



INFLATION, PROFITS AND MARKET POWER

TOWARDS A NEW RESEARCH AND POLICY AGENDA

Carsten Jung and **Chris Hayes**

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SUMMARY

In the aftermath of the pandemic, as the global economy rebounded, it was accompanied by a dramatic rise in inflation, reaching levels not seen since the 1970s, peaking at 9 and 11 per cent in Europe and 11 per cent in the US. Post pandemic supply bottlenecks were exacerbated by an energy shock following Russia's invasion of Ukraine. While these were clearly the initial trigger of high inflation, a recent debate highlights an often-overlooked amplifying factor: corporate profits.

In this paper we summarise some key aspects of the literature around this, present novel firm-level analysis across countries, and highlight gaps in the research and policy debate.

We argue that market power by some corporations and in some sectors – including temporary market power emerging in the aftermath of the pandemic – amplified inflation. It made price increases peak higher and remain more persistent than they would have been in a world with less market power. To be clear: corporate profits were thus not the sole driver of inflation, nor are dominant corporations to blame for the energy shock caused by Russia's invasion of Ukraine. But we argue that their market power exacerbated the fallout – and that this is not sufficiently captured in the prevailing macroeconomic debate or in workhorse models. We also highlight that, unlike what seems to be commonly claimed, profit margins do not have to rise in order for profits to contribute to inflation. In an energy shock scenario, if costs were equally shared between wage earners and company owners one would expect the rate of return to fall as firms do not increase prices fully to make up for higher costs, and wage earners do not fully keep up with inflation. But this is not what happened. A stable rate of return – for example, as seen in the UK – suggests pricing power by firms, which allowed them to increase prices to protect their margins.

Market power wielded by dominant firms, so the nascent literature shows, make supply chains less robust, cause price signals fail, and lead to macroeconomic tools being less effective at fighting inflation than they would otherwise be as (Eeckhout 2022; IMF 2021).

We stress that more needs to be done to tackle market power and its large economic costs. With regards to analysis, we highlight the need for a global market power index, supported by more harmonised measures of excess profits across countries. The economics discipline and macroeconomic organisations, such as central banks, need to catch up by understanding better the evolution and drivers of 'excess profits' and their potential role in amplifying inflation and other macroeconomic phenomena. As the Bank of England's Jonathan Haskel (2023) says, we need a "behavioural model of wages, prices and their interaction with monetary policy". This needs to include dynamic consideration of how some firms protecting their profit margins can amplify external inflation shocks (Weber and Wasner 2023).

With regards to policy, we propose two major shifts. Firstly, as we argued in Hayes and Jung (2022), there is a need for a global approach towards taxing excess profits. The Economist magazine estimates these to be at \$4 trillion (Economist 2023). According to an IMF working paper (Hebous et al 2022), the potential revenue from taxing excess profits globally could be \$100 billion, a 4 per cent increase of global tax revenue. At the same time, if combined with pro-investment tax reform, it could increase economic efficiency by reducing inefficient 'rent-seeking' by dominant corporations and encouraging productive investment.

Secondly, we argue in favour of a new direction for competition policy, which builds on the new paradigm that is emerging in the development of digital markets. Traditional competition policy is generally ex post and case-specific. More novel approaches to competition – such as embedded in the EU Digital Markets Act (DMA) and as proposed in the UK's digital markets, competition and consumer (DMCC) bill – on the other hand, is ex ante and sector-specific, meaning it tries to set the rules of the game before any anticompetitive behaviour happens. Moreover, we see scope to understand competition policy as an instrument for facilitating macroeconomic stabilisation in a turbulent environment, and not merely for preventing and remedying microeconomic harms.

1. INTRODUCTION

As the world economy bounced back from the pandemic, it was accompanied by a surge in inflation not seen since the 1970s, compounded by Russia's invasion of Ukraine and the accompanying energy crunch. Above target inflation started in 2021 and is projected to last well into 2023, with inflation rates peaking at 9 per cent in the US, 11 per cent in the UK and 10 per cent in the Eurozone.

While supply chain bottlenecks and the energy price shock were the key drivers behind inflationary pressures and the role of aggregate demand still being hotly debated, it was the rise in corporate profits that was both unexpected and not reflected in standard models of inflation (Weber and Wasner 2022; Hayes and Jung 2022; Bernanke & Blanchard 2023). Weber (2021) highlighted "a critical factor that is driving up prices remains largely overlooked: an explosion in profits". Companies with (temporary) market power seemed to be able to protect their margins or even reap 'excess profits', setting prices higher than would be socially and economically beneficial. This, so the argument goes, exacerbated the initial price shock and thus made inflation peak higher and last longer than it would have otherwise. While initially fiercely contested, a potential role of profits in contributing to inflation has increasingly been considered as a relevant factor, for instance by the European Central Bank (ECB) and the International Monetary Fund (IMF). It has challenged standard models and discussions of inflation, and has put a renewed focus of the crucial role of market power for understanding how external shocks impact the economy (IMF 2021; Bernanke and Blanchard 2023).

Since the early 20th century, the prevalence and market power of large corporations in both the US and Europe have ebbed and flowed, often in response to economic, technological, and political changes. In the US, the early part of the century witnessed the rise of industrial giants in sectors like oil and steel, which were later subject to antitrust actions (Wu 2020). The period after the second world war saw the ascent of multinational corporations, buoyed by globalisation. The late 20th century and early 21st century saw a return of the 'superstar firm' marked by the unprecedented growth of technology companies, but also concentration in finance, pharmaceuticals, and manufacturing (including automotive and food manufacturing), with a small number of firms wielding significant market power (IMF 2021).

In the Global South, the history and impact of large corporations and market power have been influenced by a different set of dynamics, often shaped by colonial histories and the shape of globalisation. The early to mid-20th century in many of these countries were characterised by colonial economies where large corporations were often foreign-owned. Following independence movements, a number of countries (such as India, Egypt, and Nigeria) adopted state-controlled economic models, often resulting in state-owned monopolies in key sectors like energy, transportation, and telecommunications (Acemoglu and Robinson 2019). In the late 20th and early 21st centuries, globalisation, in some sectors, resulted in increased market concentration as multinational corporations gained footholds (Alviarez et al 2021; Stiglitz 2002).

