor	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*
Net foreign assets (% of GDP)	0.052**	0.070***	0.074***	0.073***	0.063***	0.073***	0.067***	0.068***
	(0.020)	(0.019)	(0.015)	(0.016)	(0.018)	(0.019)	(0.016)	(0.017)
Fiscal balance (% of GDP)	0.296***	0.118	0.209***	0.226***	0.259***	0.141*	0.197***	0.215***
	(0.077)	(0.078)	(0.062)	(0.067)	(0.062)	(0.077)	(0.060)	(0.060)
Relative per capita income	-0.496	-3.366	-9.746***	-4.083	0.815	-0.859	-5.879**	-0.798
	(4.020)	(4.163)	(2.899)	(2.598)	(2.863)	(3.112)	(2.691)	(2.105)
Old-age dependency ratio	-0.350***	-0.257*	-0.244**	-0.113	-0.219*	-0.154	-0.156	0.001
	(0.113)	(0.129)	(0.098)	(0.099)	(0.116)	(0.142)	(0.106)	(0.085)
Population growth	-1.987**	-1.782*	-1.380**	-1.150*	-1.917**	-2.036**	-1.156*	-1.359**
	(0.801)	(0.946)	(0.662)	(0.621)	(0.743)	(0.816)	(0.638)	(0.593)
Private credit (% of GDP)	-0.002	-0.004	0.022***	-0.011	-0.013	-0.012	0.015	-0.014
	(0.007)	(0.009)	(0.007)	(0.008)	(0.009)	(0.010)	(0.010)	(0.008)
Corporate balance (% of GDP)	0.344***	0.164*			0.239***	0.152		
	(0.105)	(0.097)			(0.073)	(0.095)		
Adjusted private wage share			-0.310***				-0.234***	
			(0.062)				(0.074)	
Manufacturing wage share				-0.103***				-0.084***
				(0.028)				(0.024)
Top 5% income share	-0.475***		-0.189**	-0.123	-0.354***		-0.217***	-0.173**
	(0.124)		(0.085)	(0.090)	(0.077)		(0.071)	(0.076)
Gini coefficient		-0.249**				-0.160**		
		(0.099)				(0.067)		
Constant	-0.130	2.421	8.043***	3.172	-1.030	0.526	4.709**	0.372
	(3.572)	(3.678)	(2.437)	(2.206)	(2.461)	(2.675)	(2.255)	(1.746)
Adjusted R^2	0.595	0.544	0.616	0.608	0.650	0.585	0.626	0.681
Countries	7	7	7	7	7	7	7	7
Observations	53	53	61	60	53	53	61	60

*Note: CA is the current account balance in % of GDP. All regressions are estimated by pooled ordinary least squares. Robust standard errors are reported in parantheses. *, **, and *** denotes significance at* 10%, 5%, *and* 1% *levels, respectively. See Appendix A for detailed description of the data.*

Table 3: POLS-Estimation results for full sample

	No cross-sectional demeaning				GDP-weighted demeaning				Trade-weighted demeaning			
	(3.1)	(3.2)	(3.3)	(3.4)	(3.5)	(3.6)	(3.7)	(3.8)	(3.9)	(3.10)	(3.11)	(3.12)
Regressor	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*
Net foreign assets (% of GDP)	0.073***	0.070***	0.070***	0.077***	0.076***	0.073***	0.071***	0.079***	0.077***	0.073***	0.072***	0.080***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)	(0.011)	(0.010)	(0.011)	(0.012)	(0.012)	(0.011)	(0.011)
Fiscal balance (% of GDP)	0.299***	0.276***	0.380***	0.274***	0.331***	0.333***	0.422***	0.327***	0.411***	0.408***	0.485***	0.410***
	(0.083)	(0.080)	(0.085)	(0.090)	(0.097)	(0.094)	(0.092)	(0.097)	(0.105)	(0.101)	(0.096)	(0.104)
Relative per capita income	3.273**	2.761*	0.684	-1.122	0.966	0.012	-0.858	-3.909***	0.010	-0.592	-1.556	-3.503**
	(1.596)	(1.662)	(1.512)	(1.826)	(1.297)	(1.187)	(1.212)	(1.424)	(1.465)	(1.370)	(1.331)	(1.592)
Old-age dependency ratio	-0.320***	-0.360***	-0.383***	-0.366***	-0.279***	-0.286***	-0.357***	-0.303***	-0.205***	-0.241***	-0.311***	-0.258***
	(0.077)	(0.079)	(0.076)	(0.079)	(0.070)	(0.068)	(0.073)	(0.076)	(0.078)	(0.072)	(0.072)	(0.080)
Population growth	-2.797***	-2.653***	-3.446***	-2.739***	-2.389***	-2.056***	-3.124***	-2.029***	-3.193***	-3.153***	-4.032***	-3.062***
	(0.751)	(0.749)	(0.738)	(0.750)	(0.708)	(0.715)	(0.692)	(0.726)	(0.750)	(0.767)	(0.710)	(0.731)
Private credit (% of GDP)	-0.011*	-0.010	-0.009	-0.016**	-0.014**	-0.010	-0.011	-0.014**	-0.021***	-0.016**	-0.016**	-0.022***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.006)	(0.007)
Corporate balance (% of GDP)	0.382***	0.430***	0.386***	0.408***	0.449***	0.493***	0.427***	0.477***	0.444***	0.487***	0.464***	0.486***
	(0.089)	(0.085)	(0.077)	(0.080)	(0.092)	(0.088)	(0.076)	(0.083)	(0.098)	(0.094)	(0.083)	(0.086)
Top 1% income share	-0.388***				-0.380***				-0.317***			
	(0.101)				(0.099)				(0.093)			
Top 5% income share		-0.279***				-0.269***				-0.266***		
		(0.065)				(0.062)				(0.059)		
Top 10% income share			-0.194***				-0.191***				-0.224***	
			(0.056)				(0.055)				(0.050)	
Gini coefficient				-0.166***				-0.188***				-0.133***
				(0.052)				(0.047)				(0.047)
Constant	9.910***	12.907***	16.953***	16.042***	-1.566	-0.692	0.220	2.591**	0.015	0.528	1.449	3.062**
	(1.983)	(2.091)	(2.395)	(2.810)	(1.064)	(0.938)	(0.981)	(1.105)	(1.198)	(1.098)	(1.077)	(1.285)
Adjusted R^2	0.690	0.707	0.717	0.677	0.665	0.681	0.710	0.666	0.653	0.673	0.720	0.647
Countries	20	20	20	20	20	20	20	20	20	20	20	20
Observations	121	119	118	125	121	119	118	125	121	119	118	125

