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Wirtschaft und Recht Berlin
Berlin School of Economics and Law

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MACROECONOMICS AFTER KALECKI AND KEYNES

Post-Keynesian Foundations

(Edward Elgar 2023)

Chapter 8

'MACROECONOMIC DEMAND AND GROWTH REGIMES IN FINANCE-DOMINATED CAPITALISM, STAGNATION TENDENCIES AND THE MACROECONOMIC POLICY REGIMES'

Content

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8.1 Introduction

8.2 The main macroeconomic features of finance-dominated capitalism and the concept of demand and growth regimes

8.3 Demand and growth regimes before the 2007-09 crises, the change in regimes in the course of and after these crises, and the tendency towards stagnation

8.4 Regimes, regime changes and stagnation tendencies in a stylised Kaleckian distribution and growth model

8.5 Growth drivers, regime shifts, macroeconomic policy regimes and stagnation policy

8.1 INTRODUCTION

Regimes in PK research

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1. Wage- vs. profit-led demand and growth: change in aggregate demand and growth with respect to changes in functional income distribution
2. Puzzling vs. normal cases/regimes regarding demand and growth effects of changes in interest rates
3. Debt-led vs. debt-burdened regimes regarding demand and growth effects of changes in debt-income or debt-capital ratios
4. Demand and growth regimes in finance-dominated capitalism: sources of demand growth (growth contributions) and financing of these sources (financial balances)
5. Growth drivers, macroeconomic policy regimes, PK macroeconomic policy mix as benchmark

➢ Here: focus on 4. and 5., linking PKE and CPE

8.2 THE MAIN MACROECONOMIC FEATURES OF FINANCE-DOMINATED CAPITALISM AND THE CONCEPT OF DEMAND AND GROWTH REGIMES

- Epstein (2005, p. 3): 'financialization means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies'
- Financialisation has had important implications for (1) income distribution, (2) investment in capital stock, (3) consumption and (4) the build-up of global and regional (European) current account imbalances (Hein 2012).
- Depressive effects on income-financed consumption via re-distribution and on investment via shareholder value orientation.
- Compensation: credit-financed consumption (hh debt) or net exports (foreign debt)
- Regimes: (1) a debt-led private demand boom regime, (2) an export-led mercantilist regime, (3) a weakly export-led regime and (4) a domestic demand-led regime

‚Method for demand and growth regimes‘

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Sectoral financial balances (FB)

$S - pI = FB_P$, $T - G = FB_G$, $pIm - pEx + FI^{net} = FB_E$

S: saving, pI: investment, T: taxes, G: government expenditures, pIm: imports, pEx: exports, Fi^{net} : net revenues from cross-border factor incomes and transfers

$S - pI = G - T + pEx - pIm + FI^{net}$

$FB_P = - FB_G - FB_E$

(8.1) $FB_P + FB_G + FB_E = 0$

Growth contributions to GDP (Y) growth

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- private consumption (C_{HH}),
- public consumption (C_G),
- private and public investment (I),
- balance of goods and services, net exports (NX)

(8.2) $$\hat{Y}_t = \frac{dY_t}{Y_{t-1}} = \frac{dC_{HHt}}{Y_{t-1}} + \frac{dC_{Gt}}{Y_{t-1}} + \frac{dI_t}{Y_{t-1}} + \frac{dNX_t}{Y_{t-1}} .$$

Table 8.1: Classification of demand-led growth regimes under financialisation	
Export-led mercantilist (ELM)	• positive financial balances of the private sector, and the private household sector, • negative financial balances of the external sector, • positive balance of goods and services, • positive growth contributions of net exports.
Weakly export-led (WEL)	Either • positive financial balances of the private sector, • negative financial balances of the external sector, • positive balance of goods and services, • negative growth contributions of net exports. Or • negative but improving financial balances of domestic sectors, • positive but declining financial balances of external sector, • negative but improving net exports, • positive growth contributions of net exports.
Domestic demand-led (DDL)	• Positive financial balances of the private household sector and positive or balanced financial balances of the private sector as a whole, • balanced or positive financial balances of the external sector, • growth is almost exclusively driven by domestic demand, • around zero growth contribution of net exports.
Debt-led private demand boom (DLPD)	• negative or close to balance financial balances of the private sector, • positive financial balances of the external sector, • significant growth contributions of domestic demand, and private consumption demand in particular, • negative growth contributions of net exports.
Source: Based on Dünhaupt and Hein (2019, p. 458).	

8.3 DEMAND AND GROWTH REGIMES BEFORE THE 2007-09 CRISES, THE CHANGE IN REGIMES IN THE COURSE OF AND AFTER THESE CRISES, AND THE TENDENCY TOWARDS STAGNATION

Advanced capitalist economies: Rising ineqality before the 2007-09 crises

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Table 8.2: Distribution trends for selected OECD countries before and after the Global Financial Crisis and the Great Recession 2007-09				
		Adjusted wage share	**Top income share**	**Gini coefficients**
US	Before	–	+	+
	After	–	+	+
UK	Before	0	+	+
	After	–	–	0
Spain	Before	–	+	0
	After	–	–	+
Germany	Before	–	+	+
	After	0	?	+
Sweden	Before	–	+	+
	After	0	0	0
France	Before	–	+	0
	After	+	0	–

Notes: + tendency to increase, – tendency to decrease, 0 no tendency, ? no data
Before: early 1990s until the crisis 2007-9, After: after the crisis 2007-9
Source: Based on Hein et al. (2017a, p. 164)

Advanced DLPD countries as main drivers of growth, rising household debt, rising current account imbalances, and increasing foreign debt problems in some countries leading to the 2007-09 crises

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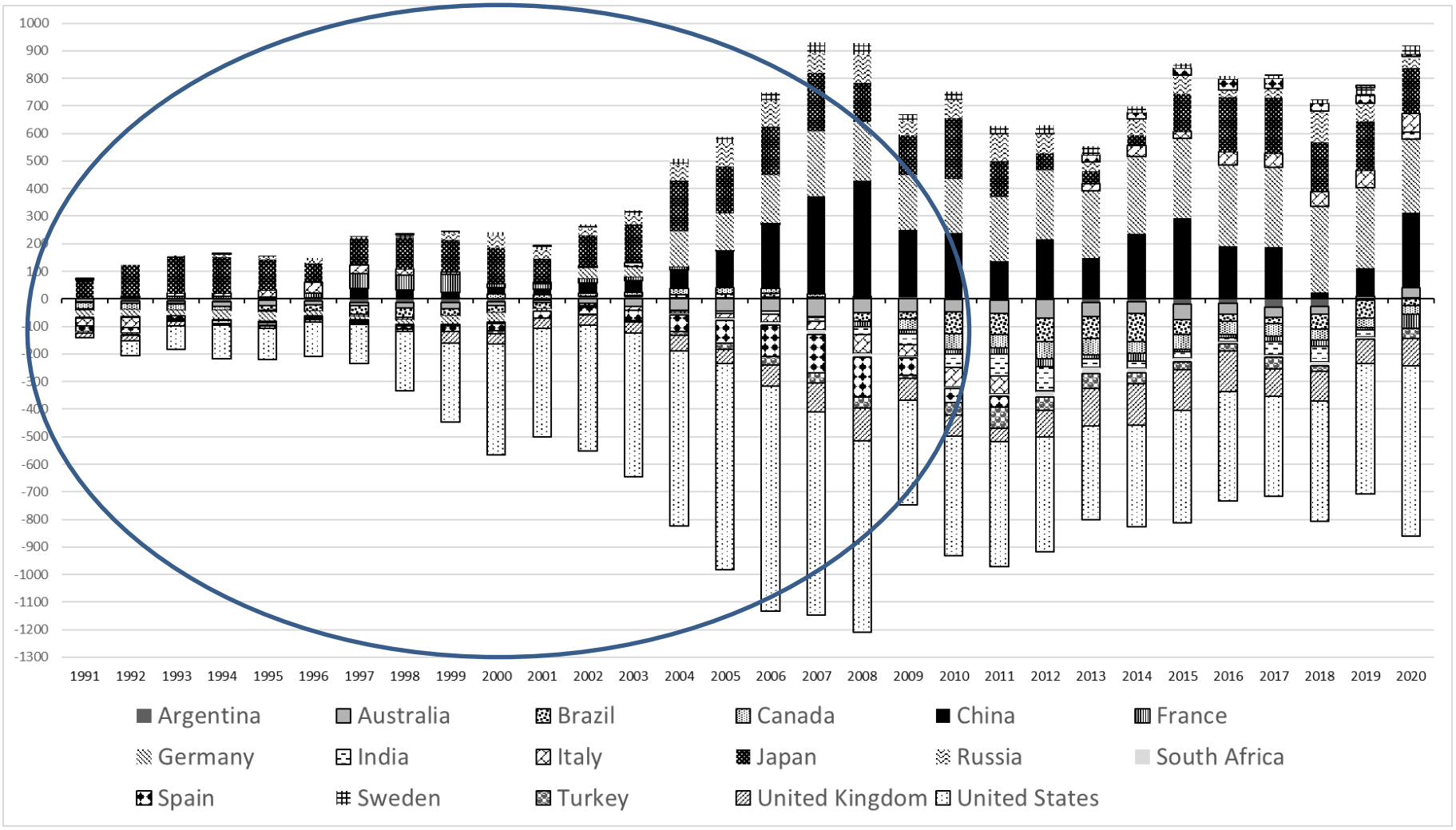
Figure 8.1: Current account balance, major countries, 1991-2020, in billions of US dollars



Data source: IMF (2021), author's presentation

Shift towards WEL and ELM regimes in the course of and after 2007-09 crises

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Table 8.3: Shift of demand and growth regimes according to five studies on developed capitalist economies (DCEs)