Largely ignored in economic analysis since the 1980s, market power has shifted back into the focus of economic analysis. Since the 1980s, markups (an indicator of market power) have increased by 33 per cent globally (Eeckhout 2022). This has caused significant harm to the economy as a whole. Global GDP could be 8 per cent higher than it is now had market power not risen (ibid). Labour income is likely significantly lower, and economic dynamism is weaker – with poorer choice, worse product quality and fewer economic opportunities – than in a counterfactual world where big corporations were less dominant (ibid).

As the recovery from the pandemic began to take hold and unexpectedly high inflation occurred, a small number of researchers highlighted that high profits might be a contributing factor. Referred to as 'seller's inflation' by Isabella Weber and originally coined by Lerner (1958), this concept challenges the traditional view that inflation is solely caused by increased costs such as labour and materials, or by demand outstripping supply.

While first largely disputed by central banks and other macroeconomic commentators, key officials and institutions in Europe have since acknowledged that profits to have played a major role in post pandemic inflation. Studies by the European Central Bank, OECD, Bank for International Settlements, and European Commission have shown that profits have accounted for a large share of inflation (Weber 2023).

In this paper, we add to this literature by analysing the most recent surge of 'excess profits' following the Covid-19 pandemic. We do so through detailed firm-level analysis, with a focus on companies listed on the major stock exchanges of the US, Germany, the UK, Brazil, and South Africa. While the activities of these firms extend far beyond the borders of the countries where they are listed, to gather a broader global picture we support our results with sector-level data for a range of OECD countries, compiled via the OECD from national statistical agencies.

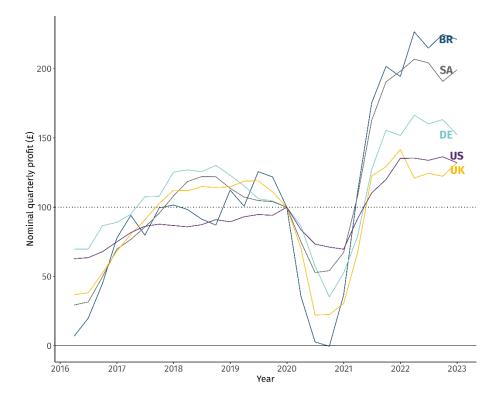
2. EXCESS PROFITS AND INFLATION AFTER THE PANDEMIC

2.1 Sellers' inflation: Nominal profits of stock listed firms have increased sharply since the pandemic

In 2021 and 2022, profits have increased strongly across in the EU, UK, US, South Africa, and Brazil. Figure 2.1 shows that total profits across the economy have risen by between 32 and 44 per cent compared to 2019 for publicly listed companies in the UK, the US, Germany, and roughly doubled in South Africa and Brazil.

Figure 2.1: Profits were at least 30 per cent higher at the end of 2022 compared to the end of 2019

Total annualised nominal pre-tax profits, publicly listed non-financial companies, end-2019 = 100, four quarter average



Source: CW/IPPR analysis of Refinitiv 2023

This is in line with our previous analysis of profits in the UK one year ago (Hayes and Jung 2022). By comparison, over the same period, average consumer prices rose by 12.8 per cent and average hourly wages by 12.6 per cent. This naturally raises the question of the role that the rise in profits had in the post pandemic inflationary bout which we discuss in the following sections. The graph shows profits of stock market listed firms in these countries, which are often large and international in nature.

2.2 The rise in inflation was accompanied by rising profit shares across countries

The natural question thus is how profits relate to inflation. In 2021 and 2022, the main trigger for inflation concerned the supply side of the economy: an unprecedented shock to supply chains from the pandemic, a global energy shock, compounded by Russia's invasion of Ukraine. This interacted with a fast rebound of the global economy from the pandemic (ie the demand side of the economy), which some argued was driving additional inflation at least towards the end of the period (see Bernanke and Blanchard 2023 for the US).

Much of the standard macroeconomic modelling toolkit has been focussed largely on this demand side, wage-driven inflation, and much less so on supply driven inflation, resulting from the impact of supply bottlenecks. In the same vein, much of the macroeconomic discussion is centrally focussed on the role of rising wages and the state of the labour market for explaining past and predicting future inflationary pressures. For instance, at the summer 2023 symposium of the heads of central banks in Jackson Hole, risk of continued high inflation was mainly attributed to so far still healthy labour market. At the same time, profits and business conditions were given much less attention (Financial Times 2023a).

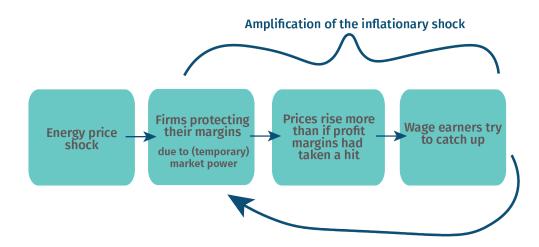


Figure 2.2: How firms protecting their margins can amplify inflationary shocks

Source: Authors' analysis, based on Weber and Wasner 2023

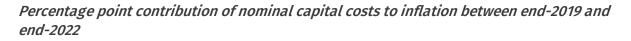
In contrast, seeking to understand the role of profits in amplifying inflationary shocks, a newer literature has sprung up. Weber and Wasner (2023) highlighted that external shocks could be amplified, especially if, in some 'systemically important' sectors, businesses were able to protect or increase their margins. This would lead to full or even increased pass

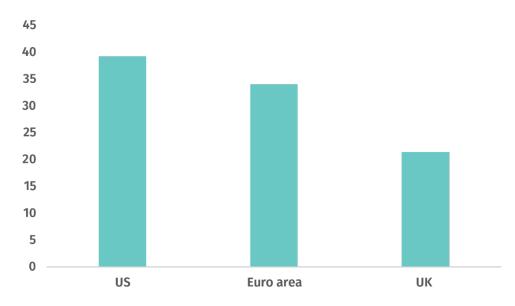
through of shocks, setting in motion an inflationary process that would have been milder had firms absorbed some of the process into lower margins.

The role of firms' profits in inflation should thus be seen as amplifying external inflationary shocks. This dynamic relationship is missing from many mainstream accounts.