*Note: CA is the current account balance in % of GDP. All regressions are estimated by pooled ordinary least squares. Robust standard errors are reported in parantheses. The Models 3.1-3.4 include time fixed effects. The estimates for the time fixed effects are not shown. *, **, and *** denotes significance at* 10%, 5%, *and* 1% *levels, respectively. See Appendix A for detailed description of the data.*

Table 4: FE-Estimation results for full sample

	No cross-sectional demeaning				GDP-weighted demeaning				Trade-weighted demeaning			
	(4.1)	(4.2)	(4.3)	(4.4)	(4.5)	(4.6)	(4.7)	(4.8)	(4.9)	(4.10)	(4.11)	(4.12)
Regressor	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*
Net foreign assets (% of GDP)	0.039	0.038	0.045	0.035	0.035	0.036	0.047	0.032	0.036	0.036	0.052	0.033
	(0.031)	(0.029)	(0.027)	(0.031)	(0.033)	(0.030)	(0.027)	(0.029)	(0.039)	(0.037)	(0.031)	(0.036)
Fiscal balance (% of GDP)	0.449***	0.474***	0.487***	0.426***	0.608***	0.595***	0.601***	0.555***	0.559***	0.558***	0.586***	0.547***
	(0.093)	(0.084)	(0.089)	(0.088)	(0.090)	(0.084)	(0.093)	(0.083)	(0.091)	(0.086)	(0.110)	(0.082)
Relative per capita income	8.612	7.606	3.843	8.684	3.375	2.706	1.376	6.432	3.536	3.264	-1.637	4.102
	(7.132)	(6.521)	(6.678)	(7.711)	(5.988)	(5.481)	(6.161)	(6.622)	(8.910)	(8.857)	(7.642)	(9.652)
Old-age dependency ratio	-0.533***	-0.513***	-0.487***	-0.432**	-0.534***	-0.519***	-0.436**	-0.398**	-0.599***	-0.582***	-0.581***	-0.539***
	(0.158)	(0.145)	(0.142)	(0.162)	(0.162)	(0.161)	(0.174)	(0.146)	(0.167)	(0.164)	(0.180)	(0.131)
Population growth	-1.579*	-1.857*	-2.076**	-1.716*	-1.296	-1.682**	-1.734**	-1.560**	-2.195**	-2.254**	-2.322***	-2.559***
	(0.876)	(0.894)	(0.792)	(0.849)	(0.801)	(0.783)	(0.655)	(0.633)	(0.766)	(0.808)	(0.699)	(0.767)
Private credit (% of GDP)	-0.036***	-0.037***	-0.036***	-0.039**	-0.043**	-0.044**	-0.038**	-0.042**	-0.050*	-0.050*	-0.045**	-0.048*
	(0.011)	(0.011)	(0.010)	(0.014)	(0.017)	(0.015)	(0.013)	(0.017)	(0.027)	(0.026)	(0.021)	(0.025)
Corporate balance (% of GDP)	0.697***	0.705***	0.639***	0.705***	0.770***	0.751***	0.689***	0.753***	0.682***	0.682***	0.603***	0.689***
	(0.162)	(0.146)	(0.131)	(0.150)	(0.157)	(0.138)	(0.147)	(0.136)	(0.171)	(0.164)	(0.150)	(0.155)
Top 1% income share	-0.522***				-0.558***				-0.416*			
	(0.112)				(0.126)				(0.207)			
Top 5% income share		-0.550***				-0.526***				-0.412**		
		(0.087)				(0.098)				(0.171)		
Top 10% income share			-0.422***				-0.432***				-0.340***	
			(0.097)				(0.086)				(0.099)	
Gini coefficient				-0.322**				-0.447***				-0.323***
				(0.150)				(0.122)				(0.096)
Constant	11.342	19.112***	24.217***	15.539**	-5.021	-4.726	-3.281	-7.632	-3.672	-3.424	0.811	-3.916
	(6.541)	(6.109)	(5.836)	(7.280)	(4.957)	(4.451)	(5.057)	(5.696)	(7.256)	(7.239)	(6.125)	(7.853)
Adjusted R^2	0.657	0.688	0.706	0.652	0.649	0.678	0.699	0.671	0.550	0.574	0.643	0.568
Countries	20	20	20	20	20	20	20	20	20	20	20	20
Observations	121	119	118	125	121	119	118	125	121	119	118	125