		Post 2007-09 crisis			
		Debt-led private demand (boom) (DLPD)	**Domestic demand-led with high public sector deficits (DDL)**	**Weakly export-led (WEL)**	**Export-led mercantilist (ELM)**
Pre-2007-09 crisis	**Debt-led private demand (boom) (DLPD)**		New Zealand (Hea) UK (Dea, H, Hea) USA (Dea, H, Hea) South Africa (Dea)	Australia (Hea) Greece (Dea, Hea, H/M) Portugal (Hea) Slovakia (Hea) Spain (Hea)	Estonia (Dea, D/H, Hea) Hungary (Hea) Ireland (Hea, H/M) Hungary (Dea) Latvia (D/H) Spain (H, H/M)
	Domestic demand led (DDL)	Turkey (Dea)	France (Dea, H, Hea, H/M)	Italy (Dea, Hea) Poland (Dea, Hea) Portugal (Dea, H/M)	EA-12 (H, H/M) Italy (H/M)
	Weakly export-led (WEL)		Canada (Hea)	Czech Rep. (Hea) Iceland (Hea) Norway (Hea)	Denmark (D/H, Hea) Slovenia (Hea)
	Export-led mercantilist (ELM)		Finland (Hea, H/M)	Austria (Hea) Belgium (H/M) Japan (Dea, Hea) Sweden (Dea, H, Hea)	Austria (H/M) Belgium (Hea) Germany (Dea, H, Hea, H/M) Korea (Hea) Luxembourg (Hea) Netherlands (Hea, H/M) Switzerland (Hea)

Notes: Dea: Dodig et al. (2016), 2001-08, 2008-14; H: Hein (2019a), 1999-2007, 2008-16; D/H: Dünhaupt and Hein (2019), 1995-2008, 2009-16; Hea: Hein et al. (2021), 2000-08, 2009-16; H/M: Hein and Martschin (2020), 2001-09, 2010-19.
Source: Based on Akcay et al. (2021, p. 18)

Diverse distribution patterns in emerging capitalist economies

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Table 8.4: Distribution trends for selected emerging capitalist economies before and after the Global Financial Crisis and the Great Recession 2007-09

		Adjusted wage share	Top income share (Top 1-percent and top 10-percent)	Gini coefficient for disposable income
Argentina	2004-2008	+	+	–
	2009-2017	+	NA	–
Brazil	2004-2008	+	+	–
	2009-2017	+	0	0
China	2004-2008	–	+	+
	2009-2017	+	–	–
India	2004-2008	–	+	+
	2009-2017	–	+	+
Mexico	2000-2008	–	NA	–
	2009-2018	–	NA	–
Russia	2004-2008	+	+	0
	2009-2017	0	–	–
South Africa	2004-2008	–	+	0
	2009-2017	+	+	0
Turkey	2000-2008	–	–	–
	2009-2019	+	+	0

Notes: Distribution indicators refer to the changes within the period, "+" indicates an increase, "–" a decrease, "0" no change.
Source: Based on Akcay et al. (2021, p. 16)

No general trend towards WEL or ELM in emerging economies

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Table 8.5: Shift of demand and growth regimes in emerging capitalist economies from 2000-2008 to 2009-2019					
		Second period (2009-2019)			
		Debt-led private demand (DLPD)	**Domestic demand-led with high public sector deficits (DDL)**	**Weakly export-led (WEL)**	**Export-led mercantilist (ELM)**
First period (2000-2008)	**Debt-led private demand (DLPD)**	South Africa			
	Domestic demand led with high public sector deficits (DDL)	Turkey	India	Mexico	
	Weakly export-led (WEL)		Brazil		Russia
	Export-led mercantilist (ELM)		Argentina	China	
Source: Based on Akcay et al. (2021, p. 22)					

Persistent current account imbalances, with advanced DDL and emerging DDL and DLPD countries as counterparts for ELM regimes

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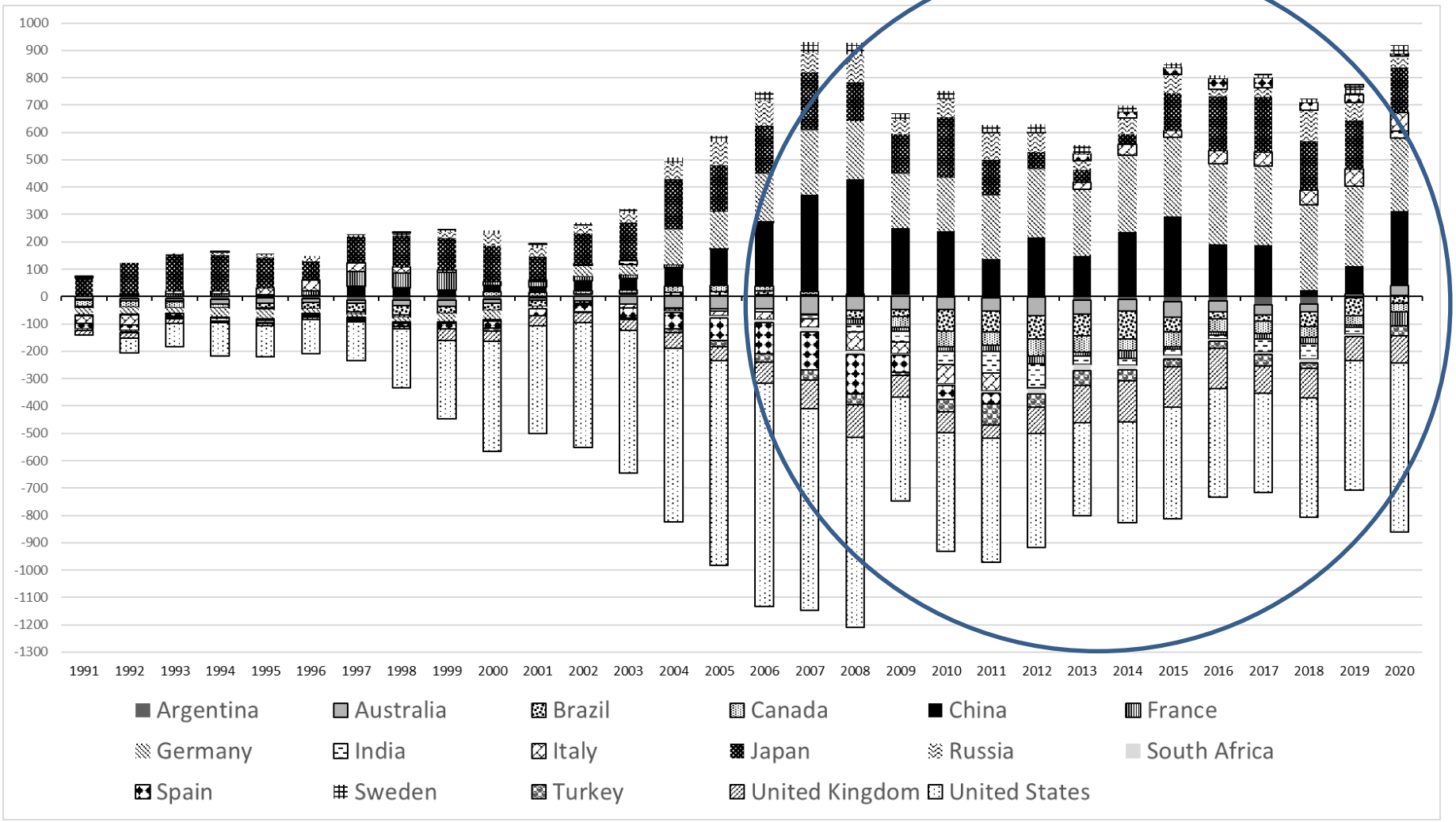
Figure 8.1: Current account balance, major countries, 1991-2020, in billions of US dollars



Data source: IMF (2021), author's presentation

Short-run problems

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- move towards ELM regime contains an aggregation problem ➔ global aggregate demand failure
- high government deficits and debt in mature DDL economies as stabilisers of national and global demand may be reversed for political reasons (debt ceilings, debt brakes)
- capital inflows into emerging market economies may be unstable and face 'sudden stops'
- risks of politically induced protection measures in order to reduce current account deficits