Accounting decompositions of aggregate data are one approach in the literature trying to disentangle this. In a decomposition of CPI inflation the Bank of England's Jonathan Haskel (2023) found that 21 per cent of price increases in the UK between end-2019 and end-2022 can be accounted to 'capital costs' (which include profits), whereas the rate in the Euro area was 34 per cent and in the US 39 per cent (figure 2.3).

Figure 2.3: Capital costs (which include profits) accounted for a significant share of post pandemic inflation across the EU, Euro area and UK





Source: Haskel 2023

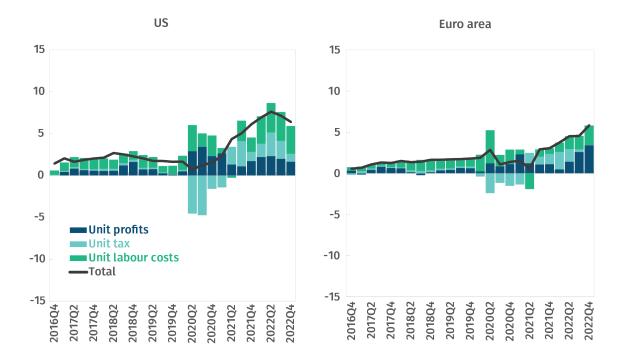
International Monetary Fund (IMF) staff recently too conducted a similar exercise, highlighting that, in the ongoing high inflation period, profits played a significant role that was unprecedented in recent history (Hansen et al 2023). They find that the increase in inflation following the energy shock was comparable in size to the first oil price shock in the 1970s, but that the composition has been notably different. They find that "profits have played a larger role than labour costs so far in the current episode" (ibid).

Further differences in the timeline of profits increases are worth highlighting. Figure 2.4 reproduces the data from Hansen et al (2023) with a decomposition of inflation. Two things stand out.

First, IMF staff found that corporate profits in the Eurozone accounted for 45 per cent of inflation in 2022 with a similar size for the UK (Hansen et al 2023). As such they are the 'main counterpart' of the increase in inflation in the Eurozone. The authors refer to 'counterpart' as they are careful to not infer causation (see more on this below).

Second, by comparison, in the US profits played a role earlier than in Europe, but it is in fact Europe where the profit share increased relatively more. Figure 2.4 presents deflatorbased analysis (that is top-down estimates based on national statistics). It shows that in the US, the rise in inflation started earlier (in 2021) than in Europe (where it took off in 2022) and overall wages contributed more than in the Eurozone and the UK. In the UK, profits featured only from mid-2022 onwards. The relatively larger contribution of profits in the Eurozone and the UK, where the labour market was less tight, also explain why real terms wage losses have been comparatively bigger.

Figure 2.4: IMF staff analysis finds that profits made up between 27 and 42 per cent of inflation in 2022



GDP deflator, percentage, year on year

Source: Data provided by Hansen et al 2023

Hansen et al (2023) further decompose inflation for the Eurozone, to incorporate the importance of import prices. They find in the Eurozone profits account for close to 50 per cent of inflationary pressures in 2022 – by far the largest share – followed by one-third input prices.

The IMF authors posit that the contribution to inflation of profits over wages might flip going forward. Over time, they argue, wages might catch up while profits fall in relative terms. This would be due to firms' price setting being able to react more quickly to higher input costs than wage setting (Hansen et al 2023). Similarly, Weber and Wasner (2023) find that, in the US, there has been a slight pivot from profits to wages. They estimate that in late 2021 until mid-2022 profits contributed most to inflation but thereafter this pivoted to wages.

As we argue below, going forward, the exact trajectory of profits and wages will not just depend on frequency of price and wage setting (as the IMF highlights), but also on the relative market power of businesses, workers, and financial market actors.

Both the IMF authors and Haskel (2023) add that the above type of analysis is merely indicative (as various assumptions are made to derive it) and moreover it does not show causality – ie whether profits are actually 'driving' inflation. We agree and for this reason, dig deeper into firm level data to understand the dynamic contribution of profits to inflation.

Gap in the debate 1: Inflation decompositions

Similar, comparable analyses like the one in figures 2.3 and 2.4 should be developed for a number of countries. This would allow comparisons of different policy approaches with relation to inflation and the associated distributional implications.

2.3 Profits can amplify inflation even if profitability remains constant

The rise in nominal profits shown in the previous section does not necessarily imply that firms are becoming more profitable. It could instead mean that they are passing on higher input costs to consumers while maintaining the same the degree of profitability (see Colonna et al 2023). In other words, a higher share of profits in inflation decomposition (shown in the previous section) does not imply that firms have become 'greedier', but it could be a reflection that firms continuing to be 'as greedy as before', while wage earners take losses. In this case, even without an increase in margins, the burden of inflation would to a larger extent be falling on wage earners rather than on company owners, which would be reflected in a larger profit share of inflation.

Accordingly, in order to see if firms take advantage of a higher inflationary environment, we thus need to scrutinise their margins. As Colonna et al (2023) argue: "only the evolution of markups can signal that firm pricing strategies are driving the dynamics of the deflator".

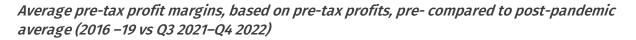
Conducting a detailed firm-level analysis, we find a slight increase in average (turnover weighted) markups, meaning that companies were able to increase their profits during the inflation period. In the US profitability was up in 2021, and slightly up in 2022. For instance, Glover et al (2023a) find that markups in 2021 were up 3.4 percent in the US but less starkly so in 2022 (Glover et al 2023b). Conversely, Hansen et al (2023) find that, in Italy, markups in 2022 were essentially at pre-pandemic levels. For the euro area as a whole they find rising nominal profits (as we showed above), but "constant rather than increasing profitability". They also find margins in Germany to be stable compared to pre-pandemic.

Novel analysis on firms' profitability since the pandemic

We conduct novel analysis to scrutinise firm level data of stock market listed firms in the US, Germany, the UK, Brazil, and South Africa. Note that these tend to be larger firms which are likely to have higher market power and earn more of their revenues internationally, than smaller or non-stock listed firms. Note also that, as such, these firms might not be representative of smaller firms across the economy – though they are likely to make up for a significant share of overall profits.