*Note: CA is the current account balance in % of GDP. All regressions are estimated by pooled ordinary least squares. Robust standard errors are reported in parantheses. All Models include country fixed effects. The Models 4.1-4.4 include time fixed effects. The estimates for the time fixed effects are not shown. *, **, and *** denotes significance at* 10%, 5%, *and* 1% *levels, respectively. See Appendix A for detailed description of the data.*

Table 5: Contribution analysis

	Canada		China		France		Germany		Italy		Japan		United Kingdom		United States	
Change in actual current account balance	3.27		1.94		0.72		6.15		-0.28		3.59		-2.40		-5.24	
Model (No cross-sectional demeaning)	*3.1*	*3.4*	*3.1*	*3.4*	*3.1*	*3.4*	*3.1*	*3.4*	*3.1*	*3.4*	*3.1*	*3.4*	*3.1*	*3.4*	*3.1*	*3.4*
Change in predicted current account balance	2.19	3.73	3.88	4.14	-1.55	-0.28	1.21	0.94	-3.69	-3.31	1.25	1.65	-6.56	-5.81	-5.91	-3.80
Overall contribution of income distribution	0.24	2.21	1.44	0.45	0.64	1.55	2.36	2.17	1.01	1.86	2.51	3.59	-1.77	-0.04	-2.77	-0.10
Model (GDP-weighted demeaning)	*3.5*	*3.8*	*3.5*	*3.8*	*3.5*	*3.8*	*3.5*	*3.8*	*3.5*	*3.8*	*3.5*	*3.8*	*3.5*	*3.8*	*3.5*	*3.8*
Change in predicted current account balance	4.96	5.76	4.03	3.92	1.14	1.41	4.01	2.74	-0.45	-0.64	4.32	3.83	-4.29	-4.46	-3.96	-2.83
Overall contribution of income distribution	1.68	2.26	2.62	1.04	1.83	1.46	3.77	2.22	2.36	1.85	4.08	3.86	0.00	0.25	-1.60	-0.42
Model (Trade-weighted demeaning)	*3.9*	*3.12*	*3.9*	*3.12*	*3.9*	*3.12*	*3.9*	*3.12*	*3.9*	*3.12*	*3.9*	*3.12*	*3.9*	*3.12*	*3.9*	*3.12*
Change in predicted current account balance	7.22	7.06	4.21	4.25	0.27	0.75	3.73	2.74	-1.21	-1.22	6.39	5.65	-5.80	-5.69	-6.32	-4.90
Overall contribution of income distribution	2.75	2.49	1.83	0.43	0.13	0.08	2.62	1.45	0.76	0.77	5.06	4.88	-0.78	-0.30	-2.67	-1.41

Note: The figure shows the change in the observed and predicted current account balance and the estimated net contribution of the change in the income distribution for the period 1980/3-2004/7 (four-year averages). Due to data availability, results for United Kingdom and China are shown for the periods 1984/7-2004/7 and 1992/5-2000/3.

Table 6: Contribution analysis: aggregate volume effects

	Top 1% income share	Top 5% income share	Top 10% income share	Gini coefficient
No cross-sectional demeaning	1.674	1.706	1.474	0.958
GDP-weighted demeaning	1.632	1.600	1.240	1.142
Trade-weighted demeaning	1.225	1.542	1.449	0.843

Note: Aggregate volume effects of the change in the respective personal income distribution variable for the period 1980/3-2004/7, full sample. The models include the following control variables: net foreign assets, fiscal balance, relative per capita income, old-age dependency ratio, population growth, private credit and the corporate balance.

