

FINANCIALIZATION, DISTRIBUTION AND INFLATION:
A KALECKIAN APPROACH AND AN EMPIRICAL APPLICATION TO THE CASES OF GERMANY AND
AUSTRIA

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INTRODUCTION

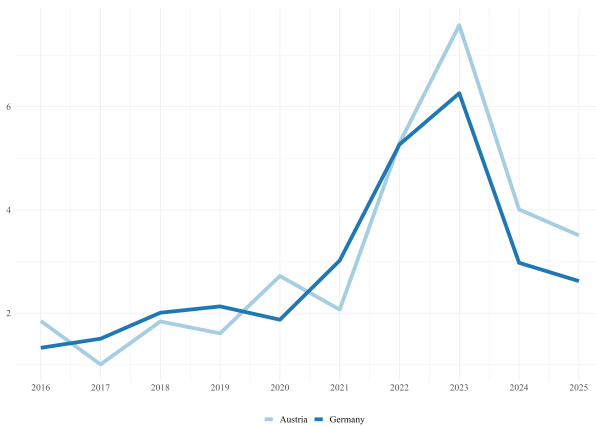
- ▶ **Inflation** is back on the agenda
 - Conflicting claims of social classes drive inflation
 - Aftermath of the pandemic and the war in Ukraine, resulting in supply bottlenecks and hiking energy prices (Ferguson and Storm 2023; Weber 2022)

- ▶ **Persistent vs. transitory** inflationary shocks & **re-occurrence**
 - Inflationary shocks are likely to reoccur due to **climate change and rising geopolitical tensions** (Ferguson and Storm 2023)
 - Also transitory shocks have **detrimental socio-economic consequences** for (low-income) workers: "**Cost-of-living-crisis**" (Storm 2022)

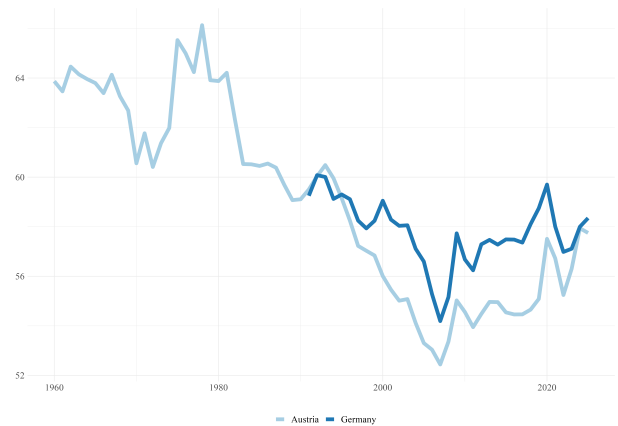
- ▶ Different approaches within the heterodox paradigm
 - *Sellers' inflation*: increased profits of firms (Weber and Wasner 2023)
 - *Profit inflation* may be misleading since a rise in imported raw material cost will necessarily increase the profit share (Lavoie 2023)

INTRODUCTION

Alternative explanation: **neoliberal** economic policies implemented since the late 1970s gave rise to an era of **finance-dominated capitalism** which influenced **functional income distribution and inflation**



(a) Rate of change in the GDP deflator, 2016–2025



(b) Adjusted wage share, 1960–2025

Figure 1. Stylized trends of recent inflationary dynamics and long-term redistributive trends, Germany and Austria, 1960–2025

DISTRIBUTION AND INFLATION AS JOINT OUTCOMES

A KALECKIAN THEORY OF FINANCIALIZATION AND FUNCTIONAL INCOME DISTRIBUTION

- ▶ Three Kaleckian channels of financialization on distribution (Hein 2015):
 - **Sectoral composition channel:** Dünhaupt (2012)
 - **Overhead costs/rentiers' profit claims channel:** Epstein and Jayadev (2005), Lin and Tomaskovic-Devey (2013), Dünhaupt (2012), Kohler, Guschanski, and Stockhammer (2019), and Marques and Rugitsky (2024)
 - **Bargaining power channel:** Stockhammer (2009), Stockhammer (2017), Kristal (2010), Lin and Tomaskovic-Devey (2013), and Alvarez (2015)

- ▶ Previous **country studies** utilizing the approach outlined above: Germany, US, UK, Sweden, France, Spain, Denmark, Estonia, Latvia, Finland, and Austria (Hein 2015; Hein et al. 2017; Hein et al. 2018; Dünhaupt & Hein 2019; Dabrowski & Kuhls 2024)
 - Different channels drive the results for different countries
 - Financialization–distribution nexus changed before vs. after the GFC