Long run problem: stagnation

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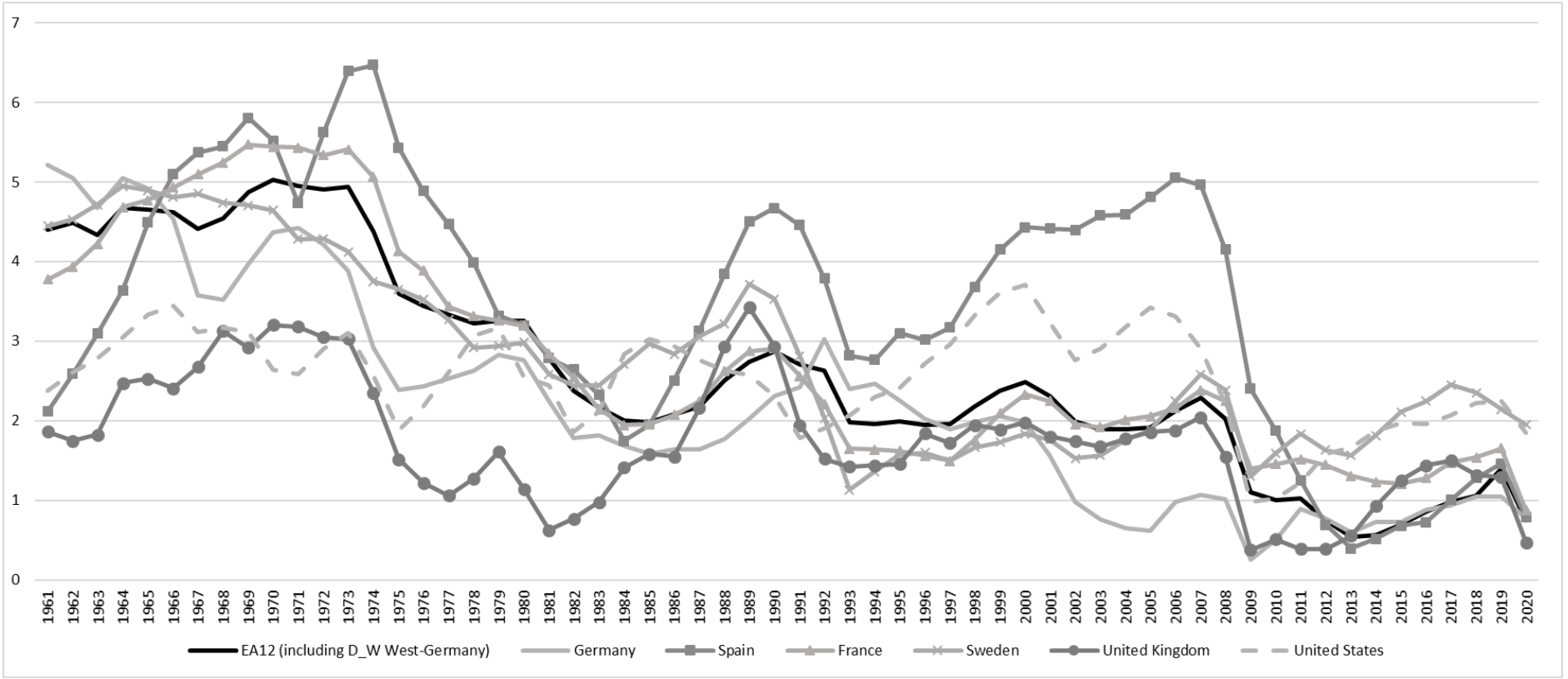
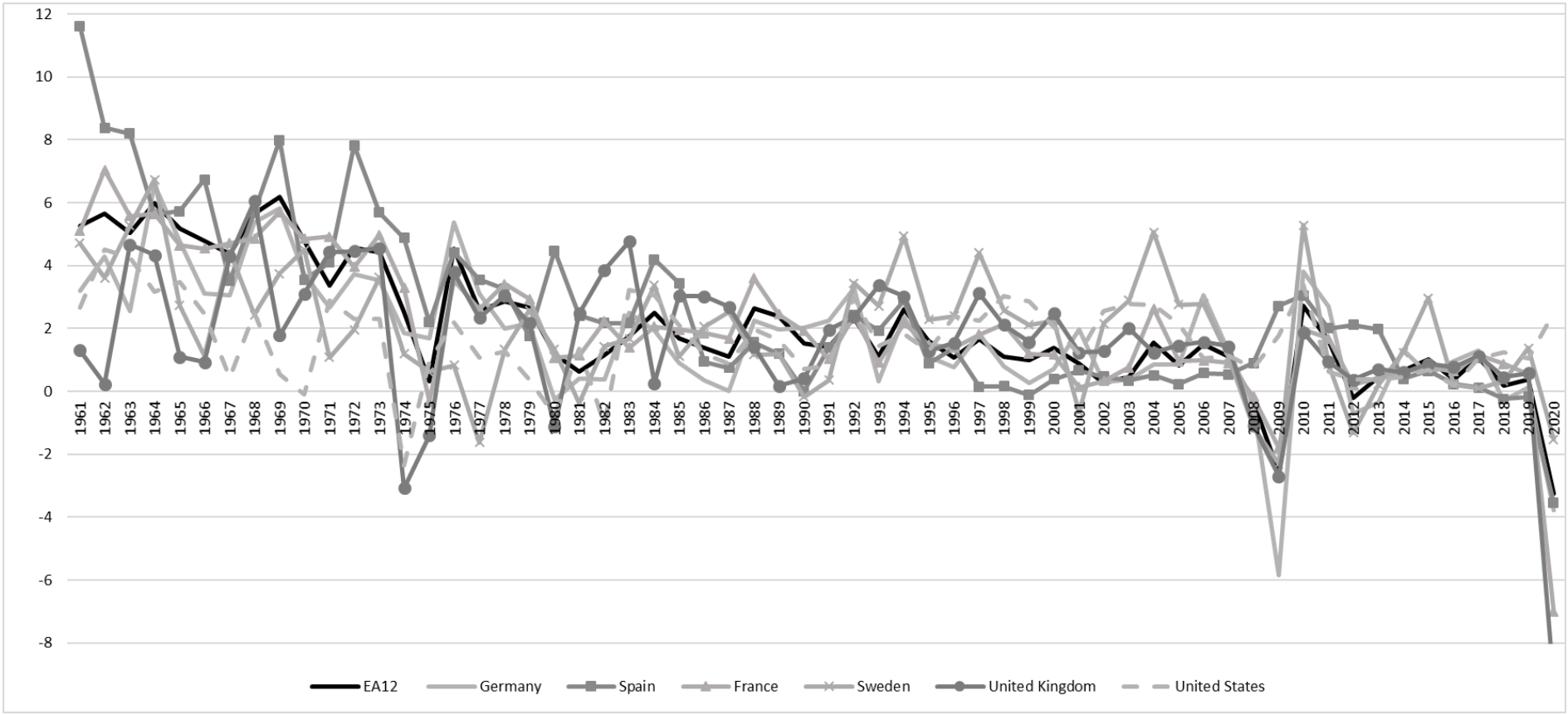
- weak capital stock growth
- weak productivity growth

Figure 8.2: Growth rate of the real net capital stock (at 2015 prices), selected countries, 1961 – 2020, in per cent



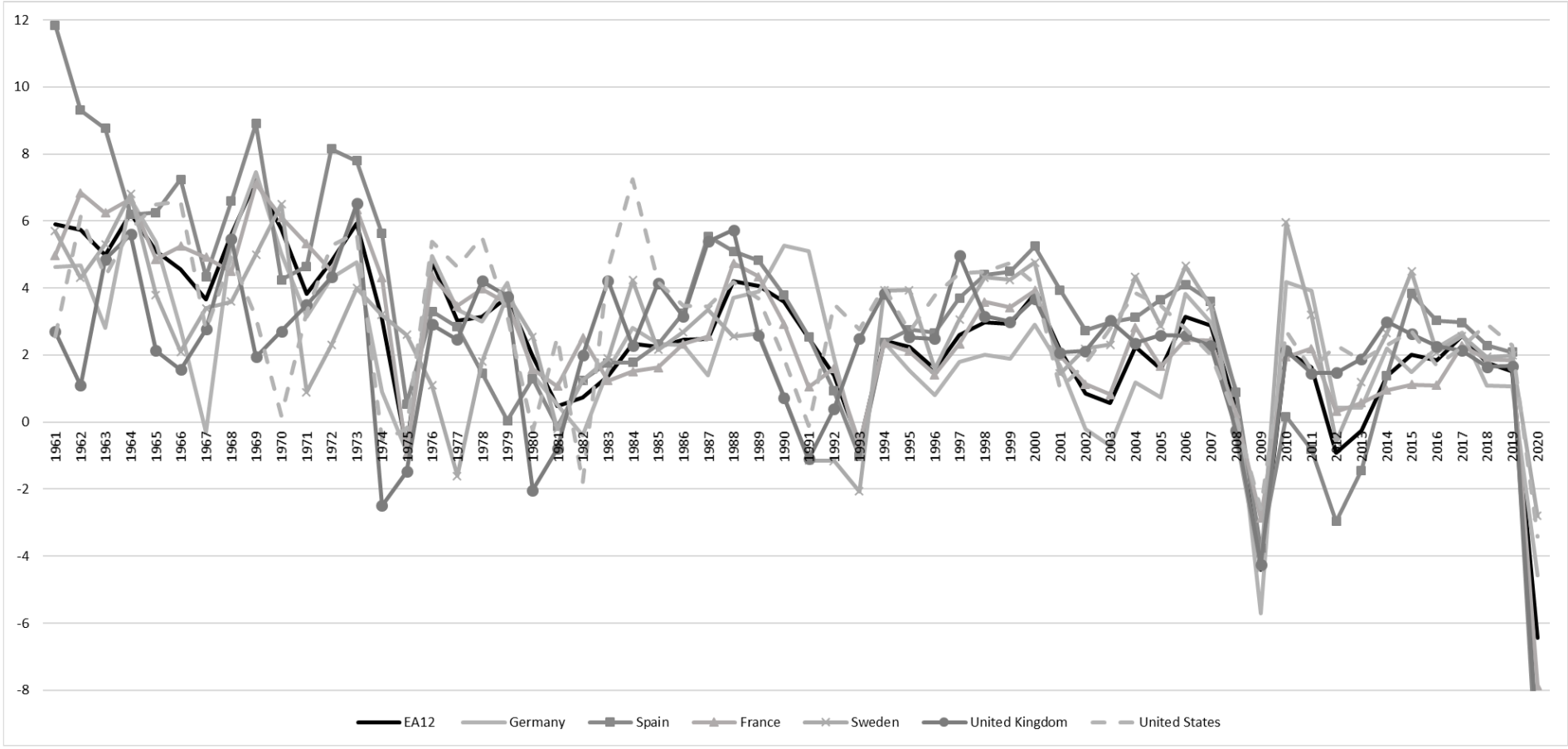
Data source: European Commission (2021), author's calculations

Figure 8.3: Growth rate of real GDP (at 2015 prices) per person employed, selected countries, 1961 – 2020, in per cent



Data source: European Commission (2021), author's calculations

Figure 8.4: Growth rate of real GDP (at 2015 prices), selected countries, 1961 – 2020, in per cent



Data source: European Commission (2021), author's calculations

8.4 REGIMES, REGIME CHANGES AND STAGNATION TENDENCIES IN A STYLISED KALECKIAN DISTRIBUTION AND GROWTH MODEL

Modelling of demand and growth regimes:

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- Small scale analytical models
- Dallery and van Treeck (2011), Dutt (2005, 2006, 2016), Hein (2009, 2010, 2012a, 2012c, 2014a, Chapter 10), Kapeller and Schütz (2015), Isaac and Kim (2013), Setterfield and Kim (2016, 2017), Setterfield et al. (2016), Ryoo and Kim (2014), Ryoo and Skott (2008), Skott and Ryoo (2008), ...

- SFC simulation models:
- Belabed et al. (2018), Detzer (2018), Duwicquet (2020), Lavoie (2008), Prante et al. (2022), van Treeck (2009a), Vieira Mandarino et al. (2020), ...

