A Kaleckian approach to the financialization–distribution–inflation nexus: Germany and Austria in comparative perspective

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Abstract:
In this paper, I extend the Hein and Stockhammer model of distribution and inflation by incorporating structural trends of financialization through three Kaleckian channels: (1) sectoral recomposition, (2) financial overhead costs and rentiers' profit claims, and (3) the bargaining power of trade unions and workers. The model is calibrated to two scenarios that reflect the institutionalized fear experienced by workers under neoliberal income policies. Following a theoretical exploration of potential inflationary shocks, an empirical case study comparing Germany and Austria is conducted. The analysis validates the relevance of all three Kaleckian channels, though their individual strength varies. The findings indicate that while rising import prices triggered the initial inflationary shock, firms subsequently increased unit profits. An inflation decomposition suggests a more pronounced class conflict in Austria, potentially attributable to less severe labor market deregulation.

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1 Introduction

Inflation has always been and always will be conflict: Conflicting claims of income distribution between different social classes drive inflationary dynamics (Hein, 2024). During the period of the *Great Moderation* (1980–2007), scholars have focused on other topics, and inflation has faded into the background of academic research. However, recent inflationary shocks, taking off in the second half of 2021, have put inflation back on the agenda and have occupied scholars ever since (e.g., Ferguson & Storm, 2023; Setterfield, 2023; Storm, 2022a, 2022b; Bernanke & Blanchard, 2023; Kilian & Zhou, 2022; Weber & Wasner, 2023). While some orthodox scholars still argue that inflation is caused by excess demand created through excess money supply or government deficits, there has been large agreement among heterodox scholars that inflation is created by conflict between workers and capitalists. Another commonality of arguments regarding the recent inflationary dynamics is that they are rooted in the aftermath of the pandemic and the war in Ukraine, resulting in supply bottlenecks and hiking energy prices (e.g., Weber, 2022).

Nevertheless, the current dynamics have given rise to much discussion within the heterodox paradigm. Some authors, most prominently Isabella Weber, have stated that we are witnessing so-called *sellers' inflation*. The concept derives from microeconomics and refers to a situation where firms with market power can increase their prices in crisis times (Weber & Wasner, 2023). However, other scholars such as Lavoie (2023) have argued that the term *profit inflation* is misleading since, among other causes, a rise in imported raw material costs will necessarily increase the profit share even if the percentage mark-up remains constant. Furthermore, recent debates have focused on whether current inflation is transitory or persistent. Since accelerating inflation has eased towards the end of 2022, many scholars have argued that the process was transitory in its nature; apart from the price-setting behavior of firms, the weakness of organized labor is one of the potential explanations (Weber & Wasner, 2023). Nevertheless, given the fact that inflationary processes are likely to occur again because of climate change and geopolitical tensions (Ferguson & Storm, 2023) and considering the substantial harm and socio-economic instability, especially for (low-income) workers who have been disproportionally affected by the price rise in essential goods and services (Storm, 2022a), such transitory shocks cannot be taken lightly.

This now begs the question of what has changed compared to the period of the Great Moderation or whether structural changes that created the possibility of this period in the first place may also impact the current dynamic. Post-Keynesian scholars have argued that the continuous downward trend in inflation and volatility during this period was only possible because of stagnating wage growth of workers and falling import prices (Perry & Cline, 2016). Put differently, workers paid the price for this period of low and rather constant inflation. Therefore, incorporating redistribution dynamics due to financialization into the income claims of firms and workers is a crucial piece of the puzzle to explain the recent evolution in inflationary dynamics. Embedding the current dynamics into a long-term context of financialization and neoliberalism can provide important insights for developing strategies to deal with future inflationary impulses to avoid or at least limit their detrimental consequences.

Financialization, which is defined as "the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies" (Epstein, 2005, p. 3), has been connected to a diminishing wage share across OECD countries by various authors (e.g., Guschanski & Onaran, 2022; Kohler et al., 2019). Heterodox scholars argue that the rise of neoliberal economic policies implemented since the late 1970s

can partly explain the intensifying income inequality between workers and capitalists. Deregulation and financial liberalization gave rise to the era of finance-dominated capitalism (e.g., Akçay et al., 2022; Lapavitsas, 2009). Additionally, the institutionalization of "neoliberal income policies of fear", which created severe income and employment insecurity for workers, can lend explanatory power to understanding the decrease in the wage share (Setterfield, 2007, 2021).

By incorporating the three Kaleckian channels of income redistribution (Hein, 2015), namely the sectoral composition of the economy, gross profit targets/rentiers' income claims and workers' bargaining power, as well as neoliberal income policies (Setterfield, 2007) into the *Hein and Stockhammer approach* to an open macroeconomic model with conflict inflation (Hein, 2023), changes in income targets and inflationary conflict can be analyzed. The contribution of this thesis is two-fold. First, I add to the literature by integrating financialization dynamics into the income targets of the theoretical model. Furthermore, to explain country heterogeneity, I provide two possible scenarios to gain a better understanding of the consequences of institutionalized fear of workers in the model. Second, a comparative case study is conducted to verify the theoretical elaborations.

Drawing on post-Keynesian theory, I hypothesize that financialization has affected income targets of social classes, thereby facilitating the period of the Great Moderation. Furthermore, due to shifted power relations in favor of profits, the inflationary shock enabled firms to raise their profits during times of emergency. Finally, differences in wage developments after the initial shock may be explained by neoliberal income policies. A descriptive empirical analysis is conducted incorporating multiple data sources. The remainder of the thesis is structured as follows. Section 2 provides a delineation of the Hein and Stockhammer model and Kaleckian mark-up pricing theory, where three redistributive channels of financialization to functional income distribution are discussed. After incorporating the impacts of financialization into the respective income targets in the theoretical framework and calibrating the model to two scenarios in section 3, the comparative case study in section 4 examines the inflationary dynamics and the three Kaleckian channels for Germany and Austria. Section 5 concludes.

2 Distribution and inflation as joint outcomes of conflict

In line with post-Keynesian theory, I argue that distribution and inflation must be seen as joint outcomes of conflict between social groups. Inflationary shocks can be initiated by either a supply or demand shock (Hein, 2023, chapter 5). In the following, I will outline a Kaleckian theory of financialization and income distribution, discuss the Hein and Stockhammer model of conflict inflation and provide a brief overview on empirical literature regarding the financialization–distribution–nexus.

2.1 Kaleckian theory of financialization and functional income distribution

While a vast amount of literature has explored various aspects of financialization including structural changes along socio-economic dimensions (see e.g. Epstein, 2021; Van Der Zwan, 2014), authors such as Hein (2012) have argued that it has three distinct features regarding macroeconomics. First, changes in income distribution have been attributed to rising inequality in functional as well as personal income distribution (Hein & Detzer, 2015). Second, investment in the capital stock has decreased significantly due to rising shareholder value orientation and short-termism (Hein, 2012). Third, finance-dominated capitalism has entailed new opportunities

for wealth-based and debt-financed consumption, which created the potential to compensate for depressed aggregated demand caused by financialization. Especially the availability of credit to low-wealth and low-income households added to increasing debt-to-income ratios of private households and abided rising financial fragility and social unrest (Setterfield, 2020).

Heterodox and in particular post-Keynesian scholars have relied on Kaleckian mark-up pricing theory to establish a link between the long-run effects of financialization and functional income distribution. According to Kalecki (1954, chapters 1 & 2, 1971, chapters 5 & 6), income distribution between factors of production is determined by active mark-up pricing of firms in the industrial sectorunder monopolistic or oligopolistic competition. In the following, it is assumed that the mark-up is applied over marginal costs, which are assumed to be constant until full capacity output. The mark-up has to cover both firms' gross profits, which include retained earnings as well as interest and dividend payments, and overhead costs, which are constituted by the depreciation of capital and salaries of overhead labor (Hein, 2015, pp. 920f.).

Following Hein (2015, pp. 922f.), the pricing equation of a vertically integrated domestic industrial or service sector j, which employs fixed capital, labor, and imports raw materials and semi-finished goods used as inputs, can be written as:

$$p_j = (1 + m_j)(\frac{w}{y} + p_f a \mu_j), \qquad m > 0 \tag{1}$$

in which p_j denotes the output price in sector j, m_j corresponds to the mark-up in the sector, w the nominal wage rate, y labor productivity, p_f the unit price of imported raw materials and semi-finished products denoted in foreign currency, a denotes the exchange rate, and μ_j denotes unit raw material and semi-finished product inputs per unit of output imported. Assuming the relation between unit material costs and unit labor costs to be given as:

$$z_j = \frac{p_f a \mu_j}{\frac{w}{y}}, \tag{2}$$

The gross profit share (h_j) for sector j, including overhead costs, in gross value added of the corresponding sector can be written as:

$$h_j = \frac{\Pi_j}{(\Pi + W)_j} = \frac{1}{\frac{1}{(1+z_j)m_j} + 1} = \frac{(1 + z_j)m_j}{(1 + z_j)m_j + 1}. \tag{3}$$

where Π_j is gross profits and W_j wages for direct labor in sector j. The related wage share of direct labor in gross value added $(1 - h)_j$ can be derived as:

$$(1 - h)_j = \frac{W_j}{\Pi + W}_j = \frac{1}{(1 + z_j)m_j + 1}. \tag{4}$$

The economy-wide gross profit share (h) and wage share ($\Omega = 1 - h$) are both weighted averages of the sector shares:

$$h = \frac{\Pi}{(\Pi + W)} = \frac{1}{\frac{1}{(1+z)m} + 1} = \frac{(1 + z)m}{(1 + z)m + 1}. \tag{5}$$

$$\Omega = (1 - h) = \frac{W}{\Pi + W} = \frac{1}{(1 + z)m + 1}. \qquad (6)$$

Therefore, functional income distribution is determined by the mark-up, the sectoral composition, and the relation of unit material costs to unit labor costs. If we assume constant technological factors ($\bar{y}$ and $\bar{\mu}$), a rising gross profit share can be explained by the change of different factors: a rising mark-up, a decreasing nominal wage rate, increasing import prices of intermediate products and raw materials in foreign currency, a depreciation of the domestic currency, or a sectoral composition shift towards sectors which higher profit rates.

Hein (2015, p. 923) argues that multiple factors affect the mark-up or the "degree of monopoly", as Kalecki (1954, chapters 1 & 2, 1971) calls it. Building on the vast body of literature on the multi-dimensional phenomenon of finance-dominated capitalism, Hein (2015) establishes nine stylized facts that may directly influence functional income distribution. Table 2.1 summarizes the hypothesized determinants of the gross profit share, stylized facts of neoliberalism as well as financialization and established potential relationships between the factors.

As pointed out by Table 2.1, three channels exhibit, *a priori*, non-ambiguous effects of financialization on functional income distribution in favor of profits. First, changes in the *sectoral composition of the economy* have occured due to a growing financial sector and declining government activity. Both developments will lead to higher economy-wide profit shares since the profit share is zero in the government sector by definition and it can be assumed that the wage share in the non-financial corporate (NFC) sector is higher than in the financial sector (Dünhaupt, 2012).

Second, due to financialization *overhead costs and gross profit targets* have risen, influencing the gross profit share and mark-ups positively. Most prominently, the corporate governance strategy focusing on maximizing shareholder value by "downsizing and distributing" (Lazonick & O'Sullivan, 2002, p. 13) incentivizes firms to attribute a larger share of profits towards dividend and interest payments (Dallery, 2009). Furthermore, authors have found rising (top) management salaries associated with financialization (Lin & Tomaskovic-Devey, 2013).

Finally, the *bargaining power and activity of trade unions* has been negatively affected by four main features: First, increasing short-termism and the maximization of shareholder value (Lazonick & O'Sullivan, 2002); second, a diminishing significance of the non-financial sector vis-à-vis the financial sector (Krippner, 2005); third, globalization, leading to potential outsourcing and relocation threats to low-wage regions; and finally, the adoption of neoliberal policies which lead to deregulation of the labor market and restricted government intervention (Whalen, 2021). The cumulative power of those developments not only corroded bargaining power of trade unions but also increased employment insecurity.

2.2 The Hein and Stockhammer approach to distribution and inflation

There are two main approaches to distributional conflict and inflation in the post-Keynesian paradigm. First, the *Blecker, Setterfield and Lavoie approach* follows their elaborations in various publications such as Lavoie (2022, chapter 8) and Blecker and Setterfield (2019, chapter 5). Second, the *Hein and Stockhammer approach* is based on the works by Hein (2006, 2008, chapter 16), Stockhammer (2008) and Hein and Stockhammer (2009, 2010, 2011). My following elaborations will focus on the latter approach, which develops an inflation barrier to

Table 2.1: Financialization, neoliberalism, and the gross profit share in Kaleckian theory

Stylized facts of financialization (1–7) and neoliberalism (8–9)	Determinants of gross profit share (including management salaries)				
	Mark-up				
	1. Degree of price competition in the goods market	2. Bargaining power and activity of trade unions	3. Overhead costs and gross profit targets	4. Price of imported raw materials and semi-finished products	5. Sectoral composition of the domestic economy
1. Increasing shareholder value orientation and short-termism of management		+	+		
2. Rising dividend payments			+		
3. Increasing interest rates or interest payments			+		
4. Increasing top management salaries			+		
5. Increasing relevance of financial to non-financial sector (investment)		+			+
6. Mergers and acquisitions	+				
7. Liberalization and globalization of international finance and trade	−	+		+/−	+/−
8. Deregulation of the labor market		+			
9. Downsizing of government		+			+

Notes: + positive effect on the gross profit share, – negative effect on the gross profit share
Source: Hein (2015, p. 921)

the employment rate by including possible inflation expectations.[1] This choice is made to ensure consistency with the Kaleckian channels (Hein, 2015) and due its clear distinction between power relations and expectations (Hein & Häusler, 2024).

An open macroeconomic model with conflict inflation. To understand pricing dynamics in the *Hein and Stockhammer model*, it is crucial to determine the respective target income claims of firms and workers (Hein, 2023, chapter 5). The target gross profit share of firms (h_F^T), or their target wage share ($\Omega_F^T = 1 - h_F^T$), which includes retained earnings and interest payments to rentiers, is determined by mark-up pricing over unit labor costs (h_0). This implies that their target profit share is influenced by the degree of price competition in the goods market and overhead costs. In the short run, both the firms' target wage and profit share are constant until full capacity output. However, in the medium run, the target profit share of firms will be affected by inflation-targeting interest rate policies by the central bank and thus by persistent changes in the "ex ante" interest rate, since firms perceive interest payments as costs (h_3). Furthermore, the target profit share of firms will increase with a higher nominal exchange rate or higher foreign trend inflation relative to domestic trend inflation (h_5). The target profit share can be thus written as:

$$h_F^T = 1 - \Omega_F^T = h_0 + h_3 i_r^e + h_5 a_r^e, \qquad 1 > h_0 > 0, h_3, h_5 \geq 0 \tag{7}$$

According to Hein (2023, chapter 5), the workers' target wage share, which also implies their target profit share ($\Omega_W^T = 1 - h_W^T$), is on the one hand determined by the wage bargaining and social benefits system, such as union density, wage bargaining coverage and coordination, employment protection legislation, minimum wages, or unemployment benefits, and socio-institutional characteristics of the labor market in the medium run, and on the other hand by the rate of employment and thus the rate of unemployment. The employment rate is defined as $e = N/L$, with N corresponding to employment and L to the labor force. Conversely, the unemployment rate is defined as $ue = U/L$, where U denotes unemployment. Employment (N) and unemployment (U) sum up to the labor force (L). In this approach, it is assumed that the real exchange rate does not have a direct effect on trade unions' and workers' target wage share, since workers only consume domestically produced goods that are not directly affected by the real exchange rate.[2]

$$\Omega_W^T = 1 - h_W^T = \Omega_0 + \Omega_1 e, \qquad 1 > \Omega_0 > 0, \Omega_1 \geq 0 \tag{8}$$

It is assumed that institutional circumstances are constant in the short run, which are denoted by the constant Ω_0, whereas the coefficient Ω_1 indicates the response of trade unions and workers to changes in the rate of employment (e). Employment and hence unemployment are expected to vary in the short run due to changes in effective demand in the goods market. With constant institutional factors, higher employment increases workers' bargaining power and thus their target wage share.[3]

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[1] The main difference to the *Blecker, Setterfield and Lavoie approach*, is that in this model incomplete "indexation", i.e., inflation has only incomplete or no effects in the wage and price equations, is assumed. Consistent claims generate zero inflation, while inconsistent claims create constant inflation (Hein & Häusler, 2024).

[2] For a more detailed elaboration see Hein (2023, chapter 4 and 5). Note that this assumption is different from the approach by authors such as Lavoie (2022, chapter 8), who does assume a direct effect on workers' target wage share.

[3] It is assumed that workers and trade unions do not consider potential macroeconomic inflationary processes or resulting restrictive monetary policy reactions in their wage demands.

The income claims of both groups will be consistent if the two targets are consistent, which implies that the target wage share of workers and firms is the same. Put differently, consistency of claims is achieved if the target wage share of workers and the target profit share of firms sum up to unity:

$$\Omega_W^T = \Omega_F^T \rightarrow \Omega_W^T = 1 - h_F^T \rightarrow \Omega_W^T + h_F^T = 1 \tag{9}$$

Incorporating equation (7) and (8), equation (9) can be rewritten as:

$$h_0 + h_3 i_r^e + h_5 a_r^e + \Omega_0 + \Omega_1 e^N = 1 \tag{10}$$

The employment rate that is obtained if the income claims of both groups are consistent is called the "consistent claims rate of employment" and can be equated to the "stable inflation rate of employment"; (SIRE, e^N). This rate can be written as:

$$e^N = \frac{1 - \Omega_0 - h_0 - h_3 i_r^e - h_5 a_r^e}{\Omega_1} \tag{11}$$

Consequently, the actual wage share will be consistent with the target wage share of workers and the one of firms:

$$\Omega^N = \Omega_W^T = \Omega_F^T = \Omega_0 + \Omega_1 e^N = 1 - h_0 - h_3 i_r^e - h_5 e_r^e \tag{12}$$

Any deviation of the actual employment rate from the SIRE will result in inconsistent income claims: Income claims will exceed the output to be distributed if $e > e^N$, which can be written as $\Omega_W^T + h_F^T > 1$, or fall short of distributable output if $e < e^N$, that is $\Omega_W^T + h_F^T < 1$. As established by Hein and Stockhammer (2009, 2010, 2011), the former case will increase unexpected inflation, which will make the income claims temporarily consistent. Analogously, an unexpected fall in inflation will have the same result.