DISTRIBUTION AND INFLATION AS JOINT OUTCOMES

THE HEIN & STOCKHAMMER APPROACH TO DISTRIBUTION AND INFLATION

- ▶ **Income targets of firms and workers** are defined according to Hein (2023, chapter 5). The **target gross profit share of firms** can be written as:

$$h_F^T = 1 - \Omega_F^T = h_0 + h_3 i_r^e + h_5 a_r^e, \quad 1 > h_0 > 0, h_3, h_5 \geq 0 \quad (1)$$

In the medium run, firms' target gross profit share is affected by the mark-up (h_0), persistent changes in the *ex-ante* interest rate since interest payments are perceived as costs (h_3), and in the open economy, changes in the real exchange rate (h_5).

- ▶ **Workers' target wage share** can be written as:

$$\Omega_W^T = 1 - h_W^T = \Omega_0 + \Omega_1 e, \quad 1 > \Omega_0 > 0, \Omega_1 \geq 0 \quad (2)$$

- ▶ which is dependent on wage bargaining and the social benefits system and socio-institutional characteristics of the labor market in the medium run (Ω_0), and on the other hand by the rate of employment and thus the rate of unemployment (Ω_1)

CHANNELS OF FINANCIALIZATION NOW IMPACTING INFLATION

KALECKIAN CHANNELS OF RE-DISTRIBUTION IN AN OPEN-MACROECONOMIC MODEL

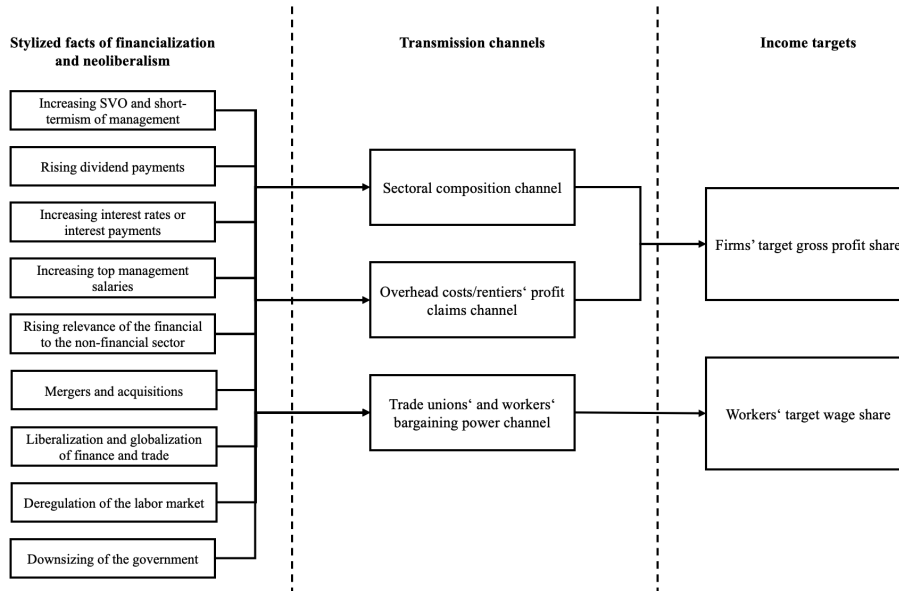
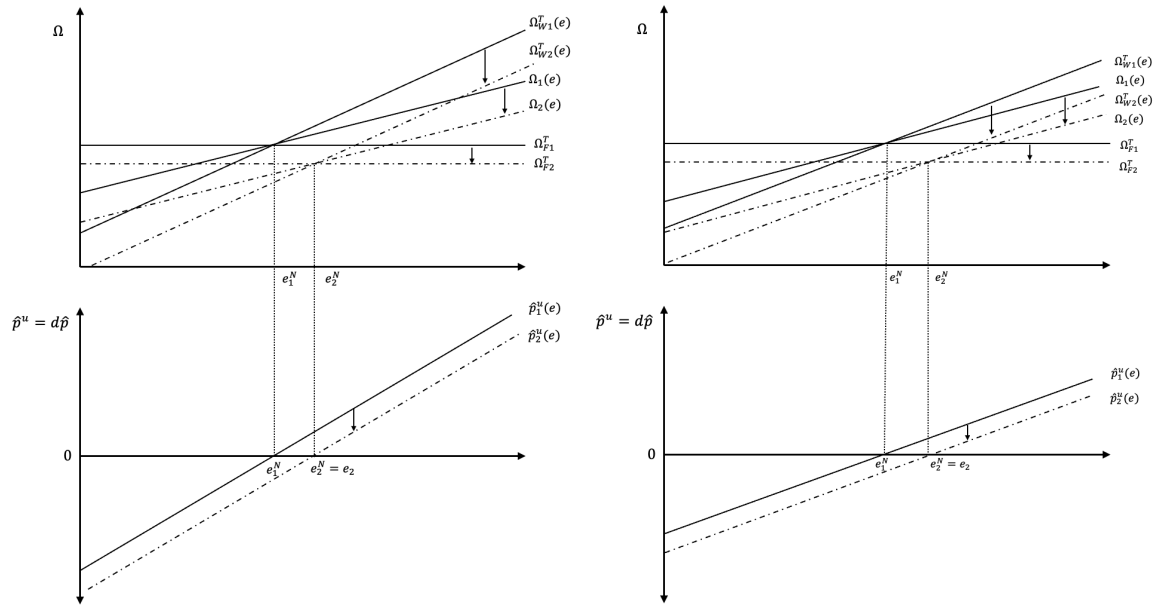