- Here: Stylised Kaleckian distribution and growth model

A stylised Kaleckian distribution and growth model

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- open economy with a primitive government sector, which only appears as a deficit-spending sector drawing on money and credit generated in the financial sector
- two classes, workers and capitalists, the latter including the financial capitalists or the rentiers
- capitalists own the means of production and receive profits, which are partly consumed and partly saved buying assets issued by the corporate sector, and thus the capitalists themselves, or by the government
- capitalists control the capital stock, hire labour, organise the production process, and decide about investment and thus the expansion of the capital stock
- capitalists finance capital stock drawing on their own means of finance, issuing stocks or corporate bonds or drawing on credit endogenously generated and granted by the financial sector
- Workers offer labour power to capitalists and receive wages, which they partly use in order to purchase consumption goods and partly save. However, the propensity to save out of wages is much lower than the propensity to save out of profits

- homogenous output (Y) is produced combining direct labour (N) and a non-depreciating capital stock (K) in the production process
- fixed coefficients production technology with a constant labour-output ratio ($l_o = N/Y$) and a constant capital-potential output ratio ($v = K/Y^p$)
- overhead labour, depreciation of the capital stock, as well as (imported) raw materials and intermediate products are not considered
- rate of profit (r), relating the flow of profits (Π) to the nominal capital stock (pK), can again be decomposed into the profit share (h), relating profits to nominal income (pY), the rate of capacity utilisation (u), relating actual output to potential output given by the capital stock (Y^p), and the inverse of the capital-potential output ratio
  (v), relating the capital stock to potential output:

(8.3) $$r = \frac{\Pi}{pK} = \frac{\Pi}{pY}\frac{Y}{Y^p}\frac{Y^p}{K} = hu\frac{1}{v}.$$

The saving rate (σ)relates the flow of total domestic saving (S) to the value of the capital stock:

$$\sigma = \frac{S_\Pi + S_W + S_G}{pK} = \frac{s_\Pi \Pi + s_W W - D}{pK} = s_\Pi h \frac{u}{v} + s_W (1-h) \frac{u}{v} - \delta$$

(8.4)

$$= \left[(s_\Pi - s_W) h + s_W \right] \frac{u}{v} - \delta, \qquad 0 \leq s_W < s_\Pi \leq 1, \ \delta \geq 0.$$

Total saving is composed of saving out of profits (S_Π), saving out of wages (S_W) and government saving (S_G), which is zero or negative in our model, because we ignore taxation and only allow for government deficits ($D = -S_G \geq 0$).The saving rate is determined by the propensities to save out of profits (s_Π) and out of wages (s_W), by the components of the profit rate from equation (8.3), as well as by the government deficit or expenditure rate (δ), which relates government deficits and expenditures to the capital stock and which is treated as a long-run exogenous policy parameter.

The profit share is mainly determined by the mark-up (m) in firms' pricing in imperfectly competitive markets:

(8.5) $$h = h(m), \qquad \frac{\partial h}{\partial m} > 0 .$$

The capital-potential output ratio is also considered as an exogenous variable determined by technology, which does not systematically respond to distribution and activity variables in the model:

(8.6) $$v = \overline{v} .$$

Capital accumulation is affected by animal spirits (α) and the components of the profit rate

(8.7) $$g = g(\alpha, h, u, v), \qquad \frac{\partial g}{\partial \alpha} > 0, \frac{\partial g}{\partial h} \geq 0, \frac{\partial g}{\partial u} > 0, \frac{\partial g}{\partial v} = 0 .$$

The net export rate (b) is given by the relationship between net exports (NX), as the difference between exports (pX) and imports ($p_f aM$) in domestic currency, and the capital stock.

It is negatively affected by domestic demand and capacity utilisation triggering rising imports, and positively affected by foreign income and capacity utilisation (u_f) generating rising exports.

Also the real exchange rate ($a_r = ap_f / p$), given by the nominal exchange rate (a), the foreign price level (p_f) and the domestic price level (p), may have a positive effect on net exports, if exports and imports are price sensitive and the Marshall-Lerner condition holds. We assume here that the real exchange rate is positively related to the profit share:

(8.8)
$$b = \frac{pEx - p_f a\,Im}{pK} = \frac{NX}{pK} = b\left[u, u_f, a_r(h)\right],$$
$$\frac{\partial b}{\partial u} < 0, \frac{\partial b}{\partial u_f} > 0, \frac{\partial b}{\partial a^r} \geq 0, \frac{\partial a_r}{\partial h} > 0$$

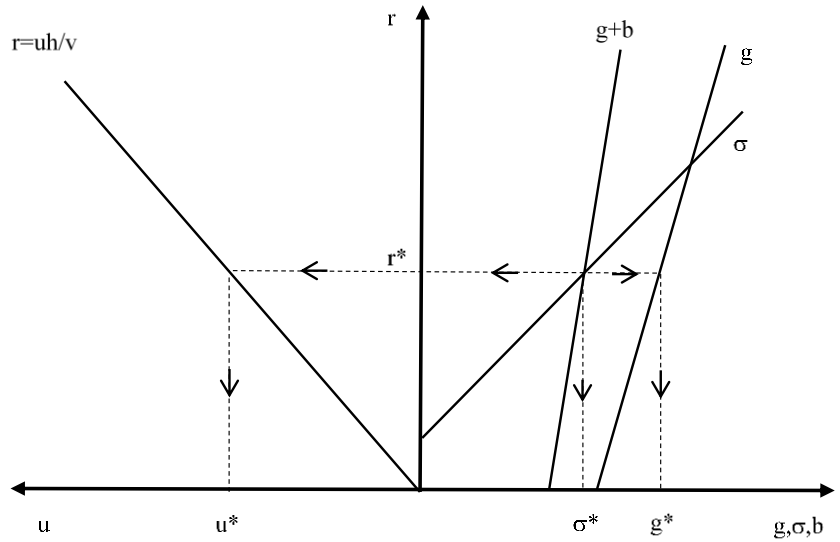
.

Goods market equilibrium condition for the open economy:

(8.9) $$g^* + b^* = \sigma^* .$$

Figure 8.5: A basic Kaleckian distribution and growth approach

a) An export and current account deficit economy



b) An export and current account surplus economy

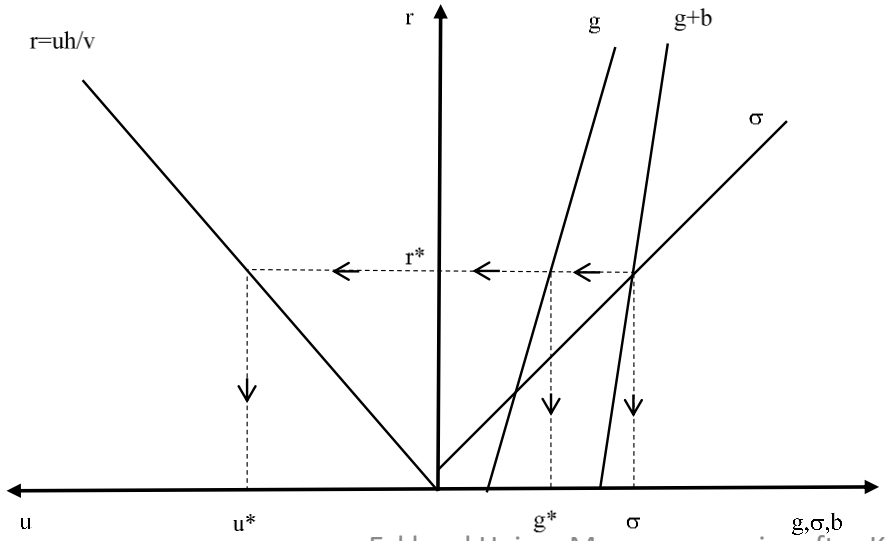
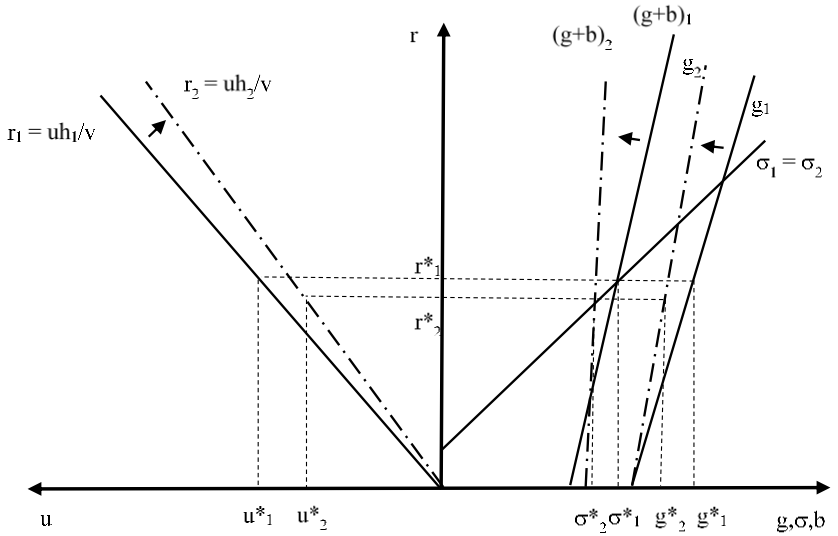
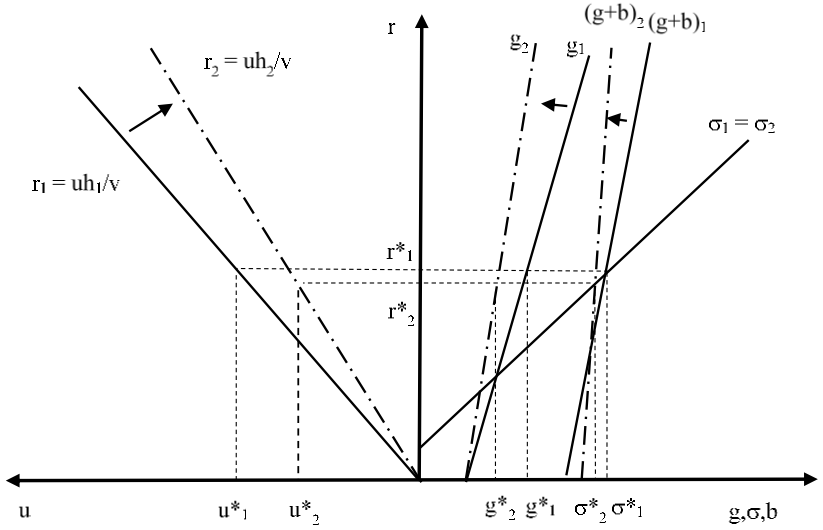


Figure 8.6: A rising profit share in isolation in a basic neo-Kaleckian approach

a) An export and current account deficit economy



b) An export and current account surplus economy



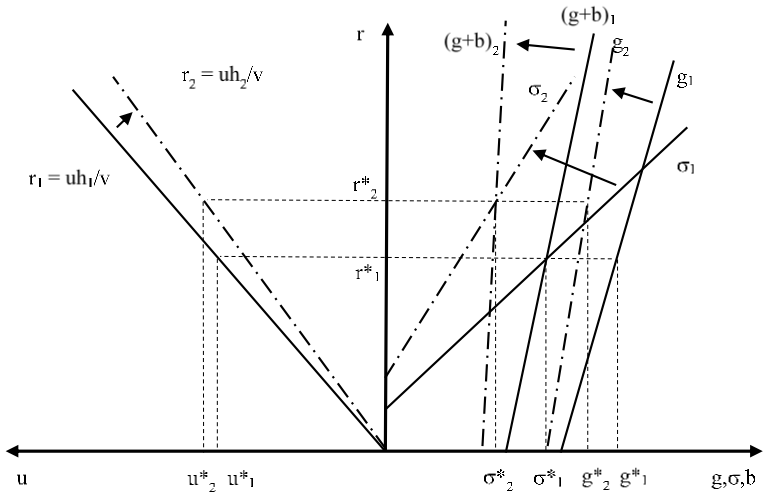
Rising profit share in isolation:

- rising equilibrium net export-rates
- falling equilibrium rates of capacity utilisation, profit and capital accumulation/growth

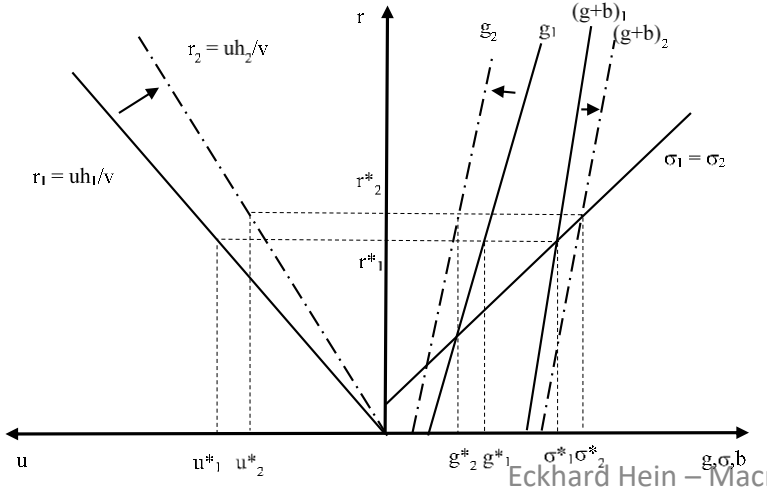
➢ wage-led demand and growth regimes

Figure 8.7: Distributional and behavioural changes before the crisis generating the DLPD and the ELM regimes

a) The DLPD regime: rising profit share, falling average propensity to save due to relative income effects and credit-financed consumption, and rising current account deficits



b) The ELM regime: rising profit share, rising average propensity to save due to higher profit share, and rising current account surpluses

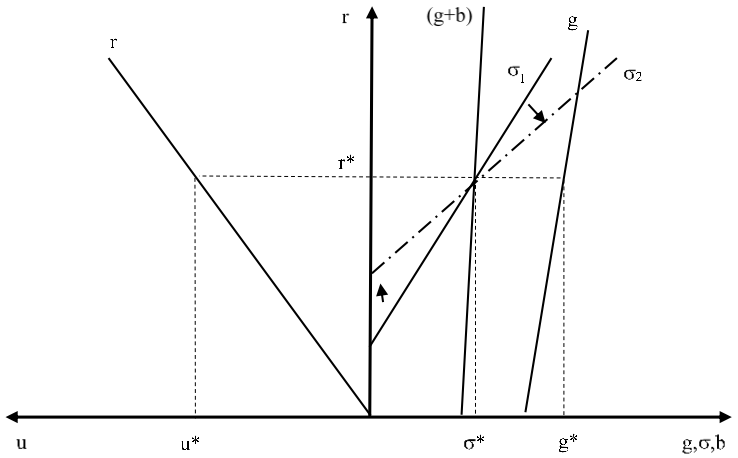


Distributional and behavioural changes lead to:

- lower equilibrium capital accumulation
- higher equilibrium profit rate
- ➢ profits without investment
- increase in capacity utilisation in DLPD, fall in ELM
- increase in net export rate in ELM, increase in net import rate in DLPD

Figure 8.8: Regime shifts in the course and after the 2007-09 crises

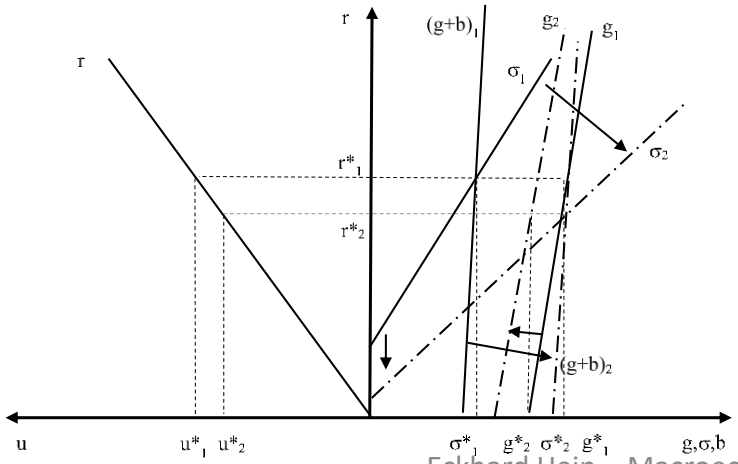
a) From the DLPD regime to the DDL regime stabilised by government deficits: constant profit share and inequality, higher propensity to save out of wage and profit income, higher government deficits, constant current account deficits



DLPD to DDL regime:

equilibrium rates of utilisation, profit and accumulation remain constant, as does net export rate

b) From the DLPD to the ELM regime: constant profit share and inequality, higher propensity to save out of income, lower government deficits, reduced animal spirits, improved international price competitiveness and positive net exports and current account



DLPD to ELM regime:

equilibrium utilisation, profit and accumulation rates fall, net export rate rises

Long-run stagnation in the model:

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Exogenous productivity growth ($\hat{y}$) determines the equilibrium rate of capital accumulation and growth:

$$g^* = g^*\left(\hat{y}, \alpha, h, s_W, s_\Pi, \delta, u_f, a_r\right),$$

(8.10) $$\frac{\partial g^*}{\partial \hat{y}} > 0, \frac{\partial g^*}{\partial \alpha} > 0, \frac{\partial g^*}{\partial h} < 0, \frac{\partial g^*}{\partial s_W} < 0, \frac{\partial g^*}{\partial s_\Pi} < 0, \frac{\partial g^*}{\partial \delta} > 0, \frac{\partial g^*}{\partial u_f} > 0, \frac{\partial g^*}{\partial a_r} > 0.$$

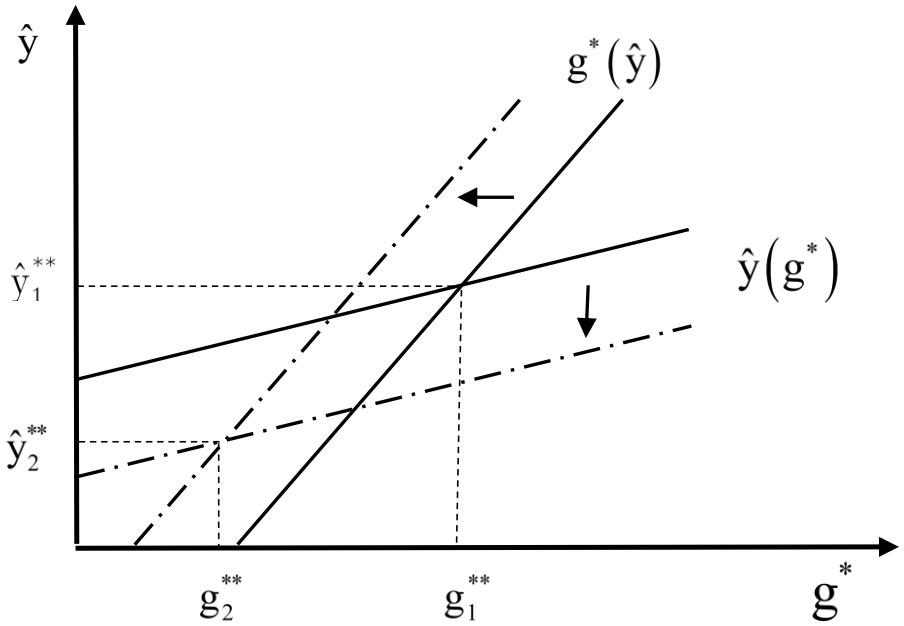
Capital stock growth determines productivity growth via Kaldor's (1957) technical progress function: capital-embodied technological change.

Marx (1867): higher real wage rate or a higher wage share induces capitalists to speed up the implementation of labour augmenting technological progress:

(8.11) $$\hat{y} = \hat{y}\left(g^*, h, k_i\right), \qquad \frac{\partial \hat{y}}{\partial g^*} > 0, \frac{\partial \hat{y}}{\partial h} < 0, \frac{\partial \hat{y}}{\partial k_i} > 0,$$

k_i : further institutional factors determining productivity growth, like government technology policies and R&D expenditures, the education system, etc..

Figure 8.9: Stagnation in a Kalecki-Steindl-Kaldor-Marx endogenous growth model



- Post-crises stagnation tendencies – and falling potential growth – can be explained by those financialisation features that generate low capital stock growth (i.e. depressed animal spirits of the management of non-financial corporations), high propensities to save out of the different types of income after the crises, low government expenditure and deficit rates (in particular in the ELM countries), and high profit shares.
- Rising profit shares have an independent depressing effect on the innovation activities of firms and on productivity growth, too, which is also negatively affected by falling government expenditures on R&D and education

8.5 GROWTH DRIVERS, REGIME SHIFTS, MACROECONOMIC POLICY REGIMES AND STAGNATION POLICY

8.5.1 Comparative and international political economy, post-Keynesian macroeconomics and demand and growth regimes

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- Post-Keynesian/Kaleckian demand-led growth regime approaches have resonated in the Comparative Political Economy (CPE) and in the International Political Economy (IPE) literature
- **Baccaro and Pontusson (2016, 2018):** Wage-led growth during the Golden Age period (1950s–1970s) has been succeeded by different regimes: export-led growth in Germany, debt-financed consumption-led growth in the UK, and a combination of export-led and debt-financed consumption-led growth in Sweden.
- Overcoming supply side NCM macro in VoC (Carlin and Soskice 2009, 2015, Hall and Soskice 2001, Hope and Soskice 2016)
- Some misunderstandings in Baccaro and Pontusson:
- No distinction between wage- or profit-led demand and growth regimes, on the one hand, from pro-labour or pro-capital distributional policies and the resulting economic developments, on the other hand
- The distinction between debt-financed consumption-led growth and export-led growth, is not the counterpart of a wage-led growth regime

➢ a country can be structurally wage-led, follow a pro-capital distributional policy strategy, as the ones dominating since late 1970s/early 1980s period of finance-dominated capitalism, and then generate either a DLPD regime or an ELM regime.

