Krakow Review of Economics and Management
Zeszyty Naukowe Uniwersytet Ekonomiczny w Krakowie
3 (1013)
2026

KREM, 2026, 3(1013): 97–116
ISSN 1898-6447
e-ISSN 2545-3238
https://doi.org/10.15678/krem.18811

Heterogeneous Impact of Inflation on Firms

Arkadiusz Sieroń

University of Wrocław, Faculty of Law, Administration, and Economics, Institute of Economic Sciences, Plac Uniwersytecki 1, 50-137 Wrocław, Poland, e-mail: arkadiusz.sieron@uwr.edu.pl,
ORCID: https://orcid.org/0000-0002-5817-8747

Suggested citation: Sieroń, A. (2026). Heterogeneous Impact of Inflation on Firms. *Krakow Review of Economics and Management / Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie*, 3(1013), 97–116. https://doi.org/10.15678/krem.18811

ABSTRACT

Objective: The article aims to examine the relationship between inflation and the structure of the business sector, or how inflation affects different companies.
Research Design & Methods: The paper is mainly theoretical, but considerations presented are illustrated by relevant empirical data.
Findings: Inflation has a heterogeneous impact on companies. Because inflation does not affect all firms in the same way, it redistributes income and wealth among companies and affects the structure of prices and production.
Implications/Recommendations: The presented analysis supports the arguments that money is not neutral, even in the long run. What is important is that the new structure of prices and production will be suboptimal, to the detriment of the proper functioning of the price mechanism and the productivity of the economy. It strengthens arguments against expansionary monetary policy. The findings of this study emphasise the need for further research.
Contribution: This study contributes to our understanding of the nature and consequences of inflation and enriches the debate on the redistributive effects of inflation. It adds to the existing literature, which focuses on the effects of inflation on households, by presenting an analysis of the heterogeneous effects of inflation on firms.

Article type: original article.

Keywords: firms, inflation, non-neutrality of money, income and wealth redistribution, structure of prices, structure of production.

JEL Classification: E31, E51, L11.

1. Introduction

Economists are increasingly studying the heterogeneous impact that inflation has on economic agents. However, researchers focus on households (Ferreira *et al*., 2023; Kiss & Strasser, 2024), concentrating mainly on analysing differences in expenditure patterns and inflation across income quintiles (Brainard, 2022; Klick & Stockburger, 2022; Corsello & Riggi, 2023; Jayashankar & Murphy, 2023). This is a valuable strand of research, although it ignores many aspects of inflation, which entails distributional effects through more channels than just diverse structures of expenditures within households (Sieroń, 2017a, 2019).

In this article, I focus on the heterogeneous impact of inflation on firms, which is not a sufficiently explored theme in the mainstream literature. There are a few papers on this topic, but they focus on the impact of the increase in energy prices (Guerrieri *et al*., 2023; Weber *et al*., 2024) or on the distinct response to increasing costs by firms of different sizes and productivity (Andrés & Burriel, 2018). The only exception I am aware of is the article by Belanová (2023), who found that the impact of inflation on businesses is heterogeneous, because, inter alia, the ability to pass on higher costs to customers differs among companies.

The article also contributes to the achievements of the Austrian School, which has always focused on the non-neutrality of money, the Cantillon effect, the structure of production and the heterogeneity of capital (von Mises, 1953, 1998; Skousen, 1990; Hayek, 2008; Rothbard, 2009; Cantillon, 2010). However, even within the Austrian literature, I have not come across a publication dealing entirely with the impact of inflation on different types of firms, apart from rather macroeconomic texts on the impact of credit expansion on the structure of production – this paper tries to fill this gap.

The remainder of the article is organised as follows. Section 2 starts with the analysis of the effects of uniform inflation. Section 3 examines the Cantillon effect and its consequences for the firms. Section 4 focuses on the role of firms' different structures of expenditures and assets in the process of inflation. Section 5 is devoted to how inflation affects the structure of companies in terms of selected parameters, such as size, sector, etc. Section 6 concludes.

2. Effects of Uniform Inflation on Firms

I shall begin my analysis of the impact of inflation on firms with a thought experiment in which the new money is evenly distributed in the economy, i.e., all market actors receive the new money at the same time and in proportion to their cash balances, and it leads to a proportional increase in prices. Even in such an unrealistic case, inflation may contribute to the redistribution of income and wealth among companies and to the changes in the structure of the business sector.

First, inflation has a different impact on the fiscal obligations of companies. Inflation decreases the real value of lump-sum taxes (and subsidies). The firms which pay poll or per-unit taxes (like excise taxes) will have a lower burden in real terms than firms paying income taxes (as a percentage of income). Moreover, in countries with progressive corporate income taxes, inflation leads to the so-called bracket creep (Wilson, 1982). And if the limits of tax deductions are not properly adjusted for inflation, the real burden of taxation increases.

Second, inflation reduces the real value of cash and cash equivalents. Hence, firm which hold more cash – such as retail companies, service companies, rather than manufacturing companies, and companies operating within the informal economy – are hurt more strongly by inflation.[1] Literature on households suggests that wealthier people hold a lower fraction of wealth in cash and its equivalents, and that they are more able to economise on cash and hedge against inflation (Kennickell & Starr-McCluer, 1996; Mulligan & Sala-i-Martin, 2000; Erosa & Ventura, 2002). The same logic applies to companies, i.e., larger entities are better equipped to protect themselves against inflation, as their wealth is less in cash in percentage terms, and they face a lower per-unit cost of financial services and credit purchases (Magerakis *et al*., 2020).

Third, inflation distorts business accounting. This is because inputs and capital goods are normally included in the accounts at their acquisition price. In an inflationary environment, the prices of products increase, so when companies sell them, they record extra profits. However, these gains are illusory, as firms will have to replace capital goods, inventories or inputs at higher prices as well. In other words, the problem is that when companies do not make inflationary provisions, the capital is consumed (von Mises, 1953, pp. 203–206; 1998, pp. 545–547; Baxter, 1955, p. 99). The key point here is that firms are to varying degrees susceptible to the inflationary accounting illusion. A lot will depend on the experience of owners and accountants, but also on the nature of the business. Companies that relatively slowly turn over their assets through sales, or firms with a greater proportion of capital equipment to product, seem to be more sensitive to inaccurate accounting for inflation (Rothbard, 2009, pp. 989–994).

[1] Here and elsewhere in the paper, I make statements of this kind using a ceteris paribus clause.