Assuming productivity growth to equal zero, this can be shown as follows. Starting with a wage inflation equation:

$$\hat{w}_t = \omega(e_t - e^N) + \hat{p}_{t-1}, \qquad \omega \geq 0 \tag{13}$$

In the first case, $e > e^N$, trade unions and workers will increase nominal wage demands above expected inflation to reach a target wage share higher than the wage share Ω^N at e^N. Assuming adaptive expectations, expected inflation in period t is determined by inflation in $t-1$, which can be written as $\hat{p}_t^e = \hat{p}_{t-1}$. The coefficient ω denotes the required rise in wage inflation exceeding expected price inflation to achieve the target wage share at $e > e^N$ and is thus positively related to Ω_1 in equation (8).

Assuming firms try to protect their target profit share and consider changes in the real exchange (allowing for considerations of rising import prices), following Hein (2024), price inflation can be written as[4]:

$$\hat{p}_t = \xi_1 \left[\vartheta \omega(e_t - e^N) + \hat{p}_{t-1} \right] + \xi_2(\hat{p}_f + \hat{a}) \qquad 1 \geq \vartheta \geq 0 \tag{14}$$

The coefficient ϑ denotes the pass-through factor for the rise in nominal unit labor costs to

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[4] Note this specification is different to the short-run model depicted by Hein (2023, chapter 5)

inflation. Due to heterogeneity within the firm sector, as it is done by Hein and Stockhammer (2009, 2010, 2011), we assume $\vartheta < 1$. Therefore, actual inflation will increase in comparison to expected inflation, which results in unexpected inflation ($\hat{p}_t^u$), defined as the difference between current inflation and previous inflation:

$$\hat{p}_t^u = \hat{p}_t - \hat{p}_{t-1} = \xi_1 \vartheta \omega (e_t - e^N) + \xi_2(\hat{p}_f + \hat{a} - \hat{p}_{t-1}) \tag{15}$$

Incorporating the considerations on unexpected inflation into firms' target profit share (7) and workers' target wage share (8), yields the ex post income shares:

$$h = h_F^T - h_2\hat{p}^u = h_0 + h_3 i_r^e + h_5 a_r^e - h_2\hat{p}^u, \qquad 1 > h_0 > 0, h_2, h_3, h_5 \geq 0 \tag{16}$$

$$\Omega = \Omega_W^T - \Omega_2\hat{p}^u = \Omega_0 + \Omega_1 e - \Omega_2\hat{p}^u, \qquad 1 > \Omega_0 > 0, \Omega_1, \Omega_2 \geq 0 \tag{17}$$

Therefore, unexpected inflation can be written as:

$$\hat{p}_t^u = \frac{h_0 + h_3 i_r^e + h_5 a_r^e + \Omega_0 + \Omega_1 e - 1}{h_2 + \Omega_2} \tag{18}$$

The different target wage shares are visualized in Figure 2.1 and incorporate the workers' target from equation (8), the firms' target from equation (7), and the realized wage share, including unexpected inflation, from equation (17). In the upper part of the graph, all targets are functions of the employment rate. Related unexpected inflation (15) is shown in the lower part. It should be noted that unexpected inflation is depicted as a function of employment and not the inflation rate, as it is in the usual Phillips curve. Both the distribution between firms and workers, as well as unexpected inflation, vary with the employment rate and, thus, economic activity. Considering a monetary production economy, it should be noted that unexpected inflation will lead to real debt effects between firms and rentiers.

Endogeneity channels and further considerations. As suggested earlier, there are several channels through which the SIRE and distribution targets of workers and firms become endogenous. Six endogeneity channels can be identified following Hein (2023, chapter 5 & 6). The *interest cost channel* and the *exchange rate channel* may compel firms to raise their mark-up. Furthermore, if governments increase taxes on profits, firms will be inclined to increase their mark-ups in the medium term, since they perceive taxes as overhead costs, leading to the *tax cost channel*. Additionally, three more channels can be identified that are dependent on the employment rate. First, the *insider bargaining channel* refers to unemployment persistent mechanisms in the labor market that have already been pointed out by e.g. Blanchard and Summers (1987) or more recently by Stockhammer et al. (2014). Second, the *conventional wage norm channel* put forward by Setterfield and Lovejoy (2006), Skott (2005), and Stockhammer (2008), attests that the distribution target of workers is dependent on the factual distribution. Third, investment may have a direct effect on the SIRE and employment if firms consider the level of capacity utilization in the medium- to long-run. The *capacity utilization channel* has been investigated by authors such as Arestis and Sawyer (2005), Rowthorn (1995), and Stockhammer et al. (2014).

According to post-Keynesian scholars, to achieve a stable and high medium- to long-run employment rate with stable inflation and inflation expectations, an extensive heterodox policy mix, including fiscal, monetary, wage, and open economy policies, is needed (Hein, 2023, chapter 6).

Due to space constraints, only income and wage policies will be discussed here. Post-Keynesian authors have argued that flexible wages may have destabilizing effects and thus endorse wage-coordination, stable nominal wage growth, and stable distribution (e.g., Hein & Stockhammer, 2010, 2011; Setterfield, 2006). Following the corresponding targeted wage rule, wage growth should equal the sum of long-run productivity growth and target inflation (Schulten, 2002). The overall aim of such policies would be to facilitate a horizontal section of the Phillips curve, in which changes in the employment level do not create any unexpected inflation. If this is the case, governments can implement demand management policies that aim for a high level of employment without accelerating inflation. According to industrial relations literature, this necessitates several institutional requirements, such as high coordination on the national level or in leading sectors and strong unions and employer associations. Furthermore, policies administered by the state, like minimum wages or by making bargaining results binding for entire sectors or the economy can add to the coordination process (Van Klaveren & Schulten, 2015). Considering such policies may be particularly important since it has been shown that, in the course of neoliberal policies, wage moderation and re-distribution in favor of profits, are associated with low real-wage-induced productivity growth. In the long run, this has negative effects on potential growth prospects (Vergeer & Kleinknecht, 2014; Storm & Naastepad, 2011; Hein & Tarassow, 2010).
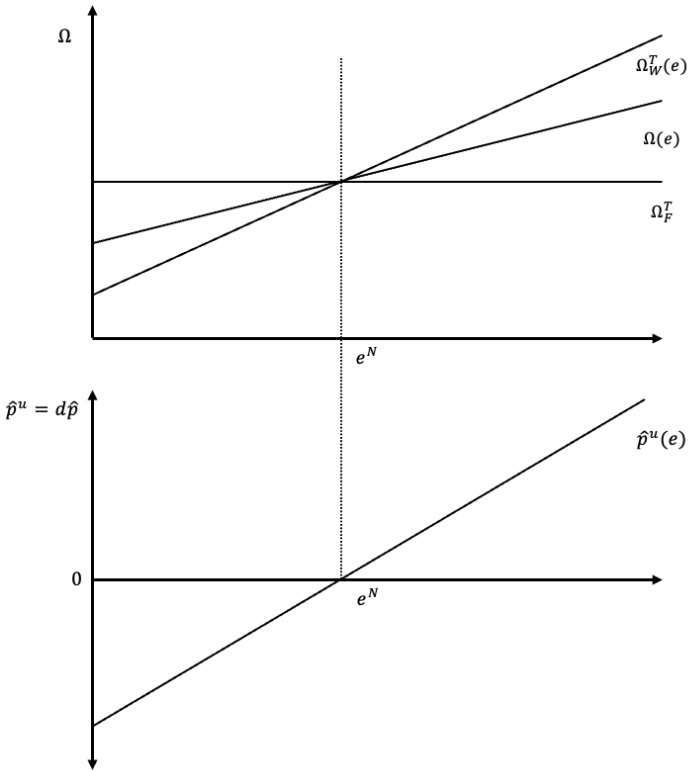

Figure 2.1: Conflicting claims, distribution and inflation in the Hein and Stockhammer approach
Source: Hein (2023, p. 151), author's depiction

2.3 Empirical literature on financialization and income distribution

Ample empirical evidence captures the fall of wage shares across OECD countries since the 1980s, indicating a rise in functional income inequality in favor of profits (e.g., Guschanski & Onaran, 2022; Kohler et al., 2019; Hein et al., 2018).

Outside of this framework, Dünhaupt (2012) was the first to consider specific alterations of the sectoral composition of the economy, lending evidence to the first channel. Second, there have been extensive investigations on the increase of overhead costs and gross profit targets of firms. Multiple studies have identified an inverse relationship between firms' financial payments/financial earnings of rentiers and the wage share (Epstein & Power, 2003; Epstein, 2005; Dumenil & Levy, 2005; Hein & Schoder, 2011; Dünhaupt, 2012; Lin & Tomaskovic-Devey, 2013; Hein, 2015; Kohler et al., 2019; Marques & Rugitsky, 2024). Third, the diminishment of bargaining power and the activity of trade unions is another crucial aspect of redistribution in favor of profits. Numerous authors have attested to the negative relationship between falling power of workers and the wage share (Stockhammer, 2009; Kristal, 2010; Stockhammer, 2017; Guschanski & Onaran, 2022), including short-termism and management practices (Lin & Tomaskovic-Devey, 2013; Alvarez, 2015; Gouzoulis et al., 2024), trade-openness (Kohler et al., 2019), wage dispersion (Keune, 2021), and fragility of workers' households (Fuller, 2021).

Multiple studies have utilized the Kaleckian framework outlined by Hein (2015) to analyze the relation between functional income distribution and financialization for distinct country cases in the period of finance-dominated capitalism. While they all find evidence for the theory, there is strong country heterogeneity regarding the strength of the channels (Hein & Detzer, 2015; Hein et al., 2017, 2018; Dünhaupt & Hein, 2019; Dabrowski & Kuhls, 2024). Ultimately, Dünhaupt (2017) estimates a panel error correction model to jointly assess the effect of the Kaleckian redistributive channels for 13 OECD countries in 1986–2007 and finds merit for all three channels in the considered sample.

3 Channels of financialization impacting inflation dynamics

Over the last five decades, a persistent downward trend in inflation and decreased volatility could be observed, giving rise to the era of the Great Moderation. The inflationary dynamics in the early 2000s were rather restrained and succeeded by disinflationary pressure in the aftermath of the GFC crisis (Kim, 2024). This period is particularly puzzling since high employment rates were accompanied by low and stable inflation rates. While mainstream economists have attributed those dynamics to "good policy" of independent central banks and "good luck" regarding supply-side shocks, post-Keynesian authors such as Perry and Cline (2016) have argued that low and less volatile inflation was rather caused by stagnant or negative wage growth of workers and lower import prices due to exchange rate effects and increased international competition.

3.1 Kaleckian channels of redistribution in an open macroeconomic model

The first task at hand is incorporating the three unambiguous channels established by Hein (2015) into the income targets of firms and workers. The corresponding mechanisms are visualized in Figure 3.1, where the first two Kaleckian channels exclusively influence the target gross profit share of firms and the third channel impacts the target wage share of workers.[5]

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[5] While decreased bargaining power could also impact the mark-up of firms, this effect will be excluded to ensure a clear stylized version of the model with transparent transmission channels.
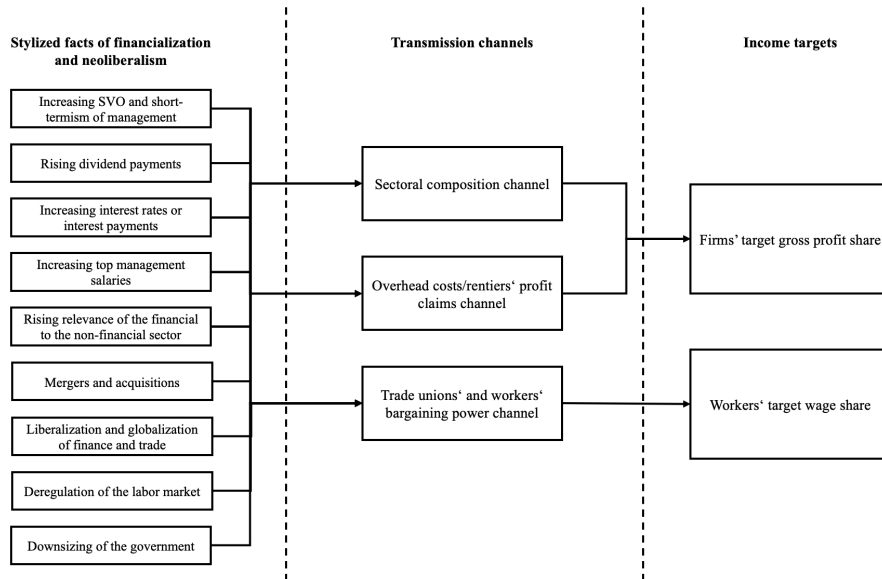
Figure 3.1: Transmission channels of financialization on target income claims
Source: author's depiction

Table 3.1 summarizes the mechanisms which affect the targets of firms and workers. The factors which affect the target gross profit share of firms via the *sectoral composition channel* and the *overheads costs and rentiers' profit claims channel* result in a higher firms' profit target. There are multiple factors through which the *bargaining power and activity of trade unions channel* influences the target wage share of workers. The functionality of these mechanism is based on the elaborations in chapter 2. All of these mechanisms have resulted in a profound decrease in workers' capability to exert bargaining power and have thus resulted in a lower target wage share.

These changes in the income targets of firms and workers are visualized in Figures 3.2 to 3.3. The effect of the *sectoral composition channel* and the *overhead costs and rentiers' profit claims channel* are depicted in Figure 3.2. Due to an increase in the target gross profit share of firms via the parameter h_0, their target wage share shifts downwards. Since the actual wage share is dependent on the components of the targets, it also shifts downwards. The result is a new SIRE at e_2^N, corresponding to a lower employment level than the initial situation at e_1^N. Furthermore, these structural changes will result in a new Phillips curve, $\hat{p}_2^u(e)$.

The effects of diminishing the *bargaining power and activity of trade unions* on the workers' target wage share are visualized in Figure 3.3. In this case, the workers' target wage share shifts downward, based on a fall in the Ω_0 parameter.[6] Accordingly, the realized wage share decreases, resulting in a new SIRE at e_2^N. Unlike in the first two cases, the new SIRE corresponds to a higher employment level than the initial situation at e_1^N. Moreover, the Phillips curve shifts to $\hat{p}_2^u(e)$.

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[6] It should be noted that these developments could also affect Ω_1. Diminishing workers' bargaining power and neoliberal income policies of fear are inherently intertwined. However, to derive a clear methodology, Ω_1 will only be affected by income policies of fear.