- Post-Keynesians attempts at linking their macroeconomic demand and growth regime approaches to the CPE and IPE literature

- **Stockhammer (2022):** post-Keynesian macroeconomic foundations for CPE:
- first, the Kaleckian distinction of wage-led and profit-led demand regimes; second, the post-Keynesian theory of money, finance, financialisation and Minskyan financial instability; and, third, the focus on path-dependent growth and demand-led technological progress

- **Behringer and van Treeck (2018, 2019):** type of redistribution, rooted in the VoC institutional structure determines the demand regime
- LME: deregulated labour markets, rising personal inequality, stable wage share, relative income hypothesis, leads to DLPD regime
- CME: regulated labour markets, stable personal distribution, falling wage share, no relative income effects, leads to ELM regime

➢ Interesting but incomplete: desire for credit? Financial structure? Endogenous instability?

- **Stockhammer and Ali (2018):** shortcomings in VoC analysis lies in the exclusive focus on labour market institutions, in a lack of an adequate treatment of finance and financial instability, as well as in a downplay of the role of fiscal policies, PK analysis including these features provides a better explanation of debt-led vs. export-led regimes

- **Stockhammer et al. (2016):** critical of VoC analysis:
- Link post-Keynesian macroeconomics, neo-Gramscian IPE and the French Regulation Theory, three country groups or regimes:
- the 'North' (Germany, Austria, the Netherlands), export orientation, heavy outsourcing towards the countries of the 'East', retreat of the working class and union decline, weak real wage growth and rising wage dispersion;
- the 'East' (Poland, Czech Republic, Slovakia, Hungary, Slovenia), catching up and dependent integration into global value chains, a strong decline in union density, rapid real wage growth, but rising wage dispersion;
- the 'South' (Greece, Ireland, Italy, Portugal, Spain), debt-driven growth based on a property and financial bubble, moderate decline in union density, moderate increase in real wages and stable wage dispersion

8.5.2 Causes for regime shifts and growth drivers

- **Hein (2019a), Hein and Martschin (2020) and Hein et al. (2021):** type of shift of the previously DLPD economies in the course of and after the 2007-9 crises has depended, on the one hand, on the requirements of private sector deleveraging after the financial crisis, and, on the other hand, on the ability and willingness to run deficit-financed and stabilising fiscal policies.

- **Hein et al. (2021)** have also related these shifts of macroeconomic regimes to the welfare models approach based on Esping-Andersen (1990) and Hay and Wincott (2012), who distinguish between the Anglo-Saxon/liberal, the Continental European/cooperative, the Scandinavian, the Central and Eastern European, and the Mediterranean welfare models. Regime shifts are associated with welfare model restructuring

- Institutional constraints imposed on national fiscal policies in the Eurozone, the absence of relevant fiscal policies at the Eurozone level, and the turn towards austerity policies when the Eurozone crisis started in 2010, including substantial downsizing of welfare provision in some crisis countries, explain to a large extent, why in particular European DLPD countries turned WEL or ELM after the Global Financial Crisis and the Great Recession.

- **Kohler and Stockhammer (2021):** systematic cross-country analysis of the underlying growth drivers before and after the 2007-09 crises in 30 OECD countries
- requirements of deleveraging in the context of a financial boom-bust cycle, the role of fiscal policies and the relevance of price and non-price competitiveness for exports.
- the former two drivers have had a major role to play, differences and changes in international price competitiveness are not systematically related to growth performance

- **Jungmann (2021)** has extended and applied the growth driver approach by Kohler and Stockhammer (2021) to a set of 19 emerging capitalist economies and has found mixed results. This seems to be in line with the findings of Akcay et al. (2021) regarding the different pattern of regime changes of emerging capitalist economies as compared to advanced capitalist economies referred to above.

Further examinations of growth drivers:

- Empirical work based on autonomous demand-led growth theory (Sraffian supermultiplier)
- Fiebiger (2018), Fiebiger and Lavoie (2019), Girardi and Pariboni (2016), Girardi et al. (2020), Perez-Montiel and Manera (2020), and Perez-Montiel and Pariboni (2022)
- Potential for growth regime debate needs to be further explored.
- Hein and Martschin (2021): demand and growth regime and macroeconomic policy regime ➔ next

8.5.3 Demand and growth regimes, macroeconomic policy regimes and stagnation policy

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- Macroeconomic policy regime describes the set of monetary, fiscal and wage or income policies, as well as their coordination and interaction, against the institutional background of a specific economy, including the degree of openness or the exchange rate regime.
- Benchmark is based on post-Keynesian notion of coordinated macroeconomic policies (Arestis 2013; Hein and Stockhammer 2010, 2011, Hein 2020) as opposed to NCM (Carlin and Soskice 2009, 2015)
- Studies on developed capitalist economies: Fritsche et al. (2005), Heine et al. (2006) and Herr and Kazandziska (2011)
- Studies on emerging capitalist economies: Herr and Priewe (2005), Kazandziska (2015, 2019) and Priewe and Herr (2005)
- Hein and Niechoj (2005), Hein and Truger (2005a, 2005b, 2005c, 2007a, 2007b, 2009, 2011) have developed and applied a standardised set of indicators for each macroeconomic policy area and their interaction.

Regime shifts of the four major Eurozone countries

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Table 8.6: Indicators for the demand and growth regimes in Spain, Germany, France and Italy, average annual values for the periods 2001-09 and 2010-19.

	Spain		Germany		France		Italy		EA-12	
	2001-09	2010-19	2001-09	2010-19	2001-09	2010-19	2001-09	2010-19	2001-09	2010-19
Financial balances of external sector as a share of nominal GDP, per cent	5.61	–1.41	–4.00	–7.24	–0.42	0.81	1.04	–0.94	–0.63	–2.75
Financial balances of public sector as a share of nominal GDP, per cent	–1.32	–6.03	–2.44	0.18	–3.45	–4.06	–3.28	–2.83	–2.63	–2.53
Financial balances of private sector as a share of nominal GDP, per cent	–4.29	7.44	6.43	7.05	3.87	3.25	2.24	3.77	3.22	5.31
– Financial balance of private household sector as a share of nominal GDP, per cent	–2.73	0.89	5.52	5.27	2.78	3.09	2.47	1.24	2.21	2.77
– Financial balance of the corporate sector as a share of nominal GDP, per cent	–1.56	6.55	0.91	1.78	1.08	0.16	–0.23	2.53	1.01	2.54
Real GDP growth, per cent	2.36	1.03	0.53	1.96	1.19	1.35	0.18	0.22	1.04	1.34
Growth contribution of domestic demand including stocks, percentage points	2.61	0.34	0.02	1.74	1.43	1.36	0.36	–0.16	0.96	1.01
– Growth contribution of private consumption, percentage points	1.34	0.27	0.19	0.73	0.97	0.55	0.23	0.05	0.62	0.43
– Growth contribution of public consumption, percentage points	0.87	0.04	0.25	0.38	0.38	0.29	0.22	–0.09	0.40	0.18
– Growth contribution of gross fixed capital formation, percentage points	0.47	–0.05	–0.18	0.56	0.24	0.39	0.00	–0.12	0.09	0.32
Growth contribution of the balance of goods and services, percentage points	–0.25	0.69	0.51	0.21	–0.25	–0.01	–0.18	0.39	0.09	0.34
– Growth contribution of exports, percentage points	0.46	1.41	1.42	2.04	0.34	1.15	–0.02	0.98	0.87	1.94
– Growth contribution of imports, percentage points	–0.71	–0.75	–0.92	–1.83	–0.59	–1.21	–0.16	–0.60	–0.79	–1.68
Net exports of goods and services as a share of nominal GDP, per cent	–3.56	2.48	4.81	6.25	0.35	–1.03	0.05	1.78	1.82	3.53
Regime	DLPD	ELM	ELM	ELM	DDL	DDL	DDL	ELM	DDL	ELM

Notes: DLPD: Debt-led private demand boom, DDL: Domestic demand-led, ELM: Export-led mercantilist, data source: European Commission (2019a), authors' calculations
Source: Based on Hein and Martschin (2021, pp. 500-501)

Rebalancing a la Eurozone – shift towards ELM

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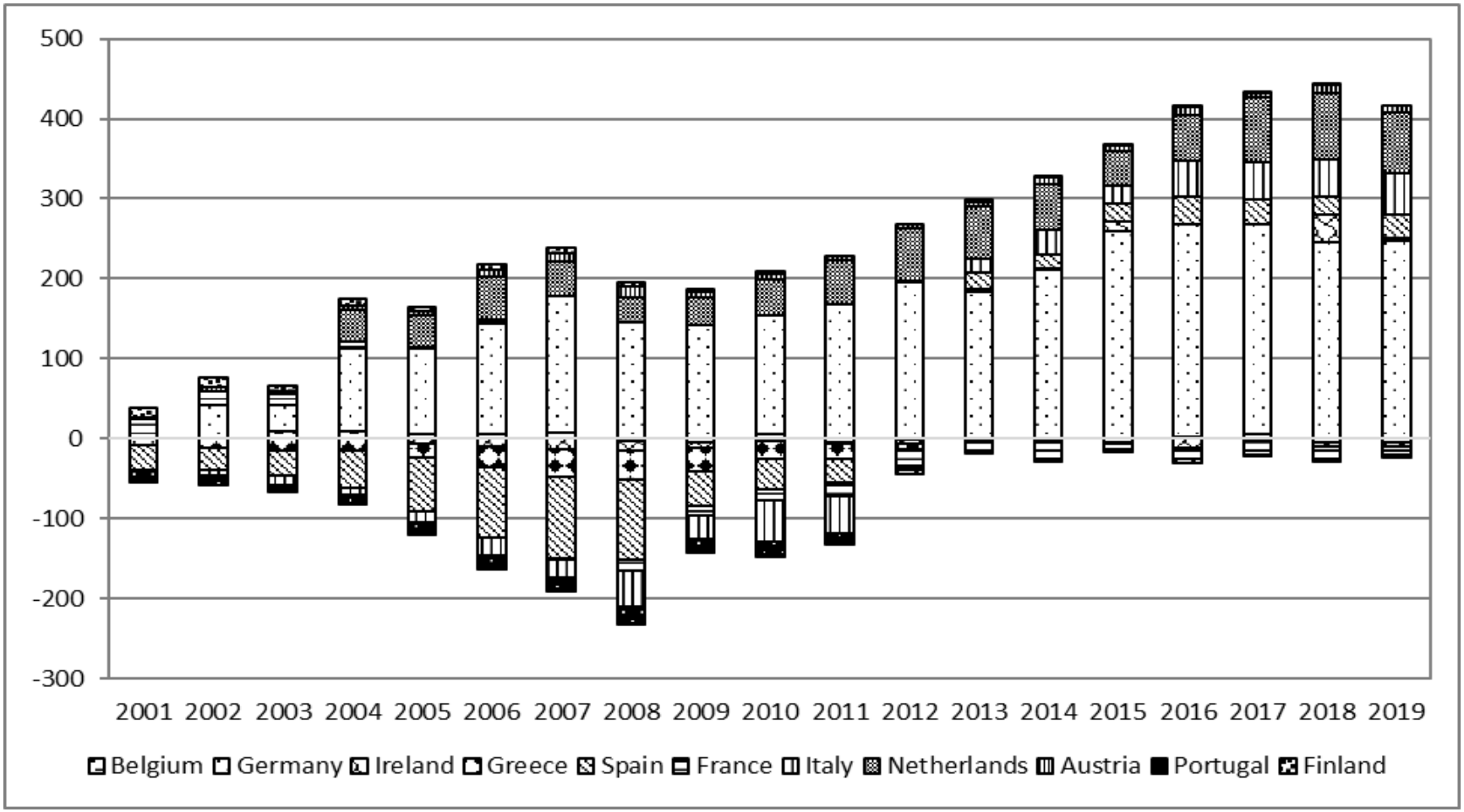
Figure 8.10: Current account balance in core Eurozone countries, 2001-2019 (in bn euros)