Fourth, inflation entails menu costs, which are costs that firms incur due to changing their prices. These costs and related frequency of price changes vary across companies (Bils & Klenow, 2004). For example, e-commerce companies have smaller menu costs than brick-and-mortar firms, and airline prices are more flexible than prices of postage stamps (Golosov & Lucas, 2007; Hillen & Fedoseeva, 2021).

Fifth, inflation depreciates currency.[2] The decrease in the exchange rate will be relatively supportive for net exporters, while harmful for net importers.[3] The net exporters include larger rather than smaller firms – or larger firms tend to export a higher share of their output (Hirsch & Adar, 1974; OECD, 2013) – and companies operating in the manufacturing sector rather than in the service sector (Eurostat, 2024).

Sixth, even if the money supply were to increase uniformly, the structure of demand would change. When the money supply increases, people will value each unit of money less, but not necessarily by the same percentage by which the money supply has increased. But even if such a scenario materialised, it would not mean that people would spend money on all goods in their pre-inflation basket in the same proportion. Thus, the structure of expenditures will change, which will modify the structure of prices and production (von Mises, 1953, p. 141).

In other words, even if one assumes that the price level rises proportionately to the increase in the money supply, the demand and prices of some goods will relatively increase, while the demand and prices of others will relatively decrease compared to the pre-inflation equilibrium. It means that inflation leads not only to a higher price level, but also to a different structure of relative prices, which supports a completely different structure of the business sector. What is important is that this new structure emerges not in response to endogenous market factors, but rather to exogenous increases in the money supply, which means that inflation distorts the structure of prices and production.

Last but not least, the theory about the proportional increase of prices in response to the rise in the money supply does not explain how this is actually happening, i.e., how prices actually go up in response to monetary impulses (Cantillon, 2010). In reality, companies set prices given the supply and demand conditions. Firms have different capacities to raise prices, without significantly worsening their situation (and, for example, without a negative effect on revenues). It means that even if there

[2] I included this effect in the section devoted to uniform inflation, although it should be noted that monetary impulses are reflected relatively quickly in the foreign exchange market (von Mises, 1998, pp. 452–453; Greszta *et al*., 2023).

[3] I wrote "relatively," as it can be argued that beneficial effect for net exporters is illusionary, resulting from the inflationary distortions of accounting and consumption of capital (von Mises, 1953, pp. 205–206).

is a uniform increase in the money supply, the prices will not rise proportionately, because different companies will increase the prices of their products by a dissimilar percentage, even in response to the same increase in costs.[4] Bruine de Bruin *et al*. (2023) estimated a rate of cost-price pass-through in the range of 60% for the representative firm over 2022–2023, but with significant heterogeneity in this number across firms (some companies reported a pass-through greater than one).

Firms with larger pricing power – which depends partially on the changes in the demand in response to inflation – will be in a relatively better position during inflation, and the increase of input prices. Conceptually, faced with rising costs, companies can either raise the prices of their products, with unchanged profit margin, or look for cost savings elsewhere, or increase sales, or accept a fall in profits. Firms that have more potential for these actions – for example, larger companies that are able to implement cost-reducing technologies – will be in a better position. Cevik, Fan and Naik (2024) found that the heterogeneous impact of inflation on firms is related to companies' ability in input substitution, which seems to be greater for firms in tradable sectors (as less labour-intensive) relative to non-tradable sectors.

3. Inflation, Cantillon Effect, and Firms

The effects listed in the previous section are important, but the major problem of inflation is that prices do not rise in a uniform way. This means that inflation affects the structure of prices, which leads to changes in the structure of production. This allocation effect implies that inflation has a differential impact on the firms. I shall now discuss the further channels through which inflation affects firms.

First, there is the Cantillon effect, which is defined as "the non-neutral effect of money resulting from the fact that newly created money is neither evenly nor simultaneously distributed among the population" (Sieroń, 2017a, p. 639) or as "a distribution effect resulting from uneven changes in money supply" (Sieroń, 2019, p. 15). The idea is simple: Changes in money supply occur through changes in the cash balances of certain economic agents. They – and only they – enjoy larger cash balances at their disposal with prices still unchanged. As these entities have more money, they will value each monetary unit less. As a result, their spending will increase, as well as the prices of the goods purchased by them. This effect

[4] Please note that models often assume that companies use cost-plus (markup) pricing. However, they do not explain how the costs, which are also prices (but of inputs) respond to inflation in the first instance. Instead, they assume that increase in costs is the cause of inflation, which is far from being satisfactory. After all, inflation is the rise in generally all prices, including the prices of inputs, and the rise in the prices of inputs is also something that theory of inflation should be able to explain. Moreover, from the economic point of view, costs are not externally given or fixed variables, to which prices must adjust, but rather factors that themselves conform to prices (Rothbard, 2009, pp. 588–600).

implies the redistribution of income and wealth from the late recipients of newly created money, who get the money only when prices have already increased, to the first recipients, who have enlarged cash balances with prices unchanged yet (Sieroń, 2019).

An important question in the context of the business sector is which firms are the early and which are the late recipients of new money. To provide an answer, it is necessary to point out earlier that, in the contemporary monetary system, the money supply is mostly created through the process of credit expansion (McLeay, Radia & Thomas, 2014). The implications of this fact are as follows.

First, financial markets are among the very first recipients of new money supply. This is because money is created when banks grant loans (or buy securities) or when the central bank purchases securities. This effect partially explains why the share of the financial sector of GDP has grown in virtually all developed countries over the last few decades. For example, the share of the financial sector in the American GDP increased from 4.9% in 1980 to 7.9% in 2007, while the stock market capitalisation increased from 50% to 141% GDP (Greenwood & Scharsfstein, 2012). Thus, firms operating in this sector (or firms which have access to funding from this sector) can relatively benefit from inflation. Another relatively winning sector could be construction and real estate, as most loans granted by banks in modern economies are mortgages (Sieroń, 2021).

Second, banks prefer to grant loans to the most creditworthy firms first. What is important here is that creditworthiness is a function of wealth and the value of collateral (Balac, 2008). It has significant consequences for the allocation of capital. The logic of credit expansion supports relatively larger companies, which have more valuable collaterals and are more creditworthy, while some small companies may not even have collaterals and access to bank credit at all (Nguyen & Qian, 2012).

