

The macroeconomics of inequality and instability

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I. Macroeconomic implications of income inequality

- Income distribution and macroeconomic instability?
- Income inequality and macroeconomic instability in the United States
- Income inequality and macroeconomic instability in Germany
- Income distribution in an open-economy SFC model

II. Income distribution and current account imbalances

- Introduction and literature
- Descriptive analysis/illustration of hypotheses
- Estimation methodology
- Estimation results
- Conclusion

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Income distribution and macroeconomic instability?

INET project: Income inequality, household leverage and current account imbalances

- Contributes to growing literature on inequality as a cause of the global financial crisis starting in 2007/8
- Looks at potential links between income distribution and current account imbalances
 - Macro panel analysis for 20 countries (Behringer/van Treeck, 2015)
 - Three-country SFC model calibrated for U.S., Germany, China (Belabed/Theobald/van Treeck, 2013)
 - Two-country DSGE model calibrated for U.K., Germany (Grüning/Theobald/van Treeck, 2015)
- Attempts to combine two strands of the literature
 - Post-Keynesian literature on “wage-led growth” (functional income distribution)
 - Relative income hypothesis, “trickle-down consumption” (personal income distribution)

Functional income distribution and aggregate demand

- In rational expectations models households fully 'pierce the corporate veil'
- But consumers may react differently to a rise in dividends than to an increase in corporate retained earnings (e.g. Feldstein and Fane, 1973; Poterba, 1991; Baker et al., 2007; Atkinson, 2009)
- If households have a higher propensity to spend out of current income than firms, a falling wage share is linked to weaker aggregate demand (e.g. Hobson, 1909; Kalecki, 1954; Kaldor, 1966)
- If firms' investment spending is sensitive to profits, a falling wage share may be linked to stronger aggregate demand (e.g. Bhaduri and Marglin)

Income distribution and macroeconomic instability?

The Bhaduri-Marglin model

- Propensity to save out of profits is larger than propensity to save out of wages
- Investment depends on profit share and capacity utilisation
- Capacity utilisation is endogenous even in the long run

$$\sigma = \frac{S}{K} = \frac{s_{\Pi}\Pi + s_W(Y - \Pi)}{K} = [s_W + (s_W - s_{\Pi})h]u/v \quad (1)$$

$$g = \frac{I}{K} = \alpha + \beta u + \tau h \quad (2)$$

$$u^* = \frac{\alpha + \tau h}{[s_W + (s_W - s_{\Pi})h]1/v - \beta} \quad (3)$$

$$h = \frac{\Pi}{Y}; u = \frac{Y}{Y^{pot}}; v = \frac{K}{Y^{pot}}; 0 < s_W < s_{\Pi} < 1$$

- A rise in the profit share (= fall in the wage share) can have either expansionary or contractionary effects
- Profit-led growth: Strong positive investment effects of rise in profit share
- Wage-led growth: Large discrepancy between propensities to save out of profits and wages
- In an open economy context, profit-led growth (wage-led growth) will be associated with a current account deficit (surplus)

Personal income distribution and aggregate demand

- Rational expectations models see no link between inequality and current account
- Keynesians often assume a positive link between personal inequality and the household saving rate because “the rich save more than the poor”
- With upward-looking status comparisons, there may be a negative link between personal inequality and household saving rate (“expenditure cascades” model by Frank et al., 2010)
- Link between rising (top-end) income inequality and decline in saving (and rise in household debt) prior to Great Recession (e.g. Palley, 1994; Cynamon and Fazzari, 2014; Fitoussi and Stiglitz, 2009; Rajan, 2010; Kumhof and Rancière, 2015; Stockhammer, 2013)

Income distribution and macroeconomic instability?

PIH	Rich households	Poor households	Total
Income	60	40	100
Consumption	36	24	60
Propensity to consume	0.6	0.6	0.6

Keynes/RIH	Rich households	Poor households	Total
Income	60	40	100
Consumption	30	30	60
Propensity to consume	0.5	0.75	0.6

Keynes	Rich households	Poor households	Total
Income	70	30	100
Consumption	35	22.5	57.5
Propensity to consume	0.5	0.75	0.575

RIH	Rich households	Poor households	Total
Income	70	30	100
Consumption	35	27	62
Propensity to consume	0.5	0.9	0.62

Income distribution and macroeconomic instability?

The relative income hypothesis (James Duesenberry, Robert Frank)

- Higher (permanent) income inequality can lead to
 - Lower saving
 - Higher debt
 - (A higher labour supply)
- Households build consumption norms by looking at the consumption of other households just above them in the income distribution as a result of “positional concerns” (R. Frank)

Expenditure cascades?

- “Expenditure cascades” can start at the very top and go all the way down the income distribution (R. Frank)
- Strength of “expenditure cascades” depends on
 - where the shift in inequality occurs (top-middle-bottom)
 - norms and institutions

Income distribution and macroeconomic instability?