Table 3.1: Financialization, neoliberalism, and target income claims

Kaleckian channels of income redistribution	Determinants of firms' and workers' income targets				
	Firms' target profit share			Workers' target wage share	
	h_0	h_3	h_5	Ω_0	Ω_1
Sectoral composition					
Increasing relevance of financial compared to non-financial sector	+				
Downsizing of government	+				
Overhead costs and gross profit target					
Increasing shareholder value orientation and short-termism	+				
Rising dividend payments	+				
Increasing interest rates or interest payments	+				
Increasing top management salaries	+				
Bargaining power and activity of trade unions					
Increasing shareholder value orientation and short-termism				–	
Increasing relevance of financial to non-financial sector				–	
Liberalization and globalization of finance and trade				–	
Deregulation of the labor market				–	
Downsizing of government				–	

Notes: + positive effect on the target income share, – negative effect on the target income share
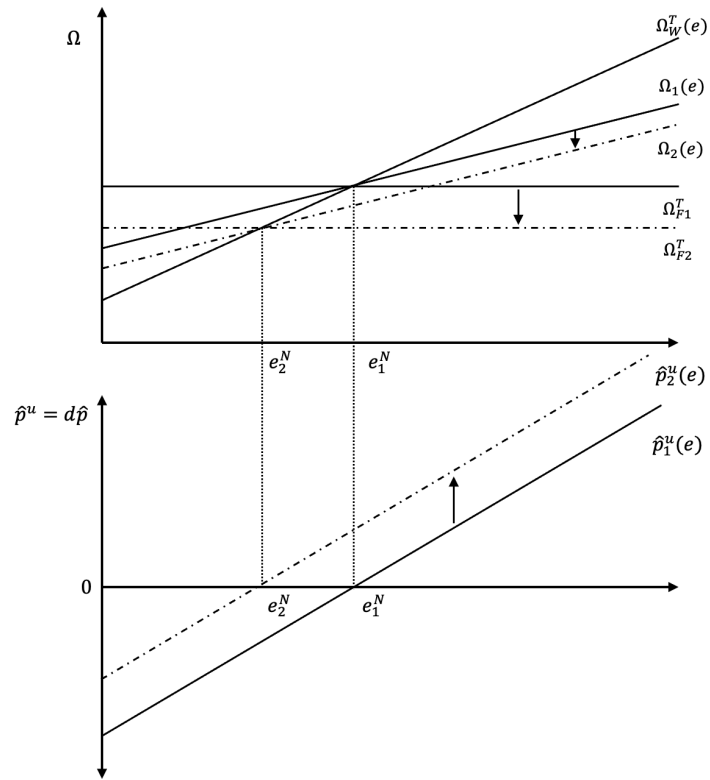*Source:* author's depiction

Figure 3.2: Changes in sectoral composition & increases in overhead costs / gross profit targets and the SIRE
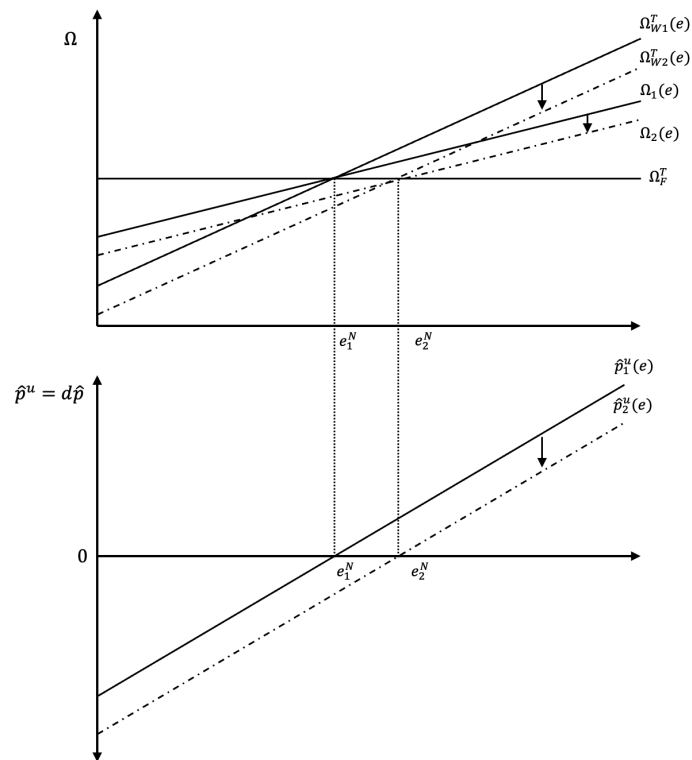*Notes*: Based on Hein (2023, chapter 5), author's depiction

Figure 3.3: Decrease in workers' bargaining power and the SIRE
Notes: Based on Hein (2023, chapter 5), author's depiction

3.2 Two scenarios: financialization and neoliberal policies of fear

To make sense of the dynamics of the last five decades, it is crucial to include additional arguments regarding the diminishment in workers' bargaining power such as neoliberal income policies of fear (Setterfield, 2007, 2023). Utilizing the proposed channels as well as the argument of neoliberal income policies allows me to calibrate the model to two potential scenarios. First, only effects of financialization according to the Kaleckian channels will be considered, followed by a second calibration of the model that includes neoliberal income policies.

The first scenario summarizes the redistributive changes due to financialization via the three identified Kaleckian channels (Figure 3.4). To explain the period of the Great Moderation, I argue that the effect of the bargaining power channel will dominate in the model. This claim is based on the argument that stagnating real wage growth lends great explanatory power to understanding this period (Perry & Cline, 2016). The first two theoretical channels affect the target wage share of firms negatively, resulting in a cumulative downward shift from Ω_{F1}^T to Ω_{F2}^T. The third channel affects the target wage share of workers negatively, shifting Ω_{W1}^T to Ω_{W2}^T. Since the actual wage share is affected by changes in both targets, we can observe a shift from $\Omega_1(e)$ to $\Omega_2(e)$. The cumulative effect of these redistributive changes results in a higher SIRE (e_2^N). Correspondingly, the Phillips curve shifts downward to $\hat{p}_2^u(e)$. In this calibration of the model, higher levels of employment would be reconcilable with stable inflation rates. However, this development is only possible at the expense of workers' claims.
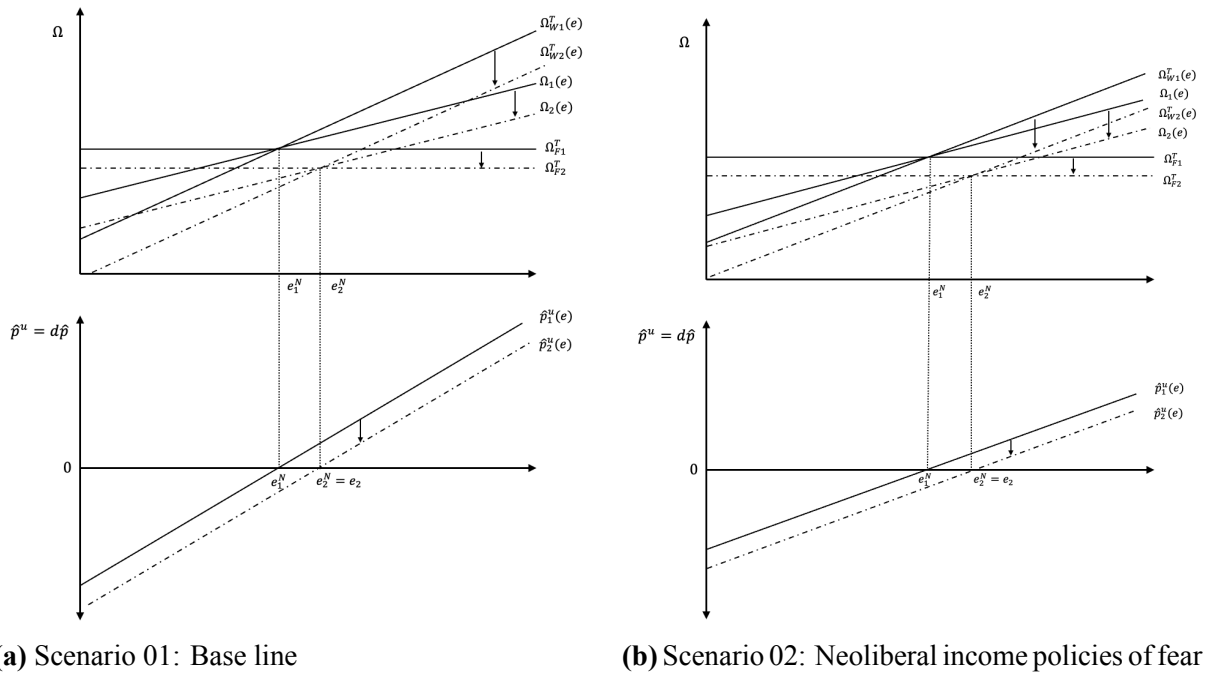

(a) Scenario 01: Base line   **(b)** Scenario 02: Neoliberal income policies of fear

Figure 3.4: Cumulative effect of financialization on the SIRE
Note: Based on Hein (2023, chapter 5), author's depiction

Another aspect to consider is institutional changes in income policies due to neoliberalism. Disembarking from the historic compromise between labor and capital of the post-war *Golden Age* period, state and corporate responses to the change in macroeconomic circumstances in the 1970s resulted in restrictive macroeconomic policies and to changes in income policies (Cornwall, 1990). Authors such as Setterfield (2007) have argued that various policies were initialized that made workers' employment and income more insecure, thereby aiming at reducing workers' ability and aspirations to fight for higher wages at any given employment level. Such policies

are summarized under the term "income policies of fear" (Setterfield, 2007, p. 141). While I will focus on this particular argument in the following, I acknowledge that other authors have pointed out the connection between neoliberalism, financialization, and insecurity, too (e.g., Whalen, 2021).

The individual constituents of these policies include changes in labor laws, which made it harder for workers to form trade unions, such as "institutionalized labor market slack" based on non-standard forms of employment like involuntary part-time or contingent employment. Furthermore, increased internationalization and globalization of multi-national corporations have created the constant threat of plant relocation and downsizing, which pose the potential danger of job loss and have further structurally diminished workers' ability to bid for higher nominal wages. These dynamics have been incorporated into the *Blecker, Setterfield & Lavoie approach* by Setterfield (2023), who argues for a rotation in the corresponding wage-bargaining curve. Applying this argument to the *Hein and Stockhammer approach*, another scenario can be derived in which the parameter Ω_1 is affected by income policies of fear. This results in changes in the target wage share of workers as well as in the Phillips curve.

Similar dynamics unfold in the second scenario. However, before discussing the redistributive dynamics, the specificities of this scenario, incorporating the neoliberal policies of fear argument, must be considered. First, as explained above, those policies will affect the ability and willingness of workers to bid for higher wages at any level of employment, which is depicted by a decrease in the parameter Ω_1. Therefore, the slope of the workers' target wage share decreases. This change corresponds to the diminishing bargaining power of workers regardless of unemployment. As outlined in equation (18), unexpected inflation is also affected by Ω_1, resulting in a flatter Phillips curve. Put differently, changes in the employment level will trigger less severe accelerating inflationary pressures than in the first scenario. Incorporating the changes induced by financialization into the second scenario, yields the same results as the first scenario, except for one important difference: the new SIRE in the second scenario is considerably higher than the new SIRE in the first scenario (Figure 3.4).

3.3 Rising oil prices and mark-ups in an environment of financialization

To gain a better understanding of possible inflationary dynamics in the two scenarios, the following depictions visualize two shocks. Analyzing the two systems in succession allows insights into why countries might experience different inflationary dynamics. Methodologically, the subsequent investigation follows Hein (2024), who provides a detailed analysis of the recent inflationary shock in a stylized version of the Hein and Stockhammer model and discusses the potential effects of an inflation-targeting central bank as well as a post-Keynesian alternative strategy. Employment is assumed to stay constant ($e_2 = e_3 = e_4$) since no strong increase in unemployment has been observed in the data.

Figure 3.5 visualizes the effect of an imported oil price shock in an environment of financialization. The starting point of scenario one is the equilibrium at the new SIRE at $e_2^N = e_2 = e_3$, $\Omega_2 = \Omega_{W2}^T = \Omega_{F2}^T$, $\hat{p}_2^u(e) = 0$. An increase in imported energy prices affects the target wage share of firms since such an increase relative to domestic nominal wages and prices raises the real exchange rate (a_r^e) and thus lowers the firms' target. The rise in the real exchange rate shifts the target wage share of firms downwards from Ω_{F2}^T to Ω_{F3}^T, and the actual wage share shifts from $\Omega_2(e)$ to $\Omega_3(e)$. The Phillips curve moves from $\hat{p}_2^u(e)$ to $\hat{p}_3^u(e)$. Since employment is assumed to stay constant in the stylized version of the model, a new transient position at $e_3 > e_3^N$,

$\Omega^T_{W2} > \Omega_3 > \Omega^T_{F3}$, $\hat{p}^u_3(e) > 0$ is reached. Although employment remained unchanged, accelerating inflation is now observed since the new SIRE is lower than actual employment and income claims are inconsistent. Importantly, inflation accelerates and the wage share decreases although firms have *not* increased their mark-ups. As Hein (2024) points out, counterforces may bring the economy back to the initial equilibrium: Unexpected positive inflation decreases the real exchange rate, increases the target wage share of firms, raises the SIRE, downshifts the Phillips curve and moves the actual wage share upwards. Nonetheless, these forces can only take effect if firms do not take advantage of the situation of supply chain constraints and bottlenecks by raising mark-ups (Weber & Wasner, 2023).
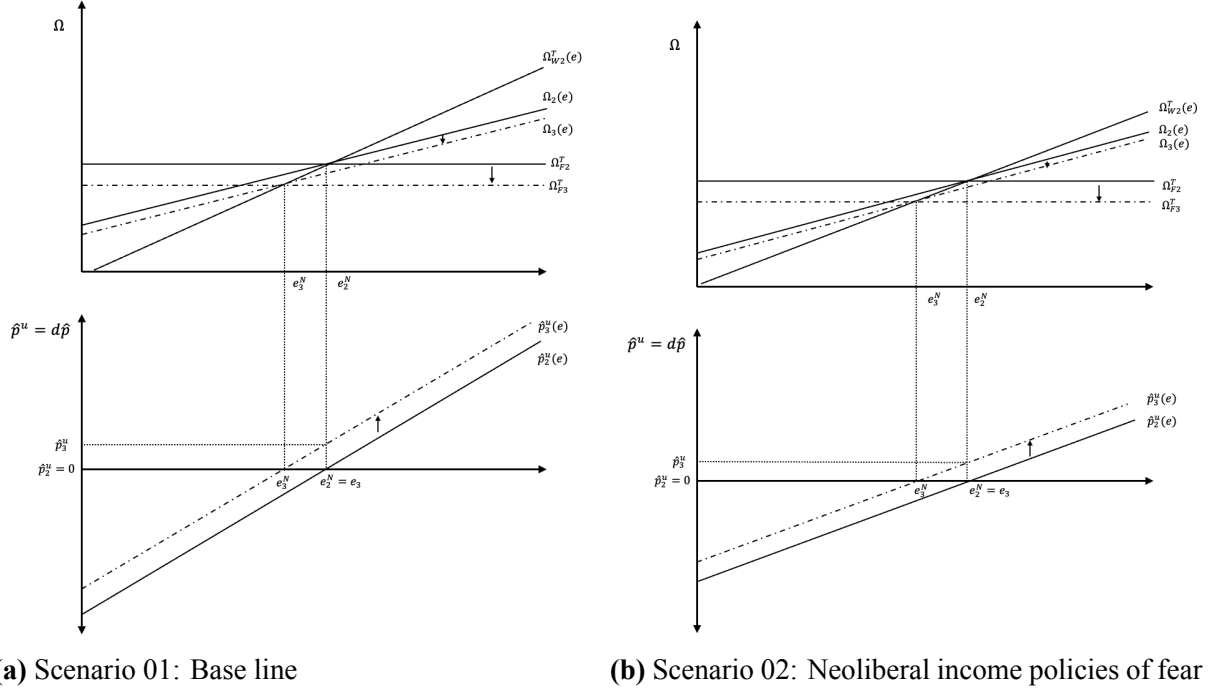

(a) Scenario 01: Base line   **(b)** Scenario 02: Neoliberal income policies of fear

Figure 3.5: Oil price shock in the adapted Hein and Stockhammer model
Note: Based on Hein (2023, chapter 5), author's depiction

The same results hold for scenario two. While the inner dynamics of the two scenarios are the same, the results differ due to their calibration. First, the SIRE level is higher in the second scenario, where workers are discouraged by neoliberal income policies, than in the first scenario. This result holds for the comparison before the supply side shock as well as after. Second, since the Phillips curve is flatter in the second scenario, the increase in unexpected inflation is less pronounced. These findings are crucial to understanding country-specific differences during the inflationary shock: A country whose labor market has been exposed to neoliberal policies of fear may face relatively high employment levels with less inflationary pressure than countries with less deregulated labor markets.

A scenario in which firms do raise their mark-ups and make use of the unsettled environment due to supply chain problems is visualized in Figure 3.6. An increase in the mark-up (h_0) of firms further decreases their target wage share, which shifts from Ω^T_{F3} to Ω^T_{F4}. The actual wage share decreases further to $\Omega_4(e)$. A new, lower SIRE at e^N_4 can be observed and the Phillips curve moves further up to $\hat{p}^u_4(e)$. Since employment is assumed to be exogenous and constant, there will once more be accelerating inflationary pressure. The system arrives at a new temporary position at $e_4 = e_3 > e^N_4$, $\Omega^T_{W2} > \Omega_4 > \Omega^T_{F4}$, $\hat{p}^u_4(e) > 0$. Compared to the prior situation, higher unexpected inflation ($\hat{p}^u_4(e) > \hat{p}^u_3(e)$), a lower wage share ($\Omega_3 > \Omega_4$) and a lower SIRE

$(e_3^N > e_4^N)$ are observed. As mentioned above, there are counter-tendencies in the model that would bring the economy back to its initial position. However, these will not be effective if the central bank increases the short-term real interest rates.
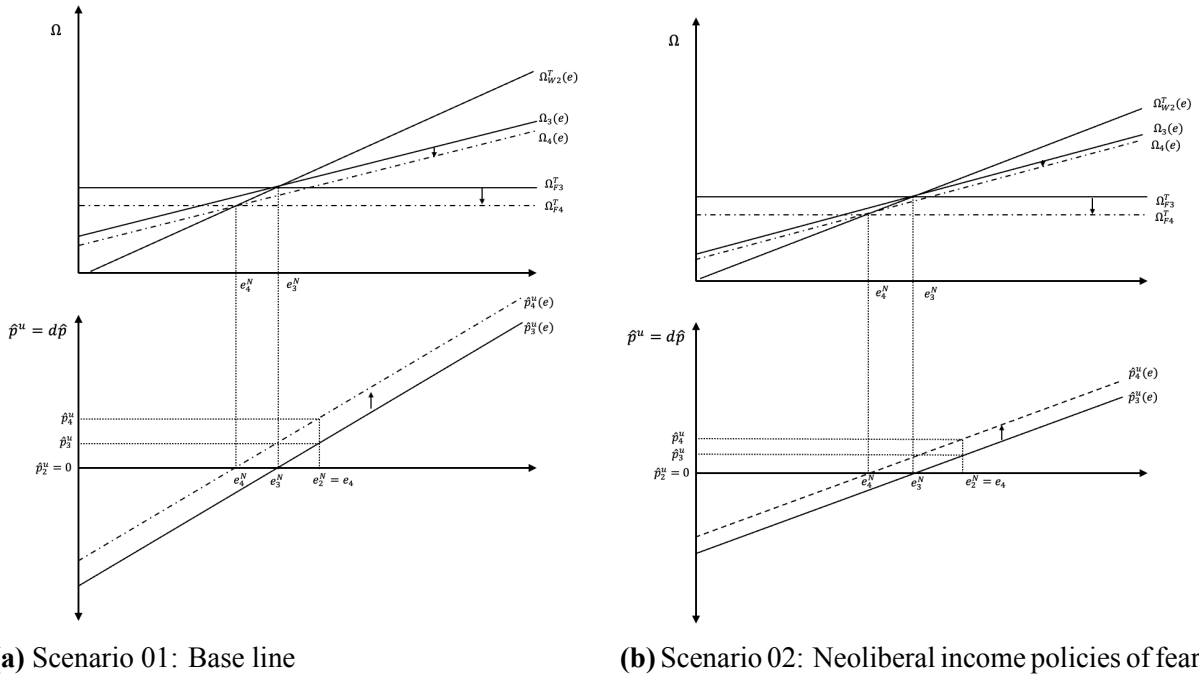

(a) Scenario 01: Base line
(b) Scenario 02: Neoliberal income policies of fear

Figure 3.6: Oil price shock and increased mark-ups in the adapted Hein and Stockhammer model
Note: Based on Hein (2023, chapter 5), author's depiction

Similar to the first sequence, the inherent dynamics are the same between the two scenarios. Nevertheless, we can once more observe less severe inflationary pressure in the second scenario due to the incorporation of neoliberal income policies.