However, firms that can offer appropriate collateral (e.g., firms that have the right assets from the perspective of creditors) are not necessarily the most productive firms. Cecchetti and Kharroubi (2015) find that financial-sector growth disproportionately benefits high-collateral/low-productivity projects, which misallocates resources into activities whose output is easy to pledge as collateral and reduces growth in total factor productivity. Thus, the credit expansion changes the structure of production in a way that is not economically optimal.

Third, credit expansion lowers the interest rate, because the new money enters the economy through the credit market (Hayek, 2008). The decrease in the interest rate relatively supports firms that are net debtors, and firms that are operating in sectors sensitive to the interest rate changes, or that have such assets. Durable goods manufacturing and construction sectors are believed to be the most interest-sensitive sectors (Willis & Cao, 2015).

Fourth, according to the Austrian business cycle theory, credit expansion and lowering of interest rates encourage entrepreneurs to invest in processes that generate consumer goods in a far more distant future than consumers would like, or in capital goods for more roundabout, longer processes of production (von Mises, 1998; Garrison, 2001; Huerta de Soto, 2006; Hayek, 2008; Rothbard, 2009). In other words, according to the Austrian School, if the new money is injected into the economy through the credit expansion, the profitability of investment in stages of production farther from consumption rises, which encourages entrepreneurs to reorganise their spending more into producing capital goods rather than consumption goods. There is a relative rise in prices of the former goods and of turnover at the stages of production more distant from consumption. When the credit expansion halts or even slows down, these shifts in the structure of relative prices and of production reverse. However, the process of credit expansion supports companies operating relatively far from the consumer sector. It is, of course, not possible to match industry-level data to the conceptual structure of production, but it seems that most researchers would agree that mining and logging, construction, and manufacturing represent stages of production relatively distant from consumption (Foldvary, 2015; Schaffer, 2017).

4. Inflation and Firms' Structure of Expenditures and Assets

An increase in the money supply practically never entails uniform price inflation, partially because of the unequal distribution of new money, i.e., the Cantillon effect, analysed above.[5] The changes in the structure of relative prices lead to modifications in the structure of production and to further alterations in income distribution due to the fact that firms have a different structure of expenditure and assets.

First, monetary inflation entails redistribution of income from firms that buy goods and services at prices increasing faster than the prices of the goods and services they sell, to companies that sell goods and services at prices increasing faster than the prices of goods and services they buy, or from companies that buy more of the goods and services whose prices increase relatively. In other words, the structure of expenditures will be an important factor contributing to the heterogonous impact of inflation on firms.[6] It seems that energy intensity is of particularly great importance here. This is because the prices of energy inputs are very volatile

[5] In theory, we can imagine a situation in which people who were the first to receive new money decided in solidarity to destroy it, or that through some strange coincidence, the structure of expenditures in the society following an increase in the money supply, together with its distribution consequences, would be identical to the structure prior to the increase. However, in practice, we can disregard such cases of neutrality of money (uniform price inflation) as highly unrealistic.

[6] However, if all prices changed at the same time in the same proportion, the structure of expenditure would not matter.

(Belanová, 2023).[7] Indeed, the energy prices rose the most during the post-pandemic recovery among the components of the Producer Price Index for final demand in the US, as the Figure 1 shows. Thus, companies with higher energy intensity could experience recent inflation more strongly.

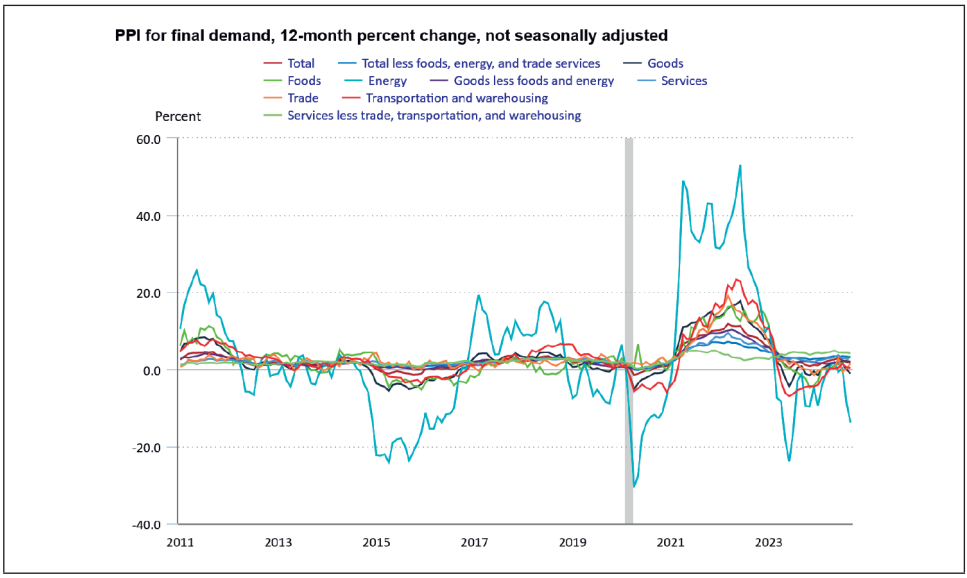

Fig. 1. Components of US PPI for Final Demand, 12-month % Change, Not Seasonally Adjusted

Source: U.S. Bureau of Labor Statistics (2024).

The example of French manufacturing firms in the period from Q1 2021 to Q2 2022 can be illustrative. Lafrogne-Joussier, Martin and Mejean (2023) found an important heterogeneity among these companies' exposure to an increase in the prices of imported inputs and energy. For the median firm, these shocks lifted output prices by around 0.54 and 0.37 percentage points, respectively. However, for the one per cent most exposed companies to each of these shocks, the numbers were 7.1 and 6.7 percentage points, respectively. The most affected industries were chemicals, metals, paper, and textiles (Lafrogne-Joussier, Martin & Mejean, 2023).

The labour-intensity will be also of great importance, as labour costs are one of the largest parts of the total business costs (Paycor, 2022). However, during the post-pandemic inflation, the increase in prices of services in the euro area has been stronger in services sectors that are less-labour intensive and more intensive in non-labour inputs (Lane, 2022).

[7] Also the extent to which long-term contracts are used relative to spot markets will be important for the impact of inflation on firms.

Second, monetary inflation entails the redistribution of wealth from companies whose assets increase more slowly in price as a result of inflation to those whose assets rise more rapidly in price. In other words, not only the structure of expenditures, but also the structure of assets is important. The crucial fact here is that the larger firms typically have smaller holdings of cash and greater holdings of inflation-resistant assets than smaller companies.