Figure 2.3 summarises the results, showing that there is evidence that average (turnoverweighted) profitability increased after the pandemic in all five countries we studied. We find a higher increase in profitability for the UK and Germany than the above cited studies, and a somewhat smaller one for the US. Figure 2.3 shows that for publicly listed firms profitability rose by 2.6 percentage points in the UK, 0.9 percentage points in the US and 0.5 percentage points in Germany. We also look at Brazil and South Africa where profitability rose by 6.9 and 7.5 percentage points respectively.

Figure 2.5: Profitability rose markedly for Brazilian- and South African-listed large cap, and materially for FTSE and S&P and DAX firms





Source: Authors' analysis of Refinitiv (2023)

Note: the universe of firms studied includes both financial and non-financial firms. When excluding financial firms the same qualitative result emerges.

For stock market listed firms, there is thus evidence that firms not only protected their margins but also increased them somewhat. To the extent that this is true for the economy as a whole, profits can thus to be said to have contributed to inflationary pressures.

Note that, for the UK, observers have noted that the margins of UK firms have stayed stable according to the Office for National Statistics measure. But, as discussed above, stable margins in times of an imported cost shock imply that firms have the pricing power to raise prices, one for one, to protect their profits. This will be reflected in higher nominal profits and a higher profit share. Note also that our data focusses on stock listed firms which tend to be bigger and more globally active.

2.4 Explanations for rising profits in the current inflationary moment

What explains the above findings, that firms were able to keep their profits constant during an external shock, or even increase them? If markets were completely and instantaneously competitive, this would not be the case as firms would drive down their profit margins in a bid to stay ahead. The answer is that markets are often not competitive and firms have discretion over their profits.

We argue that there are four possible explanations, which will vary between sectors:

Explanation 1: An inflationary environment might give firms cover to hike prices

The first possibility is that firms pass on the costs from the energy shock amid sufficiently strong demand such that markups can stay constant. There are two aspects to this: firstly, post pandemic demand being sufficiently high for consumers rather than firms absorbing higher costs. Secondly, in a high inflation environment where prices are rising everywhere, it might be more socially acceptable for businesses to raise prices excessively – a point raised by the IMF's former chief economist Olivier Blanchard. Note that this implies that market power might not be constant (or slow moving) over time but can change dynamically in a changing macroeconomic environment (see Hansen et al 2023).¹

Explanation 2: Windfall profits as a result of capacity constraints

Weber and Wasner (2023) show in markets that are otherwise competitive, companies can find themselves suddenly being akin to a monopolist due to supply bottlenecks. Standard economic modelling models this by assuming that, if there is under-supply of goods, market forces will work to increase production and eliminate the temporary market power of firms. But post pandemic, supply constraints were not due to under-production but due to the unwinding of pandemic era restrictions. Markets were thus not able to efficiently increase supply. This meant that the remaining suppliers made windfall profits without the price signals doing much to balance supply. In this scenario, businesses make windfall profits, without this contributing to allocative efficiency (cp. Hayes and Jung 2022).

Explanation 3: Natural monopolies: market structures allowing windfall profits

Certain sectors have market structures with high degrees of market power. Standard economics defines this as natural monopolies, which emerge due to economies of scale. Energy transmission and distribution falls in this category, and the traditional solution to

¹ Some might argue that such behaviour could in some circumstances still be in line with competitive markets – for instance if firms raise prices in anticipation of higher future capital costs. To test this, margin increases would have to scrutinised over longer horizons.

address the issue of excess profits is the regulatory setting of prices as well as direct public ownership of natural monopolies.

Explanation 4: Existing market power allows firms to increase prices more than inflation

Finally, and most crucially, the increase in market power witnessed over the last 30 years could have made inflation more persistent. Eeckhout (2022) documents the rise in market power, showing that markups have increased by about 40 per cent globally since 1980. As the IMF (2021) highlights, firms with market power could increase prices more in response to external shocks without consumers switching. This also means that firms were less responsive to higher input costs including higher costs of capital, induced by monetary policy (Syverson 2018).

Gap in the debate 2: Theories of excess profits

As the debate in 2021–23 has shown, the economics discipline is not sufficiently providing theoretical and empirical analysis for the four explanations above and their implications for profits. The main argument often was that market power could not possibly have suddenly changed due to inflation and thus profits need not be considered or explicitly modelled. But as the arguments above show, there are reasons to suggest that temporary increases in market power (such as bottlenecks) are possible and that firms using existing market power to protect margins can also have inflationary impacts. Investigating these phenomena both empirically and theoretically will be key for developing policies in anticipation of future shocks.

2.5 Lowering profits would help reduce inflation more quickly

Given the above evidence that stable or increasing profit margins in some firms amplified inflation, it follows that firms reducing margins could lower inflation. Below we conduct some simple simulations showing how this could play out and highlighting distributional implications. Hansen et al (2023) conduct a similar exercise, estimating how much the profit share would need to fall for both:

- inflation to fall back to target, and
- real wages to catch up with what they lost during the inflation period.

They find that, in the Eurozone, the profit share (of GVA) would have to fall to by about 1.2 percentage points.

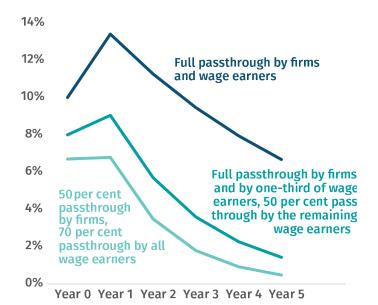
In macroeconomics, the key assumption underlying inflation analysis is still an overheating economy: too much money chasing too few goods. But what we're seeing could alternatively be explained as "pass the parcel inflation" (Jung 2023). This is the notion that, rather than an over-stimulated economy, inflation is the result of businesses and people trying to pass on higher costs to others, if they can. This is similar to Haskel's (2023) "second round effects" which he describes as "an attempt by labour or capital to restore their returns to their former purchasing power level, will, again arithmetically,

raise inflation, even though there is no further increase in the import price beyond the initial increase". Bank of England (2023) analysis partly confirmed this, finding that about three-quarters of inflation at the end of 2022 in the UK stemmed from people passing on high energy and food prices.