According to Hein (2024), interest rate hikes may be able to bring down unexpected inflation but at the cost of a lower employment rate and a lower SIRE, assuming the "normal case" effects on aggregate demand and a wage-led employment curve. Based on the discussion in chapter 2, a post-Keynesian alternative policy response could replace macroeconomic fine-tuning of central banks with the use of income policies aiming for high levels of employment with stable inflation (Hein, 2023, pp. 201-6). In an environment of rising energy prices, it is crucial that capital and labor share the burden of a higher real exchange rate. Such policies could include wage coordination that creates a SIRE corridor in which there is no unexpected inflation. Fiscal policies could stabilize aggregate demand and reduce inequality of disposable income.

4 Comparative case study of two OECD countries

In this chapter the relevance and accuracy of the potential effects on the income targets' determinants are discussed, assessing whether the corresponding empirical indicators lend support to the proposed channels of influence. Furthermore, a comparative analysis of the inflationary and redistributive dynamics in Austria and Germany is conducted.

4.1 Data and methodology

I select two OECD countries, namely Germany and Austria, which share many similarities such as a strong industrial sector and a comparable institutional framework (Stockhammer et al., 2016), are both classified as a Continental European/Corporative welfare state (Hay & Wincott, 2012), and exhibit export-led mercantilist growth regimes (Hein et al., 2021). However, they have experienced different inflationary dynamics (Fritzer, 2023). Furthermore, since the GFC and the following Great Recession (2007–09) can be classified as a crisis *of* financialization and is, therefore, a potential break in the financialization–distribution nexus (Hein, 2012, chapter 8), redistributive trends before and after the crisis will be analyzed.

This paper compiles various data sources. First, to gain a better understanding of the inflationary dynamics in the two selected OECD countries, I analyze data from the Eurostat (2024b) and AMECO (2024a) databases provided by the European Commission. To explain country heterogeneity and to incorporate the ongoing discussion regarding the drivers of inflation, the choice of indicators includes a GDP deflator, a unit labor cost deflator, and a unit imported material cost deflator. Furthermore, a proxy for a unit profit deflator is calculated. In the following, an inflation decomposition following the Kaleckian price setting equation established in section 2 will be provided. For a detailed methodology see the Appendix.

Second, to operationalize the three Kaleckian channels of income redistribution, I combine data from the OECD Annual National Accounts, Table 14A (2024a); OECD Labor Statistics on Employment Protection (2024b); OECD Social Protection and Well Being Statistics on Benefits, Taxes and Wages (2024c); the Eurostat and AMECO databases provided by the European Commission (2024a); and the OECD/AIAS database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts (ICTWSS) (2021). The choice of indicators for the Kaleckian channels is based on the empirical literature in chapter 2. Since I only consider medium- to long-run trends concerning the Kaleckian channels, I will abstract from cyclical fluctuations.

4.2 Inflationary and redistributive trends in 1995–2025

Inflationary pressure triggered by supply bottlenecks and hiking energy prices has been an international phenomenon (e.g., Ferguson & Storm, 2023; Storm, 2022a). This dynamic has also been observed in Germany and Austria. The rate of change of the GDP deflator to the previous year for both countries is visualized in Figure 4.1. Until 2021, the rate of change of the GDP deflator fluctuated around the 2% target of the ECB. Afterwards, inflation skyrocketed for both countries. The highest changes were recorded from 2022 to 2023, peaking with annual changes in rates of 6.3% in Germany and 7.6% in Austria.[7] Between 2021 and 2022 the growth rate of the GDP deflator in Austria surpassed the German one. This trend has not reversed, as the rate of change of the GDP deflator has been constantly higher in Austria than in Germany.

After the initial shock, scholars have increasingly pointed towards increased profits of firms as a possible inflation driver. One of the first contributions was provided by Bivens (2022), who argues that rising corporate profits have propelled inflation. Weber and Wasner (2023) provide a meticulous analysis of how a price shock (impulse) can enable firms in imperfect markets to conduct informal price coordination to either enhance (amplification) or protect (propagation)

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[7] It should be noted that temporarily, the inflation rates were higher in both countries. The changes visualized here have to be understood as changes in annual averages.
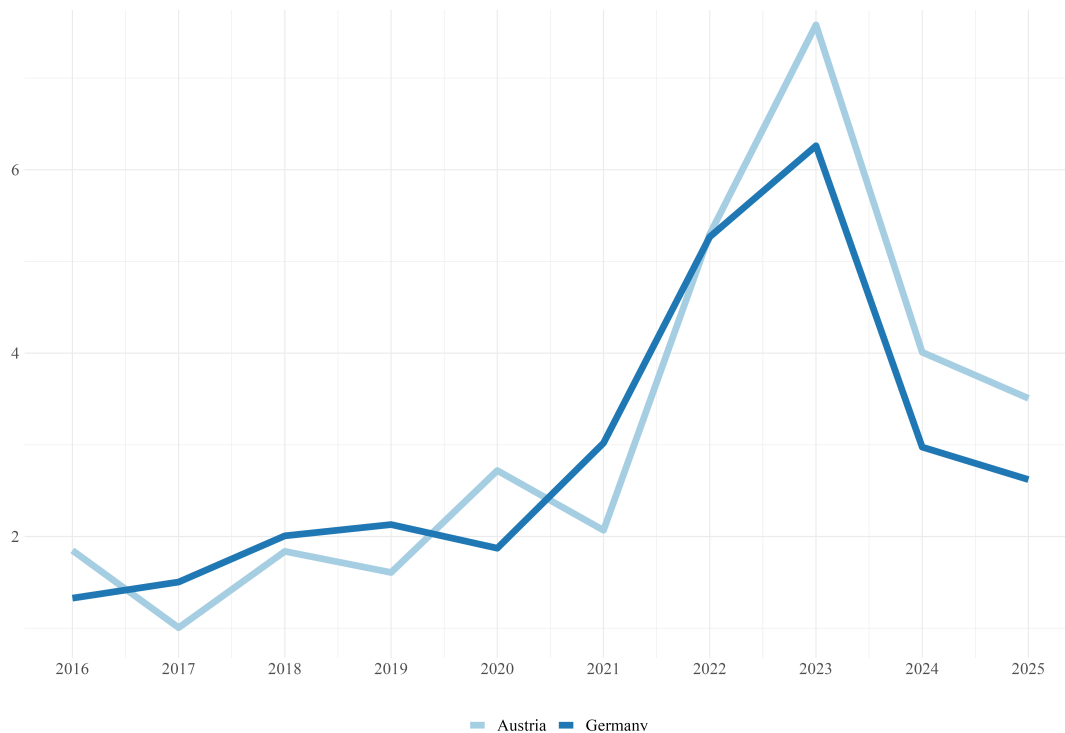
Figure 4.1: Rate of change in the GDP deflator, Germany and Austria, 2016–2025
Source: European Commission (2024a), author's calculations
Note: The years 2024 and 2025 are forecasts by the European Commission.

their profit margins. Finally, in a second round, workers may try to make up for real wage losses (conflict). Alongside all these stages price pressure may arise.

Subsequently, multiple studies focussing on Austria and Germany found similar results. Ragnitz (2022) utilizes a gross value-added deflator and finds that in Germany, firms in some sectors could increase their profits regardless of rising costs. In an Austrian study, Tölgyes and Picek (2023) apply the same methodology as Ragnitz (2022) and argue that profits were a strong driver of inflation. Both studies show that some sectors, such as agriculture, construction, and energy, were particularly important regarding profit inflation. Furthermore, Dullien et al. (2023) comprise a discussion of inflation drivers. They argue that profits may drive inflation even with constant profit margins since higher import prices would still lead to higher unit profits.

Since I argue that financialization has impacted income targets and power relations in general, which affect inflationary processes, it is crucial to consider long-term developments of financialization including redistributive trends through the Kaleckian channels before and after the GFC. Figure 4.2 displays the development of the adjusted wage share for Germany and Austria in 1960–2023, visualizing the continuous redistribution to profits at the expense of labor from the late 1970s/early 1980s until the GFC crisis and beyond. Abstracting from cyclical fluctuations, it is evident that the adjusted wage share fell substantially for both countries in this period. In the Austrian case, since there is more data available, the fall of the wage share already started in the early 1980s. Focusing on the period in consideration, Austria's adjusted wage share fell constantly between 1995 and the GFC. During the crisis, the trend was temporarily reversed. Afterward, the wage share remained approximately constant at 55% until 2019. Starting in the early 1990s, a similar trend can be observed for Germany until the GFC. Thereafter, the adjusted wage share recovered and settled around 57–58% until 2019.
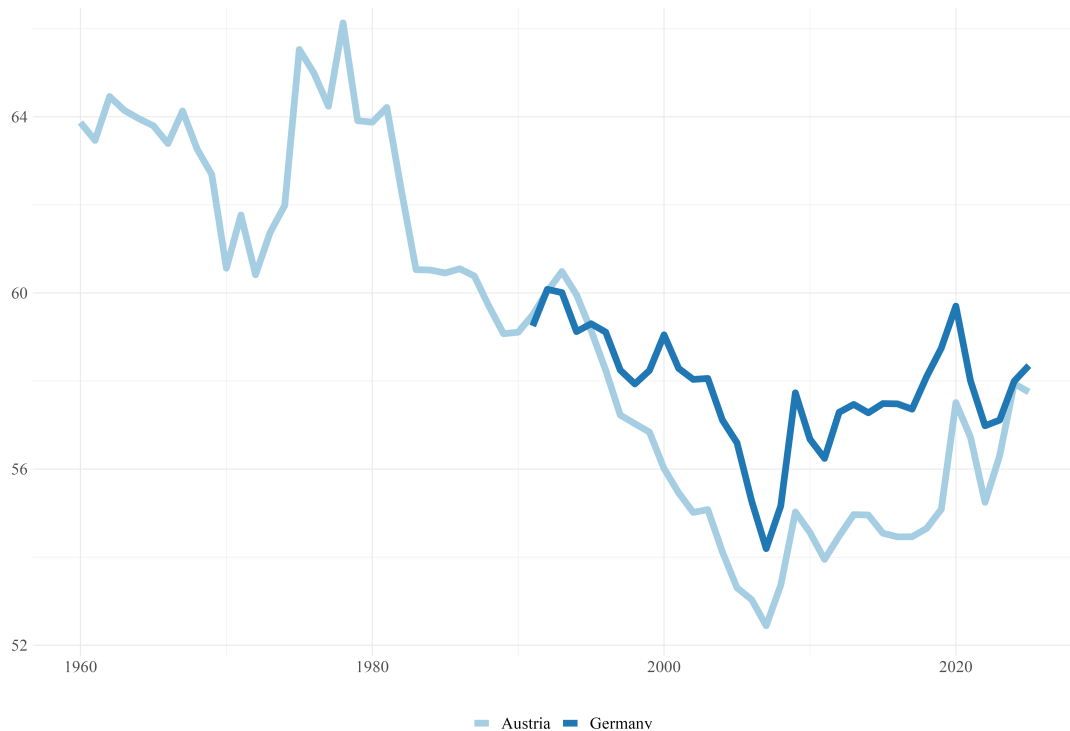
Figure 4.2: Adjusted wage share in Germany and Austria, 1960–2025 (% of GDP)
Source: European Commission (2024a), author's calculations
Note: The adjusted wage share is defined as compensation per employee as a share of GDP at factor costs per person employed (Hein et al., 2018, p. 3)

4.3 Germany

Germany before the crisis. Evaluating the merit of the first channel of influence before the crisis, it is evident that there was no substantial recomposition in the economy towards the financial sector (Figure 4.3). Moreover, there is no evidence that the profit share in the financial sector was higher than in the non-financial sector (Figure 4.4). However, there was a falling tendency of the government sector in value added. A similar but more pronounced trend can be observed for the household sector, while the share of non-financial corporations increased. Therefore, there is some evidence for the sectoral composition channel due to the decrease in the relative size of the government sector.

Considering the second channel, there is substantial evidence for increasing financial overhead costs and rentiers' profit claims. First, both net property income and retained earnings as a share of net national income increased at the expense of compensation of employees, thus lending evidence to the hypothesis that the decrease in the wage share was partly driven by rentiers' profit claims (Figure 4.5). Second, the decomposition of rentiers' income reveals that the rise was solely driven by an increasing share of dividends, implying a predominance of shareholder value orientation (Figure 4.6).

Indicators referring to the bargaining power of workers were divided into *macroeconomic* and *institutional* indicators (Table 4.1). As shown above, Germany is characterized by a retreating government sector before the crisis and a focus on balanced budgets and international price competitiveness (Hein et al., 2018). While both household debt and trade openness increased, thereby increasing the insecurity of workers, the unemployment rate stayed rather constant in the period before the crisis. Overall, the macroeconomic situation provided unfavorable conditions
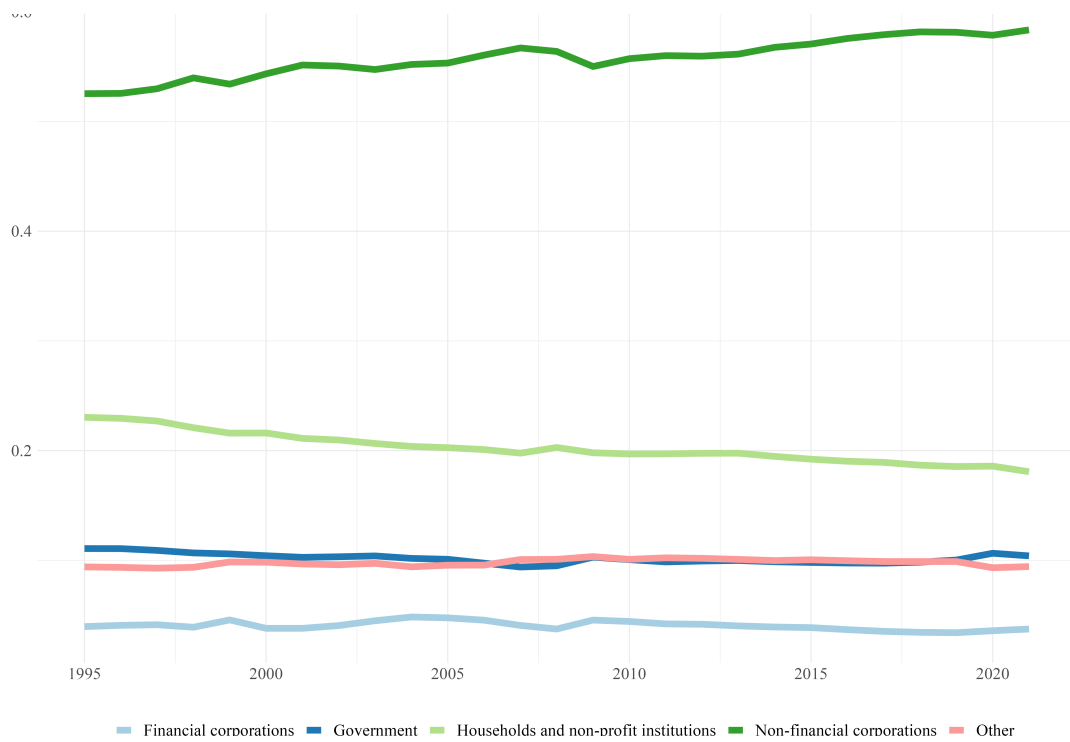
Figure 4.3: Sectoral shares in nominal gross value added, Germany, 1995–2021
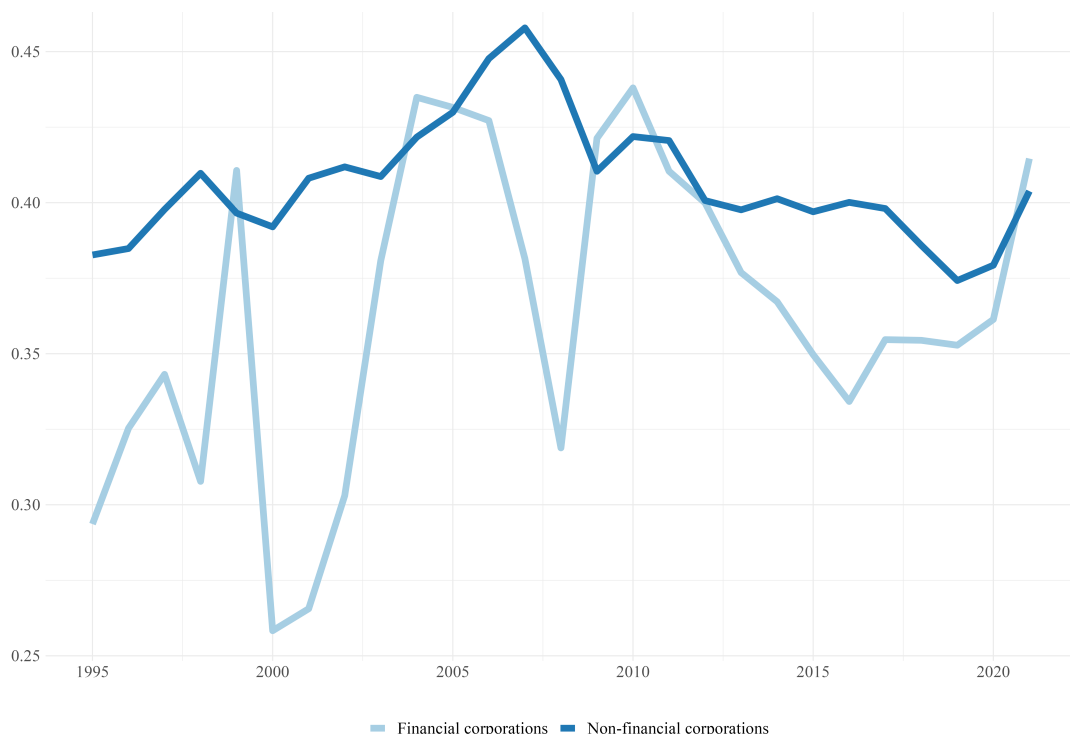*Source*: OECD (2024a), author's calculations