The structure of assets can actually be generalised into the composition of the balance sheet. After all, an important channel of redistribution is from creditors to debtors. Some prices cannot be quickly adjusted because they are fixed. Because inflation reduces the real value of nominal liabilities, creditors, that is, debt-holders, suffer from inflation for the benefit of debtors (Fisher, 1933). Small companies rely more on internal funds (Berger & Udell, 1998; World Bank, 2019), while larger firms have a higher proportion of debt (Upneja, Hyunjoon & Singh, 2000; Chatterjee & Eyigungor, 2023).

5. Inflation and Types of Companies

Now that we know the different redistributive mechanisms of inflation in the business sector, we can analyse how inflation affects various firms, in terms of size, sector, or the nature of the goods offered.

First, inflation affects companies of different sizes differently. It seems that inflation is relatively harmful for smaller companies. For example, in a survey of 1,000 businesses around the UK in June 2023, it turned out that 77% of the total businesses and 84% of micro-businesses (companies with less than 10 employees) reported that the rising inflation rates in the country have had a negative impact on their businesses (Amphunan, 2023).

This is because smaller firms are less indebted and have fewer long-term contracts for inputs. They have weaker access to bank credit and fewer assets that could serve as an inflation hedge or collateral. They have lower profit margins and are generally less able to protect themselves against inflation. Small companies are concentrated in the service sector (Exploring Business, 2016), which seems to benefit less from credit expansion and inflation (compared to, for example, the construction sector).[8]

Second, inflation affects companies in various sectors differently. Firms producing capital goods (or extracting natural resources) seem to relatively benefit from credit expansion as they operate in stages of production farther from consumption. Financial and construction sectors also seem to relatively benefit as early

[8] On the other hand, smaller and less productive companies have stronger cost pass-through than larger and more productive firms, whose initial response of output prices is smaller, and it takes longer for them to fully adjust to the cost shock (Andrés & Burriel, 2018).

recipients of new money. The fact that the value of the US main stock market index and house price index rose much more than CPI during the post-pandemic recovery is illustrated in the Figure 2. The financial and construction sectors can also benefit because certain financial assets and real estate are considered to be good inflation hedges or good assets in low-interest rates environment. The construction sector is also sensitive to the lowering of the interest rates.

When it comes to firms operating in services and goods sectors, the former have lower energy intensity (Ritchie, Rosado & Roser, 2023), so they will suffer less in inflation episodes during which energy prices substantially rise.[9] They are also smaller companies within the services sector, so the heterogeneous impact of inflation on firms in terms of size will affect different sectors accordingly.

On the other hand, it seems that productivity improvements in services are harder to achieve than in goods-producing industries, which means that a firm operating in the latter sector could have more room to absorb cost increases (Baumol, 1967). Indeed, the price decreases are more prevalent in the goods sector, as Figures 3 and 4 show (for the US and the euro area, respectively). However, these charts also present that the price of goods increased much higher than the price of services in the aftermath of the pandemic, as there was a shift in the structure of consumer spending from services to goods due to the health restrictions and social-distancing measures (Gros, 2020).

There is also a question of the impact of inflation on firms with more and less market power. It seems that firms operating in competitive markets have less room to increase prices in response to rising costs. In one survey, about 70% of companies reported that competition limited their potential to adjust prices (Gödl-Hanisch & Menkhoff, 2023). Thus, cost pass-through may be larger within concentrated markets (Brauning, Fillat & Joaquim, 2022). However, companies with market power may also try to gain market share over their competitors by not (fully) adjusting product prices in a period of rising costs (Amiti, Itskhoki & Konings, 2019).

Third, when it comes to the nature of goods, inflation makes the production of cheaper goods of lower quality more profitable. Firms can substitute the expensive inputs with cheaper ones or shrink the size or volume of the product instead of increasing the nominal price (Sieroń, 2017b). Moreover, the price elasticity of demand for luxury goods is higher than for necessities, so the demand should shift into basic goods. On the other hand, production of high-margin goods is more resilient to inflation, and production of luxury goods seems to yield higher margins. Also, strong brands and companies selling products to relatively richer consumers seem to have more room for price increases.

[9] The services sector seems to have higher labour intensity, so companies operating within this sector should suffer more in inflation episodes during which wages substantially rise.

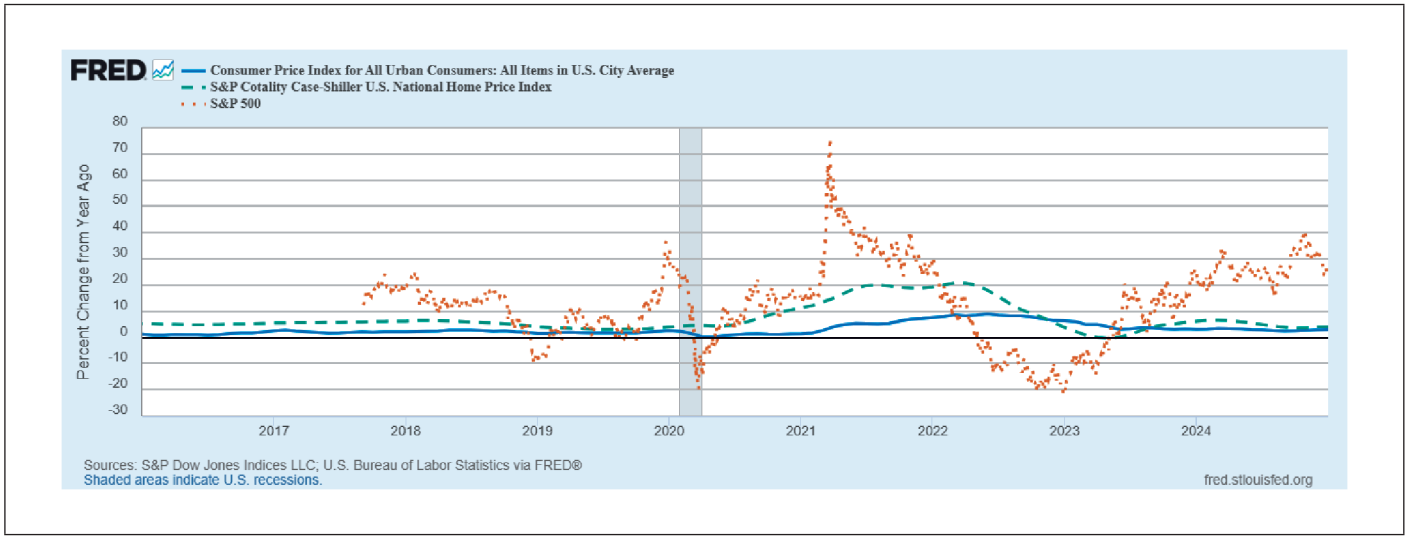

Fig. 2. US Consumer Price Index, S&P Cotality Case-Shiller US National Home Price Index, and S&P 500 Index in 2016–2024
Source: Federal Reserve Bank of St. Louis (2024).

