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HWR Research Competence Centre
CHALLENGES AND RESILIENCE OF GLOBAL SUPPLY AND VALUE CHAINS

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Demand and Growth Regimes Revisited: Toward an Integrated Four-Level Research Programme

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Workshop 'Demand and Growth Regimes: Structural and International Dimensions'
HWR Berlin
18 – 19 May 2026

This work was funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) – Project-ID 528278755 – FIP 3

1.
Introduction

PK demand and growth regime (DGR) analysis has had a long tradition (Hein 2023):

1. Theoretical model: determinants of growth in demand-led distribution and growth model, like investment-led growth, distribution-led growth or autonomous demand-led growth

- Regime: type of response of the equilibrium solution of a macroeconomic model towards a change in model parameters or exogenous variables, like the wage or profit share, income inequality, the rate of interest, the debt-capital ratio, shareholder power, or autonomous demand components

2. Empirical-historical analysis of the development paths of an economy over time and or/in comparison, i.e. co-existence of regimes

- Regime: main source of demand/growth, growth drivers, political economy of DGR and GMs
- Succession of DGR: from golden age to neo-liberalism/finance-dominated capitalism (Cornwall/Cornwall 2001, Smithin 1996, Steindl 1976. 1979, Hein et al. 2016)
- Coexistence of DGR in finance-dominated capitalism (Hein 2011, 2012, Stockhammer 2009, …)

- CPE growth model approach has included features of PK demand-led distribution and growth theory and DGR analysis (Baccaro/Pontusson 2016, …)
- Expanding research programme (Baccaro *et al.* 2022a, Akcay *et al.* 2023, 2024), which requires some systematic structure to avoid misunderstandings, unproductive debates, …

- We propose integrated four-level approach:

1. The national income and financial accounting (NIFA) decomposition approach
2. Theory based growth decomposition: Sraffian supermultiplier (SSM)
3. Growth drivers and regime shifts
4. Political economy of DGR

- International dimension is/should be considered at each level

2.

The national income and financial accounting (NIFA) decomposition approach

Used initially by Hein (2011a, 2011b, 2012) to understand **'profits without investment'** regimes in **finance-dominated capitalism**, without calling it NIFA approach:

Growth contributions: sources of demand

(1) $$\hat{Y}_t = \frac{\Delta Y_t}{Y_{t-1}} = \frac{\Delta C_t}{Y_{t-1}} + \frac{\Delta G_t}{Y_{t-1}} + \frac{\Delta I_t}{Y_{t-1}} + \frac{\Delta NX_t}{Y_{t-1}}.$$

C: private consumption, G: public consumption, I: private and public investment (I), NX balance of goods and services

Financial balances: financing of demand

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

FB_P: financial balance the private sector, composed of private households and corporations,

FB_G: financial balance of the public sector, FB_E: financial balance of the external sectors

Table 1. Classification of demand-led growth regimes according to sources and financing of demand components

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, • domestic demand is the almost exclusive source of growth, • 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).

NIFA decomposition – results from previous studies for DCEs

Table 2: Shift of demand and growth regimes according to studies on developed capitalist economies (DCEs) making use of the NIFA de-composition approach

		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)	Australia (Hea) Greece (Dea, Hea, H/M) Portugal (Hea) Slovakia (Hea) Spain (Hea)	Estonia (Dea, D/H, Hea) Hungary (Hea) Ireland (Hea, H/M) Latvia (D/H) Spain (C/Ha, H, H/M)
	Domestic demand led (DDL)		France (Dea, H, Hea, H/M)	Italy (Dea, Hea) Poland (A/J, Dea, Hea, Kü) Portugal (Dea, H/M)	EA-12 (H, H/M) Italy (B, H/M) Hungary (Dea, Kü)
	Weakly export-led (WEL)	Canada (Kl)	Canada (Kl)	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 (C/Ha, C/Hb, Dea, H, Hea, H/M) Korea (Hea) Luxembourg (Hea) Netherlands (Hea, H/M) Switzerland (Hea)