Figure 4.4: Sector gross operating surplus as a share of sector gross value added, Germany, 1995–2021
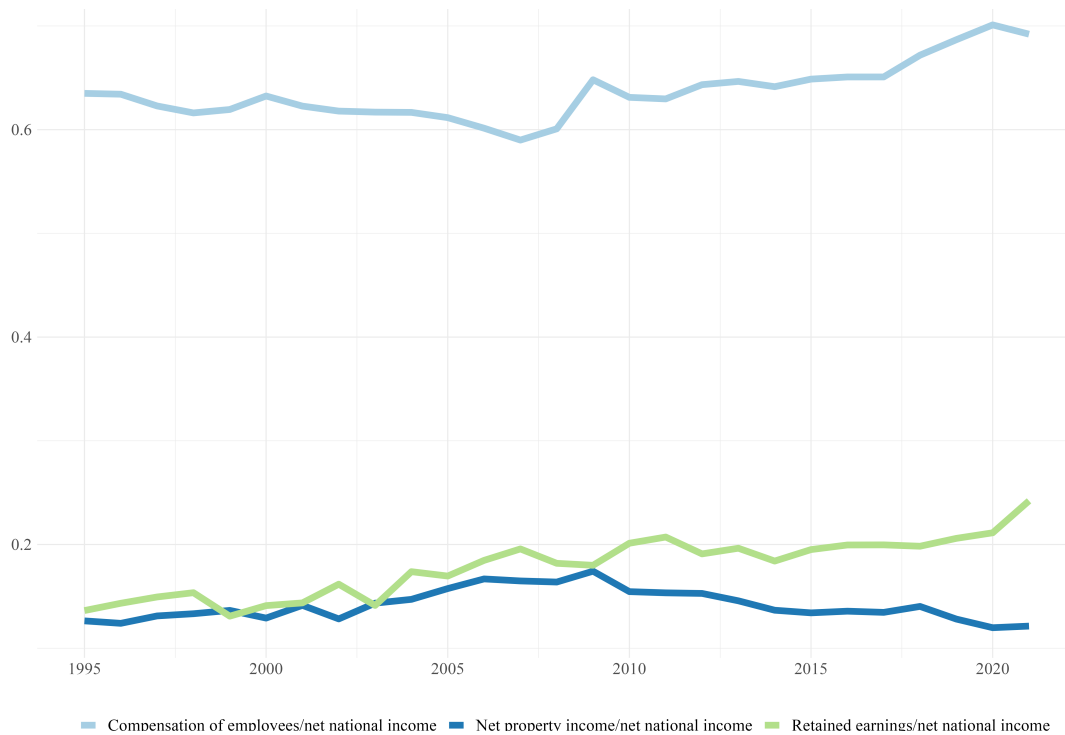*Source*: OECD (2024a), author's calculations

Figure 4.5: Income shares in net national income, Germany, 1995–2021
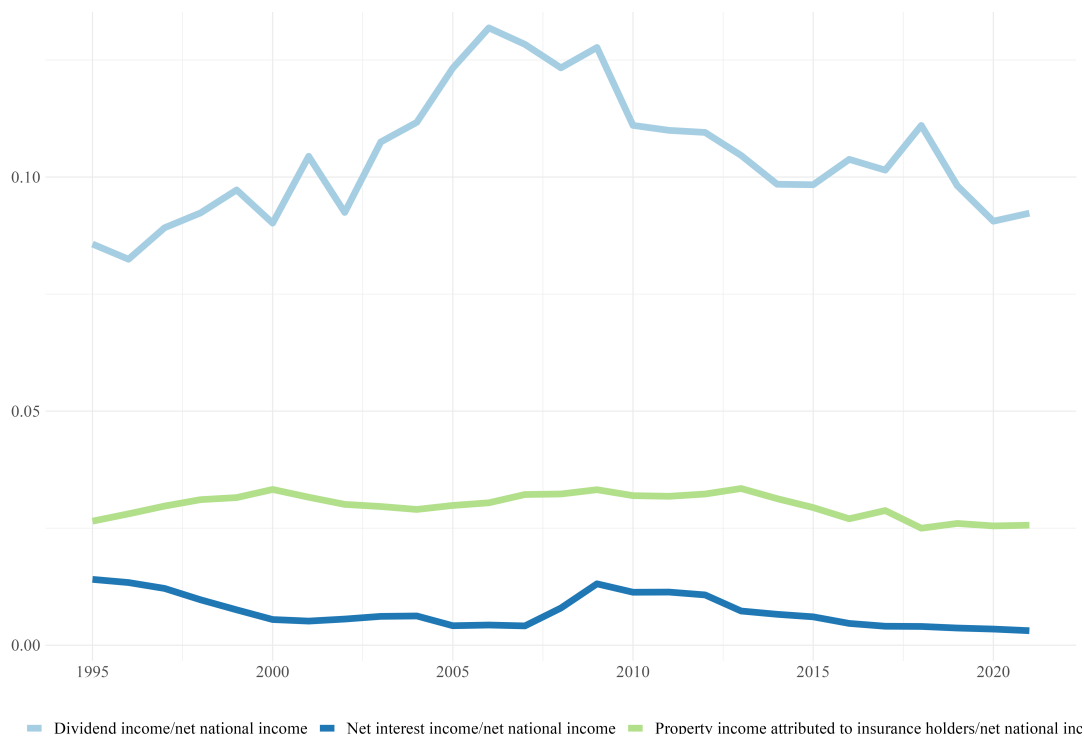*Source*: OECD (2024a), author's calculations

Figure 4.6: Components of rentiers' income as a share in net national income, Germany, 1995–2021
Source: OECD (2024a), author's calculations

for workers' bargaining power. Regarding the institutional factors, it is evident that the power of trade unions declined since union density and bargaining coverage decreased before the crisis. Authors such as Dustmann et al. (2014) also attest to an erosion of collective bargaining in connection to higher international competitiveness. Furthermore, deregulating labor market policies, including the "Hartz" reforms, have created a low-wage sector in Germany (Giannelli et al., 2013). While the indices for employment protection regarding collective dismissals and regular individual contracts stayed constant starting in the 2000s, there was a strong deregulation regarding temporary contracts increasing insecurity for workers. Decreases in unemployment benefits were also a result of the reforms in the early 2000s. Interestingly, for short-term unemployed workers, the net replacement rate, regardless of whether it includes social assistance or housing benefits, is quite high. Furthermore, this rate did not decrease before the crisis. However, considering workers who have been unemployed for over a year, labor market reforms in the early 2000s decreased the benefits rate tremendously. While the decrease in unemployment benefits is mitigated by social assistance and housing benefits the rate decreased from from 55% to 45.2%. Overall, there is profound evidence for a decrease in the bargaining power of workers due to the deregulation of the labor market in Germany before the crisis.

Table 4.1: Selected indicators for bargaining power, Germany, 1995–2023

	1995–99	2000–04	2005–09	2010–14	2015–19	2020–21	2022–23
Macroeconomic indicators							
Unemployment rate (%)	8.6	8.5	8.5	5.4	3.6	3.7	3.1
Household debt (% of GDP)	65.3	70.1	63.3	56.6	53.2	56.8	
Trade openness (% of GDP)	48.6	62.5	76.2	84.3	87.0	85.2	
Institutional indicators							
Trade unions							
Union density rate (%)	27.0	23.4	19.9	18.3	16.8		
Bargaining coverage rate (%)	75.1	67.6	62.6	58.5	55.5		
Strictness of employment protection (Index: 0–6)							
Collective dismissals	3.6	3.6	3.6	3.6	3.6		
Individual dismissals (regular contracts)	2.6	2.6	2.6	2.6	2.6		
Temporary contracts	2.6	1.7	1.0	1.1	1.2		
Unemployment benefits							
Net replacement rate in unemployment – short-term (excl. social assistance and housing benefits) (%)		61.0	61.0	59.2	59.0	59.0	59.0
Net replacement rate in unemployment – short-term (incl. social assistance and housing benefits)(%)		61.0	61.0	59.2	59.0	59.0	59.0
Net replacement rate in unemployment – long-term (incl. social assistance and housing benefits) (%)		55.0	45.2	36.0	34.6	34.0	31.5

Notes: Unemployment as a percentage of active population; trade openness: imports and exports as a share of GDP; union density rate: proportion of employees who are members of a trade union among all employees; bargaining (or union) coverage rate: proportion of employees who are covered by (collective) wage agreements (adjusted for sectors without bargaining rights); net replacement rate: as a percentage of previous average wage, short-term corresponds to two months of unemployment and long-term to 13 months of unemployment
Source: OECD (2024a, 2024b, 2024c), OECD and AIAS (2021), and European Commission (2024b), author's calculations

Germany during and after the crisis. After the crisis, Germany's adjusted wage share remained roughly constant until 2019. The government sector and the financial sector stayed roughly constant, while the non-financial sector increased slightly (Figure 4.3). Furthermore, the profit share exhibited a decreasing tendency in both corporate sectors (Figure 4.4), thereby lending little to no evidence to the first channel after the crisis.

The strength of the second channel declined during and after the crisis in Germany, as net property income decreased while employee compensation rose again (Figure 4.5). Moreover, divi-

dend income decreased substantially, and net interest income also showed a falling trend (Figure 4.6). Less pressure from the overhead costs/rentiers' profit claims channel may have contributed to the slight ease in the wage share.

Regarding workers' bargaining power, unemployment and household debt decreased, implying a more stable situation. However, trade openness increased further, indicating an ambiguous trend in the macroeconomic indicators. Importantly, the institutional indicators show a declining tendency. While strictness in employment protection and short-term unemployment benefits stayed roughly constant, indicators such as union density, bargaining coverage, and long-term unemployment benefits decreased further. Overall, the diminishment in workers' bargaining power did not come to a halt after the crisis (Table 4.1).

Recent developments in Germany. The development of the wage share became more volatile starting with the COVID-19 pandemic, but it would be too early to derive any long-term trends. This also holds true for the three Kaleckian channels.

Table 4.2: 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	0.489	−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

To better understand the inflationary dynamics in Germany, Table 4.2 displays a decomposition of GDP price inflation into weighted averages of contributions of unit labor costs, unit imported material costs, and unit profits. First, note that until 2021, overall price inflation was around or even below the 2% target of the ECB. The rate of change in the GDP price deflator already started increasing in 2021, where unit imported material cost inflation contributed to a large degree to the overall change in the price level (3.39 percentage points). Unit labor cost inflation remained rather constant, unit profit inflation was negative. In 2022, the rate of change in price inflation increased to 5.27%, the dominant contribution was clearly unit imported material inflation with 6.12 percentage points, unit labor costs contributed only slightly, and unit profit inflation contributions were negative. It should be noted that price inflation peaked in 2023 at 6.27%. Interestingly, the contribution of unit imported material cost inflation became negative, unit labor cost inflation contributed with around 2.27 percentage points. However, the contribution of unit profit inflation was tremendous, amounting to 5.38 percentage points. In the last two years of the considered timeframe, price inflation is expected to decrease to rates between 2.5–3%. In 2024, unit labor cost inflation is anticipated to contribute rather more to overall price inflation, which could imply workers are trying to make up for real wage losses. In 2025, it seems like inflation may settle down, with rather balanced contributions of unit labor cost, unit imported material cost and unit profits.
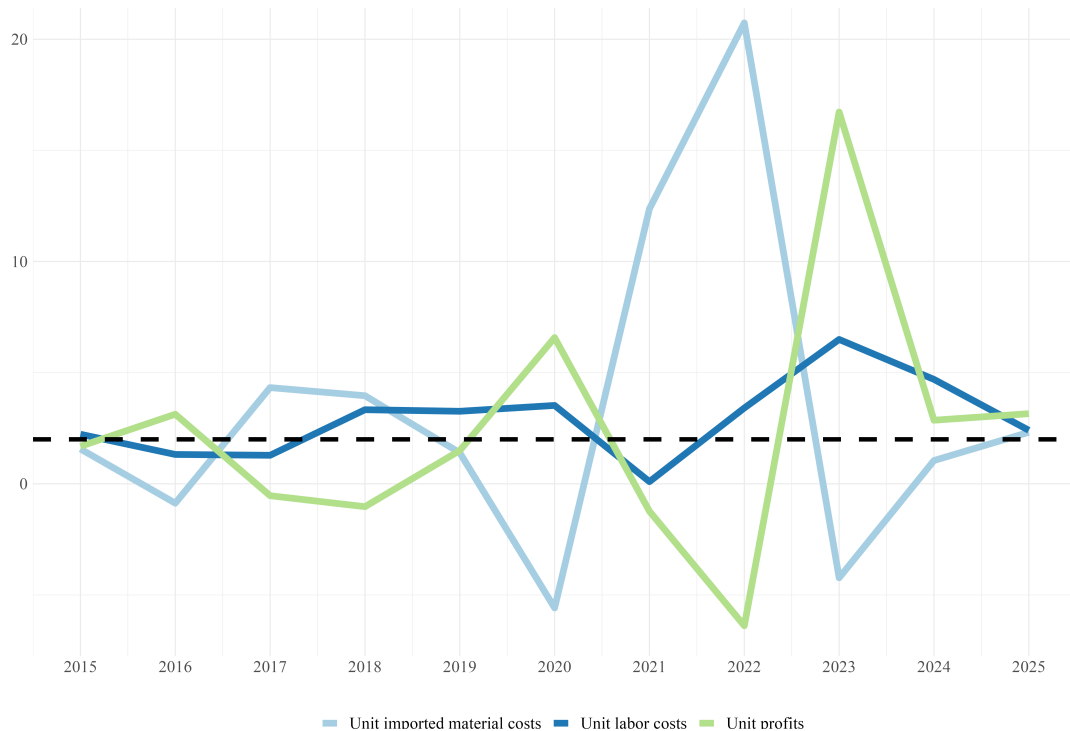
Figure 4.7: Growth rates of unit labor costs, unit imported material costs and unit profits, Germany, 2015–2025
Source: European Commission (2024b), author's calculations

Coming back to the ECB's inflation target of 2%, Figure 4.7 visualizes the growth rates of the indicators which are used for the inflation decomposition. Theoretically, all growth rates should fluctuate around the 2% target if constant distribution and inflation are assumed. Until 2020, these dynamics could to some extent be observed, since all three rates moved around the target. However, the dynamic changed in 2020, when the growth rate of unit imported material costs turned negative. In 2021, unit imported material costs started growing, mirrored by negative unit profit growth rates. This process peaked in 2022 and the dynamic reversed in 2023, when the unit profit inflation increased greatly. The growth rate of unit labor costs peaked in 2023. In line with previous arguments, the growth rates seem to settle down again starting in 2024/2025.

4.4 Austria

Austria before the crisis.   Although a strong redistribution towards profits could be observed in Austria before the crisis, this shift does not seem to have been driven by the sectoral composition channel. Neither the share of the financial sector nor the government share in value added show any considerable changes (Figure 4.8). Furthermore, the profit share in the financial sector was continuously below the share in the non-financial sector (Figure 4.9). Combining these trends, there is no substantial evidence for the first channel before the crisis.