Figure 2.4 illustrates such 'pass the parcel' inflation – and its distributional implications. It simulates an external energy price shock of 10 per cent in period zero and 5 per cent in period one. Thereafter inflation is of pass the parcel nature, meaning that those businesses and workers who can, will raise prices and wages in order to recoup the real losses of the previous period. This is similar to the approach taken by Blanchard and Bernanke (2023).

If all firms and workers fully catch up with previous period's inflation, then pass the parcel inflation will continue for a long time (see the dark grey line in figure 2.4). In reality, it is likely those with market power will obtain a full inflation adjustment (delaying the return to the inflation target), while those with low market power lose out at the others' expense. A fairer and more effective way of handling passthrough is to ensure a more equal spreading of the of the costs of inflation. This could be achieved through excess profits taxes on the firm side, and potentially even through excess wage taxes on the worker side, where appropriate.

Figure 2.6: In simple simulations, inflation could fall much more quickly if profits would absorb some of the higher input costs



Percentage annual excess inflation, over five years, after an external price shock

Source: IPPR model simulations

Note: this chart assumes a labour share of 60 per cent, a capital share of 30 per cent and an external share of 10 per cent. It assumes a 10 per cent excess inflation shock in year one and 5 per cent excess inflation shock in year two, both caused by higher import energy prices. Excess inflation is defined as inflation above the two per cent target.

Our simulations show that inflation can be brought down quickly if profits absorb 50 per cent of the energy price shock, while wage earners absorb 30 per cent of the higher energy price costs. In other words, if wage earners only make up 70 per cent of the rise in energy costs though higher wages and companies only make up 50 per cent of it through higher prices. This would see inflation fall more quickly than on the current trajectory where only some workers receive inflation-matching pay increases and where businesses are assumed to have full pass through on higher input costs (figure 2.4). Note that once inflation is back closer to target, wages could move to rise above inflation in order to recoup the real losses made during the high inflation period. This could be done through above inflation wage settlements in some sectors and, more widely, through settlements in line with productivity increases.

Note that some policymakers have already started to accept this reality. Fed Vice Chair Lael Brainard (2021), for example, pointed to record profits in the US, arguing that "reductions in markups could... make an important contribution to reduced pricing pressures". Isabel Schnabel (2022), a member of the executive board of the European Central Bank said that: "on average, profits have recently been a key contributor to total domestic inflation, above their historical contribution".

But policy tools are needed to ensure this is the case in the future. As we argue in the policy section, there are a range of policies that could be used to tackle the drivers behind excess profits. These include the implementation of excess profits taxes that attenuate profit incentives, the introduction of a novel forward-looking competition policy, greater coordination of wages via collective bargaining and ultimately a broader focus on reducing market concentration.

Gap in the debate 3: New models of inflation and policy tools for managing inflation

First, the Bank of England's Jonathan Haskel (2023) is right when highlighting that we need a "behavioural model of wages, prices and their interaction with monetary policy". At the heart of future inflation discussions should lie such a model – for instance informed by the models of Weber and Wasner (2023) and Bernanke and Blanchard (2023).

Second, the policy toolbox for managing pass the parcel inflation is currently very limited. Dullien and Weber (2022) and Jung et al (2022) suggested price interventions as one such tool. If designed in a progressive way and combined with excess profits taxes below, they could potentially also help address increased inequality arising from pass the parcel inflation.

Many of these policies have already been applied. Excess profits taxes were used in some form in virtually all European countries (Bruegel 2023). Price support measures – measures that directly control specific price outcomes – were used in about half of European countries (Ari et al 2022). The US used its petroleum reserve to impact market prices.

Some leading economists have already begun to conduct this kind of analysis. IMF chief economist (Pierre-Olivier Gourinchas) came to the argument made by IPPR in 2022, arguing that temporary energy price support measures had likely contributed to

enduringly lower inflation. Gourinchas et al (2023) found that these measures lowered headline inflation by 2 percentage points in 2022, and that "the net effect of the [unconventional fiscal policy measures] has been to reduce inflation by about 0.5 percentage point in 2021–24, and to keep it nearer to the target". Thus, exactly as Jung et al (2022) had argued a year before, the IMF authors concluded that temporary price support measures "can help reduce inflation while maintaining expectations anchoring" (Gourinchas et al 2023). Much more work is needed to assess whether and how all these policies contributed to macro stabilisation and what their effectiveness could be in a range of scenarios.

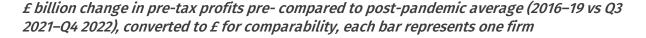
Third, with regards to lowering businesses' cost passthrough (and thus lowering shock amplification), excess profits taxes too could potentially play a role. A large number of European countries have effectively done this.

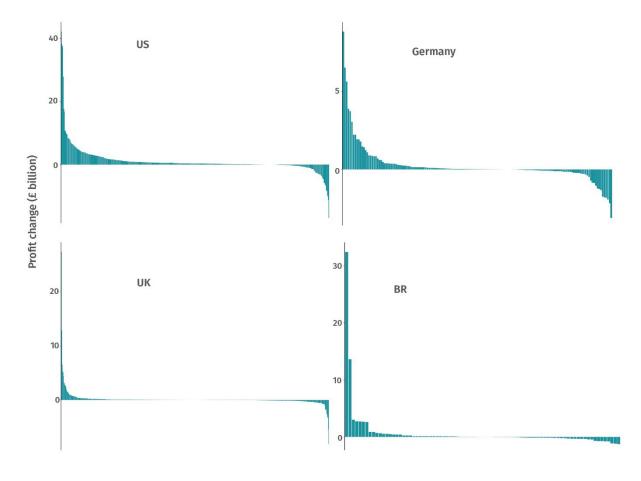
Fourth, a more forward-looking competition policy that looks at market and pricing practices by dominant corporations could be used. Similar to what is being applied through the EU's Digital Markets Act this could include ex ante and sector-specific policies, setting the rules of the game before any anti-competitive behaviour happens.

3. MARKET POWER IN SPECIFIC SECTORS AND COUNTRIES

To understand better the underlying causes for the macro phenomena shown above, in this section we dig deeper into differences between countries and sectors. We highlight five stylised facts.