The expenditure cascades model (Frank et al., 2014)

- Consumption demand of household i , C_i , depends on:
- its own income, Y_i (+)
- the consumption of households with a marginally higher income, C_{i+1} (+)

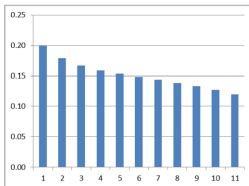
$$C_N = kY_N \quad \text{for} \quad i = N \quad (4)$$

$$C_i = k(1 - \alpha)Y_i + \alpha C_{i+1} \quad \text{for} \quad i = 1, \dots, N - 1; 0 < \alpha < 1 \quad (5)$$

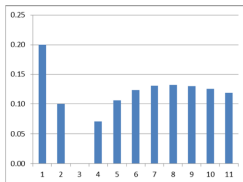
- A rise in top income shares exerts downward pressure on the saving rates of all households below the top, but α depends on institutions
- A rise in the Gini may have little effect on the aggregate saving rate
- When firms retain their profits rather than passing them on to top income households, expenditure cascades may be weaker (the “corporate veil”), i.e., corporate governance institutions matter
- In an open economy context, (the absence of) expenditure cascades will be associated with a current account deficit (surplus)

Income distribution and macroeconomic instability?

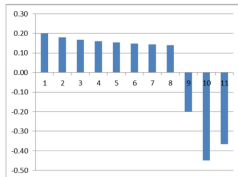
	Y	C	s
1	100	80	0.20
2	95	78	0.18
3	90	75	0.17
4	85	71.5	0.16
5	80	67.8	0.15
6	75	63.9	0.15
7	70	59.9	0.14
8	65	56.0	0.14
9	60	52.0	0.13
10	55	48.0	0.13
11	50	44.0	0.12



	Y	C	s
1	150	120	0.20
2	120	108	0.10
3	90	90	0.00
4	85	79.0	0.07
5	80	71.5	0.11
6	75	65.8	0.12
7	70	60.9	0.13
8	65	56.4	0.13
9	60	52.2	0.13
10	55	48.1	0.13
11	50	44.1	0.12

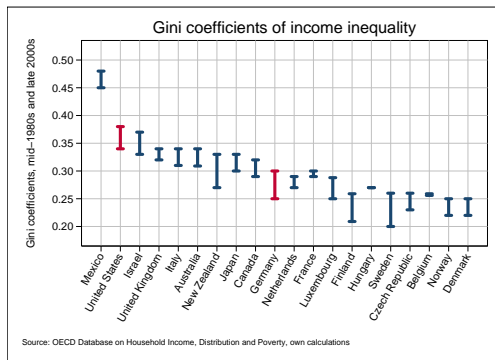


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6	75	63.9	0.15
7	70	59.9	0.14
8	65	56.0	0.14
9	25	42.0	-0.20
10	20	29.0	-0.45
11	15	20.5	-0.37



Income inequality in the United States and Germany

Gini coefficients of income inequality, mid-1980s and late 2000s



- Income inequality increased in most, but not all OECD countries
 - Inequality has increased to a similar degree in the U.S. and Germany
 - Strong increase in income inequality in New Zealand, Finland and Sweden
 - Little change in income inequality in France, Hungary and Belgium

I. Macroeconomic implications of income inequality

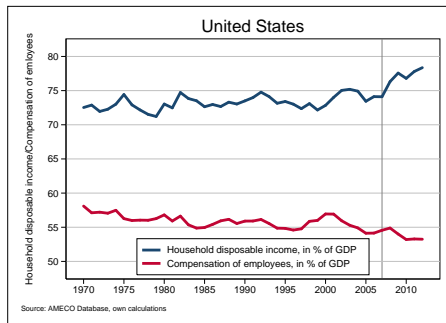
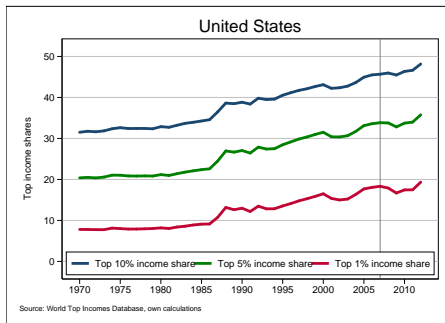
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A closer look at the United States

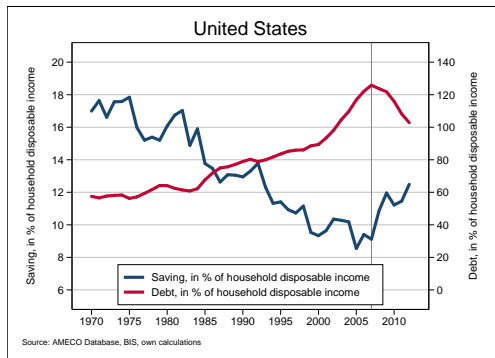
Personal and functional income distribution, USA, 1970-2012



- In the United States, firms have paid rising and extremely high salaries to the new "working rich" (since the early 1980s)
 - Rising top-end household income inequality since early 1980s
 - Rather little change in functional income distribution since early 1980s