Regarding the second channel, the decrease in compensation of employees was accompanied by an increase in net property income and retained earnings (Figure 4.10). The decomposition of rentiers' income reveals that the rise in dividend income drove this increase. While both the share of net interest income and property income stayed roughly constant in this period, dividend income increased sharply (Figure 4.11). Therefore, there is evidence that the overhead costs/rentiers' profit claims channel can partly explain the decrease in the wage share.
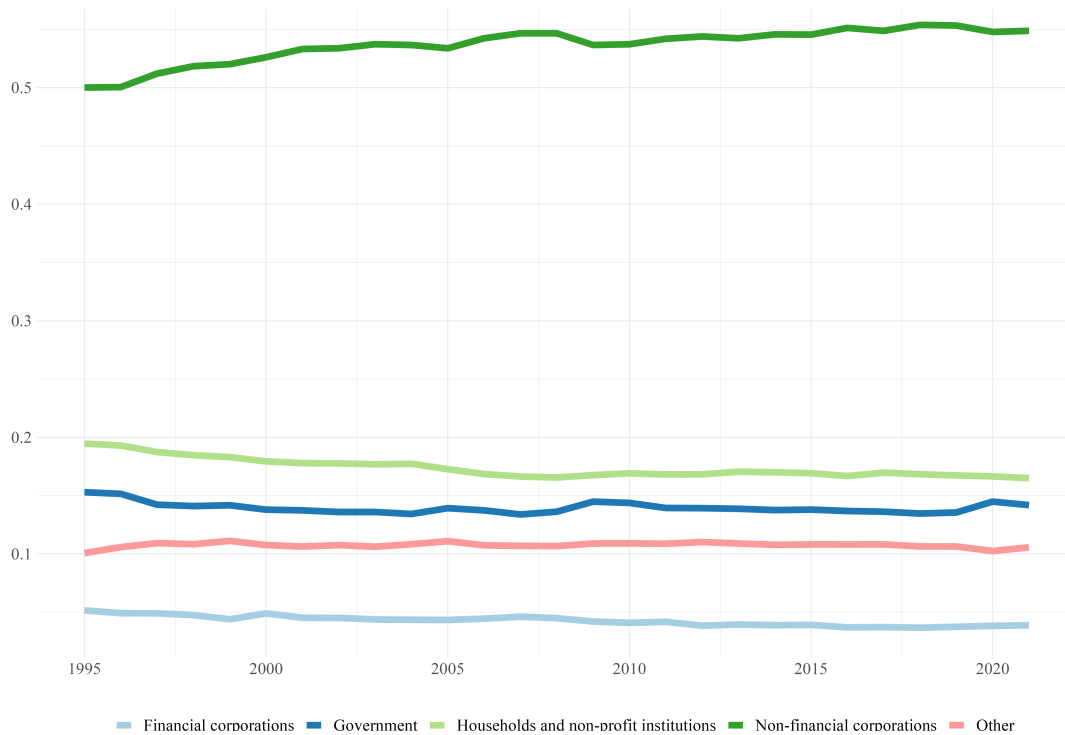
Figure 4.8: Sectoral shares in nominal gross value added, Austria, 1995–2021
Source: OECD (2024a), author's calculations

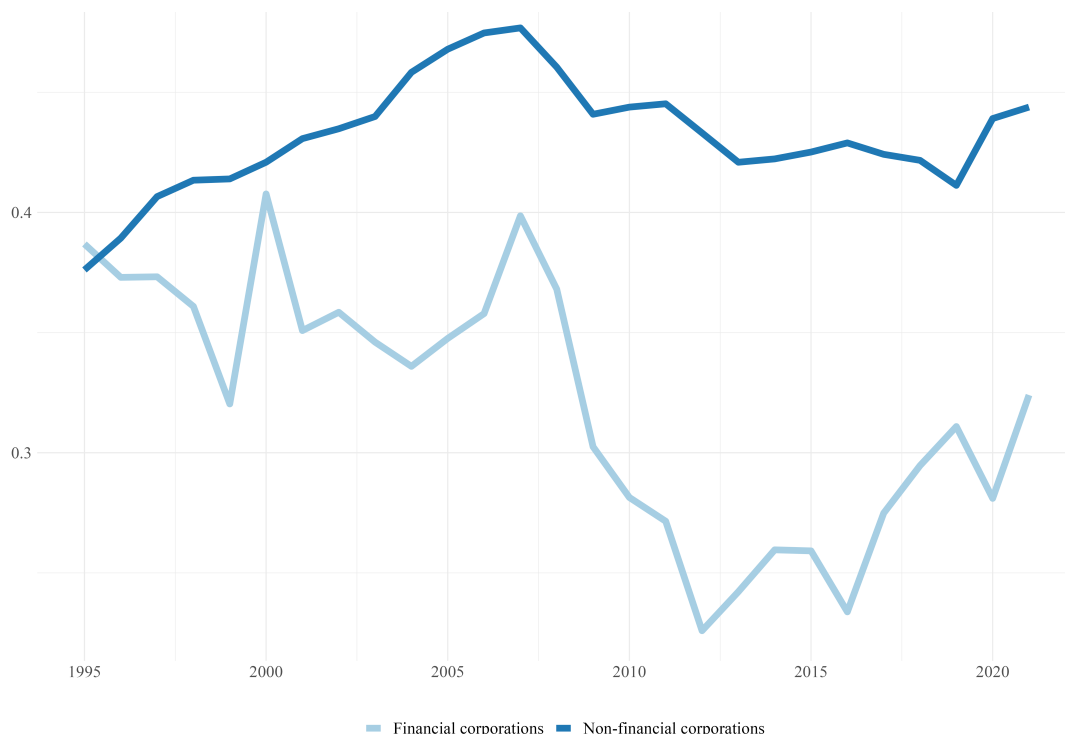**Figure 4.9:** Sector gross operating surplus as a share of sector gross value added, Austria, 1995–2021
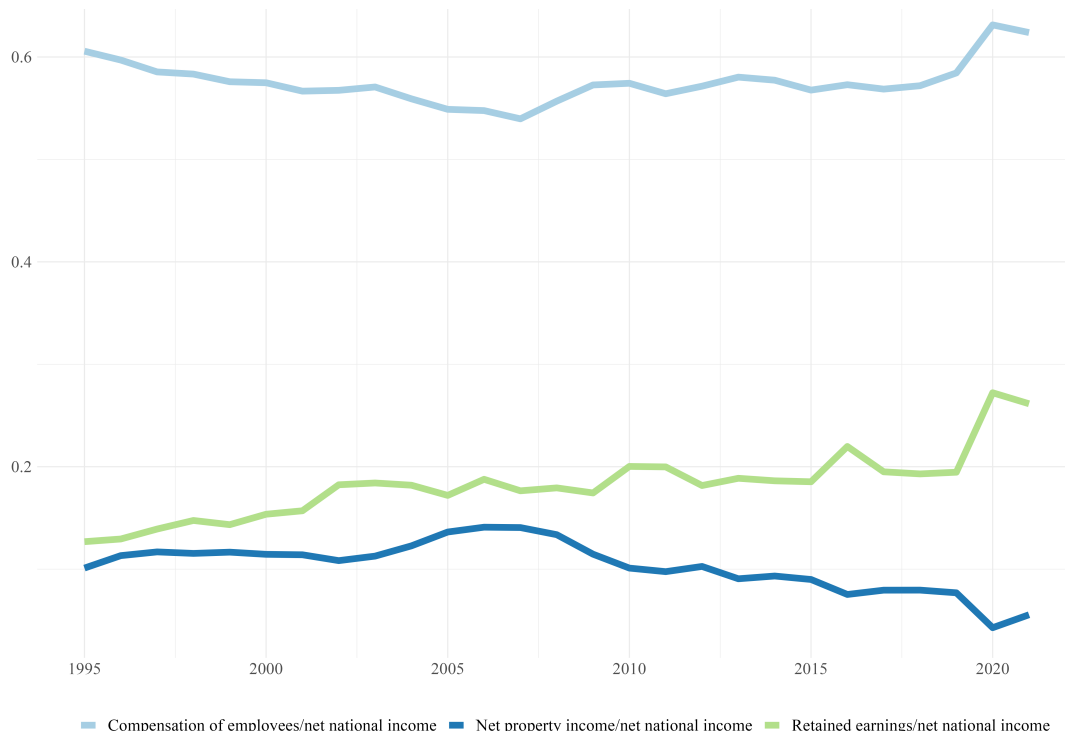*Source*: OECD (2024a), author's calculations

Figure 4.10: Income shares in net national income, Austria, 1995–2021
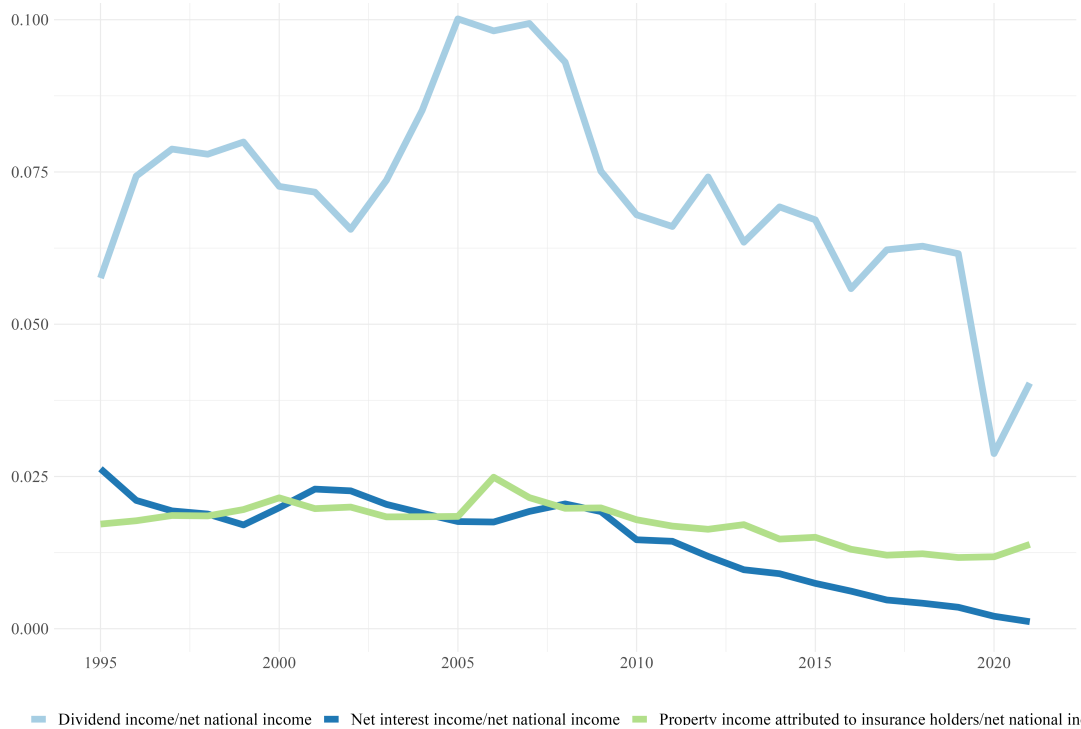*Source*: OECD (2024a), author's calculations

Figure 4.11: Components of rentiers' income as a share in net national income, Austria, 1995–2021
Source: OECD (2024a), author's calculations

Finally, there is nuanced evidence for the diminishment of the bargaining power. The macroeconomic situation was characterized by a low unemployment rate, which should have positive effects on bargaining power; however, both household debt and trade openness increased. Regarding the institutional indicators, while union density decreased, bargaining coverage remained high. These findings of initial high union density and continuous high bargaining coverage is in line with strong social partnerships in Austria (Famira-Mühlberger & Leoni, 2013). Furthermore, the strictness of employment protection remained constant regardless of the contractual form. Unemployment benefits, excluding social assistance and housing benefits, remained constant. On the other hand, benefits, including additional assistance, decreased slightly. Overall, the effect on workers' bargaining power is ambiguous: While some indicators contributed to a fall in bargaining power, others stayed constant, implying a stable institutional framework.

Austria during and after the crisis. Concerning the first channel, the government sector increased slightly during the crisis, while the share of the financial sector and the non-financial sector decreased minimally. However, both the government sector and the financial sector remained rather constant after the crisis (Figure 4.8). Additionally to the fact that the profit share of the financial sector was continuously below the share in the non-financial sector, the gap between the two widened after the crisis (Figure 4.9). The sectoral composition channel may partly explain the temporary increase of the wage share during the crisis but has subsequently lost significance.

Table 4.3: Selected indicators for bargaining power, Austria, 1995–2023

	1995–99	2000–04	2005–09	2010–14	2015–19	2020–21	2022–23
Macroeconomic indicators							
Unemployment rate (%)	4.6	4.5	5.4	5.4	5.7	6.1	5.1
Household debt (% of GDP)	42.9	46.1	52.3	52.4	50.3	52.7	
Trade openness (% of GDP)	73.7	87.4	96.4	103.4	104.8	105.3	
Institutional indicators							
Trade unions							
Union density rate (%)	39.3	35.7	30.9	28.1	26.7		
Bargaining coverage rate (%)	98.0	98.0	98.0	98.0	98.0		
Strictness of employment protection (Index: 0–6)							
Collective dismissals	3.3	3.3	3.3	3.3	3.3		
Individual dismissals (regular contracts)	2.7	2.5	2.3	2.6	2.3		
Temporary contracts	1.3	1.3	1.3	1.3	1.3		
Unemployment benefits							
Net replacement rate in unemployment – short-term (excl. social assistance and housing benefits) (%)		55.0	55.0	55.0	55.0	55.0	55.5
Net replacement rate in unemployment – short-term (incl. social assistance and housing benefits) (%)		64.8	61.6	56.0	55.0	55.0	55.5
Net replacement rate in unemployment – long-term (incl. social assistance and housing benefits) (%)		62.8	59.6	53.0	51.0	51.0	51.5

Notes: Unemployment as a percentage of active population; trade openness: imports and exports as a share of GDP; union density rate: proportion of employees who are members of a trade union among all employees; bargaining (or union) coverage rate: proportion of employees who are covered by (collective) wage agreements (adjusted for sectors without bargaining rights); net replacement rate: as a percentage of previous average wage, short-term corresponds to two months of unemployment and long-term to 13 months of unemployment
Source: OECD (2024a, 2024b, 2024c), OECD and AIAS (2021), and European Commission (2024b), author's calculations

Overhead costs and rentiers' profit claims seem to have eased during and after the crisis, as net property income decreased while compensation of employees rose (Figure 4.10). Moreover, dividend and net interest income fell substantially during this period (Figure 4.11). Therefore, less

pressure from the second channel may partly explain the slight recovery of the wage share. Bargaining power of workers exhibits a falling but mediated trend. While trade openness increased further, unemployment and household debt stayed rather constant. Regarding the institutional framework in the post-crisis period, union density and unemployment benefits, including social assistance, decreased slightly. However, all other institutional variables remained constant (Table 4.3).

Recent developments in Austria. Similar to Germany, it would be too soon to derive any meaningful changes in the wage share or the Kaleckian channels. To gain a better understanding of inflationary drivers in Austria, Table 4.4 comprises the corresponding decomposition of GDP price inflation. Until 2022, the overall price inflation remained roughly around or below the target of the ECB. While some increases in GDP price and unit imported material cost inflation could be observed in 2021, the dynamic escalated in the following year. Starting in 2022, GDP price inflation increased to 5.31%. It is evident that unit imported material cost inflation, with 5.81 percentage points, contributed disproportionally to this price increase. The contribution of unit labor costs was rather small and unit profit inflation was negative. The peak in price inflation was reached in 2023 with 7.57%, where unit profit inflation was the dominant driver of the dynamic by contributing 4.87 percentage points. The contribution of unit imported material costs turned negative while unit labor cost inflation contributed partly to the process with 2.87 percentage points. While it seems to be the case that overall price inflation (4.01% and 3.50% respectively) is settling down again in 2024 and 2025, it is still higher than in Germany (2.97% and 2.63% respectively). In 2024, unit labor cost inflation seems to be the prominent driver of price inflation in Austria. Nevertheless, unit profit inflation still contributes to price inflation in both forecasts.

Table 4.4: 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

Similar to the German case, the growth rates of the indicators in Austria fluctuated around the 2% target of the ECB until 2020 (Figure 4.12). In 2020, the dynamic changed and a falling growth rate of unit imported material cost can be observed. Interestingly, the growth rate of unit labor costs exceeded that of unit profits in 2020. The oil price shock is clearly visable in the increasing growth rates of unit imported material costs in 2021 and 2022. Likewise to Germany, the growth rate of unit profits became negative in 2021 and 2022. The dynamic reversed in 2023, when unit imported material cost inflation fell drastically and the growth rate of unit profits skyrocked. Interestingly, the growth rate of unit labor costs was higher than in the German case.
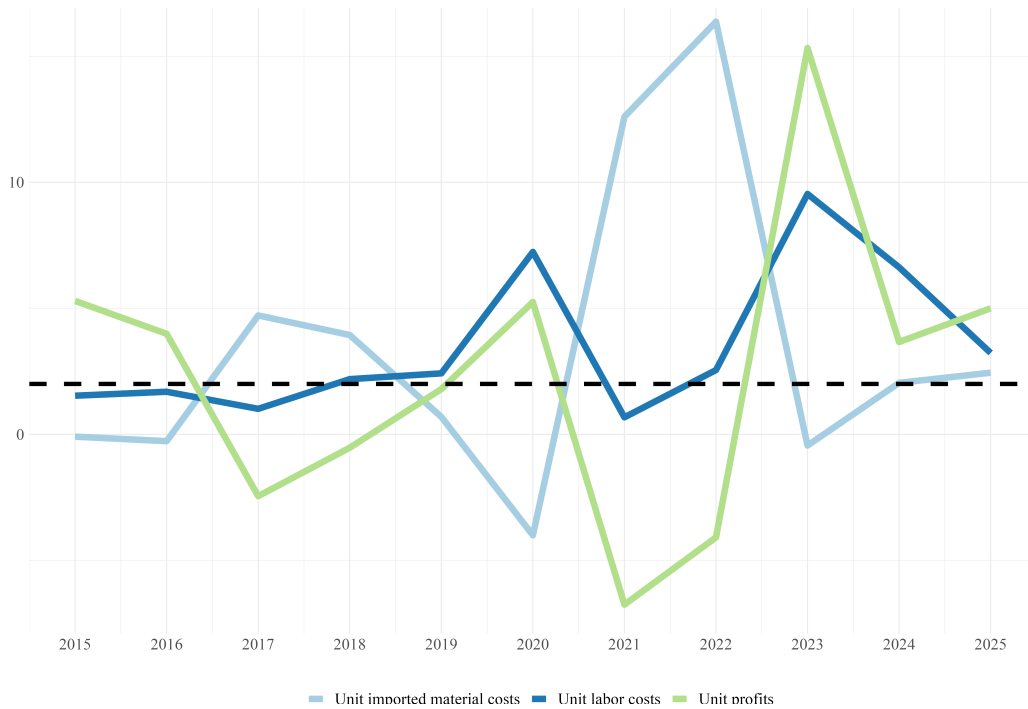
Figure 4.12: Growth rates of unit labor costs, unit imported material costs and unit profits, Austria, 2015–2025
Source: European Commission (2024b), author's calculations

4.5   Examining the financialization–distribution–inflation nexus

History matters and frequently affects current economic outcomes. The multiplicity of changes due to financialization in our economy and socio-economic life is one example. Therefore, analyses of current inflationary dynamics can benefit from taking a step back and considering structural transformations that took shape in the last five decades. By doing so, a greater understanding of transmission channels from financialization to present outcomes can be gained.