Figure 2. Transmission channels of financialization on target income claims

CHANNELS OF FINANCIALIZATION NOW IMPACTING INFLATION

KALECKIAN CHANNELS OF RE-DISTRIBUTION IN AN OPEN-MACROECONOMIC MODEL



(a) Scenario 01: Base line

(b) Scenario 02: Neoliberal income policies of fear

Figure 3. Cumulative effect of financialization on the SIRE

CHANNELS OF FINANCIALIZATION NOW IMPACTING INFLATION

RISE IN OIL PRICES AND MARK-UPS IN AN ENVIRONMENT OF FINANCIALIZATION

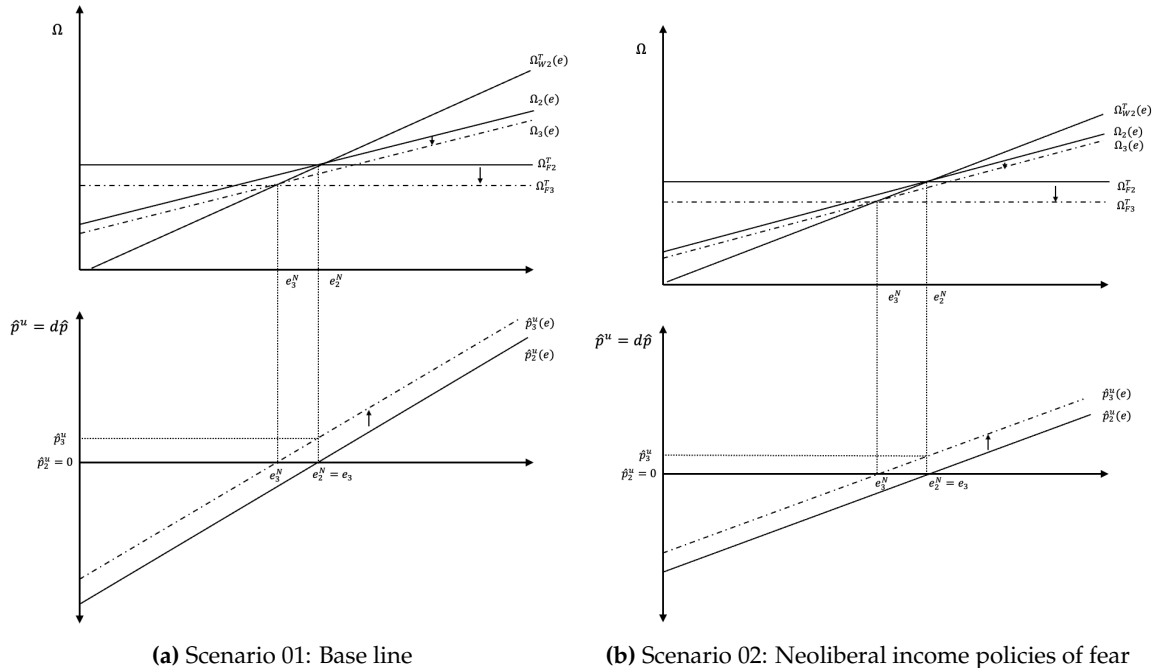
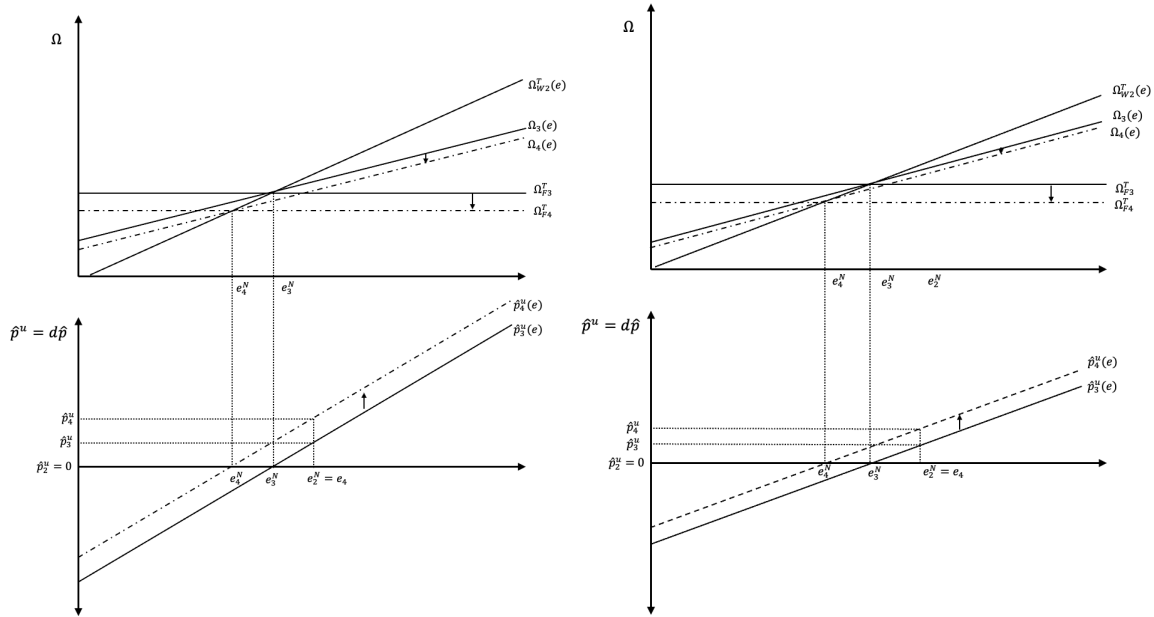