A closer look at the United States

Household saving and debt, USA, 1970-2012

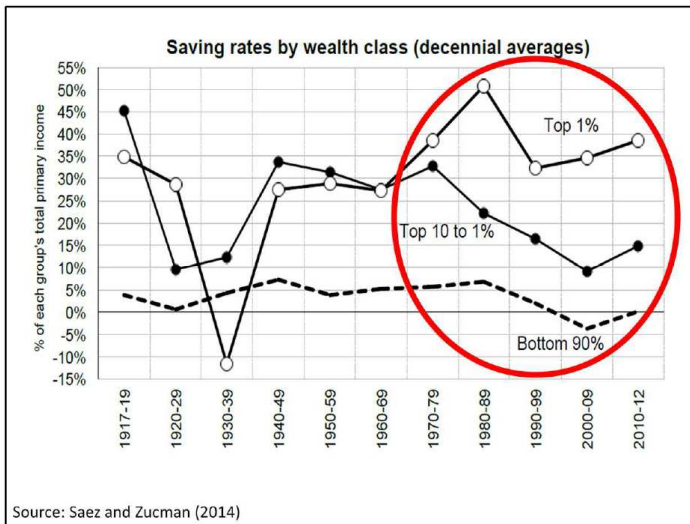


- United States post-1980: Debt-driven consumption and crisis

- Strong increase in household indebtedness prior to the Great Recession
- Strongly falling household saving rate prior to the Great Recession

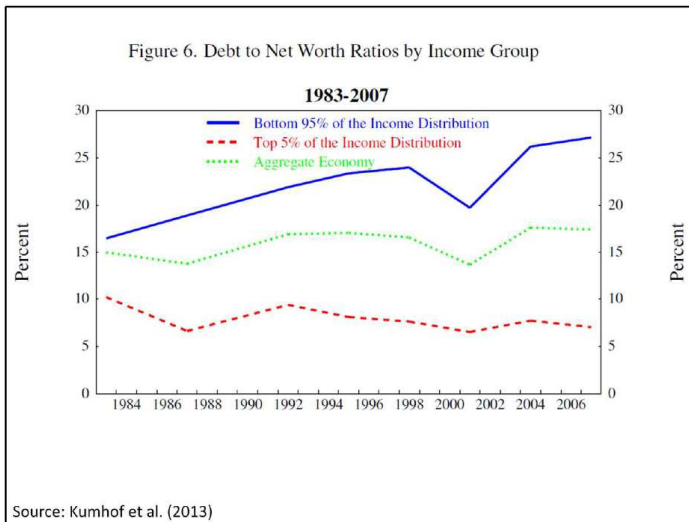
A closer look at the United States

Household saving rates, USA, 1917-2012



A closer look at the United States

Household debt-to-net worth ratios, USA, 1984-2007



Income inequality, household debt and the saving rate - What happened in the United States?

- Mainstream theories of consumption are unable to explain the decline in the household saving rate and the rise in household debt in the United States
- Persuasive explanation of fall in saving/rise in household debt provided by "expenditure cascades"/trickle-down consumption models
- Expenditure cascades are not about eccentric luxury consumption, but basic middle class needs (private financing of important positional goods such as education, housing, health care, etc. in the United States)

I. Macroeconomic implications of income inequality

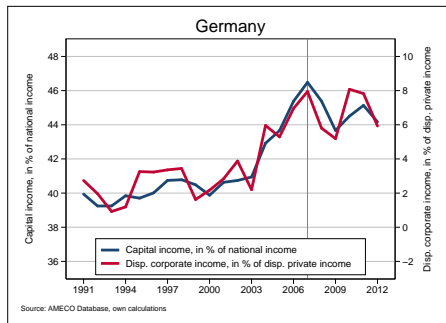
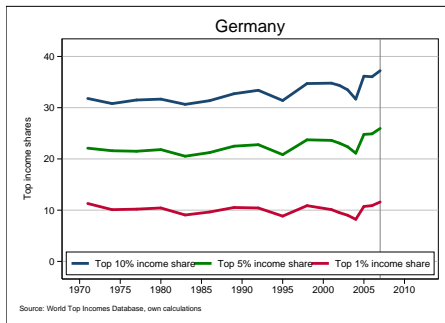
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A closer look at Germany

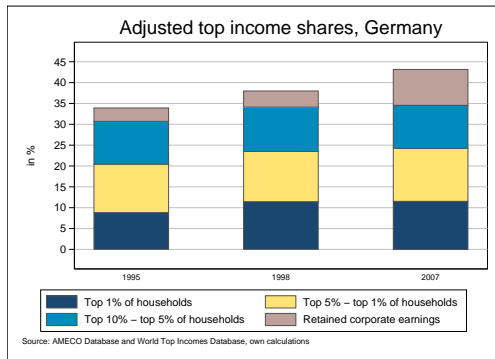
Personal and functional income distribution, DEU, 1970-2012



- In Germany, firms have accumulated financial assets with their retained profits (during the 1980s and 2000s)
 - Top-end personal income inequality has not increased very much
 - Strongly increasing capital income share

A closer look at Germany

Top income shares adjusted to take account of retained corporate earnings



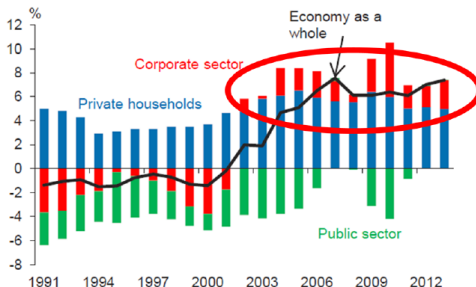
- Trends in top household income shares are not directly comparable across countries
- In Germany, the corporate sector has been a persistent net saver since 2002
- Retained corporate profits are not counted as household disposable income
→ Top household income shares underestimate the rise in top-end inequality in Germany