To comprehend the period of the *Great Moderation*, which was characterized by low and stable inflation accompanied by high employment rates (Perry & Cline, 2016), changes in income claims of social classes due to financialization is an important piece of the puzzle. Therefore, I hypothesized that financialization has impacted the income claims of workers and firms in an open macroeconomic model (Hein, 2023, chapter 5) through three Kaleckian channels (Hein, 2015), which resulted in redistribution at the expense of labor. Theoretically, I have argued that, based on stylized facts of financialization and neoliberalism, changes in sectoral composition and increased overhead labor costs/rentiers' profit claims would shift firms' target wage share downwards. Simultaneously, diminishing workers' bargaining power would decrease their target wage share. I claim that the effect of the third channel on the target wage share of workers has been dominating the dynamic. Incorporating this assertion into the model reveals an outcome where higher employment levels are reconcilable with stable inflation rates. However, the price for this period was paid by workers, since it was accompanied by a falling wage share.

I conducted an empirical analysis regarding the three Kaleckian channels for Germany and Austria. Table 4.5 comprises the results of the empirical analysis, including redistributive trends and the significance of each Kaleckian channel. The repeatedly established declining trend of the wage share (e.g., Guschanski & Onaran, 2022; Kohler et al., 2019) before the crisis can be observed in both countries. After the crisis, the adjusted wage share stabilized.

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Table 4.5: 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)

In the German case, I find evidence for all three Kaleckian channels before the crisis. Interestingly, the effect of the sectoral composition channel was driven by a retreating government sector, which could further impact the bargaining power of workers. These findings are in line with previous studies attesting to a negative relationship between increasing gross profit targets of firms, primarily driven by rising dividend payments (Dünhaupt, 2012; Kohler et al., 2019), and severely declining bargaining power (Hein & Detzer, 2015; Hein et al., 2018) with the wage share. After the crisis, the sectoral composition channel lost its relevance, and pressure on the wage share from overhead costs eased. Furthermore, the macroeconomic situation for workers improved slightly, although other institutional factors worsened further. Taken together, these trends could have contributed to the stabilization of the wage share in Germany after 2007–09.

I find evidence for two Kaleckian channels exerting pressure on the wage share in the Austrian case before the crisis, namely diminishing workers' bargaining power and rising overhead costs. Strong bargaining coverage, initially relatively high levels of union density, and robust institutions align with the Austrian tradition of social partnership (Famira-Mühlberger & Leoni, 2013). Nonetheless, financialization has decreased the security of workers in the labor market. After the crisis, pressure on the wage share from the overhead cost channel declined. However, bargaining power continued to exhibit a decreasing but mediated tendency. These findings align with previous studies such as Dabrowski and Kuhls (2024).

I find evidence for all three Kaleckian channels through which financialization and neoliberalism influence functional income distribution. Interestingly, there are noticeable parallels between Germany and Austria, such as the direction of the channels. Furthermore, in both cases the crisis of 2007–09 poses a clear break in the time series: The second channel, which exhibited the clearest trend for both countries, changed tendency after the crisis. Nevertheless, it should be noted that Germany has experienced a significantly stronger diminishment of bargaining power. A retreating government sector has enhanced the overall decrease of this channel before the crisis. This finding resonates with studies arguing for substantial deregulation and international competition policies in Germany (Giannelli et al., 2013; Dustmann et al., 2014).

Overall, since the empirical results regarding the Kaleckian channels suggest evidence for all three channels and redistribution dynamics due to financialization, I find descriptive support

for changes in income targets by both firms and workers. Furthermore, the fall in bargaining power has been the most pronounced channel, which gives merit to the theoretical elaborations explaining the Great Moderating in the stylized model. Due to the dominating effect of the third channel, the case study offers an explanation of how high employment rates were reconcilable with low inflation during this period.

This period came to an abrupt end in the second half of 2021 when supply bottlenecks and hiking energy prices due to the pandemic and the war in Ukraine created supply-side inflationary impulses (Ferguson & Storm, 2023). The overall price level increased tremendously in almost all advanced capitalist economies. Multiple studies soon identified profits as the driving factor of the dynamic giving rise to terms such as "sellers' inflation" (Weber & Wasner, 2023) or "profit inflation" (e.g. Tölgyes & Picek, 2023; Dullien et al., 2023). Based on the empirical analysis, I find that, indeed, during the initial inflationary shock in 2021/2022, the adjusted wage share dropped in both countries, which implies an increase in the economy-wide profit share. However, authors such as Lavoie (2023) or Hein (2024) have pointed out that increases in imported raw material costs would increase the profit share inevitably even with constant mark-ups. Therefore, this paper aimed to account for that by developing two sequences in the theoretical model as well as providing an inflation decomposition accounting for increases in import costs.

In the stylized version of the theoretical model including changes due to financialization, it could be observed that a rise in oil prices would decrease the target wage share of firms, which resulted, ceteris paribus, in positive unexpected inflation and a lower wage share at constant employment levels. This result was obtained without any changes in the percentage mark-up of firms. In a second step, the effect of increased profit margins implied by Weber and Wasner (2023) was incorporated into the model, which resulted in a further downward shift in firms' target wage share, leading to accelerating inflation at stable employment levels. The corresponding profit share would be higher, implying a lower wage share. Both sequences result in a lower economy-wide wage share, although their dynamic differs. To shed light on the drivers of the inflationary process, inflation was decomposed into contributions by unit labor costs, unit imported material costs, and unit profits.

The empirical analysis suggests that unit imported material cost inflation was the dominant driver in the inflationary process in 2021/2022 in both countries, while the growth rate of unit profits was even negative in those years. This result implies that in 2021/2022, the rise in imported oil prices increased the profit share, while mark-ups did not (at least on the economy-wide level) drive the process. However, when unit imported material cost inflation decreased starting in 2023, the overall price inflation did not. Controversially, 2023 marked the year with the highest GDP price inflation. While we can see some efforts of workers to regain real wage losses, the dynamic was driven by unit profit inflation in both countries. This result implies that while growth in unit imported material costs were the dominant driver at the beginning of the inflation period, firms did make use of the situation by increasing unit profits. Unfortunately, since economy-wide data was considered it is impossible to distinguish between sectors or firms that tried to protect (propagation) or amplify (amplification) their profit margins as suggested by Weber and Wasner (2023).

Finally, I have postulated that neoliberal income policies of fear (Setterfield, 2007) may drive country heterogeneity. As expected, the Kaleckian channels seem to function quite similarly for Germany and Austria, based on the many shared commonalities between the countries (Stockhammer et al., 2016; Hein et al., 2021). While sectoral composition only played a minor role

in the observed period, overhead costs seem to have contributed substantially to redistribution. However, the degree of pressure on the bargaining power of workers distinguishes the countries: The effect of the third channel is substantially more pronounced in the German case.

Theoretically, I have shown that, neoliberal income policies would result in a flatter target wage share of workers since their ability to fight for higher wages is constrained by institutionalized fear. This also decreased the slope of the unexpected inflation curve (Phillips curve), contributing to less severe inflationary pressure. Furthermore, the corresponding SIRE was obtained at a higher employment level. Therefore, this calibration of the model would be in line with a country that has experienced severe labor market deregulation and high worker insecurity accompanied by low levels of unemployment and less inflationary pressure in the case of an initial impulse. I argue that Germany can be classified as such a case for the particular comparison conducted in this paper.

The decisive difference between Austria and Germany in the empirical analysis of the long-term trends is the diminishment in bargaining power. Although Austrian bargaining power did not endure the period of financialization and neoliberalism unscathed, the German labor market seems to have been even more substantially affected. Policies aimed at international competitiveness (Dustmann et al., 2014) contributed to the depletion of the power of trade unions while reforms such as "Hartz IV" created a low-wage sector including temporary employment (Giannelli et al., 2013). The empirical analysis confirms these arguments, since the decrease in union density, bargaining coverage, strictness of employment protection of temporary contracts, and long-term unemployment benefits has been significantly more pronounced in Germany than in Austria. Based on these observations, I argue that Germany can indeed be classified as a country in which the fear of workers has been institutionalized. It would, therefore, be expected that pressure from workers to make up for real wage losses would be less apparent in Germany than in Austria after an inflationary shock.

An analysis of inflationary experiences and a subsequent decomposition gives merit to this argument. After 2022, Austrian inflation rates surpassed German ones and have remained higher ever since. Wages were, in neither case, the driver of the dynamic, implying that workers are constrained by the effects of financialization and neoliberalism. However, the decomposition of inflation reveals that in 2023 and 2024, the contribution of unit labor costs to inflation was higher in Austria than in Germany. This could imply a more dynamic class conflict in Austria and that workers are less afraid to fight for higher wages. These findings suggest that neoliberal income policies of fear may indeed further decrease workers' ability to fight back real wage losses after an inflationary shock, constituting significant country heterogeneity.

Summarizing these results, I have shown that incorporating the effects of financialization into the income targets of firms and workers can lend great explanatory power in understanding the period of the Great Moderation. The diminishment of bargaining power was one of the decisive factors that reconciled low and stable inflation with high employment rates. Furthermore, unit imported material costs were the dominant driver at the beginning of the inflationary period. Afterwards, firms could exert their power shown by rising unit profit inflation. Finally, neoliberal income policies of fear can lend important explanatory power to different inflation dynamics: While unit labor costs have not been the driver of the dynamics, stronger increases in unit labor cost inflation in Austria indicate a more dynamic class conflict.

Since it is likely that inflationary impulses will reoccur in the future (Ferguson & Storm, 2023), it is crucial to develop strategies to mitigate their detrimental effects. While it would go beyond the

scope of this paper to develop policy implications, certain potential directions of public policy should be mentioned. As a first step, governments should conduct expansive fiscal policies to assist income groups who have been most affected by the supply shock. Second, the burden of rising import prices should not fall only on workers and rather be shared between social classes (Hein, 2024). Effective wage bargaining coordination could contribute to creating the SIRE corridor mentioned earlier. However, strong trade unions, employer associations, and progressive government involvement are needed for a coordination process that avoids constant real wage losses and further diminishes workers' bargaining power. Furthermore, governments should impose taxes on windfall profits and price caps on essential goods to ensure a more mediated price development (Weber, 2022).

5 Conclusions

Inflation is rooted in conflicting claims, which are affected by historic and structural changes. Financialization and neoliberalism have altered socio-economic life in numerous ways, including target income claims of workers and firms. Therefore, I set out to develop a more profound understanding of the financialization–distribtion–inflation nexus. Building on post-Keynesian/ Kaleckian theory I have incorporated three Kaleckian channels into an open macroeconomic model with conflict inflation. After deriving three hypotheses based on the theorized nexus, I have conducted an empirical analysis into Germany and Austria between 1995 and 2025.

The investigation reveals, first, that financialization has indeed impacted income claims of social classes and that the observed dynamics during the *Great Moderation* can be explained by the dominance of the workers' bargaining power channel. While all Kaleckian channels lend some explanatory power to the discussion, they vary in their strength and the GFC poses a disruption in the time series. Second, I find evidence that firms were indeed to some extent able to exert their power by pushing rising import prices through to overall price inflation and by subsequently increasing unit profits. Third, neoliberal economic policies of fear allow to distinguish between otherwise similar countries and provide insights to different inflationary developments. I argue that there is evidence for an active class conflict in both countries, although workers seem to be able to wield more force in the Austrian case.

The contribution of this thesis is twofold. First, I provide important insights into the financialization–distribution–inflation nexus. As heterodox scholars have pointed out numerous times, history matters. Therefore, incorporating structural changes due to financialization into an open macroeconomic model is crucial to gain a better understanding of the current situation. Second, the empricial analysis sheds light on the specific experiences of Germany and Austria regarding redistributive effects, the strength of the Kaleckian channels, and recent macroecnomic and inflationary trends. In an uncertain world, such an investigation is particularly essential since it is probable that such inflationary supply-side shocks will occure again due to climate catastrophes and geopolitical tensions. Gaining a more profound knowledge of the underlying dynamics of the current process will hopefully add to policy discussions on how to mitigate the detrimental effects of such shocks on society and help to derive more just and progressive proposals.

My conclusions have to be viewed in the light of three limitations. First, the descriptive nature of the analysis does not allow for any causal claims about the effects of financialization on income targets or functional income distribution. The analysis can only show that these trends coincide in time. Second, due to the focus on the financialization–distribution–inflation nexus, demand regimes were not considered in the analysis. Third, I have assumed that workers only consume

domestically produced goods and that all imports enter the production process as raw materials or semi-finished products. This assumption may disguise additional factors in the inflationary process.

To gain a more granular understanding of the financialization–distribution–inflation nexus, further research could include empirical analysis utlitzing quarterly or even monthly data. Disaggregating the data on a sectoral level could reveal important insights into inflationary drivers and propagation vs. amplification price setting behavior of firms. Furthermore, mixed methods approaches including interviews with trade union representatives would add to the picture. While this paper only poses a starting point in understanding the postulated nexus, it is an essential piece of the puzzle when tackling coinciding emergencies.

List of References

Akçay, Ü., Hein, E., & Jungmann, B. (2022). Financialisation and Macroeconomic Regimes in Emerging Capitalist Countries Before and After the Great Recession. *International Journal of Political Economy*, *51*(2), 77–100. https://doi.org/10.1080/08911916.2022.2078009

Alvarez, I. (2015). Financialization, non-financial corporations and income inequality: The case of France. *Socio-Economic Review*, *13*(3), 449–475. https://doi.org/10.1093/ser/mwv007

Arestis, P., & Sawyer, M. (2005). Aggregate demand, conflict and capacity in the inflationary process. *Cambridge Journal of Economics*, *29*(6), 959–974. https://doi.org/10.1093/cje/bei079

Bernanke, B., & Blanchard, O. (2023). What Caused the U.S. Pandemic-Era Inflation? *Hutchins Center Working Paper*, *86*.

Bivens, J. (2022). Corporate Profits Have Contributed Disproportionately to Inflation. How Should Policymakers Respond? *Economic Policy Institute*. https://www.epi.org/blog/corporate-profits-have-contributed-disproportionately-to-inflation-how-should-policymakers-respond/

Blanchard, O. J., & Summers, L. H. (1987). Hysteresis in unemployment. *European Economic Review*, *31*(1-2), 288–295. https://doi.org/10.1016/0014-2921(87)90042-0

Blecker, R. A., & Setterfield, M. (2019). *Heterodox macroeconomics: Models of demand, distribution and growth*. Cheltenham: Edward Elgar Publishing. https://doi.org/10.4337/9781784718909

Cornwall, J. (1990). *The theory of economic breakdown: An institutional-analytical approach*. Cambridge, USA: Blackwell.

Dabrowski, C., & Kuhls, S. (2024). A Kaleckian approach to financialization and functional income distribution: Austria and Finland in comparative perspective. *Institute for International Political Economy Berlin*, *Working Papers. No. 229/2024*.

Dallery, T. (2009). Post-Keynesian Theories of the Firm under Financialization. *Review of Radical Political Economics*, *41*(4), 492–515. https://doi.org/10.1177/048661340.9341371

Dullien, S., Herzog-Stein, A., & Stein, U. (2023). Gewinninflation: Realität oder Fata Morgana? Die Rolle der Gewinnentwicklung für die aktuelle deutsche Inflation. *IMK Report*, *185*.

Dumenil, G., & Levy, D. (2005). Costs and benefits of neoliberalism: A class analysis. In G. A. Epstein (Ed.), *Financialization and the World Economy* (pp. 17–45). Cheltenham: Edward Elgar Publishing.

Dünhaupt, P. (2012). Financialization and the rentier income share – evidence from the USA and Germany. *International Review of Applied Economics*, *26*(4), 465–487. https://doi.org/10.1080/02692171.2011.595705

Dünhaupt, P. (2017). Determinants of labour's income share in the era of financialisation. *Cambridge Journal of Economics*, *41*(1), 283–306. https://doi.org/10.1093/cje/bew023

Dünhaupt, P., & Hein, E. (2019). Financialization, distribution, and macroeconomic regimes before and after the crisis: A post-Keynesian view on Denmark, Estonia, and Latvia. *Journal of Baltic Studies*, *50*(4), 435–465. https://doi.org/10.1080/01629778.2019.1680403

Dustmann, C., Fitzenberger, B., Schönberg, U., & Spitz-Oener, A. (2014). From Sick Man of Europe to Economic Superstar: Germany's Resurgent Economy. *Journal of Economic Perspectives*, *28*(1), 167–188. https://doi.org/10.1257/jep.28.1.167

Epstein, G. A. (2005). *Financialization and the world economy*. Cheltenham: Edward Elgar Publishing.

Epstein, G. A. (2021). Financialisation: There's Something Happening Here. In *Global Political Economy: A Critique of Contemporary Capitalism* (pp. 270–293). London: Routledge. https://doi.org/10.4324/9781003240921

Epstein, G. A., & Power, D. (2003). Rentier incomes and financial crises: An empirical examination of trends and cycles in some OECD countries. *Political Economy Research Institute*, *Working Paper Series. No. 57*.

European Commission. (2024a). Annual macro-economic database of the European Commission (AMECO). Retrieved May 1, 2024, from https://economy-finance.ec.europa.eu/economic-research-and-databases/economic-databases/ameco-database/download-annual-data-set-macro-economic-database-ameco_en

European Commission. (2024b). Eurostat. Retrieved May 1, 2024, from https://ec.europa.eu/eurostat/de/data/database

Famira-Mühlberger, U., & Leoni, T. (2013). The economic and social situation in Austria. *WIFO (Österreichisches Institut für Wirtschaftsforschung)*.