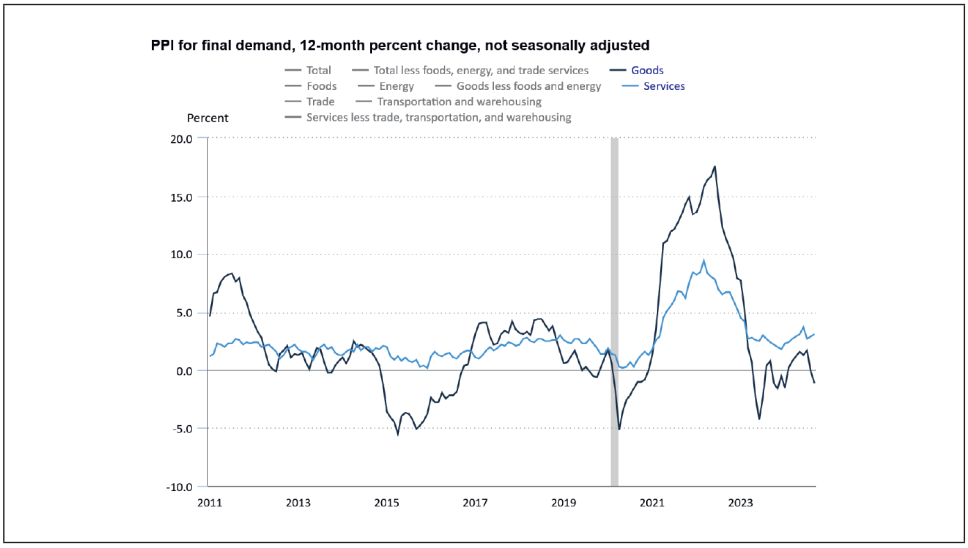

Fig. 3. Components of US PPI for Final Demand, 12-month % Change, Not Seasonally Adjusted

Source: U.S. Bureau of Labor Statistics (2024).

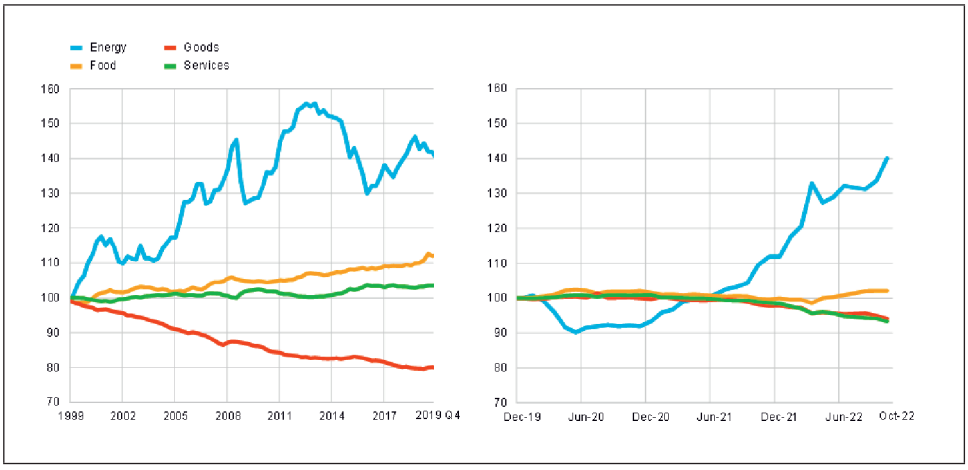

Fig. 4. Price Developments Relative to HICP for Different Subcomponents (Left – Index: 1998 Q4 = 100, Right – Index: December 2019 = 100)

Source: Lane (2022).

According to some research, the post-pandemic inflation was accompanied by "cheapflation," i.e., "a faster rise in prices of cheaper goods relative to prices of more expensive varieties of the same good" (Cavallo & Kryvtsov, 2024, p. 1). Cavallo and Kryvtsov (2024) mention a few mechanisms that could explain this phenomenon, including the increase in relative demand for cheaper products as substitutes or the quicker cost pass-through to consumer prices due to lower profit margins of such products. It might also be the consequence of the absolute increase in some costs – when we add the same number to the lower and higher prices, the relative price of the cheaper good increases, making it relatively less attractive. In any case, if the prices of cheaper products increase faster than their more expensive counterparts, there is a price compression, which seems to be detrimental to producers of relatively cheaper goods purchased by relatively poor households.

6. Conclusions

In this article, I have offered an analysis of the heterogeneous effects of inflation on firms. I demonstrated that even uniform monetary inflation entails income and wealth redistribution and affects the structure of the business sector, because companies differ in terms of their cash holdings, fiscal obligations, menu costs, inflationary adjustments of financial statements, or sensitivity to the depreciation of the exchange rate.

In reality, however, the new money supply never enters the economy evenly, and prices do not change in a uniform way. This means that monetary inflation always entails redistribution of income and wealth (the Cantillon effect). Generally, such redistribution goes from companies whose incomes rise more slowly as a result of inflation (i.e., creditors, late recipients of new money) to firms whose incomes rise more rapidly (i.e., debtors, early recipients of newly created money). The former businesses include also those who observe prices of their assets and offered goods rising more slowly, while the prices of purchased goods increase faster. Meanwhile, the latter companies include those who observe prices of their assets and offered goods at rising prices, while the prices of purchased goods increase more slowly.

As the new money enters the economy through the process of credit expansion, there will be also redistribution of income and wealth from firms that operate in stages of production closer to consumption, insensitive to interest rates, and without access to credit to those with such an access to companies that in stages of production farther from consumption, sensitive to interest rates, and with high creditworthiness.

It seems that inflationary redistribution of income and wealth occurs from smaller to larger companies. This is because the former firms are less credit-worthy,

operate in the services sector and stages of production closer to consumption, and generally have less ability to protect themselves against inflation than larger firms.