Figure 4. Two scenarios of an oil price shock in the Hein and Stockhammer model

CHANNELS OF FINANCIALIZATION NOW IMPACTING INFLATION

RISING OIL PRICES AND MARK-UPS IN AN ENVIRONMENT OF FINANCIALIZATION



(a) Scenario 01: Base line

(b) Scenario 02: Neoliberal income policies of fear

Figure 5. Two scenarios of an oil price shock and increased mark-ups in the Hein and Stockhammer model ^{8 / 19}

COMPARATIVE CASE STUDY OF GERMANY AND AUSTRIA

- ▶ **Comparative country study** between Germany and Austria utilizing different data sources
- ▶ Multiple shared similarities:
 - Continental European/Corporative welfare state regime (Hay and Wincott 2012)
 - Strong industrial sector (Stockhammer et al. 2016)
 - Resemblance regarding their growth regimes (Hein et al. 2021)
- ▶ However, **Austria's inflation path has taken off in 2023**, exhibiting notably higher rates than Germany (Fritzer 2023)

COMPARATIVE CASE STUDY OF GERMANY AND AUSTRIA

AN EMPIRICAL ANALYSIS OF THE KALECKIAN CHANNELS OF FINANCIALIZATION

Table 1. Distributional trends and effects of financialization on these trends before and after the GFC

			Germany	Austria
Distributional trends	Adjusted wage share	Before	–	–
		After	0	0
Channels for the effects of financialization	Sectoral composition	Before	–	0
		After	0	0
	Financial overheads	Before	+	+
		After	–	–
	Bargaining power	Before	–	0/–
		After	–/+	0/–

Notes: + tendency to increase, – tendency to decrease, 0 no tendency, –/+ or 0/– or 0/+ ambiguous tendencies of different indicators, before: 1995 until the crisis of 2007–09, after: after the crisis of 2007–09

Source: Adapted from Hein et al. (2018)

COMPARATIVE CASE STUDY OF GERMANY AND AUSTRIA

AN EMPIRICAL ANALYSIS OF THE RECENT INFLATIONARY DYNAMICS

Table 2 Decomposition of contributions to price inflation, Germany, 2015–2025

Year	GDP price inflation	Unit labor cost inflation	Unit imported material cost inflation	Unit profit inflation
2015	1.854	0.822	0.440	0.592
2016	1.330	0.490	-0.246	1.087
2017	1.500	0.479	1.207	-0.186
2018	2.013	1.233	1.134	-0.354
2019	2.125	1.216	0.408	0.502
2020	1.876	1.332	-1.629	2.173
2021	3.014	0.038	3.386	-0.411
2022	5.273	1.272	6.121	-2.119
2023	6.260	2.271	-1.390	5.378
2024	2.973	1.705	0.320	0.948
2025	2.625	0.893	0.700	1.031

Notes: The years 2024 and 2025 are forecasts by the European Commission. Unit labor cost inflation, unit imported material cost inflation and unit profit inflation sum up to GDP price inflation and have to be interpreted as contributions to overall price inflation.