Ferguson, T., & Storm, S. (2023). Myth and Reality in the Great Inflation Debate: Supply Shocks and Wealth Effects in a Multipolar World Economy. *International Journal of Political Economy*, *52*(1), 1–44. https://doi.org/10.1080/08911916.2023.2191421

Fritzer, F. (2023). Warum ist die Inflation in österreich höher als im Euroraum? *Österreichische Nationalbank*, *Schwerpunktthema*(Q2/23).

Fuller, G. W. (2021). The financialization of rented homes: Continuity and change in housing financialization. *Review of Evolutionary Political Economy*, *2*(3), 551–570. https://doi.org/10.1007/s43253-021-00050-7

Giannelli, G., Jaenichen, U., & Rothe, T. (2013). Doing Well in Reforming the Labour Market? Recent Trends in Job Stability and Wages in Germany. *IZA – Institute of Labor Economics*, *Discussion Papers. No. 7580*.

Gouzoulis, G., Galanis, G., & Iliopoulos, P. (2024). Financialisation, shareholder value orientation, and the decline of trade union membership in the EU. *Transfer: European Review of Labour and Research*. https://doi.org/10.1177/10242589241245063

Guschanski, A., & Onaran, Ö. (2022). The decline in the wage share: Falling bargaining power of labour or technological progress? Industry-level evidence from the OECD. *Socio-Economic Review*, *20*(3), 1091–1124. https://doi.org/10.1093/ser/mwaa031

Hay, C., & Wincott, D. (2012). *The political economy of European welfare capitalism*. New York: Palgrave Macmillan.

Hein, E. (2015). Finance-dominated capitalism and re-distribution of income: A Kaleckian perspective. *Cambridge Journal of Economics*, *39*(3), 907–934. https://doi.org/10.1093/cje/bet038

Hein, E., & Tarassow, A. (2010). Distribution, aggregate demand and productivity growth: Theory and empirical results for six OECD countries based on a post-Kaleckian model. *Cambridge Journal of Economics*, *34*(4), 727–754. https://doi.org/10.1093/cje/bep066

Hein, E. (2006). Wage bargaining and monetary policy in a Kaleckian monetary distribution and growth model: Trying to make sense of the NAIRU. *European Journal of Economics and Economic Policies: Intervention*, *3*(2), 305–329.

Hein, E. (2008). *Money, Distribution Conflict and Capital Accumulation*. London: Palgrave Macmillan UK. https://doi.org/10.1057/9780230595606

Hein, E. (2012). *The macroeconomics of finance-dominated capitalism and its crisis*. Cheltenham: Edward Elgar Publishing.

Hein, E. (2023). *Macroeconomics after Kalecki and Keynes: Post-Keynesian Foundations*. Cheltenham: Edward Elgar Publishing. https://doi.org/10.4337/9781803927282

Hein, E. (2024). Inflation is always and everywhere … a conflict phenomenon: Post-Keynesian inflation theory and energy price driven conflict inflation, distribution, demand and employment. *European Journal of Economics and Economic Policies: Intervention*, *21*(2), 202–231. https://doi.org/10.4337/ejeep.2024.0135

Hein, E., & Detzer, D. (2015). Finance-Dominated Capitalism and Income Distribution: A Kaleckian Perspective on the Case of Germany. *Italian Economic Journal*, *1*(2), 171–191. https://doi.org/10.1007/s40797-014-0001-4

Hein, E., Dünhaupt, P., Alfageme, A., & Kulesza, M. (2018). A Kaleckian Perspective on Financialisation and Distribution in Three Main Eurozone Countries before and after the Crisis: France, Germany and Spain. *Review of Political Economy*, *30*(1), 41–71. https://doi.org/10.1080/09538259.2018.1442784

Hein, E., Dünhaupt, P., Kulesza, M., & Alfageme, A. (2017). Financialization and Distribution from a Kaleckian Perspective: The United States, the United Kingdom, and Sweden Compared—Before and after the Crisis. *International Journal of Political Economy*, *46*(4), 233–266. https://doi.org/10.1080/08911916.2017.1407735

Hein, E., & Häusler, C. (2024). Kaleckian models of conflict inflation, distribution and employment: A comparative analysis. *Institute for International Political Economy Berlin, Working Papers. No. 225/2024*.

Hein, E., Meloni, W. P., & Tridico, P. (2021). Welfare models and demand-led growth regimes before and after the financial and economic crisis. *Review of International Political Economy*, *28*(5), 1196–1223. https://doi.org/10.1080/09692290.2020.1744178

Hein, E., & Schoder, C. (2011). Interest rates, distribution and capital accumulation – A post-Kaleckian perspective on the US and Germany. *International Review of Applied Economics*, *25*(6), 693–723. https://doi.org/10.1080/02692171.2011.557054

Hein, E., & Stockhammer, E. (2009). A Post Keynesian Alternative to the New Consensus Model. In G. Fontana & M. Setterfield (Eds.), *Macroeconomic Theory and Macroeconomic Pedagogy* (pp. 273–294). London: Palgrave Macmillan UK. https://doi.org/10.1007/978-0-230-29166-9_15

Hein, E., & Stockhammer, E. (2010). Macroeconomic Policy Mix, Employment and Inflation in a Post-Keynesian Alternative to the New Consensus Model. *Review of Political Economy*, *22*(3), 317–354. https://doi.org/10.1080/09538259.2010.491283

Hein, E., & Stockhammer, E. (2011). A post- keynesian macroeconomic model of inflation, distribution and employment. In *A Modern Guide to Keynesian Macroeconomics and Economic Policies* (pp. 112–136). Cheltenham: Edward Elgar Publishing.

Kalecki, M. (1971). *Selected Essays in the Dynamics of the Capitalist Economy*. Cambridge University Press.

Kalecki, M. (1954). *Theory of Economic Dynamics*. London: George Allen & Unwin.

Keune, M. (2021). Inequality between capital and labour and among wage-earners: The role of collective bargaining and trade unions. *Transfer: European Review of Labour and Research*, *27*(1), 29–46. https://doi.org/10.1177/10242589211000588

Kilian, L., & Zhou, X. (2022). The impact of rising oil prices on U.S. inflation and inflation expectations in 2020–23. *Energy Economics*, *113*, 106228. https://doi.org/10.1016/j.eneco.2022.106228

Kim, H. (2024). Minsky Theory of Inflation: An Empirical Analysis of OECD Countries. *Journal of Economic Issues*, *58*(1), 221–243. https://doi.org/10.1080/00213624.2024.2308464

Kohler, K., Guschanski, A., & Stockhammer, E. (2019). The impact of financialisation on the wage share: A theoretical clarification and empirical test. *Cambridge Journal of Economics*, *43*(4), 937–974. https://doi.org/10.1093/cje/bez021

Krippner, G. R. (2005). The financialization of the American economy. *Socio-Economic Review*, *3*(2), 173–208. https://doi.org/10.1093/SER/mwi008

Kristal, T. (2010). Good Times, Bad Times: Postwar Labor's Share of National Income in Capitalist Democracies. *American Sociological Review*, *75*(5), 729–763. https://doi.org/10.1177/0003122410382640

Lapavitsas, C. (2009). Financialised Capitalism: Crisis and Financial Expropriation. *Historical Materialism*, *17*(2), 114–148. https://doi.org/10.1163/156920609X436153

Lavoie, M. (2022). *Post-Keynesian Economics: New Foundations*. Cheltenham: Edward Elgar Publishing. https://doi.org/10.4337/9781839109621

Lavoie, M. (2023). Conflictual inflation and profit inflation. *Forum for Macroeconomics and Macroeconomic Policies (FMM)*, *Working Paper Series*.

Lazonick, W., & O'Sullivan, M. (2002). Maximizing Shareholder Value: A New Ideology for Corporate Governance. In W. Lazonick & M. O'Sullivan (Eds.), *Corporate Governance and Sustainable Prosperity* (pp. 11–36). London: Palgrave Macmillan UK.

Lin, K.-H., & Tomaskovic-Devey, D. (2013). Financialization and U.S. Income Inequality, 1970–2008. *American Journal of Sociology*, *118*(5), 1284–1329. https://doi.org/10.1086/669499

Marques, P. R., & Rugitsky, F. (2024). Rentiers and distributive conflict in Brazil (2000–2019). *Cambridge Journal of Economics*, *48*(2), 275–302. https://doi.org/10.1093/cje/bead053

OECD. (2024a). Annual National Accounts: Table 14A. Retrieved May 1, 2024, from https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE14A

OECD. (2024b). Labor Statistics on Employment Protection. Retrieved May 1, 2024, from https://stats.oecd.org/Index.aspx?DataSetCode=EPL_OV

OECD. (2024c). Social Protection and Well-being: Benefits, Taxes and Wages. Retrieved May 1, 2024, from https://stats.oecd.org//Index.aspx?DataSetCode=NRR

OECD & AIAS. (2021). Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts. Retrieved May 1, 2024, from www.oecd.org/employment/ictwss-database.htm

Perry, N., & Cline, N. (2016). What caused the great inflation moderation in the US? A post-Keynesian view. *Review of Keynesian Economics*, *4*(4), 475–502. https://doi.org/10.4337/roke.2016.04.08

Ragnitz, J. (2022). Gewinninflation und Inflationsgewinner. *ifo Institute*, 24–28.

Rowthorn, R. (1995). Capital Formation and Unemployment. *Oxford Review of Economic Policy*, *11*(1), 26–39. https://doi.org/10.1093/oxrep/11.1.26

Schulten, T. (2002). A European Solidarisitc Wage Policy? *European Journal of Industrial Relations*, *8*(2), 131–235.

Setterfield, M. (2006). Is Inflation Targeting Compatible with Post Keynesian Economics? *Journal of Post Keynesian Economics*, *28*(4), 653–671.

Setterfield, M. (2007). The rise, decline and rise of incomes policies in the US during the postwar era: An institutional-analytical explanation of inflation and the functional distribution of income. *Journal of Institutional Economics*, *3*(2), 127–146. https://doi.org/10.1017/S1744137407000665

Setterfield, M. (2020). Managing the discontent of the losers. *Review of Social Economy*, *78*(1), 77–97. https://doi.org/10.1080/00346764.2019.1623908

Setterfield, M. (2021). Whatever Happened to the 'Goodwin Pattern'? Profit Squeeze Dynamics in the Modern American Labour Market. *Review of Political Economy*, *35*(1), 263–286. https://doi.org/10.1080/09538259.2021.1921357

Setterfield, M. (2023). Inflation and distribution during the post-COVID recovery: A Kaleckian approach. *Journal of Post Keynesian Economics*, *46*(4), 587–611. https://doi.org/10.1080/01603477.2023.2249431

Setterfield, M., & Lovejoy, T. (2006). Aspirations, bargaining power, and macroeconomic performance. *Journal of Post Keynesian Economics*, *29*(1), 117–148. https://doi.org/10.2753/PKE0160-3477290106

Skott, P. (2005). Fairness as a source of hysteresis in employment and relative wages. *Journal of Economic Behavior & Organization*, *57*(3), 305–331. https://doi.org/10.1016/j.jebo.2003.11.011

Stockhammer, E. (2008). Is the NAIRU theory a Monetarist, New Keynesian, Post Keynesian or a Marxist theory? *Metroeconomica*, *59*(3), 479–510. https://doi.org/10.1111/j.1467-999X.2008.00314.x

Stockhammer, E. (2009). Determinants of functional income distribution in OECD countries. *IMK Studies*, *5*.

Stockhammer, E. (2017). Determinants of the Wage Share: A Panel Analysis of Advanced and Developing Economies. *British Journal of Industrial Relations*, *55*(1), 3–33. https://doi.org/10.1111/bjir.12165

Stockhammer, E., Durand, C., & List, L. (2016). European growth models and working class restructuring: An International post-Keynesian Political Economy perspective. *Environment and Planning A: Economy and Space*, *48*(9), 1804–1828. https://doi.org/10.1177/0308518X16646373

Stockhammer, E., Guschanski, A., & Köhler, K. (2014). Unemployment, capital accumulation and labour market institutions in the Great Recession. *European Journal of Economics and Economic Policies: Intervention*, *11*(2), 182–194. https://doi.org/10.4337/ejeep.2014.02.05

Storm, S. (2022a). Inflation in the Time of Corona and War. *Institute for New Economic Thinking*, *Working Paper Series*(185). https://doi.org/10.36687/inetwp185

Storm, S. (2022b). Inflation in the Time of Corona and War: The plight of the developing economies. *Institute for New Economic Thinking*, *Working Paper Series*(192). https://doi.org/10.36687/inetwp192

Storm, S., & Naastepad, C. (2011). The productivity and investment effects of wage-led growth. *International Journal of Labour Research*, *3*(2), 197–218.

Tölgyes, J., & Picek, O. (2023). Die Profit-Preis-Spirale in österreich. *Momentum Institut*, *Policy Brief*(01).

Van Der Zwan, N. (2014). Making sense of financialization. *Socio-Economic Review*, *12*(1), 99–129. https://doi.org/10.1093/ser/mwt020

Van Klaveren, M., & Schulten, T. (2015). Europe: A Comparative Perspective. In M. Van Klaveren, D. Gregory, & T. Schulten (Eds.), *Minimum Wages, Collective Bargaining and Economic Development in Asia and Europe* (pp. 173–187). London: Palgrave Macmillan UK. https://doi.org/10.1057/9781137512420_10

Vergeer, R., & Kleinknecht, A. (2014). Do labour market reforms reduce labour productivity growth? A panel data analysis of 20 OECD countries (1960–2004). *International Labour Review*, *153*(3), 365–393. https://doi.org/10.1111/j.1564-913X.2014.00209.x

Weber, I. M. (2022). Big Oil's Profits and Inflation: Winners and Losers. *Challenge*, *65*(5-6), 151–159. https://doi.org/10.1080/05775132.2022.2156156

Weber, I. M., & Wasner, E. (2023). Sellers' inflation, profits and conflict: Why can large firms hike prices in an emergency? *Review of Keynesian Economics*, *11*(2), 183–213. https://doi.org/10.4337/roke.2023.02.05

Whalen, C. J. (2021). Post-Keynesian Institutionalism and the Failure of Neoliberalism: Returning Realism to Economics by Highlighting Economic Insecurity as the Flip Side of Financialization. *Journal of Economic Issues*, *55*(2), 469–476. https://doi.org/10.1080/00213624.2021.1909346

6 Appendix

The following approach was used to calculate the contributions to price inflation based on national income accounting data. Following Hein (2023), the accounting decomposition of the value of production, assuming that raw materials and semi-finished products are imported, can be written as follows:

$$p_Y Y = W + M^n + \Pi = wL + ap_f M + \Pi = wL + p_I M + \Pi \tag{19}$$

with M^n as nominal material costs in domestic currency and unit price for imported materials as $ap_f = p_I$. Dividing by Y yields the domestic GDP price level:

$$p_Y = \frac{wL}{Y} + \frac{p_I M}{Y} + \frac{\Pi}{Y} = \frac{w}{y} + p_I \mu + \pi \tag{20}$$

It is evident that unit price is composed of unit labor costs (w/y), unit material cost ($p_i \mu$), and unit profit (π).

In this approach, y and μ are assumed to be variable. To obtain the growth rates, total differencing with respect to time is conducted. This yields:

$$\dot{p}_Y = \frac{\dot{w}y - w\dot{y}}{y^2} + \dot{p}_I \mu + p_i \dot{\mu} + \dot{\pi} \tag{21}$$

In the next step, equation (21) is divided by the GDP price level and each term of the right-hand side is extended:

$$\frac{\dot{p}_Y}{p_Y} = \left(\frac{\dot{w}}{w} - \frac{\dot{y}}{y} \right) \frac{w}{p_Y y} + \left(\frac{\dot{p}_I}{p_I} + \frac{\dot{\mu}}{\mu} \right) \frac{p_I \mu}{p_Y} + \frac{\dot{\pi}}{\pi} \frac{\pi}{p_Y} \tag{22}$$

$$\hat{p}_Y = (\hat{w} - \hat{y}) \frac{w}{p_Y y} + (\hat{p}_I + \hat{\mu}) \frac{p_I \mu}{p_Y} + \hat{\pi} \frac{\pi}{p_Y} \tag{23}$$

The rate of inflation of the GDP price index is thus determined by the weighted averages of unit labor cost inflation ($\hat{w} - \hat{y}$), unit imported material cost inflation ($\hat{p}_I + \hat{\mu}$), and unit profit inflation ($\hat{\pi}$). The weights are determined by the respective shares in total price, or in the total value of production of the previous period each year, as in equation (19).

Put differently, equation (23) displays the growth rate of the domestic GDP price index on the left-hand side and the respective growth contribution on the right-hand side.

If $\hat{p}_Y$, $(\hat{w} - \hat{y})$, $(\hat{p}_i + \mu)$, and the weights for each type of inflation can be obtained from national accounts statistics, unit profit inflation can be calculated as:

$$\hat{\pi} = \frac{\hat{p}_Y - (\hat{w} - \hat{y})\frac{w}{p_Y y} - (\hat{p}_I + \hat{\mu})\frac{p_I \mu}{p_Y}}{\frac{\pi}{p_Y}} \tag{24}$$

Having outlined the theoretical considerations, the following gives an overview of which variables were used as proxys:

$(\hat{w} - \hat{y})$: unit labor cost inflation

$(\hat{p_I} + \hat{\mu})$: import price inflation plus inflation of μ

μ: real imports divided by real GDP plus real imports

$\frac{w}{p_Y y}$: compensation of employees divided by GDP plus imports

$\frac{p_I \mu}{p_Y}$: imports divided by GDP plus imports

$\frac{\pi}{p_Y}$: GDP minus compensation of employees divided by GDP plus imports

It is assumed that all imports enter the production as raw materials and semi-finished products.