A Description of data

A.1 Variable definitions and data sources

Data for the current account balance as per cent of GDP are taken from the World Development Indicators (WDI) database (December 2012 version). For the sectoral financial balances and the household saving rate, we use data from the AMECO database of the European Commission and the National accounts statistics provided by the OECD.

Net foreign assets are measured as total assets minus total liabilities as percent of GDP, taken from the updated and extended version of the External Wealth of Nations Mark II database developed by Lane and Milesi-Ferretti (2007).

We employ several sources for the government budget balance. Our primary source is the Economic Outlook database (No. 92, December 2012) from the OECD. As the AMECO database of the European Commission and the World Economic Outlook (WEO) database (April 2013 version) from the IMF provide longer series for certain countries we complement the OECD series with data from these alternative sources. For Germany, we use series from the AMECO database. For China, Ireland and Switzerland we employ data from the WEO.

To measure a country's relative stage of development, we take PPP converted GDP per capita relative to the United States at current prices (in international $) from the Penn World Tables 7.1 database.

Financial liberalisation is measured by private credit by deposit money banks and other financial institutions as percent of GDP. Data are taken from the Financial Structure Dataset (September 2012 version) by Beck and Demirgüç-Kunt.

Demographic developments is proxied by the old-age dependency ratio, which is constructed as the ratio of the population older than 65 years to the population between 14 and 65, and population growth. Data are taken from the World Development Indicators (WDI) database (April 2013 version).

For top household income shares our primary source is the World Top Incomes Database (WTID). For China top 10% income share data is used from the World Development Indicators (WDI) database (April 2013 version). As an alternative measure we use an estimate of the Gini index of inequality in equivalised household disposable income from the Standardized World Income Inequality Database (SWIID), Version 3.1.

Our primary source for the corporate financial balance is the AMECO database of the European Commission. However, as the AMECO database does not provide data for several countries

of interest we complement the AMECO series with data from alternative sources. For Australia, Canada and South Africa we employ data from the National account statistics of the OECD. For China, we use data from the National Accounts.

In an analysis of robustness, we also use the adjusted wage share of the manufacturing industry and an adjusted wage share of the private sector. The adjusted wage share of the manufacturing industry is defined as compensation per employee as percentage of nominal gross value added per person employed. Data are taken from the AMECO database of the European Commission. The construction of the adjusted private sector wage share is based on the adjusted wage share of the total economy as percentage of GDP at current factor cost and is also provided by the AMECO database. For China, we use data from Zhou *et al.* (2010).

Since the wage share of the total economy (WS) is the sum of the private sector wage share (WS^P) and the government wage share (WS^G) weighted by their respective sizes, we use final consumption expenditure by the general government (CE^G) as percentage of GDP as a measure for the size of the government sector (Stockhammer 2012). The National statistics database of the OECD provides data for government consumption expenditure.

$$WS_{i,t} = (1 - CE^G_{i,t}) * WS^P_{i,t} + CE^G_{i,t} * WS^G_{i,t} \tag{2}$$

As the wage share in the government sector is equal to 1, we can reconstruct the private wage share as

$$WS^P_{i,t} = \frac{(WS_{i,t} - CE^G_{i,t})}{(1 - CE^G_{i,t})} \tag{3}$$

A.2 Demeaning of explanatory variables

The sample mean is calculated across all countries for which data are available for a given time period. Since calculating the cross-country average might cause jumps in the data in time periods where a large country is added to the list, we use both average foreign trade flows ($(X + M)_{i,t}$) over the period 2000-2007 and GDP to compute country-specific weighted averages of foreign variables:

$$\widetilde{X}_{i,t} = X_{i,t} - \frac{\sum_{i=1}^{J} (W_{i,t} * X_{i,t})}{\sum_{i=1}^{J} W_{i,t}} \tag{4}$$

where $X_{i,t}$ denotes the observation of the respective explanatory variable for country i and time period t, and $W_{i,t}$ stands for the weighting variable. The data on bilateral trade are taken from the IMF Direction of Trade Statistics (DOTS) database. For the GDP demeaning we use data from the Penn World Tables 7.1 database.