Figure 3.1: There is wide variation between firms' changes in nominal profits





Source: CW/IPPR analysis of Refinitv (2023)

Finding 1: The majority of nominal profit changes are highly concentrated in a few firms

As we showed in Hayes and Jung (2022) and as Weber and Wasner (2023) estimate, a large number of firms could broadly maintain their profit margins in the post pandemic period, compared to the pre-pandemic years, while there was a smaller number of firms that either saw large increases or decreases in their nominal profits. Figure 3.1 conducts this analysis for the US, Germany, the UK, and Brazil. It highlights that in the UK, 90 per cent of nominal profit increases occurred in only 11 per cent of publicly listed firms. In Germany this number was 19 per cent, in the UK 11 per cent and Brazil also 11 per cent and in the US 33 per cent. In other words, in the UK the profit increase was more concentrated, whereas in the US it was more broad based.

Gap in the debate 4: Profit metrics

When it comes to analysing changes in profit margins and, relatedly, the calculation of abnormal profits, there is still no agreed set of metrics. For instance, including nonrecurring items in the profit calculation can make a significant difference to results. Sector specific profit metrics might be needed to better account for differences. Academics, policymakers and accounting experts could be convened in order to make progress on standardised metrics.

Moreover, profits are often accounted at the company headquarter level. But there is insufficient disclosure regarding in which regions they are made. Better disclosure requirements would be key for tracking profit dynamics across countries.

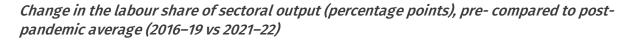
Finding 2: Excess profit dynamics are likely widespread across countries, with industry (including energy), manufacturing, and agriculture seeing the biggest decline in the labour share

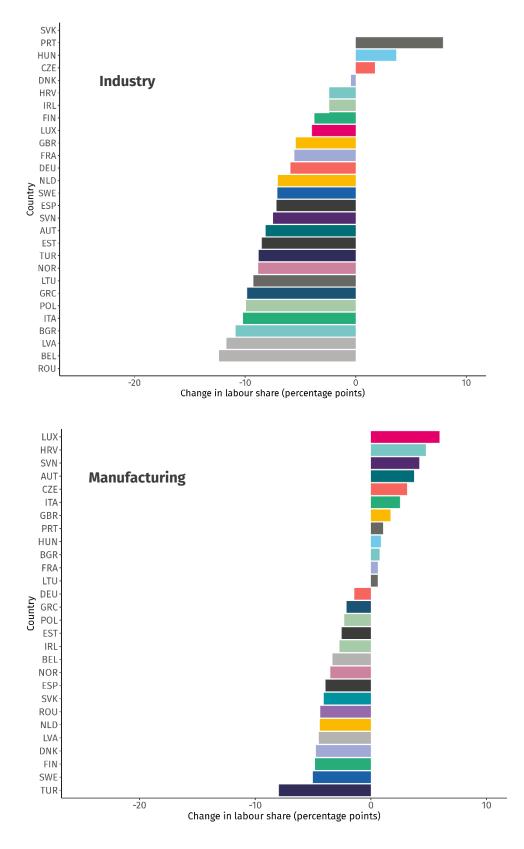
Hansen et al (2023) posit that "unit profit increases have been concentrated in sectors exposed to international commodity prices and demand-supply mismatches". They find that the profit share in the Eurozone increased in agriculture, construction, mining and utilities, manufacturing, and contact-intensive services, and that the mining and utilities sector saw the largest increase. In figure 3.2 we show nominal profits across sectors up to end 2021.

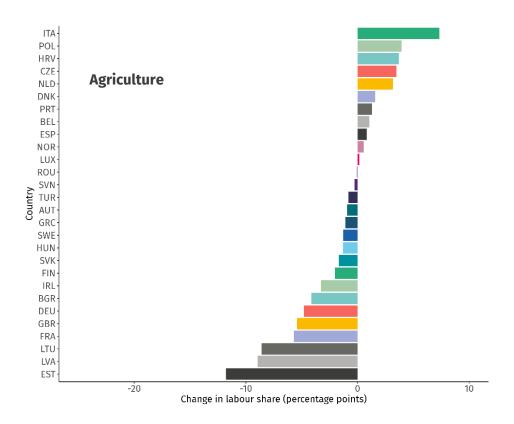
This is in line with Hayes and Jung (2022) who find the most significant nominal profit increases were in mining and utilities. For Germany, Hansen et al (2023) find that profits increased in construction, retail, accommodation, and transport.

We look at a wider set of countries than the IMF staff analysis, looking at the decrease in the labour share across OECD countries. The labour share declines if input costs or profits rise – so can be seen as an approximate inverse metric of profits. Figure 3.1 shows that industry, including fossil fuel related manufacturing, saw a decrease in labour share in most OECD countries for which data was available. Also, in agriculture (which includes some food manufacturing industries) and manufacturing, the labour share declined. We exclude other sectors, as the labour share there showed much smaller movements.

Figure 3.2: The labour share has decreased most markedly in industry (including energy) and in many countries, in agriculture and manufacturing



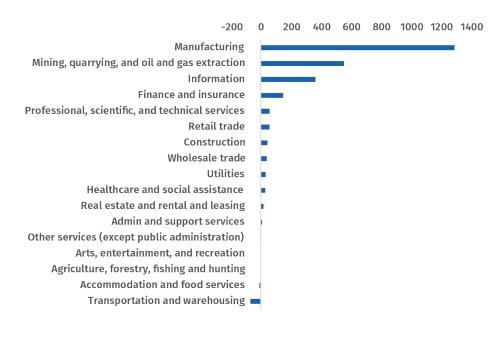




Source: Authors' analysis of OECD 2023

Figure 3.3: Nominal profits increased the most in manufacturing (including some extractive industries and food manufacturing), other extractive industries, information, and finance

Nominal change in annualised profits (converted to £ for comparability), pre- compared to post-pandemic average (2016–19 vs Q3 2021–Q4 2022) for the US, UK and Germany



Source: CW/IPPR analysis of Refinity 2023

Back to our more granular data, covering the US, Germany, and the UK, we also confirm the above identified sectors.