A closer look at Germany

Sectoral financial balances, Germany, 1991-2013

Germany post-2000: Weak domestic demand and current account surplus

c) Net financial investment by sector²



Source: Behringer/Theobald/van Treeck (2014)

A closer look at Germany

Weak demand for credit due to specific nature of inequality

- Very strong increase in the Gini coefficient, but no increase of inequality at the very top (OECD, 2008, 2011)
 - Lower altitude of “expenditure cascades”
 - Strong decline in relative incomes at the bottom, where households are likely liquidity constraint
 - Increased middle class fear of status loss due to strongly declining incomes at the bottom (Groh-Samberg, 2009)

Weak demand for credit due to institutions/norms

- Specific German production and economic policy model reinforces fear of status loss and precautionary saving motive in a context of rising inequality
 - Firm-specific human capital and low female participation lead to higher risk of status loss in case of (male) unemployment (Carlin and Soskice, 2008)
 - Pension and labour market reforms of 2000s have increased income uncertainty (Deutsche Bundesbank, 2007)
 - No help to be expected from fiscal and monetary policy in case of unemployment (Hein and Truger, 2007; Fitoussi and Stiglitz, 2009)

Two types of income inequality and corporate behaviour

- In the United States, firms have payed rising and extremely high salaries to the new "working rich" (since the early 1980s)
 - The "wage share" has remained roughly constant
 - Top-end personal income inequality has skyrocketed
- In Germany, firms have accumulated financial assets with their retained profits (during the 1980s and 2000s)
 - The "wage share" has fallen dramatically
 - Top-end personal income inequality has not increased very much

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A stock-flow consistent macro model

Basic features of the model

- Large-scale stock-flow consistent model based on Godley and Lavoie (2007)
- Both dimensions of income distribution, personal and functional, are explicitly modeled
- We divide the household sector into deciles and trace savings, debt and consumption through time
- Three idealized economies (U.S., Germany, China) are modelled as one complete system

Shocks and simulations

- Personal income distribution through wage differentials and dividend income
- Functional income distribution and corporate saving through aggregate wage share
- Consumption-GDP ratio, debt-income ratio, sectoral financial balances and current account balance are obtained through simulation (robustified through comparison analysis)

A stock-flow consistent macro model

Assets and Liabilities	Currency	'United States'			'Germany'			'China'			Σ
		Households $A_i=1,...,10$	Firms A	Banks A	Households $B_i=1,...,10$	Firms B	Banks B	Households $C_i=1,...,10$	Firms C	Banks C	
Deposits	A	$+m_d^{i,A}$		$-m_s^A$							0
	B				$+m_d^{i,B}$		$-m_s^B$				0
	C							$+m_d^C$		$-m_s^C$	0
Consumer loans	A	$-l_{h,d}^{i,A}$		$+l_{h,s}^{AA}$			$+l_{h,s}^{BA}$			$+l_{h,s}^{CA}$	0
	B			$+l_{h,s}^{AB}$	$-l_{h,d}^{i,B}$		$+l_{h,s}^{BB}$			$+l_{h,s}^{CB}$	0
	C			$+l_{h,s}^{AC}$			$+l_{h,s}^{BC}$	$-l_{h,d}^{i,C}$		$+l_{h,s}^{CC}$	0
Business loans	A		$-l_{f,d}^A$	$+l_{f,s}^A$							0
	B					$-l_{f,d}^B$	$+l_{f,s}^B$				0
	C								$-l_{f,d}^C$	$+l_{f,s}^C$	0
Equities	A	$+e_d^{i,A} * p_e^A$	$-e_s^A * p_e^A$								0
	B				$+e_d^{i,B} * p_e^B$	$-e_s^B * p_e^B$					0
	C							$+e_d^{i,C} * p_e^C$	$-e_s^C * p_e^C$		0
Capital stock	A		$+k^A$								k^A
	B					$+k^B$					k^B
	C								$+k^C$		k^C
Σ	A	$= v_h^{i,A}$	$= v_f^A$	$= 0$	$= v_h^{i,B}$	$= v_f^B$	$= 0$	$= v_h^{i,C}$	$= v_f^C$	$= 0$	$= k^A + nfa^A$
	B										$= k^B + nfa^B$
	C										$= k^C + nfa^C$

Consumption and the Relative income hypothesis

Consumption of top 10 percent households:

$$c^{1,j} = o^{1,j} \cdot v_h^{1,j} + \kappa \cdot (1 + g^j) \cdot yd_{t-1}^{1,j}; \quad j = A, \dots, C \quad (6)$$

Consumption of bottom 90 percent households under upward looking status comparisons:

$$c_{de}^{i,j} = o^{i,j} \cdot v_h^{i,j} + \kappa \cdot [1 - (\alpha_0 - \alpha_1^j)] \cdot (1 + g^j) \cdot yd_{t-1}^{i,j} + (\alpha_0 - \alpha_1^j) \cdot (1 + g^j) \cdot c_{t-1}^{i-1,j} \quad (7)$$