Table A.1: Summary statistics

	Sample of advanced and emerging countries				
Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Current account balance (% of GDP)	677	-0.266	4.391	-14.852	16.443
Net foreign assets (% of GDP)	709	-11.024	35.161	-165.044	130.308
Fiscal balance (% of GDP)	643	-1.984	4.161	-12.320	18.300
Relative per capita income	720	0.728	0.252	0.017	1.240
Old-age dependency ratio	720	19.220	5.317	5.511	31.938
Population growth	719	0.730	0.614	-0.572	3.800
Private credit (% of GDP)	683	85.984	42.243	9.795	231.413
Corporate balance (% of GDP)	482	-0.370	3.959	-15.391	10.855
Adjusted private wage share	695	59.427	7.177	37.002	91.925
Manufacturing wage share	549	66.956	10.162	24.273	98.433
Top 1% income share	607	7.889	2.711	2.650	18.330
Top 5% income share	575	20.643	4.674	9.800	39.310
Top 10% income share	562	31.457	5.069	18.770	57.540
Gini coefficient	691	30.482	8.463	19.700	65.458
	Sample of G7 countries				
Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Current account balance (% of GDP)	244	-0.237	2.326	-6.013	7.485
Corporate balance (% of GDP)	213	-0.939	3.123	-11.364	8.975
Household balance (% of GDP)	213	4.037	4.214	-4.700	17.188
Household saving rate	244	10.842	6.136	-4.271	26.222
Net foreign assets (% of GDP)	252	-2.484	16.591	-45.718	41.091
Fiscal balance (% of GDP)	246	-3.593	3.044	-12.320	3.680
Relative per capita income	252	0.818	0.097	0.647	1.000
Old-age dependency ratio	252	20.780	4.242	10.727	31.938
Population growth	252	0.560	0.462	-0.429	1.909
Private credit (% of GDP)	246	101.501	45.126	24.830	231.413
Adjusted private wage share	252	61.878	5.107	52.097	76.806
Manufacturing wage share	245	69.809	8.509	52.609	98.433
Top 5% income share	227	22.869	3.599	16.680	33.840
Gini coefficient	249	30.397	3.097	23.981	37.200

B Further estimation results

Table B.1: POLS-Estimation results for full sample, with private wage share as explanatory variable

	No cross-sectional demeaning				GDP-weighted demeaning				Trade-weighted demeaning			
	(B1.1)	(B1.2)	(B1.3)	(B1.4)	(B1.5)	(B1.6)	(B1.7)	(B1.8)	(B1.9)	(B1.10)	(B1.11)	(B1.12)
Regressor	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*
Net foreign assets (% of GDP)	0.081***	0.085***	0.078***	0.083***	0.083***	0.086***	0.079***	0.085***	0.081***	0.083***	0.078***	0.083***
	(0.011)	(0.011)	(0.011)	(0.010)	(0.012)	(0.013)	(0.011)	(0.011)	(0.012)	(0.013)	(0.012)	(0.011)
Fiscal balance (% of GDP)	0.150*	0.151*	0.223**	0.119	0.186*	0.192**	0.291***	0.173*	0.228**	0.222**	0.310***	0.198**
	(0.080)	(0.078)	(0.088)	(0.081)	(0.096)	(0.096)	(0.106)	(0.096)	(0.094)	(0.094)	(0.103)	(0.095)
Relative per capita income	4.495***	4.426***	3.590**	2.015	3.635***	3.101**	2.585**	0.477	3.270***	3.095**	2.596**	1.359
	(1.429)	(1.451)	(1.394)	(1.344)	(1.248)	(1.273)	(1.206)	(1.298)	(1.205)	(1.251)	(1.271)	(1.352)
Old-age dependency ratio	-0.266***	-0.250***	-0.340***	-0.326***	-0.236***	-0.199**	-0.316***	-0.267***	-0.176**	-0.165**	-0.265***	-0.240***
	(0.084)	(0.087)	(0.080)	(0.083)	(0.081)	(0.086)	(0.085)	(0.091)	(0.076)	(0.079)	(0.082)	(0.089)
Population growth	-3.068***	-2.582***	-3.618***	-3.291***	-2.532***	-2.059**	-3.161***	-2.506***	-2.652***	-2.320***	-3.325***	-2.679***
	(0.809)	(0.864)	(0.769)	(0.733)	(0.710)	(0.825)	(0.688)	(0.717)	(0.722)	(0.847)	(0.721)	(0.737)
Private credit (% of GDP)	-0.006	-0.007	-0.008	-0.005	-0.009	-0.008	-0.012	-0.006	-0.010	-0.009	-0.014*	-0.007
	(0.006)	(0.006)	(0.006)	(0.006)	(0.007)	(0.008)	(0.008)	(0.008)	(0.007)	(0.008)	(0.008)	(0.008)
Adjusted private wage share	-0.117**	-0.123**	-0.075	-0.151***	-0.105	-0.115*	-0.047	-0.142**	-0.081	-0.091	-0.026	-0.117*
	(0.056)	(0.055)	(0.054)	(0.054)	(0.066)	(0.068)	(0.069)	(0.069)	(0.060)	(0.064)	(0.064)	(0.063)
Top 1% income share	-0.338***				-0.371***				-0.331***			
	(0.094)				(0.102)				(0.099)			
Top 5% income share		-0.196***				-0.199***				-0.182**		
		(0.062)				(0.068)				(0.070)		
Top 10% income share			-0.148***				-0.154***				-0.160***	
			(0.055)				(0.056)				(0.061)	
Gini coefficient				-0.130**				-0.139**				-0.094*
				(0.055)				(0.059)				(0.056)
Constant	13.350***	14.603***	15.765***	19.936***	-3.315***	-2.767**	-2.262**	-0.438	-2.475**	-2.237**	-1.782*	-0.636
	(3.605)	(3.551)	(3.398)	(3.874)	(1.100)	(1.115)	(1.042)	(1.068)	(1.017)	(1.054)	(1.073)	(1.098)
Adjusted R^2	0.601	0.609	0.622	0.595	0.546	0.540	0.578	0.522	0.532	0.522	0.565	0.498
Countries	20	20	20	20	20	20	20	20	20	20	20	20
Observations	153	146	150	159	153	146	150	159	153	146	150	159