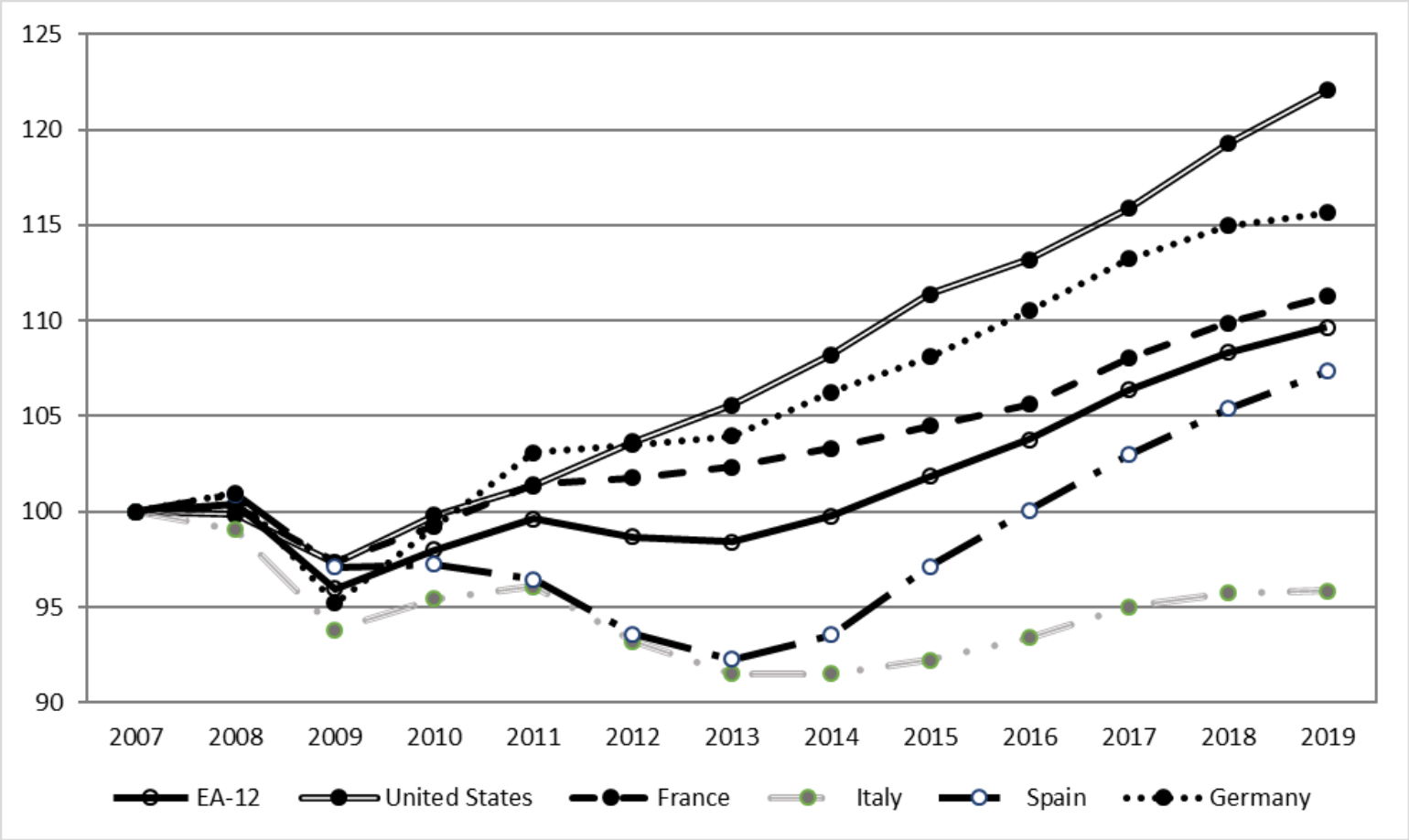


Data source: European Commission (2019), authors' presentation.

Source: Based on Hein and Martschin (2021, p. 502)

Weak and asymmetric recovery

Figure 8.11: Real GDP in Spain, Germany, France, Italy, the EA-12, and the US, 2007-2019, 2007 = 100



Data source: European Commission (2019), authors' presentation

Source: Based on Hein and Martschin (2021, p. 503)

- Shift towards export-led mercantilism of previous debt-led private demand boom and domestic demand-led countries was enforced by deleveraging and economic policies (to be examined)

- EA-12 as a whole has turned export-led mercantilist

- Internal current account imbalances have been externalised; Eurozone as a free rider of aggregate demand generated in the rest of the world, contributing to global imbalances and instabilities

➢ Role of macroeconomic policy regime in all that

Monetary policies

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Monetary policy conducive to employment and growth should target a nominal long-term interest rate (i) slightly above the rate of inflation ($\hat{p}$) but below nominal GDP growth ($\hat{Y}^n$), or a slightly positive real rate of interest ($r = i - \hat{p}$) below real GDP growth ($\hat{Y}$):

(8.12) $\hat{p} \leq i \leq \hat{Y}^n \quad \Leftrightarrow \quad 0 \leq i_r \leq \hat{Y}$.

- Real financial wealth would be protected against inflation, but redistribution of income in favour of the productive sector (retained profits of firms and wages of workers) would be favourable for investment in the capital stock, aggregate demand and employment.
- the central bank should assume the role of a 'lender of last resort'
- the central bank should stabilise financial markets using tools other than the short-term interest rate (definition of credit standards for refinancing operations with commercial banks, the implementation of reserve requirements for different types of assets, and even credit controls).
- the central bank should unconditionally guarantee public debt.

Monetary policy indicators

- short-term real interest rate
- long-term real interest rate
- long-term real interest rate minus real GDP growth

Wage policies

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Wage and incomes policies should accept responsibility for nominal stabilisation, that is for stable inflation rates, in the first place, in particular when full employment is reached, but may also affect income distribution. N
Nominal wages (w) should rise according to the sum of long-run average growth of labour productivity ($\hat{y}$) in the national economy plus the target rate of inflation for the Eurozone as a whole ($\hat{p}^T$), so that unit labour costs (ulc = w/y) grow at the target rate of inflation:

(8.13) $\hat{w} = \hat{y} + \hat{p}^T \quad \Leftrightarrow \quad \hat{w} - \hat{y} = \hat{p}^T.$

- This would allow inflation to reach the target rate, provided that mark-ups in firms' pricing remain constant.
- In the case of actual inflation rates being below the target, such a wage norm would also raise the labour income share during the adjustment process, because the pass through of unit wage costs to prices is usually not perfect.
- In a wage-led economy this would then stimulate aggregate demand and employment.

Wage policy indicators

- nominal unit labour cost growth relative to target rate of inflation,
- changes in labour income share

Fiscal Policies

For fiscal policy, government financial balances and the financial balances of the other sectors can be examined, as indicated by equation (8.1).
However, since this equation is an accounting identity, it does not allow to draw clear conclusions regarding deliberate and discretionary fiscal policy interventions, as included in the post-Keynesian macroeconomic policy mix for real government expenditures (G_r):

(8.14) $$G_r = G_{r0} + G_{r1}\left(e^T - e\right), \qquad G_{r0} \geq 0, G_{r1} > 0,$$

with G_{r0} as the expenditure level to reach a target employment rate e^T associated with non-inflationary full employment, i.e. the SIRE, and G_{r1} as the reaction coefficient towards deviations of the employment rate from the target rate.

Fiscal policy indicators:

- changes of the cyclically adjusted budget balance-potential GDP ratio (CBR) of the government related to the change in the output gap (OG)

- If output gaps and CBRs move in the same direction, we conclude that fiscal policies are counter-cyclical, lowering (increasing) structural deficits or increasing (lowering) structural surpluses in an economic upswing (downswing).