Source: European Commission (2024b), author's calculations

Table 3 Decomposition of contributions to price inflation, Austria, 2015–2025

Year	GDP price inflation	Unit labor cost inflation	Unit imported material cost inflation	Unit profit inflation
2015	2.302	0.487	-0.031	1.846
2016	1.850	0.538	-0.089	1.401
2017	1.001	0.324	1.542	-0.865
2018	1.837	0.692	1.329	-0.184
2019	1.613	0.763	0.239	0.612
2020	2.715	2.310	-1.371	1.776
2021	2.067	0.231	4.093	-2.257
2022	5.305	0.818	5.811	-1.324
2023	7.573	2.867	-0.169	4.875
2024	4.010	2.089	0.742	1.179
2025	3.506	1.048	0.880	1.578

Notes: The years 2024 and 2025 are forecasts by the European Commission. Unit labor cost inflation, unit imported material cost inflation and unit profit inflation sum up to GDP price inflation and have to be interpreted as contributions to overall price inflation.

Source: European Commission (2024b), author's calculations

EXAMINING THE FINANCIALIZATION–DISTRIBUTION–INFLATION NEXUS I

- ▶ The period of the **Great Moderation** (1980—2007) can be partly explained by changes in income targets due to financialization.
 - Changes in sectoral composition and overhead labor costs/rentiers' profit claims => downwards shift in firms' target wage share
 - Diminishing bargaining power of workers and trade unions => decrease in workers' target wage share
 - **Dominance of the effect on bargaining power: Reconciliation of low and stable inflation and high employment rates, accompanied by a lower wage share**
- ▶ Empirical support for the Kaleckian channels and the dominance of the bargaining power channel:
 - Confirming once more the declining trend of the wage share (Guschanski and Onaran 2022).
 - Evidence for all three channels, including parallels between Germany and Austria
 - Bargaining power of workers channel is most pronounced
- ▶ **The price for the period of the Great Moderation was paid by the working class!**

EXAMINING THE FINANCIALIZATION–DISTRIBUTION–INFLATION NEXUS II

- ▶ **Two theoretical sequences:** (1) rise in imported oil prices and (2) increases in the mark-up
 - **Rise in oil prices** shifts firms' target wage share downwards => unexpected inflation and lower wage share at constant employment rates and constant mark-ups
 - A subsequent **increase in firms' mark-ups** further decreases firms' target wage share => accelerating inflation
 - **Both sequences lead to a higher profit share but their dynamic differs!**
- ▶ Empirically, the **inflation decomposition** reveals:
 - In 2021/2022, unit imported material costs were the dominant driver of inflation in both countries.
 - In 2023, overall price inflation peaked and was driven by unit profits in both cases.
 - In 2023 and 2024, we can observe efforts of workers to regain real wage losses, giving rise to country heterogeneity.

EXAMINING THE FINANCIALIZATION–DISTRIBUTION–INFLATION NEXUS III

- ▶ **Neoliberal income policies of fear** (Setterfield 2007) shed light on country heterogeneity
- ▶ **Two theoretical calibrations of the model:**
 - Institutionalized fear of workers: flatter wage targets, a flatter Phillips curve and a SIRE at a higher employment level
 - Germany as an example of severe labor market deregulation
- ▶ The **empirical results** support this claim:
 - Decisive difference between Germany and Austria: degree of deregulation of the labor market => Diminishment of bargaining power of workers has been more pronounced in the German case => **Institutionalized fear of workers.**
 - While wages were in neither case the driver of the dynamic, the inflation decomposition reveals higher unit labor cost contributions in Austria.
 - **More dynamic class conflict in Austria** => workers are "less afraid"

CONCLUSIONS

- ▶ Inflation is rooted in conflicting claims, which are affected by historic and structural changes.
- ▶ Since this paper poses a starting point into the financialization–distribution–inflation nexus, there are several limitations and areas of further research.
- ▶ However, in an uncertain world, such investigations are particularly important since it is probable that similar supply-side shocks will reoccur due to climate catastrophes and geopolitical tensions.
- ▶ It is crucial that policymakers find a way to limit the detrimental consequences of inflationary shocks, restrain real wage losses, and encourage workers' ability to fight for higher wages.

Thank you for your attention!







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