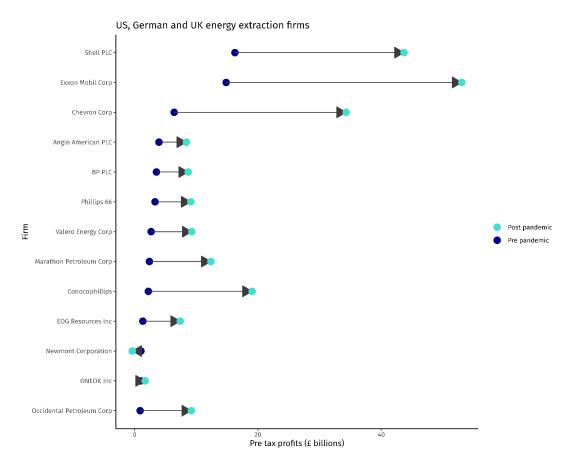
As discussed above, the increase in profits can to some extend be explained by existing pre-existing market power (and thus pricing power). The IMF (2021) finds that the industries that had over 20 percentage points increases in mark ups in the two decades up to 2016 were: healthcare, technology, utilities, consumer services, and financial services and telecoms. More work is needed to establish causality regarding whether existing market power was an explanatory factor for excess profits in the post pandemic period.

Finding 3: Within energy extraction profits were highly concentrated in large firms

As indicated above, within sectors where profits are concentrated it is often already large firms that made the largest gains in profits. Within energy extraction, Shell, Exxon Mobile and Chevron made up the bulk of increase in aggregate nominal profits compared to pre pandemic (figure 3.4). This included some energy companies announcing the largest profit figures in their history, such as BP and ExxonMobil.

Figure 3.4: Nominal profits increased the most in manufacturing (including fossil fuels manufacturing and food manufacturing), extractive industries, information, and finance

Nominal annualised pre-tax profits (converted to £ for comparability), pre- compared to post-pandemic average (2016–19 vs Q3 2021–Q4 2022)



Source: CW/IPPR analysis of Refinitv 2023

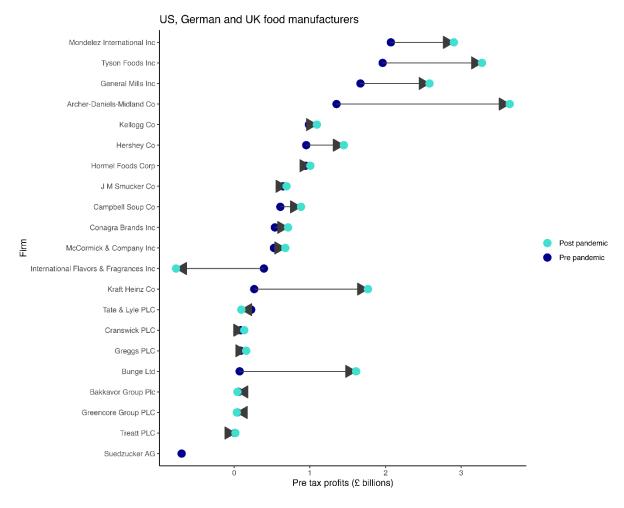
Finding 4: The largest four food manufacturing firms had among the largest increases in profits

Food production has received particular attention recently due to the large social cost of rapidly rising food prices. Moreover, as highlighted above, Weber et al (2022) argued that food prices play an outsized role in causing inflation to ripple through the economy.

Clapp and Howard (2023) highlight that only four companies – Archer-Daniels-Midland (ADM), Cargill, Bunge, and Dreyfus – control an estimated 70-90 per cent of the world grain market. UNCTAD (2023) find that they account for about 70 per cent of the global grain market share and they registered "a dramatic rise in profits during 2021–2022". UNCTAD (2023) argues, as we do above, that market power can exacerbate price shocks and lead to prices rising more than warranted by cost increases.

Figure 3.5: The largest four food manufacturers together saw a £16.5 billion increase in profits compared to pre-pandemic

Nominal annualised pre tax profits (all converted into £ billion for comparability), pre-compared to post-pandemic average (2016–19 vs Q3 2021–Q4 2022)



Source: CW/IPPR analysis of Refinity 2023

To see this, consider fertiliser prices. Initially higher gas prices triggered higher nitrogen fertiliser prices. But dominant firms then raised prices by more than production costs – increasing their profits even as sales declined (Clapp and Howard 2023).

In figure 3.5, we investigate this with listed company data (which excludes Dreyfus and Cargill which are privately held). We find that the four largest publicly listed food manufacturers in our dataset (all listed in the US) had a combined increased in profits of £16.5 billion, which included ADM receiving its largest nominal profit ever.

Gap in the debate 5: Explaining sector profit levels and dynamics

Barely any analysis exists currently that explains the differences between sectors in terms of levels of profits and their evolution. The post-pandemic period is only one period of particular interest, but the pre-pandemic period similarly deserves much further understanding, including why in some sectors margins remain extraordinarily high.

4. TOWARDS A NEW RESEARCH AND POLICY AGENDA

4.1 Towards new types of market power analysis

As we have highlighted throughout the report, there are a number of key gaps in the debate that need addressing in order for market power and its consequences to be better understood and to ground economic policymaking in it. We summarise the key points here.

- **Produce macro-level inflation decompositions.** Any future macroeconomic modelling that takes the role of profits and market power into account requires some standardised method for profits' contribution to inflation. We have shown some of these methods above, but more methodological work needs to be conducted to allow for rigorous debate.
- Develop macroeconomic models that can capture the dynamic contribution of profits in amplifying shocks. This will require more explicit modelling of profit and pricing decisions in various macroeconomic environments and their dynamic importance for future inflation.
- **Establish standardised excess profit metrics.** We also need a unified system of metrics that accurately measure and compare excess profits across industries.
- **Track the evolution of global market power.** Building on the contributions of academics like Jan Eeckhout and initial work by the OECD, these metrics could then be aggregated to a 'global market power index'. Such an index should be updated on a yearly basis, with sector deep dives. This could inform policymakers of how much progress is being made in tackling market power.
- **Develop theories of excess profits.** In order to inform excess profits taxes and other interventions, economists, competition regulators and civil society need a better understanding of where excess profits occur and why. In particular, there currently seems to be a gap between, on the other hand, the *Economist's* excess profits index and existing academic work on 'rent extraction' and, on the other hand, the practice of competition regulators which seem to be very cautious when analysing industry-wide issues around market power. The work could begin by focussing on some of the sectors identified in this paper.