- If output gaps and CBRs move in opposite directions, we take this as an indicator of pro-cyclical fiscal policies, in which governments are lowering (increasing) structural deficits or increasing (lowering) structural surpluses in an economic downswing (upswing)

- Government investment as a share of GDP

Open economy conditions indicators:

- degree of openness measured by export and import shares of GDP
- development of price competitiveness, measured by real effective exchange rates (a rise indicates appreciation and thus loss of price competitiveness)
- non-price competitiveness: OEC economic complexity index (OEC 2020)

- For monetary policy, it has to be taken into account that the central bank, the ECB, only controls the short-term nominal interest rate for the Eurozone as a whole.
- Long-term nominal rates differed since crisis because of different risk assessments of financial markets (De Grauwe 2012; Hein 2013/14, 2018a)
- Real interest rates are affected by inflation differentials
- For the assessment of the effects of wage policies via functional income distribution, it has to be considered that aggregate demand in all four countries examined here have been estimated to be wage-led (Hein 2014, Chapter 7; Onaran and Obst 2016)
- For country specific details – and interactions with financial sector see Ferreiro et al. (2016) on Spain, Hein and Detzer (2016) on Germany, Cornilleau and Creel (2016) on France, and Gabbi et al. (2016) on Italy

Table 8.7: Indicators for the macroeconomic policy regimes in Spain, Germany, France and Italy, average annual values for the periods 2001-09 and 2010-19

	Spain		Germany		France		Italy	
	2001-2009	2010-2019	2001-2009	2010-2019	2001-2009	2010-2019	2001-2009	2010-2019
Monetary policy								
Short-term real interest rate, per cent	–0.26	–0.31	1.87	–1.26	1.17	–0.69	0.50	–0.83
Long-term real interest rate, per cent	0.90	2.45	2.83	–0.39	2.27	0.69	1.84	2.15
Long-term real interest rate minus real GDP growth, percentage points	–1.46	1.41	2.31	–2.35	1.08	–0.66	1.66	1.93
Wage policy								
Nominal unit labour costs, annual growth, per cent	3.19	–0.26	0.93	1.73	2.15	0.85	3.32	0.78
Inflation rate (HCPI), per cent	2.92	1.26	1.67	1.41	1.87	1.28	2.30	1.26
Labour income share*, per cent	56.39	54.21	56.72	57.53	56.22	58.00	52.08	52.84
Change in labour income share from previous decade	–3.90	–2.18	–2.32	0.81	–0.87	1.78	–2.34	0.76
Fiscal policy								
Cyclically adjusted budget balance (CBR) (as percentage of potential GDP), annual change, percentage points	–0.87	0.33	0.41	0.47	–0.35	0.24	0.16	0.20
Output gap (as percentage of potential GDP), annual change, percentage points	–0.86	0.66	–0.83	0.25	–0.57	0.26	–0.75	0.17
Number of years with pro-cyclical fiscal policy (co: contractionary, ex: expansionary)	3 (3 co)	8 (4 co, 4 ex)	3 (3 co)	6 (3 co, 3 ex)	4 (2 co, 2 ex)	7 (4 co, 3 ex)	6 (3 co, 3 ex)	9 (3 co, 6 ex)
Public investment in percent of GDP	4.35	2.63	2.11	2.26	3.95	3.70	3.13	2.48
Open economy								
Change in real effective exchange rate, vis-à-vis 37 industrial countries, per cent	2.22	–1.59	0.14	0.22	1.45	–0.58	2.71	–0.71
OEC economic complexity index	0.94	0.90	1.97	1.92	1.47	1.41	1.32	1.36
Real exports of goods and services, per cent of GDP	26.29	32.71	35.06	45.56	26.02	29.79	24.07	28.88
Real imports of goods and services, per cent of GDP	30.59	30.18	30.09	38.82	25.07	30.14	24.14	26.76

* compensation per employee as percentage of GDP at market prices per person employed, data source: European Commission (2019a), OEC (2020), authors' calculations
Source: Based on Hein and Martschin (2021, p. 512).

Table 8.8: Macroeconomic policy regimes and demand and growth regimes in Spain, Germany, France and Italy for the periods 2001-09 and 2010-19

	Spain		Germany		France		Italy	
	2001-2009	2010-2019	2001-2009	2010-2019	2001-2009	2010-2019	2001-2009	2010-2019
Monetary policy stance	+	-	-	+	-	+	-	-
Wage policy stance	-	-	-	+	+/-	-/+	-	-/+
Fiscal policy stance	+	-	+/-	-	+	-/+	-	-
Open economy conditions	-	+	0/+	0/+	-/0	0	-/0	0
Demand and growth regime	DLPD	ELM	ELM	ELM	DDL	DDL	DDL	ELM

Notes: DLPD: Debt-led private demand boom, DDL: Domestic demand-led, ELM: Export-led mercantilist
+: expansionary stance, -: contractionary stance, 0: neutral stance
Monetary policy:
+: negative real long-term interest rate-real GDP growth differential
-: positive real long-term interest rate-real GDP growth differential
Wage policy:
+: nominal unit labour cost growth close to ECB inflation target and rising labour income share
-: nominal unit labour cost growth far away from ECB inflation target and falling labour income share
-/+: nominal unit labour cost growth far away from ECB inflation target and rising labour income share
+/-: nominal unit labour cost close to ECB inflation target and falling labour income share
Fiscal policy:
+: counter-cyclical in many years, high public investment-GDP ratio
-: pro-cyclical in many years, low public investment-GDP ratio
+/-: counter-cyclical in many years, low public investment-GDP ratio
-/+: pro-cyclical in many years, high public investment-GDP ratio
Open economy conditions:
+: real depreciation
-: real appreciation, with low non-price competitiveness (complexity index)
-/0: real appreciation, with intermediate non-price competitiveness (complexity index)
0/+: small real appreciation, with high non-price competiveness (complexity index)
0: small real depreciation, with intermediate non-price competitiveness (complexity index)

Source: Based on Hein and Martschin (2021, p. 515)

Spain 2001-09:

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DLPD regime was supported by:

- expansionary monetary policy stance
- partly pro-cyclical fiscal policy
- high public investment-GDP ratio
- High nulc growth and high inflation leading to a loss of international price competitiveness
- Falling labour income shares leading to dampened income-financed comsumption which was over-compensated by credit-financed expenditures

Spain 2010-19:

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Shift towards ELM regime was supported by:

- contractionary monetary policy stance
- pro-cyclical contractionary fiscal policy when the Eurozone crisis hit
- fall in public investment-GDP ratio
- falling labour income shares
- low nulc growth and low inflation improving international price competitiveness

Germany 2001-09:

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ELM regime was supported by:

- restrictive monetary policy stance
- partly pro-cyclical contractionary fiscal policy
- low public investment-GDP ratio
- falling labour income shares
- low nulc growth and low inflation leading to a rising intra-Eurozone price competitiveness
- high international non-price competitiveness

Germany 2010-19:

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Maintainig (a softened) ELM regime was supported by:

- expansionary monetary policy stance
- pro-cyclical fiscal policy in many years
- low public investment-GDP ratio
- rising labour income shares
- higher nulc growth and inflation lowering international price competitiveness
- but still very high international non-price competitiveness

France 2001-09:

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DDL regime was supported by:

- restrictive monetary policy stance
- counter-cyclical fiscal policy in many years
- high public investment-GDP ratio
- only slightly falling labour income share
- nulc growth and inflation at target
- slightly falling international price competitiveness
- good non-price competitiveness

France 2010-19:

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Maintainig DDL regime was supported by:

- expansionary monetary policy stance
- pro-cyclical fiscal policy in many years
- high public investment-GDP ratio
- rising labour income shares
- low nulc growth and inflation slightly raising international price competitiveness
- still good international non-price competitiveness

Italy 2001-09:

Stagnative DDL regime was supported by:

- restrictive monetary policy stance
- pro-cyclical fiscal policy in many years
- low public investment-GDP ratio
- slightly falling labour income share
- nulc growth and inflation well above target
- falling international price competitiveness
- intermediate non-price competitiveness

Italy 2010-19:

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Shift towards stagnating EEL regime was supported by:

- restrictive monetary policy stance
- pro-cyclical contractive fiscal policy when the Eurozone crisis hit
- low public investment-GDP ratio
- falling labour income shares
- low nulc growth and inflation raising international price competitiveness
- intermediate international non-price competitiveness

- **Hein and Martschin (2021)** support the usefulness of the identification of demand and growth regimes according to growth contributions of the main demand components and financial balances of the macroeconomic sectors also for the post-2007-09 crisis period.

- This allows for an understanding of the demand sources of growth – or stagnation, if there is a lack of demand –, of how these sources are financed and of potential financial instabilities and fragilities.

- When it comes to the economic policy drivers of demand and growth regimes, as well as their respective changes, the focus on fiscal policies only is too limited, and that it is the macroeconomic policy regime that matters; that is the combination of monetary, fiscal and wage policies, as well as the open economy conditions.

- These findings regarding the role of the macroeconomic policy regime for the demand and growth regimes are very much in line with Steindl's (1976, 1979) argument that economic stagnation is to a large degree the result of 'stagnation policy' (Hein 2016, 2018a, 2022b).

- 'thus we witness stagnation not as an incomprehensible fate, as in the 1930s, but stagnation as policy' (Steindl 1976, p. xvii).

- Kalecki (1943b): the opposition of the capitalist class towards full employment policies gives rise to a 'political business cycle',

- Steindl (1979, p. 9) argues that business opposition towards full employment policies generates a 'political trend' causing or contributing to stagnation

- CPE: Growth regimes and political blocs (Amable 2018)

Channels and the long-run effects of a restrictive macroeconomic policy regime, and thus of stagnation policy, according to Kalecki-Steindl-Kaldor-Marx model shown in equations (8.10) and (8.11) and in Figure 8.9 in Section 8.4.

- Decreasing government (deficit) expenditures, i.e. a fall in the government deficit and expenditure rate (δ), have a directly negative effect on long-run growth.
- Austerity policies and structural reforms weaken overall private expectations, animal spirits, and firms' assessment of long-run growth (α).
- Lowering productivity enhancing public expenditures on R&D and education (k_i) weakens long-run productivity growth and private capital accumulation.

- Weakening workers' and trade unions' bargaining power through policies of labour and financial market deregulation, favouring the dominance of shareholders, abandoning aggregate demand management and accepting high rates of unemployment, each raise the total profit share (h) with a negative effect on aggregate demand, capital accumulation and growth in a wage-led economy. Only in small, very open economies or in emerging commodity exporting economies the related real depreciation of the exchange rate (a_r) may be strong enough to raise net exports sufficiently to increase total demand and growth and make the economy profit-led.

- Generating or accepting rising inequality and a higher profit share in the distribution of incomes through various channels, as well as generating higher uncertainty and thereby precautionary saving, leads to a rise in the average propensities to save out of profits and out of wages (s_Π, s_W), and thus to an increase in the aggregate propensity to save [$s = s_W + (s_\Pi - s_W)h$].

- Finally, not explicitly addressed in the model in Section 8.4 but in the post-Keynesian macroeconomic models in Chapters 4 and 5, raising real rates of interest through tight monetary policies has a negative effect on aggregate demand, if the normal case conditions prevail, and increasing the rate of interest above GDP growth will have contractionary effects in the long run.

If long-run stagnation were to be avoided, these stagnation policies would have to be reversed.

The macroeconomic core of such an income-led recovery strategy would be the post-Keynesian macroeconomic policy mix.

Several post-Keynesian authors have proposed such a macroeconomic recovery strategy after the 2007-09 crises, some of them linking it with financial market re-regulation, gender equality concerns and/or with targeting government investment to the required socio-ecological transformation in the face of climate change and other ecological constraints.