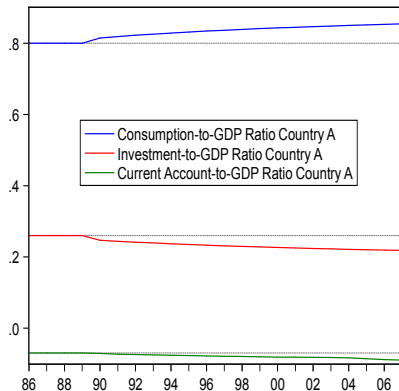
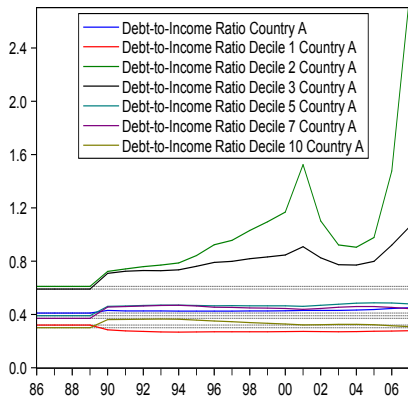
$i = 2, \dots, 10 \quad j = A, \dots, C$

- Calibration of α_1^j : Influenced by institutional environment, e.g. provision of public infrastructure (schools, health care, social transfers) and labor market specifications (firm-specific skills, labor market mobility)
- Variables: c_{de} Desired level of consumption; $v_h^{i,j}$ Decile-specific wealth; $yd_{t-1}^{i,j}$ Decile-specific disposable income; $c_{t-1}^{i-1,j}$ Consumption of reference group
- Parameters: o Marginal propensity to consume out of wealth; κ Propensity to consume out of income; α_0 natural rate of imitation; α_1^j household-specific penalty term; g^j Growth rate

A stock-flow consistent macro model: 'The United States'

Debt-income ratios and GDP expenditure approach

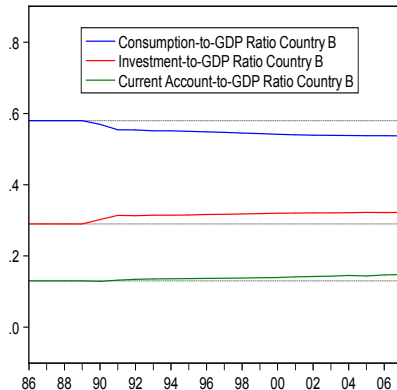
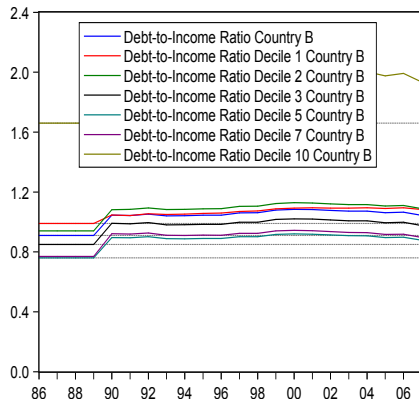
(Shock on personal income distribution dominates)



A stock-flow consistent macro model: 'Germany'

Debt-income ratios and GDP expenditure approach

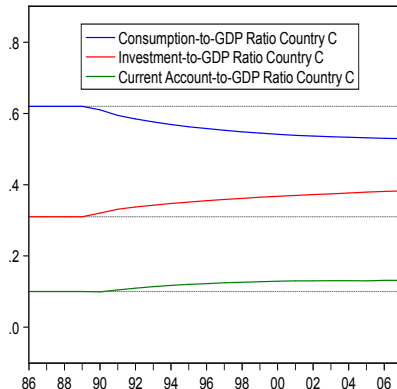
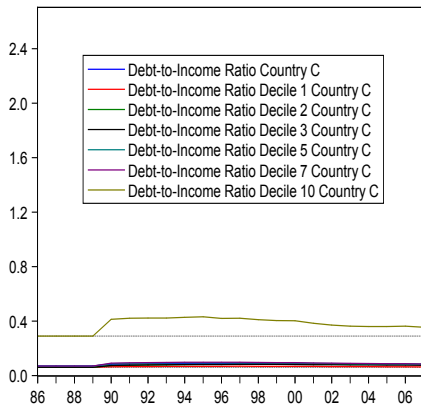
(Shock on functional income distribution dominates)



A stock-flow consistent macro model: 'China'

Debt-income ratios and GDP expenditure approach

(Shock on functional income distribution dominates, financial repression)



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- Global current account imbalances widely considered to be an important contributing factor to the global financial crisis starting in 2007.
- It has so far proven difficult to explain the emergence and persistence of the global imbalances in a fully satisfactory manner (Phillips, 2013; Chinn et al., 2014).
- Different hypotheses about macroeconomic effects of income distribution
 - Rajan (2010): Bottom and middle income households in the U.S. were able, prior to the financial crisis, to sustain their consumption relative to top income households despite declining relative (permanent) incomes, facilitated through government credit expansion policies. This contributed to current account deficit.
 - Pettis (2013): Current account surpluses of China and Germany are not primarily the result of household thriftiness, but rather of low wages and household income (relative to profits and corporate income) leading to weak aggregate consumption relative to domestic production.

The current hype about top income shares ...