The presented analysis supports the arguments that money is not neutral, even in the long run.[10] This is because inflation does not affect all firms in the same way, which means that it affects the structure of prices and production. What is important is that the new structure of production and allocation of capital will be suboptimal – it would emerge with inflation, which adds noise to the signals conveyed by the price mechanism – to the detriment of the productivity of the economy (Hayek, 1948; Lucas, 1972; Friedman, 1977; Adam, Alexandrov & Weber, 2024).

This paper contributes to our understanding of the nature and consequences of inflation also in other ways. It shows that inflation is not simply a matter of the relation between aggregate demand and capacity utilisation, but that it can occur together with under-utilisation of resources. This is because the increase in the money supply has inflationary effects even if some of the resources are not fully used. What is important here is that inflation always distorts the structure of relative prices and production and has a heterogeneous impact on the business sector, which means that inflation and structural problems can occur together.

The article enriches the debate on the redistributive effects of inflation. The literature focuses on the redistribution of income and wealth between households, but inflation also affects the income and wealth of companies. It is an important phenomenon on its own, especially for the economics of inflation, as well as for the economics of firms and inequality between them (Loecker, Obermeier & van Reenen, 2024). However, it can also increase our understanding of inequality between households, because divergence in business performance can contribute to wage inequality and because firms are ultimately owned by households (OECD, 2021). What is important is that inflation leads to the structure of production and income (and wealth) that is not justified fully by real or market factors – it means that some incomes will be of an inflationary nature rather than earned – but that is partially distorted by monetary factors. It weakens the signalling, coordinating, allocative, and rewarding functions of the price mechanism, and it creates winners and losers in an arbitrary, random way.[11]

---

[10] The long-run is commonly defined as the period when the economy has already achieved the equilibrium after the monetary impulse, while the short run as temporary period when the real sphere has been disrupted and not yet returned to the equilibrium (Fisher, 1922). The article does not deny the equilibrium trend in the economy, but it strengthens the argument that, after the monetary disturbance, the economy will not return to its original equilibrium (or equilibrium path) with only nominal variables changed.

[11] What is more, if firms make some irreversible investments that are profitable during inflation, they could be more willing to support inflationary policies, making inflation more persistent. See: Acemoglu, Johnson and Robinson (2001) who make such an argument but about institutional persistence.

What are the policy implications of this article? I believe that the redistributive impact of inflation on the structure of the business sector strengthens arguments against expansionary monetary policy, which could unintentionally lead to income and wealth redistribution between firms, and to changes in the structure of production, despite the lack of legitimacy of central banks to redistribute income and wealth among society, and to allocate capital. It is worth mentioning here that if inflation hits smaller firms harder, it can lead to higher market concentration, which is often associated with reduced competition and higher prices for consumers (Aznar, 2024).

The article is by no means exhaustive, and its findings emphasise the need for further research. Empirical studies showing the behaviour of prices and profits indicators in different companies during inflation, as well as papers investigating the process of price formation, would be particularly fruitful.

Conflict of Interest

The author declares no conflict of interest.

References

Acemoglu, D., Johnson, S., & Robinson, J. A. (2001). The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review*, *9*(15), 1369–1401. https://doi.org/10.1257/aer.91.5.1369

Adam, K., Alexandrov, A., & Weber, H. (2024). *Inflation Distorts Relative Prices: Theory and Evidence* (Deutsche Bundesbank Discussion Paper No. 23/2024). Deutsche Bundesbank. Retrieved from: https://ssrn.com/abstract=4886066 (accessed: 14.08.2024).

Amiti, M., Itskhoki, O., & Konings, J. (2019). International Shocks, Variable Markups, and Domestic Prices. *The Review of Economic Studies*, *86*(6), 2356–2402. https://doi.org/10.1093/restud/rdz005

Amphunan, K. (2023). *Do Small Businesses Suffer the Most from Rising Inflation?* Savanta. Retrieved from: https://savanta.com/knowledge-centre/view/do-small-businesses-suffer-the-most-from-rising-inflation/ (accessed: 8.10.2024).

Andrés, J., & Burriel, P. (2018). Inflation and Optimal Monetary Policy in a Model with Firm Heterogeneity and Bertrand Competition. *European Economic Review*, *103*, 18–38. https://doi.org/10.1016/j.euroecorev.2017.12.009

Aznar, P. (2024). The Moderating Effect of Seasonality in the Hotel Industry. Does Market Concentration Favour Tacit Collusion? *European Journal of Tourism Research*, *37*, 3711. https://doi.org/10.54055/ejtr.v37i.3515

Balac, Z. (2008). Monetary Inflation's Effect on Wealth Inequality: An Austrian Analysis. *Quarterly Journal of Austrian Economics*, *11*(1), 1–17. https://doi.org/10.1007/s12113-008-9028-4

Baumol, W. J. (1967). Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crises. *American Economic Review*, *57*(3), 415–426.

Baxter, W. T. (1955). The Accountant's Contribution to the Trade Cycle. *Economica. New Series*, *22*(86), 99–112. https://doi.org/10.2307/2626845

Belanová, K. (2023). How Increased Inflation Affects Businesses. *SAR Journal-Science and Research*, *6*(1), 3–8. https://doi.org/10.18421/SAR62-01

Berger, A., & Udell, G. F. (1998). The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle. *Journal of Banking & Finance*, *22*(6–8), 613–673. https://doi.org/10.1016/S0378-4266(98)00038-7

Bils, M., & Klenow, P. J. (2004). Some Evidence on the Importance of Sticky Prices. *Journal of Political Economy*, *112*(5), 947–985. https://doi.org/10.1086/422559

Brainard, L. (2022). *Variation in the Inflation Experiences of Households*. Speech at the Spring 2022 Institute Research Conference, Opportunity and Inclusive Growth Institute, Federal Reserve Bank of Minneapolis, Minneapolis, Minnesota, 5 April, 2022. Board of the Governors of the Federal Reserve System. Retrieved from: https://www.federalreserve.gov/newsevents/speech/brainard20220405a.htm (accessed: 13.08.2024).

Brauning, F., Fillat, J., & Joaquim, G. (2022). *Cost-Price Relationships in a Concentrated Economy*. Federal Reserve Bank of Boston Current Policy Perspectives, 23 May.