*Note: CA is the current account balance in % of GDP. All regressions are estimated by pooled ordinary least squares. Robust standard errors are reported in parantheses. The Models B1.1-B1.4 include time fixed effects. The estimates for the time fixed effects are not shown. *, **, and *** denotes significance at* 10%, 5%, *and* 1% *levels, respectively. See Appendix A for detailed description of the data.*

Table B.2: POLS-Estimation results for full sample, with manufacturing wage share as explanatory variable

	No cross-sectional demeaning				GDP-weigthed demeaning				Trade-weighted demeaning			
	(B2.1)	(B2.2)	(B2.3)	(B2.4)	(B2.5)	(B2.6)	(B2.7)	(B2.8)	(B2.9)	(B2.10)	(B2.11)	(B2.12)
Regressor	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*
Net foreign assets (% of GDP)	0.068***	0.079***	0.071***	0.064***	0.070***	0.077***	0.072***	0.065***	0.067***	0.073***	0.071***	0.063***
	(0.017)	(0.017)	(0.016)	(0.016)	(0.018)	(0.019)	(0.017)	(0.017)	(0.017)	(0.017)	(0.016)	(0.016)
Fiscal balance (% of GDP)	0.166**	0.166**	0.250***	0.091	0.197**	0.204**	0.301***	0.120	0.264***	0.261***	0.327***	0.215**
	(0.083)	(0.079)	(0.079)	(0.084)	(0.096)	(0.092)	(0.089)	(0.100)	(0.088)	(0.086)	(0.084)	(0.094)
Relative per capita income	8.354***	8.186***	6.285**	7.606**	7.394***	7.016***	5.058**	5.381**	6.542***	6.156***	4.772**	5.148**
	(2.886)	(2.925)	(2.783)	(2.936)	(2.482)	(2.486)	(2.414)	(2.654)	(2.097)	(2.096)	(2.143)	(2.315)
Old-age dependency ratio	-0.165*	-0.136	-0.256***	-0.270***	-0.093	-0.052	-0.182*	-0.133	0.047	0.035	-0.060	-0.023
	(0.089)	(0.085)	(0.085)	(0.097)	(0.097)	(0.098)	(0.101)	(0.111)	(0.102)	(0.101)	(0.096)	(0.114)
Population growth	-3.723***	-3.203***	-4.215***	-4.300***	-2.909***	-2.462***	-3.472***	-3.024***	-3.417***	-3.265***	-3.977***	-3.686***
	(0.983)	(1.035)	(0.924)	(0.862)	(0.824)	(0.922)	(0.780)	(0.800)	(0.800)	(0.893)	(0.778)	(0.806)
Private credit (% of GDP)	-0.016**	-0.019***	-0.017**	-0.018***	-0.019***	-0.021***	-0.019***	-0.015**	-0.026***	-0.025***	-0.024***	-0.023***
	(0.006)	(0.007)	(0.007)	(0.006)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.008)	(0.007)	(0.007)
Manufacturing wage share	-0.077***	-0.127***	-0.078***	-0.074**	-0.086***	-0.133***	-0.087***	-0.096***	-0.085***	-0.124***	-0.087***	-0.090***
	(0.028)	(0.036)	(0.029)	(0.028)	(0.030)	(0.041)	(0.032)	(0.028)	(0.026)	(0.034)	(0.026)	(0.023)
Top 1% income share	-0.253**				-0.295**				-0.259**			
	(0.104)				(0.114)				(0.120)			
Top 5% income share		-0.175**				-0.186**				-0.187**		
		(0.078)				(0.088)				(0.091)		
Top 10% income share			-0.114*				-0.120*				-0.152**	
			(0.064)				(0.072)				(0.076)	
Gini coefficient				-0.205***				-0.258***				-0.198***
				(0.064)				(0.066)				(0.068)
Constant	6.798**	11.459***	12.730***	12.718***	-6.930***	-6.496***	-4.730**	-5.464**	-5.762***	-5.327***	-4.074**	-4.596**
	(2.909)	(3.332)	(3.443)	(3.977)	(2.267)	(2.274)	(2.174)	(2.382)	(1.875)	(1.884)	(1.900)	(2.048)
Adjusted R^2	0.539	0.567	0.573	0.566	0.487	0.503	0.532	0.497	0.502	0.516	0.544	0.487
Countries	20	20	20	20	20	20	20	20	20	20	20	20
Observations	135	130	131	137	135	130	131	137	135	130	131	137