- Atkinson, Piketty and Saez (2011) distinguish between “U-shape” and “L-shape” countries in terms of top income shares
- Kumhof et al. (2012) use top income shares as a proxy of the distribution of income between “investors” and “workers”

... goes a bit too far

- Changes in Gini coefficient and top income shares can have very different macroeconomic implications (expenditure cascades)
- Sole focus on top income shares is misleading to the extent that the functional distribution has worsened more in the “L-shape” countries than in the “U-shape” countries

I. Macroeconomic implications of income inequality

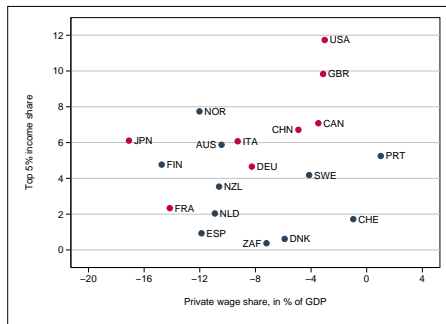
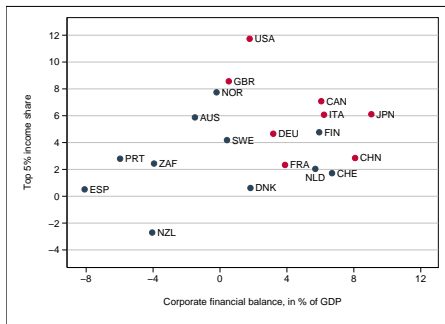
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Illustration - Top income shares and functional income distribution

Personal and functional income distribution, 1980/3-2004/7

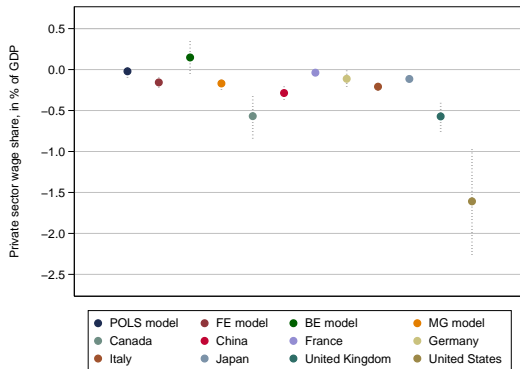


Source: World Top Incomes Database (WTID), AMECO Database and National accounts statistics (OECD), own calculations

- Current account deficit countries: Strong increase in top income shares, while the corporate financial balance (wage share) has increased (declined) less
- Current account surplus countries: Increase in top income shares relatively minor, while the corporate financial balance (wage share) has increased (declined) strongly

Illustration - Top income shares and functional distribution

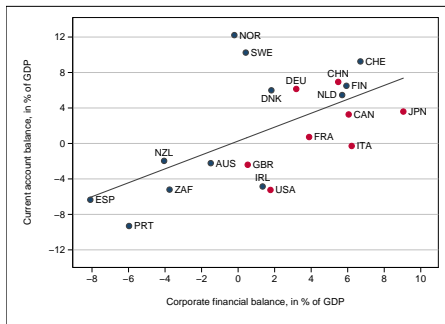
Heterogeneous relationship between top income share and wage share



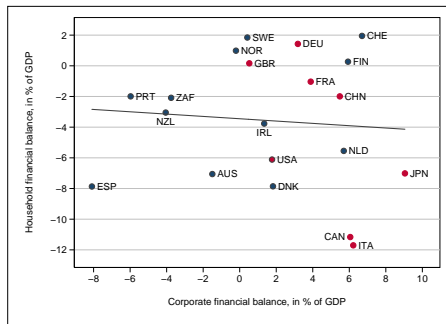
Note: The figure shows coefficients and 95% confidence intervals of regressions of the top 1% income share on the private sector wage share for the period 1972-2007.

Illustration - Sectoral financial balances

Current account and corporate financial balance, 1980/3-2004/7



Household and corporate financial balance, 1980/3-2004/7

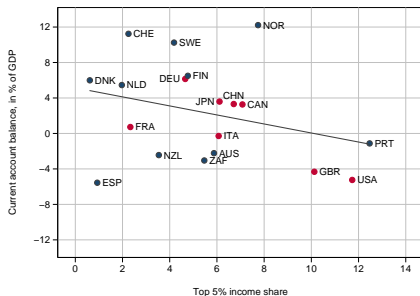


Source: AMECO Database and National accounts statistics (OECD), own calculations

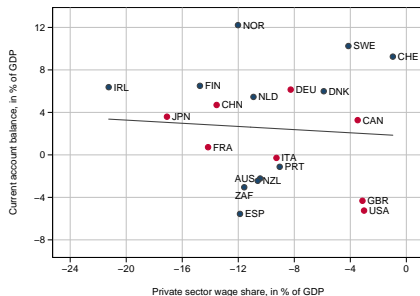
- Corporate financial balance is positively related to the current account
- No systematic relationship between corporate and household financial balance

Illustration - Distribution and current account

Top income shares and current account balance, 1980/3-2004/7



Private wage share and current account balance, 1980/3-2004/7



Source: AMECO Database and National accounts statistics (OECD), own calculations

- Top income shares are negatively related to the current account
- Private sector wage shares are negatively related to the current account