Notes and sources: A/J : Akcay and Jungmann (2023), 1999-2008, 2009-2020 ; B : Bramucci (2024), 2001-09, 2010-19 ; C/Ha : Campana and Hein (2026a), 2000-2007, 2011-19 ; C/Hb : Campana and Hein (2025), 1999-2009, 2010-20 ; Dea: Dodig et al. (2016), 2001-08, 2008-14; D/H: Dünhaupt and Hein (2019), 1995-2008, 2009-16; H: Hein (2019), 1999-2007, 2008-16; Hea: Hein et al. (2021), 2000-08, 2009-16; H/M: Hein and Martschin (2020), 2001-09, 2010-19; Kl: Klassen (2024), 2001-09, 2010-20; Kü: Kühnast (2024), 2000-08, 2009-19

DCEs: shift towards ELM or WEL, on the one hand, or DDL with high public deficits, on the other, after GFC and GR

NIFA decomposition – results from previous studies for ECEs

Table 3: Shift of demand and growth regimes in emerging capitalist economies (ECEs) according to studies making use of the NIFA de-composition approach					
		Post 2007-09 crisis			
		Debt-led private demand (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 (DLPD)	South Africa (Aea)	South Africa (C/Ha, Dea)		
	Domestic demand led (DDL)	Turkey (A/J until 2013, Aea, Dea)	India (Aea, Cea, C/Ha)	Brazil (Cea, C/Ha) Mexico (Aea) Turkey (A/J after 2013, C/Ha)	
	Weakly export-led (WEL)		Brazil (Aea)		Russia (Aea, Cea)
	Export-led mercantilist (ELM)		Argentina (Aea, C/Ha, I)	China (Aea, Cea)	
Source: A/J : Akcay and Jungmann (2023), 1999-2008, 2009-2020 ; Aea : Akcay et al. (2022), 2000-2008, 2019-2019 ; Cea : Campana et al.(2024), 2001-10, 2011-19 ; C/Ha : Campana and Hein (2026a), 2000-2007, 2011-19 ; Dea : Dodig et al. (2016), 2001-08, 2009-14 ; I : Ianni (2024), 2002-09, 2010-19					

ECEs: tendency towards/continuation of domestic demand-led regimes stabilised by government deficits and even debt-led private demand boom regimes

Insights from national income and financial accounting decomposition approach

- Structure of **demand dynamics** reveals related **imbalances**
- **Financial balances** are linked with **debt dynamics** and related imbalances
- **Complementarity of regimes** associated with regional/global current account imbalances
- Finance-dominated capitalism is linked with the post-crises **stagnation tendencies**: pre- and post-crises regimes have been **'profits without investment'** regimes (Hein 2019, 2022).
- Approach is **compatible with different theories about growth drivers** ... and has been embedded (in rudimentary ways) in such analysis by the proponents (distribution, private household sector indebtedness, share and house price indices, indicators of international competitiveness, ...) (Hein 2011a, 2011b)

Recent developments

- **Investment-led regime** added: Mertens et al. (2022)

- **Regional growth regimes**: Di Carlo et al. (2024) on Italy

- **Import-adjusted growth contributions** of consumption, investment, government expenditures, and exports
  - Alves-Passoni/Blancas Neria (2023) on Brazil and Mexico
  - Baccaro/Hadziabdic (2024) on 66 countries
  - **Shifts question from demand to production regimes!**

- **Different types of export-led regimes**:
  - Campana/Hein (2026): Typology of export-led regimes according type of export goods, technological contents, and ECI (Germany, Spain, Argentina, Brazil, India, South Africa, Turkey)
  - Bürgisser/Di Carlo (2023) tourism-led growth in EU periphery (Greece, Italy, Portugal and Spain)
  - Herreiro et al (2025): role of price and non-price competitiveness for export-led growth in Greece, Italy, Portugal and Spain, after 2007-09 crisis
  - Kalanta (2024): Lithunia: low-quality manufacturing and services exports, Estonia: exports of high-quality dynamic services after GFC and GR

3.

Theory based growth decomposition: Sraffian supermultiplier (SSM)

Distinction between **autonomous components of aggregate demand**, i.e. credit-financed autonomous consumption, residential investment, government expenditures and exports, and the **induced components**, i.e. consumption out of income, investment and imports.