*Note: CA is the current account balance in % of GDP. All regressions are estimated by pooled ordinary least squares. Robust standard errors are reported in parantheses. The Models B2.1-B2.4 include time fixed effects. The estimates for the time fixed effects are not shown. *, **, and *** denotes significance at* 10%, 5%, *and* 1% *levels, respectively. See Appendix A for detailed description of the data.*

Table B.3: FE-Estimation results for full sample, with private wage share as explanatory variable

	No cross-sectional demeaning				GDP-weighted demeaning				Trade-weighted demeaning			
	(B3.1)	(B3.2)	(B3.3)	(B3.4)	(B3.5)	(B3.6)	(B3.7)	(B3.8)	(B3.9)	(B3.10)	(B3.11)	(B3.12)
Regressor	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*
Net foreign assets (% of GDP)	0.056*	0.069**	0.064**	0.050*	0.046	0.054	0.060**	0.035	0.039	0.046	0.055**	0.032
	(0.030)	(0.032)	(0.025)	(0.026)	(0.033)	(0.035)	(0.026)	(0.029)	(0.036)	(0.037)	(0.026)	(0.030)
Fiscal balance (% of GDP)	0.358***	0.315***	0.374***	0.339***	0.403***	0.366***	0.461***	0.409***	0.370***	0.316**	0.428***	0.372***
	(0.091)	(0.087)	(0.085)	(0.084)	(0.123)	(0.118)	(0.097)	(0.119)	(0.123)	(0.118)	(0.102)	(0.121)
Relative per capita income	-15.012**	-9.373	-13.456**	-14.173**	-10.869*	-8.007	-13.001*	-11.357*	-10.608	-6.573	-14.057**	-12.005*
	(5.744)	(7.568)	(5.230)	(5.526)	(6.223)	(8.131)	(6.347)	(6.225)	(6.839)	(9.247)	(6.396)	(6.512)
Old-age dependency ratio	-0.297*	-0.306*	-0.434**	-0.384**	-0.351*	-0.329	-0.346*	-0.308**	-0.312	-0.314	-0.381*	-0.348*
	(0.147)	(0.161)	(0.163)	(0.154)	(0.183)	(0.191)	(0.197)	(0.143)	(0.187)	(0.198)	(0.197)	(0.172)
Population growth	-1.943*	-1.089	-2.702***	-2.834***	-1.803*	-1.511	-2.432***	-2.802***	-1.949**	-1.373	-2.386***	-2.733**
	(1.081)	(1.190)	(0.934)	(0.960)	(0.907)	(1.288)	(0.840)	(0.897)	(0.885)	(1.138)	(0.783)	(0.997)
Private credit (% of GDP)	-0.015	-0.011	-0.021	-0.013	-0.033	-0.031	-0.027	-0.021	-0.036	-0.034	-0.029	-0.027
	(0.014)	(0.012)	(0.014)	(0.012)	(0.021)	(0.021)	(0.018)	(0.018)	(0.025)	(0.024)	(0.019)	(0.021)
Adjusted private wage share	-0.384**	-0.407**	-0.275**	-0.463***	-0.317*	-0.347	-0.275	-0.425**	-0.342*	-0.387*	-0.312*	-0.450**
	(0.135)	(0.144)	(0.111)	(0.126)	(0.176)	(0.201)	(0.167)	(0.155)	(0.166)	(0.201)	(0.166)	(0.157)
Top 1% income share	-0.060				-0.419*				-0.234			
	(0.193)				(0.242)				(0.305)			
Top 5% income share		-0.168				-0.350*				-0.225		
		(0.118)				(0.175)				(0.201)		
Top 10% income share			-0.175				-0.247*				-0.165	
			(0.116)				(0.134)				(0.136)	
Gini coefficient				-0.046				-0.291*				-0.108
				(0.123)				(0.150)				(0.176)
Constant	43.821***	43.092***	44.272***	50.801***	6.214	4.084	8.234	6.435	7.028	4.157	9.986**	8.083
	(9.682)	(10.519)	(10.549)	(9.316)	(5.132)	(6.403)	(4.817)	(5.058)	(5.422)	(7.225)	(4.712)	(5.092)
Adjusted R^2	0.436	0.438	0.521	0.495	0.395	0.389	0.475	0.431	0.375	0.357	0.464	0.407
Countries	20	20	20	20	20	20	20	20	20	20	20	20
Observations	153	146	150	159	153	146	150	159	153	146	150	159