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Regression specification

- We amend the approach developed by Chinn and Prasad (2003), Gruber and Kamin (2007), Chinn et al. (2007, 2011), Lee et al. (2008), Kumhof et al. (2012), Phillips et al. (2013) and estimate the following models

$$CA_{i,t} = \beta_0 + X_{i,t}\Gamma + \beta_1 FUNCT_{i,t} + \beta_2 INEQ_{i,t} + \varepsilon_{i,t} \quad (8)$$

$$FB_{i,t}^{HH} = \beta_0 + X_{i,t}\Gamma + \beta_1 FUNCT_{i,t} + \beta_2 INEQ_{i,t} + \varepsilon_{i,t} \quad (9)$$

$$FB_{i,t}^{CORP} = \beta_0 + X_{i,t}\Gamma + \beta_1 WS_{i,t} + \beta_2 INEQ_{i,t} + \varepsilon_{i,t} \quad (10)$$

- Cross-sectional demeaning in current account regressions: i indexes each country in the sample of J countries

$$\tilde{X}_{i,t} = X_{i,t} - \frac{\sum_{i=1}^J (GDP_{i,t} * X_{i,t})}{\sum_{i=1}^J GDP_{i,t}} \quad (11)$$

Estimation approach

- Model I (4-year non-overlapping averages): Pooled OLS with cluster-robust standard errors (CGER, 2008) (fixed effects and 2SLS as robustness checks)
- Model II (annual data): Pooled GLS with panel-wide AR(1) correction (EBA, 2013) (fixed effects and 2SLS as robustness checks)
- Countries: AUS, CAN, CHN, DNK, FIN, FRA, DEU, IRE, ITA, JPN, NLD, NZL, NOR, PRT, ZAF, ESP, SWE, CHE, GBR, USA
- Sample period: 1972-2007

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Estimation results

Table I: Pooled OLS, 4-year non-overlapping averages, GDP-demeaning, 1972-2007

Table 1: Pooled OLS, non-overlapping four-year averages, 1972-2007

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Regressors	CA	CA	CA	CA	CA	CA	CA	CA
Net foreign assets (% of GDP)	0.073*** (0.010)	0.066*** (0.008)	0.076*** (0.010)	0.075*** (0.010)	0.076*** (0.008)	0.068*** (0.009)	0.068*** (0.009)	0.069*** (0.008)
Output per worker (rel. to top 3 economies)	-0.001 (0.010)	-0.003 (0.011)	0.010 (0.011)	0.006 (0.010)	-0.009 (0.009)	0.008 (0.009)	0.003 (0.008)	-0.010 (0.010)
Output growth	-0.198 (0.168)	0.215 (0.192)	-0.273 (0.191)	-0.401* (0.219)	-0.193 (0.188)	0.065 (0.150)	0.108 (0.146)	0.178 (0.190)
Dependency ratio	-0.190 (0.121)	-0.233** (0.090)	-0.249** (0.109)	-0.277** (0.114)	-0.307** (0.116)	-0.287*** (0.079)	-0.291*** (0.079)	-0.313*** (0.083)
Population growth	-1.960** (0.716)	-2.671*** (0.716)	-1.873** (0.661)	-1.904** (0.712)	-1.773** (0.750)	-2.424*** (0.688)	-2.238** (0.817)	-2.380*** (0.718)
Terms of trade gap*Trade openness	0.692** (0.300)	0.792** (0.374)	0.734** (0.288)	0.598* (0.288)	0.780** (0.298)	0.801** (0.381)	0.837** (0.337)	0.844** (0.368)
Private credit (% of GDP)	-0.067** (0.024)	-0.060*** (0.021)	-0.061** (0.024)	-0.062** (0.025)	-0.062** (0.024)	-0.058*** (0.019)	-0.056*** (0.019)	-0.060*** (0.020)
Fiscal balance (% of GDP)	0.374*** (0.082)	0.431*** (0.095)	0.282*** (0.087)	0.279*** (0.079)	0.261** (0.101)	0.357*** (0.090)	0.353*** (0.087)	0.361*** (0.096)
Corporate balance (% of GDP)	- (0.121)	0.503*** (0.121)	-	-	-	0.465*** (0.120)	0.499*** (0.122)	0.454*** (0.127)
Top 1% income share	-	-	-0.373** (0.149)	-	-	-0.305*** (0.094)	-	-
Top 5% income share	-	-	-	-0.253** (0.093)	-	-	-0.213*** (0.061)	-
Gini coefficient	-	-	-	-	-0.187** (0.069)	-	-	-0.125** (0.045)
Observations	162	128	158	151	162	127	124	128
Countries	20	20	20	20	20	20	20	20
Adjusted R^2 – squared	0.548	0.724	0.579	0.578	0.587	0.752	0.765	0.739
Root mean squared error	0.028	0.022	0.027	0.027	0.027	0.021	0.021	0.022

Notes: Robust standard errors are reported in parentheses. All regressions include a constant term. *, ** and *** denotes significance at 10%, 5% and 1% levels, respectively.