(3) $$Y = C + I + G + X - M = C_a + cY + I_a + \beta Y + G_a + X_a - mY$$

with Y for GDP or gross domestic income, C_a for autonomous consumption, c for the propensity to consume out of income, I_a for residential investment, β for the inducement to invest by domestic income, G_a for fully autonomous government expenditures, X_a for exports fully autonomous from domestic income, and m for the inducement to import given by domestic income.

(4) $$Y = \mu Z$$

with autonomous demand given by $Z = C_a + I_a + G_a + X_a$ and the supermultiplier by $\mu = \frac{1}{1-c-\beta+m}$.

(5) $$\hat{Y} = \hat{\mu} + \hat{Z}$$

(6) $$\hat{Y}_t = \frac{\Delta Y_t}{Y_{t-1}} = \Delta Z_t \frac{\mu_{t-1}}{Y_{t-1}} + \Delta \mu_t \frac{Z_t}{Y_{t-1}},$$

with $\Delta Z_t = \Delta C_{at} + \Delta I_{at} + \Delta G_{at} + \Delta X_{at}$ and $\Delta \mu_t = \frac{\mu_t(\Delta c_t + \Delta \beta_t - \Delta m_t)}{1-c_{t-1}-\beta_{t-1}+m_{t-1}}$

- Provides links between **macroeconomy and political economy**

- determination of autonomous components, changes in the components of the supermultiplier, provides grounds for **systematic analysis of growth drivers**

Empirical studies:

- Freitas and Dweck (2013), Brazil, 1970-2005, public expenditure growth as the main autonomous demand source of GDP growth.

- Girardi and Pariboni (2016), USA, 1947 – 2013, 1947-1960, 1960-78 and 1978-1991 government expenditures as main autonomous demand component, 1991-2013: export-led growth.

- Supermultipliers are not constant and show some trends caused by changes in income distribution and behavioural parameters (i.e. inducement to consume, to invest or to import)

SSM decomposition – results from previous studies

Table 4: SSM demand-led growth de-composition: dominant autonomous demand components in pre and post 2007/08 crisis period - results of previous studies

		Post 2007-09 crisis						
		Private Sector	Private and public sector	Private, public and external sector	Public sector	Public and external sector	Private and external sector	External Sector
Pre-2007-09 crisis	Private Sector							
	Private and public sector							
	Private, public and external sector			China (Cea)		South Africa (C/Ha)		Spain (C/Ha, L-M/S) Turkey (C/Ha)
	Public sector							
	Public and external sector							Brazil (Cea, C/Ha, P/M) Japan (Mea) USA (Mea)
	Private and external sector			India (C/Ha)		India (Cea)		
	External Sector				Argentina (C/Ha, P/M)	Bolivia (P/M)		Chile (P/M) Germany (C/Ha, C/Hb, Mea) Mexico (P/M) Russia (Cea) Sweden (Mea)

Notes: Autonomous expenditures of the private sector include : credit-financed consumption, residential investment ; of the public sector : public consumption, public investment, (and also consumption out of transfers and public wages in Labat-Moles and Summa (2024); of the external sector : exports. Concepts and definitions vary among studies.

Sources : Cea : Campana et al. (2024), 2001-10, 2011-19; C/Ha : Campana and Hein (2026a), 2000-2007, 2011-19 ; C/Hb: Campana and Hein (2025), 1999–2009, 2010–2020; L-M/S: Labat-Moles and Summa (2024), 1998-2007, 2008-2019; Mea: Morlin et al. (2024), 2000-2008, 2010/12-2017/18; P/M: Passos and Morlin (2022), 1996-2008, 2010-2018

- Tendency towards exports as dominant autonomous demand source with important exceptions: China and India

- **Main autonomous growth rate in SSM approach may align with NIFA DGR** (i.e. Germany, Argentina, Brazil)**, but may also deviate** (i.e. Spain first period, India, China)

Recent developments

- **Extending autonomous demand components**

➢ Febrero/Bermejo (2024): pensioners' expenditure on consumer goods and services
➢ Labat-Moles/Summa (2024): consumption out of transfers and public wages
➢ Valencia Delgado and López Rogel (2025): consumption financed by remittances