Bruine de Bruin, W., Dogra, K., Heise, S., Knotek, E. S., II, Meyer, B. H., Rich, R. W., Schoenle, R. S., Topa, G., & van der Klaauw, W. (2023). How Do Firms Adjust Prices in a High Inflation Environment? *Liberty Street Economics*, 2 June. Retrieved from: https://libertystreeteconomics.newyorkfed.org/2023/06/how-do-firms-adjust-prices-in-a-high-inflation-environment/ (accessed: 13.08.2024).

Cantillon, R. (2010). *Essay on the Nature of Trade in General*. Ludwig von Mises Institute. (Original work published 1755).

Cavallo, A., & Kryvtsov, O. (2024). Price Discounts and Cheapflation during the Post--pandemic Inflation Surge. *Journal of Monetary Economics*, *148*(Supplement), 103644. https://doi.org/10.1016/j.jmoneco.2024.103644

Cecchetti, S., & Kharroubi, E. (2015). *Why Does Financial Sector Growth Crowd out Real Economic Growth?* (BIS Working Papers No. 490). Bank for International Settlements.

Cevik, S., Fan, A., & Naik, S. (2024). *Is Inflation Good for Business? The Firm-level Impact of Inflation Shocks in the Baltics, 1997–2021* (IMF Working Paper No. 24/43). International Monetary Fund. https://doi.org/10.5089/9798400269059.001

Chatterjee, S., & Eyigungor, B. (2023). The Firm Size-leverage Relationship and Its Implications for Entry and Business Concentration. *Review of Economic Dynamics*, *48*, 132–157. https://doi.org/10.1016/j.red.2022.04.002

Corsello, F., & Riggi, M. (2023). *Inflation Is Not Equal for All: The Heterogenous Effects of Energy Shocks* (Banca D'Italia Working Paper No. 1429). Banca D'Italia. https://doi.org/10.32057/0.TD.2023.1429

Erosa, A., & Ventura, G. (2002). On Inflation as a Regressive Tax. *Journal of Monetary Economics*, *49*(4), 761–795. https://doi.org/10.1016/S0304-3932(02)00115-0

Eurostat. (2024). *World Trade in Services, Statistics Explained*. Retrieved from: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=World_trade_in_services (accessed: 9.10.2024).

Exploring Business. (2016). *Section 5.3: What Industries Are Small Businesses in?* University of Minnesota. Retrieved from: https://open.lib.umn.edu/exploringbusiness/chapter/5-3-what-industries-are-small-businesses-in/ (accessed: 17.10.2024).

Federal Reserve Bank of St. Louis. (2024). *Consumer Price Index for All Urban Consumers: All Items in U.S. City Average*. Retrieved from: https://fred.stlouisfed.org/series/CPIAUCSL (accessed: 17.10.2024).

Ferreira, C., Leiva, J. M., Nuño, G., Ortiz, A., Rodrigo, T., & Vazquez, S. (2023). *The Heterogeneous Impact of Inflation on Households Balance Sheets* (BIS Working Paper No. 1152). Bank for International Settlements.

Fisher, I. (1922). *The Purchasing Power of Money, Its Determination and Relation to Credit, Interest and Crises*. Macmillan.

Fisher, I. (1933). The Debt-Deflation Theory of Great Depressions. *Econometrica*, *1*(4), 337–357. https://doi.org/10.2307/1907327

Foldvary, F. E. (2015). The Austrian Theory of the Business Cycle. *American Journal of Economics and Sociology*, *74*(2), 278–297. https://doi.org/10.1111/ajes.12098

Friedman, M. (1977). Nobel Lecture: Inflation and Unemployment. *Journal of Political Economy*, *85*(3), 451–472. https://doi.org/10.1086/260579

Garrison, R. W. (2001). *Time and Money: Macroeconomics of Capital Structure*. Routledge.

Gödl-Hanisch, I., & Menkhoff, M. (2023). *Firms' Pass-Through Dynamics: A Survey Approach* (CESifo Working Paper Series No. 10520). CESifo.

Golosov, M., & Lucas, R. E., Jr. (2007). Menu Costs and Phillips Curves. *Journal of Political Economy*, *115*(2), 171–199. https://doi.org/10.1086/512625

Greenwood, R., & Scharfstein, D. (2012). *The Growth of Modern Finance* (Social Science Research Network Working Paper). Retrieved from: https://ssrn.com/abstract=2162179 (accessed: 23.10.2024).

Greszta, M., Humanicki, M., Kapuściński, M., Kleszcz, T., Kocięcki, A., Kotłowski, J., Ledóchowski, M., Łesyk, M., Łyziak, T., Pipień, M., Popowski, P., Stanisławska, E., Szafranek, K., Szafrański, G., Ścibisz, D., Wesołowski, G., & Wróbel, E. (2023). *Monetary Policy Transmission Mechanism in Poland. What Do We Know in 2023?* (NBP Working Paper No. 365). Narodowy Bank Polski.

Gros, D. (2020). Europe and the COVID-19 Crisis: The Challenges Ahead. *CEPS Policy Insights*, 20 September. Retrieved from: https://www.ceps.eu/wp-content/uploads/2020/09/PI2020–20_Europe-and-the-Covid-19-crisis.pdf (accessed: 5.10.2021).

Guerrieri, V., Marcussen, M., Reichlin, L., & Tenreyro, S. (2023). *Geneva 26: The Art and Science of Patience: Relative Prices and Inflation*. CEPR Press. Retrieved from: https://cepr.org/publications/books-and-reports/geneva-26-art-and-science-patience-relative-prices-and-inflation (accessed: 13.08.2024).

Hayek, F. A. (1948). The Use of Knowledge in Society. In: F. A. Hayek (Ed.), *Individualism and Economic Order* (pp. 77–91). University of Chicago Press.

Hayek, F. A. (2008). Prices and Production. In: J. Salerno (Ed.), *Prices and Production and Other Works: F. A. Hayek on Money, the Business Cycle, and the Gold Standard* (pp. 189–329). Ludwig von Mises Institute. (Original work published 1935).

Hillen, J., & Fedoseeva, S. (2021). E-commerce and the End of Price Rigidity? *Journal of Business Research*, *125*, 63–73. https://doi.org/10.1016/j.jbusres.2020.11.052

Hirsch, S., & Adar, Z. (1974). Firm Size and Export Performance. *World Development*, *2*(7), 41–46. https://doi.org/10.1016/0305-750X(74)90046-1

Huerta de Soto, J. (2006). *Money, Bank Credit, and Economic Cycles*. Ludwig von Mises Institute.