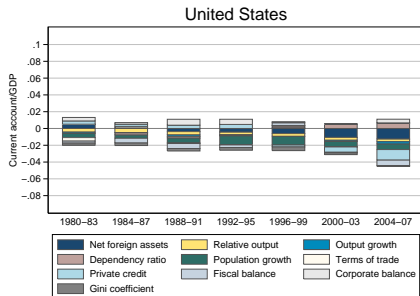
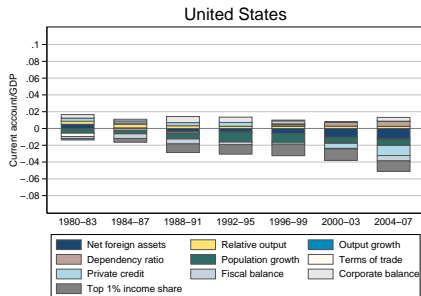
Table II: Pooled OLS, 4-year non-overlapping averages, GDP-demeaning, 1972-2007

Table 2: Pooled OLS, non-overlapping four-year averages, 1972-2007

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Regressors	CA	CA	FB^{HH}	FB^{HH}	FB^{HH}	FB^{CORP}	FB^{CORP}
Net foreign assets (% of GDP)	0.083*** (0.011)	0.075*** (0.018)	0.054*** (0.009)	0.056*** (0.010)	0.052*** (0.011)	0.021 (0.013)	0.007 (0.016)
Output per worker (rel. to top 3 economies)	0.002 (0.010)	0.017 (0.012)	-0.009 (0.011)	-0.013 (0.012)	-0.001 (0.026)	0.013 (0.014)	0.046*** (0.015)
Output growth	-0.450* (0.242)	-0.390 (0.227)	0.375 (0.230)	0.570** (0.241)	-0.048 (0.295)	-0.894*** (0.285)	-0.264 (0.277)
Dependency ratio	-0.272** (0.111)	-0.234* (0.115)	-0.089 (0.089)	-0.193 (0.121)	-0.130 (0.173)	-0.006 (0.130)	0.174 (0.159)
Population growth	-1.756** (0.661)	-2.167*** (0.624)	-1.472* (0.760)	-1.783 (1.128)	-1.452 (1.450)	-0.173 (1.292)	-1.083 (1.430)
Terms of trade gap*Trade openness	0.545* (0.299)	0.411 (0.281)	0.718* (0.350)	0.682* (0.341)	0.286 (0.360)	-0.489* (0.261)	0.190 (0.339)
Private credit (% of GDP)	-0.057** (0.024)	-0.066** (0.025)	-0.004 (0.007)	-0.015 (0.010)	-0.024*** (0.008)	0.009 (0.016)	0.013 (0.016)
Fiscal balance (% of GDP)	0.251*** (0.049)	0.271** (0.102)	-0.652*** (0.145)	-0.661*** (0.153)	-0.548** (0.191)	-0.099 (0.158)	-0.166 (0.156)
Corporate balance (% of GDP)	-	-	-0.397*** (0.132)	-	-	-	-
Private sector wage share	-0.106* (0.053)	-	-	-0.099 (0.100)	-	-0.190** (0.086)	-
Manufacturing wage share	-	-0.134*** (0.038)	-	-	-0.069 (0.040)	-	-0.178** (0.061)
Top 5% income share	-0.225** (0.091)	-0.228* (0.113)	-0.149** (0.062)	-0.141 (0.084)	0.020 (0.091)	0.022 (0.105)	-0.057 (0.134)
Observations	151	133	124	124	110	124	110
Countries	20	20	20	20	20	20	20
Adjusted R^2 – squared	0.590	0.569	0.703	0.628	0.598	0.260	0.187
Root mean squared error	0.027	0.026	0.023	0.026	0.025	0.030	0.029

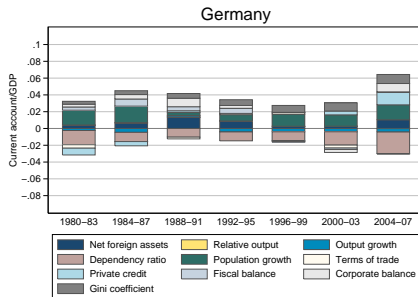
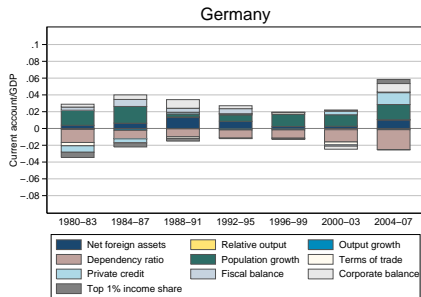
Notes: Robust standard errors are reported in parentheses. All regressions include a constant term. *, ** and *** denotes significance at 10%, 5% and 1% levels, respectively.

Contribution analysis



Notes: Note: The figure shows the estimated contribution of the explanatory variables to the current account for the period 1980/3-2004/7 (four-year averages).

Contribution analysis



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Main results

- An increase in personal income inequality leads to a decrease of the current account, *ceteris paribus*
- The explanatory power of top income shares is higher for some countries than that of the Gini coefficient
- An increase in the corporate financial balance leads to an increase in the current account balance, *ceteris paribus*
- An fall in the wage share leads to an increase in the current account balance, *ceteris paribus*
- The joint effects of changes in personal and functional income distribution contribute to the explanation of the global current account imbalances observed prior to the Great Recession