- **Linking SSM with DGRs and growth drivers/MPR**

➢ Campana et al. (2024) for BRICS (NIFA, SSM & growth drivers)
➢ Campana/Hein (2025) for Germany (NIFA, SSM & MPR)
➢ Campana/Hein (2026) for Germany, Spain, Argentina, Brazil, India, South Africa, Turkey (NIFA, SSM & MPR)
➢ Morlin et al. (2024) for Germany, Japan, Sweden and the USA (NIFA, SSM & growth drivers)
➢ Passos/Morlin (2022) for Argentina, Bolivia, Brazil, Chile, and Mexico (NIFA, SSM & growth drivers)

Perspectives: Multi-country SSM decomposition to analyse global patterns and complemtarities & estimation of growth drivers

4.
Growth drivers and regime shifts

- Hein (2019), Hein/Martschin (2020) and Hein et al. (2021): type of regime shift from DLPD to ELM or DDL depends on **requirement of deleveraging** and **possibility of government deficit spending**
- Kohler/Stockhammer (2022): systematic cross-country analysis of **growth drivers** before and after the 2007-09 crises in 30 OECD countries, abandoning regime distinction: **need for deleveraging** (financial boom bust cycle), (lack of) expansionary **deficit-financed fiscal policies** are main drivers; **international price competitiveness is not systematically related to growth performance**
- Jungmann (2021): 19 emerging capitalist economies, includes indicators for **income distribution** as well as **commodity price dynamics** on top; **non-price competitiveness as a robust driver**; furthermore, **private debt and expansionary fiscal policy** have been important after the 2007-09 crises
- Feliciano et al. (2025a, 2025b): Spain, EU countries, growth drivers: **income distribution, fiscal policy, the financial cycle, price and non-price international competitiveness**
- Kohler et al. (2023), Stockhammer/Otero (2023), Wood/Stockhammer (2024): '**House-price-driven growth regimes'**, **house price dynamics** are a main driving force of economic growth – and its decline: **homeownership rates and mortgage-credit encouraging institutions** are positively correlated with the volatility of house price cycles and growth dynamics.

Macroeconomic policy regimes (MPRs) and demand and growth regimes

- Hein/Martschin (2021): keep typology based on the NIFA de-composition approach; link it with earlier **macroeconomic policy regime approach** (DCE: Hein and Truger 2005, 2009, Herr and Kazandziska 2011, ECE: Priewe and Herr 2005 and Kazandziska 2019)

- A **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 and the exchange rate regime.
- **PK macroeconomic policy mix** proposed by Arestis (2013), Hein (2023, Chapter 6) and Hein and Stockhammer (2010), based on Kalecki-Steindl PK models, is used as a benchmark supporting a stable DDL regime

- **Monetary policy:** relationship between **long-term interest rates and GDP growth**. To support employment and growth, central bank should target a slightly positive real interest rate below the real GDP growth rate
- **Wage policy: nominal unit labour costs stabilising inflation**, growing at the inflation target rate**? Changes in functional income distribution** (labour income share), as well as the nature of the distribution-led growth regime for the effects on demand and employment are considered, too.
- **Fiscal policy:** Changes in the **cyclically adjusted budget balance-potential GDP ratio (CBR)** in relationship to changes in **the output gap (OG).** When OGs and CBRs move in the same direction, fiscal policies are deemed counter-cyclical. Long-term growth effects are assessed via **public investment-GDP ratio**.
- **Open economy conditions:** degree of openness (export and import shares of GDP), evolution of **price competitiveness (real effective exchange rates)** and of **non-price competitiveness (Economic Complexity Index)**

- **Recent studies** on macroeconomic policy regime and demand and growth regime and respective changes over time

➢ Campana/Hein (2025): Germany in the EU governance framework

➢ Camapana/Hein (2026): Germany, Spain, Argentina, Brazil, India, South Africa, Turkey