Jayashankar, A., & Murphy, A. (2023). *High Inflation Disproportionately Hurts Low-Income Households*. Federal Reserve Bank of Dallas. Retrieved from: https://www.dallasfed.org/research/economics/2023/0110 (accessed: 13.08.2024).

Kennickell, A. B., & Starr-McCluer, M. (1996). *Household Savings and Portfolio Change: Evidence from the 1983–89* (SCF Panel Finance and Economics Discussion Series No. 18). Federal Reserve Board of Governors.

Kiss, R., & Strasser, G. (2024). *Inflation Heterogeneity across Households* (ECB Working Paper No. 2898). European Central Bank. https://doi.org/10.2866/531182

Klick, J., & Stockburger, A. (2022). *Inflation Experiences for Lower and Higher Income Households*. *Spotlight on Statistics*. U.S. Bureau of Labor Statistics. Retrieved from: https://www.bls.gov/spotlight/2022/inflation-experiences-for-lower-and-higher-income-households/home.htm (accessed: 13.08.2024).

Lafrogne-Joussier, R., Martin, J., & Mejean, I. (2023). *Cost Pass-Through and the Rise of Inflation* (Documents de Travail de l'Insee – INSEE Working Papers No. 2023-13). Institut National de la Statistique et des Etudes Economiques.

Lane, P. R. (2022). *Inflation Diagnostics*. The ECB Blog, 25 November. Retrieved from: https://www.ecb.europa.eu/press/blog/date/2022/html/ecb.blog221125~d34babdf3e.en.html (accessed: 23.10.2024).

Loecker, J. D., Obermeier, T., & van Reenen, J. (2024). Firms and Inequality. *Oxford Open Economics*, *3*(Supplement 1), i962–i982. https://doi.org/10.1093/ooec/odad097

Lucas, R. E., Jr. (1972). Expectations and the Neutrality of Money. *Journal of Economic Theory*, *4*(2), 103–124.

Magerakis, E., Gkillas, K., Tsagkanos, A., & Siriopoulos, C. (2020). Firm Size Does Matter: New Evidence on the Determinants of Cash Holdings. *Journal of Risk and Financial Management*, *13*(8), 163. https://doi.org/10.3390/jrfm13080163

McLeay, M., Radia, A., & Thomas, R. (2014). Money Creation in the Modern Economy. *Bank of England Quarterly Bulletin*, *Q1*, 14–27.

Mulligan, C. B., & Sala-i-Martin, X. (2000). Extensive Margins and the Demand for Money at Low Interest Rates. *Journal of Political Economy*, *108*(5), 961–991. https://doi.org/10.1086/317676

Nguyen, H. M., & Qian, R. (2012). *Why Are Small Firms Less Likely to Pledge Collateral for Formal Loans than Large Firms?* World Bank Blogs. Retrieved from: https://blogs.worldbank.org/en/developmenttalk/why-are-small-firms-less-likely-to-pledge-collateral-for-formal-loans-than-large-firms (accessed: 10.10.2024).

OECD. (2013). Exports by Enterprise Size Class. In: *Entrepreneurship at a Glance*. OECD Publishing. https://doi.org/10.1787/entrepreneur_aag-2013-11-en

OECD. (2021). *The Role of Firms in Wage Inequality: Policy Lessons from a Large Scale Cross-Country Study*. OECD Publishing. https://doi.org/10.1787/7d9b2208-en

Paycor. (2022). The Biggest Cost of Doing Business: A Closer Look at Labor Costs. *The Business Journals*, 1 May. Retrieved from: https://www.bizjournals.com/bizjournals/news/2022/05/01/the-biggest-cost-of-doing-business.html (accessed: 10.10.2024).

Ritchie, H., Rosado, P., & Roser, M. (2023). *Energy*. OurWorldinData.org. Retrieved from: https://ourworldindata.org/energy (accessed: 17.10.2024).

Rothbard, M. N. (2009). *Man, Economy, and State with Power and Market* (Scholar's ed.). Ludwig von Mises Institute.

Schaffer, M. (2017). Labor Market Effects in the Austrian Business Cycle Theory. *The Quarterly Journal of Austrian Economics*, *20*(3), 224–254.

Sieroń, A. (2017a). Inflation and Income Inequality. *Prague Economic Papers*, *26*(6), 633–645. https://doi.org/10.18267/j.pep.630

Sieroń, A. (2017b). The Non-Price Effects of Monetary Inflation. *Quarterly Journal of Austrian Economics*, *20*(2), 146–163.

Sieroń, A. (2019). *Money, Inflation and Business Cycles. The Cantillon Effect and the Economy*. Routledge.

Sieroń, A. (2021). *Monetary Policy after the Great Recession. The Role of Interest Rates*. Routledge.

Skousen, M. (1990). *The Structure of Production*. New York University Press.

Upneja, A., Hyunjoon, K., & Singh, A. (2000). Differences in Financial Characteristics between Small and Large Firms: An Empirical Examination of the Casino Industry. *The Journal of Hospitality Financial Management*, *8*(1), 23–35. https://doi.org/10.1080/10913211.2000.10653733

U.S. Bureau of Labor Statistics. (2024). *PPI for Final Demand, 12-Month Percent Change, Not Seasonally Adjusted*. Retrieved from: https://www.bls.gov/charts/producer-price-index/final-demand-12-month-percent-change.htm (accessed: 17.10.2024).

von Mises, L. (1953). *The Theory of Money and Credit*. Yale University Press. (Original work published 1912).

von Mises, L. (1998). *Human Action: A Treatise on Economics* (Scholar's ed.). Ludwig von Mises Institute. (Original work published 1949).

Weber, I. M., Jauregui, J. L., Teixeira, L., & Pires, L. N. (2024). Inflation in Times of Overlapping Emergencies: Systemically Significant Prices from an Input–Output Perspective. *Industrial and Corporate Change*, *33*(2), 297–341. https://doi.org/10.1093/icc/dtad080

Willis, J. L., & Cao, G. (2015). Has the U.S. Economy Become Less Interest Rate Sensitive? *Macro Bulletin*, July, 1–3. Federal Reserve Bank of Kansas City.

Wilson, G. (1982). *Inflation: Causes, Consequences and Cures*. Indiana University Press.

World Bank. (2019). *Small and Medium Enterprises* (*SMEs*) *Finance*. Retrieved from: https://www.worldbank.org/en/topic/smefinance (accessed: 10.10.2024).