*Note: CA is the current account balance in % of GDP. All regressions are estimated by pooled ordinary least squares. Robust standard errors are reported in parantheses. All Models include country fixed effects. The Models B3.1-B3.4 include time fixed effects. The estimates for the time fixed effects are not shown. *, **, and *** denotes significance at* 10%, 5%, *and* 1% *levels, respectively. See Appendix A for detailed description of the data.*

Table B.4: FE-Estimation results for full sample, with manufacturing wage share as explanatory variable

	No cross-sectional demeaning				GDP-weighted demeaning				Trade-weighted demeaning			
	(B4.1)	(B4.2)	(B4.3)	(B4.4)	(B4.5)	(B4.6)	(B4.7)	(B4.8)	(B4.9)	(B4.10)	(B4.11)	(B4.12)
Regressor	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*	*CA*
Net foreign assets (% of GDP)	0.057	0.066*	0.068**	0.043	0.051	0.059	0.065**	0.035	0.045	0.051	0.063*	0.034
	(0.033)	(0.031)	(0.028)	(0.031)	(0.036)	(0.035)	(0.029)	(0.032)	(0.041)	(0.040)	(0.031)	(0.038)
Fiscal balance (% of GDP)	0.238**	0.192**	0.326***	0.263**	0.339**	0.291***	0.401***	0.359**	0.347**	0.287**	0.410***	0.396**
	(0.095)	(0.075)	(0.091)	(0.114)	(0.128)	(0.094)	(0.101)	(0.126)	(0.145)	(0.124)	(0.125)	(0.149)
Relative per capita income	0.323	5.739	-3.962	0.401	0.010	4.096	-4.260	-0.521	0.803	5.455	-4.280	-0.901
	(9.262)	(10.020)	(8.105)	(9.183)	(8.320)	(9.642)	(7.222)	(8.733)	(9.233)	(12.007)	(8.062)	(9.594)
Old-age dependency ratio	-0.274*	-0.202	-0.200	-0.160	-0.162	-0.092	-0.146	-0.091	-0.070	-0.020	-0.131	-0.071
	(0.137)	(0.133)	(0.137)	(0.146)	(0.158)	(0.154)	(0.177)	(0.144)	(0.205)	(0.196)	(0.206)	(0.203)
Population growth	-3.049**	-2.458**	-3.329***	-4.201***	-2.194**	-1.916*	-2.524***	-3.268***	-2.378***	-1.888**	-2.628***	-3.182***
	(1.162)	(1.035)	(1.021)	(1.048)	(0.865)	(1.061)	(0.732)	(0.734)	(0.765)	(0.826)	(0.673)	(0.785)
Private credit (% of GDP)	-0.048**	-0.049**	-0.038**	-0.042**	-0.055**	-0.056**	-0.048**	-0.047*	-0.057*	-0.056*	-0.049*	-0.050
	(0.019)	(0.018)	(0.015)	(0.018)	(0.025)	(0.023)	(0.020)	(0.024)	(0.032)	(0.031)	(0.025)	(0.029)
Manufacturing wage share	-0.213**	-0.274***	-0.194**	-0.247***	-0.254**	-0.294***	-0.178**	-0.229**	-0.200**	-0.243**	-0.167**	-0.211**
	(0.096)	(0.083)	(0.068)	(0.082)	(0.098)	(0.089)	(0.078)	(0.087)	(0.088)	(0.090)	(0.075)	(0.086)
Top 1% income share	-0.477**				-0.620**				-0.301			
	(0.195)				(0.231)				(0.274)			
Top 5% income share		-0.448***				-0.486***				-0.294*		
		(0.139)				(0.154)				(0.163)		
Top 10% income share			-0.261*				-0.309*				-0.198	
			(0.141)				(0.155)				(0.132)	
Gini coefficient				-0.300*				-0.491***				-0.292*
				(0.148)				(0.155)				(0.153)
Constant	27.668***	31.505***	33.411***	33.272***	-3.033	-6.107	1.125	-3.453	-2.180	-5.620	2.539	-1.093
	(7.427)	(6.835)	(7.197)	(7.986)	(7.515)	(8.313)	(6.390)	(8.043)	(7.906)	(10.011)	(6.665)	(8.221)
Adjusted R^2	0.451	0.501	0.506	0.467	0.421	0.462	0.485	0.439	0.358	0.379	0.444	0.368
Countries	20	20	20	20	20	20	20	20	20	20	20	20
Observations	135	130	131	137	135	130	131	137	135	130	131	137

*Note: CA is the current account balance in % of GDP. All regressions are estimated by pooled ordinary least squares. Robust standard errors are reported in parantheses. All Models include country fixed effects. The Models B4.1-B4.4 include time fixed effects. The estimates for the time fixed effects are not shown. *, **, and *** denotes significance at* 10%, 5%, *and* 1% *levels, respectively. See Appendix A for detailed description of the data.*