➢ Hein/Martschin (2021): France, Germany, Italy, Spain

➢ Ianni (2024): Argentina

➢ Klassen (2024): Canada

➢ Kühnast (2024): Hungary, Poland

Further perspectives

- larger scale analyses which allows for exploring differences and similarities among countries and country groups, as well as exploring some regional or global patterns
- Large scale econometric studies estimating effects of MPR indicators
- Broader theory based estimation of growth drivers

5.
Political economy of DGR

5.1. Dominant Social Blocs

DSBs link DGRs to domestic political economy dynamics

- DGRs are not self-reproducing macroeconomic constellations. They require political mediation, institutional support and social coalitions.
- DSBs capture the hierarchical configuration of capital fractions, state institutions, political actors and selected labour groups that underpin a growth strategy.
- **Growth strategy**: the politically articulated policy project through which a DSB seeks to reproduce, adjust or transform a DGR or GM by prioritizing and coordinating selected components of an MPR, together with broader industrial, welfare and external policy orientations.
- The DSB concept helps explain how particular MPR components, such as interest-rate policy, wage policy, fiscal stance or external orientation, become politically contested.
- DSBs are especially useful for analysing institutional stability, crisis, authoritarian settings and peripheral economies.

Key point: DSB analysis complements NIFA, SSM and growth-driver analysis by showing how growth strategies are politically formed, defended and transformed.

Key references: Amable and Palombarini (2009, 2024); Akcay and Jungmann (2023); May et al. (2025).

5.2. Growth Coalitions

Growth coalitions specify the producer-group foundations of GMs (Baccaro and Pontusson (2019, 2022)

- Growth coalition approaches focus on organized sectoral interests, firms, employer associations and selected labour groups.
- It asks which sectors benefit from a given GM or DGR, how these sectors shape policy priorities, and how their interests are translated into broader political projects.
- In this perspective, GMs are sustained by coalitions rooted in key sectors:
  - Examples include: export-sector coalitions in Germany; construction-led coalitions in Spain; credit-driven consumption coalitions in the US and UK; FDI- and export-oriented coalitions in peripheral economies.
- Growth coalitions also require electoral and political mediation, since producer interests must be connected to broader claims of national prosperity, welfare or stability.

Key distinction: DSBs capture the broader configuration of social and political domination, while growth coalitions identify the sectoral and producer-group core of that configuration.

Key references: Baccaro and Pontusson (2019, 2022), Baccaro et al. (2022), Baccaro and Höpner (2022).

5.3. Developmental Alliances

Developmental alliances connect growth strategies to state capacity and structural transformation.

- The developmental state literature provides an earlier and parallel discussion of the social foundations of growth.
- It highlights state-business coordination, industrial policy and the political capacity to organize structural transformation under external constraint.
- Developmental alliances are especially relevant for peripheral growth models, where technological upgrading, import dependence and balance-of-payments constraints are central.
- These alliances may support structural transformation, but they are also hierarchical and selective.
- They can exclude labour, reinforce dependency or reproduce unequal distributional outcomes.
- The literature on peripheral growth models extends this perspective by showing how growth model stability depends on political coalitions, state-business relations and mechanisms that reduce external vulnerability.

Key point: Growth strategies are not merely macroeconomic policy packages. They are politically organized projects aimed at securing demand generation, productive upgrading and external viability.

Key references: Evans (1979, 1995), Chibber (2012), Haggard (2028).

6.
Conclusions

Toward an integrated four-level research programme

- DGR research can be organized across four complementary levels:
  - NIFA decomposition: sources and financing of demand and growth.
  - Theory based decomposition, f.e. SSM: autonomous and induced components of demand.
  - Growth drivers and MPRs: dynamics and shifts of regimes.
  - Political economy: DSBs, growth coalitions, developmental alliances and growth strategies.

- International embeddedness cuts across all four levels (external balances and capital flows; exports and imports; currency hierarchy and financial constraints; GVCs, export structures, import dependence and technological capabilities).

- DGRs or GMs are stabilized or transformed through the interaction of macroeconomic dynamics, external constraints and coalitional configurations.

- **Future research**: productivity regimes, inflation regimes, green transition regimes, geopolitical fragmentation, tariffs, industrial policy and GVC restructuring.

Thank you