4.2 Towards new policy approaches for tackling market power

With regards to policy, three changes are needed.

First, the role of fiscal and other policies for protecting economies from external shocks, such as energy price shocks, should be considered. As the IMF's chief economist has highlighted, so-called 'unconventional fiscal policies' during the most recent energy crisis played a positive role in reducing inflation (Gourinchas et al 2023). More such policies should be developed and evaluated for their potential effectiveness for a range of potential external shocks.

Second, as we argued in Hayes and Jung (2022), there is a need for a global approach towards taxing excess profits. According to an IMF working paper (Hebous et al 2022), the potential revenue from taxing excess profits globally could be \$100 billion, a 4 per cent increase of global tax revenue. This is based on a definition of excess profits above an allowance rate of 10 per cent (same as the *Economist's* definition). At the same time, if combined with pro-investment tax reform, it could increase economic efficiency by reducing inefficient 'rent-seeking' by dominant corporations and encouraging productive investment. As Hebous et al (2022) argue, to make this most effective it will likely require some degree of global coordination. In Hayes and Jung (2022) we argued that such collaboration could take place on OECD level.

Third, we argue in favour of a new direction of competition policy, which builds on the new paradigm that is emerging in the development of digital markets. Traditional competition policy is generally ex post and case-specific. More novel approaches to competition – such as that embedded in the EU Digital Markets Act (DMA) and as proposed in the UK's Digital Markets, Competition and Consumer (DMCC) bill – on the other hand, is ex ante and sector-specific, meaning it tries to set the rules of the game before any anti-competitive behaviour happens. Moreover, we see scope to understand competition policy as an instrument for facilitating macroeconomic stabilisation in a turbulent environment, and not merely for preventing and remedying microeconomic harms.

As part of this approach, where competition policy is insufficient, new types of public ownership structures should also be considered in order to align business decisions with the public interest and macroeconomic stability.

Researchers and civil society will need to play an important role in demanding the above changes, pointing out the gaps in our understanding and highlighting pathways to a new policy regime; mobilising pressure to drive change and working with key stakeholders and policymakers to turn paradigm change from analysis to reality.

REFERENCES

Acemoglu D and Robinson J A (2019) *The Narrow Corridor: States, Societies, and the Fate of Liberty,* Penguin Press

Alviarez V, Head K and Mayer T (2021) *Global Giants and Local Stars: How Changes in Brand Ownership Affect Competition*, Inter-american Development Bank. <u>https://publications.iadb.org/en/global-giants-and-local-stars-how-changes-brand-ownership-affect-competition</u>

Ari A, Arregui, Black S, Celasun O, Iakova D, Mineshima A, Mylonas V, Parry I, Teodoru I, and Zhunussova K (2022) 'Surging Energy Prices in Europe in the Aftermath of the War: How to Support the Vulnerable and Speed up the Transition Away from Fossil Fuels', IMF Working Paper, WP/22/152

Bank of England (2023) 'How broad based is the increase in UK inflation', blog, Bank Underground. https://bankunderground.co.uk/2022/10/27/how-broad-based-is-the-increase-in-uk-inflation/

Bernanke B and Blanchard O (2023) 'What caused the pandemic era inflation', Brookings. https://www.brookings.edu/wp-content/uploads/2023/04/Bernanke-Blanchard-conferencedraft_5.23.23.pdf

Brainard L (2021) 'Bringing Inflation Down', Transcript of speech delivered at the Clearing House and Bank Policy Institute 2022 Annual Conference, New York, September 7, 2022. https://www.federalreserve.gov/newsevents/speech/brainard20220907a.htm

Bruegel (2023) 'National fiscal policy responses to the energy crisis', database. https://www.bruegel.org/dataset/national-policies-shield-consumers-rising-energy-prices

Competition and Markets Authority [CMA] (2022) *The state of competition in the UK*. https://www.gov.uk/find-digital-market-research/the-state-of-uk-competition-report-2022-cma

Colonna A et al (2023) 'The profit share and the firm mark up: How to interpret them?', Banca d'Italia Working paper No 770 – May 2023

Clapp J and Howard P (2023) 'The Hunger Profiteers', *Project Syndicate*. <u>https://www.project-</u> syndicate.org/commentary/agribusiness-market-concentration-food-insecurity-profiteering-byjennifer-clapp-and-phil-howard-2023-08

Dullien S and Weber I (2022) 'Höchste Zeit für einen Gaspreisdeckel: ein wichtiges Instrument im Kampf gegen Energiepreisbelastung', *Wirtschaftsdienst*, 102(8): 595-598. https://link.springer.com/content/pdf/10.1007/s10273-022-3254-9.pdf

Economist (2023) 'Is big business really getting too big?', article. https://www.economist.com/business/2023/07/12/is-big-business-really-getting-too-big

Eeckhout J (2022) *Dominant firms in the digital age*, UBS Centre for Ecomics in Society. https://www.janeeckhout.com/wp-content/uploads/Dominant_Firms_in_the_Digital_Age.pdf Financial Times [FT] (2023a) 'Higher for longer debate to dominate Jackson Hole meeting'. https://www.ft.com/content/ead217db-a833-4837-b2d7-dcc563a54f90

Furman J (2018) 'Market concentration', Note provided for the OECD hearing on market concentration. https://one.oecd.org/document/DAF/COMP/WD(2018)67/en/pdf

Glover A, Mustré-del-Río R, and von Ende-Becker A. (2023a) 'How Much Have Record Corporate Profits Contributed to Recent Inflation?', *Federal Reserve Bank of Kansas City, Economic Review*, 108(1): 23–35

Hansen N, Toscani F and Zhough J (2023) 'Euro Area Inflation After the Pandemic and Energy Shock: Import Prices, Profits, and Wages', IMF Working Paper 23/131

Haskel J (2023) 'What's driving inflation: wages, profits or energy prices?', Speech at Brookings Institution. https://www.bankofengland.co.uk/-/media/boe/files/speech/2023/may/whats-driving-inflation-wages-profits-or-energy-prices-speech-by-jonathan-haskel.pdf

Hayes A and Jung M (2022) *Prices and profits after the pandemic*, IPPR and Common Wealth. https://www.ippr.org/research/publications/prices-and-profits-after-the-pandemic

International Monetary Fund [IMF] (2021) 'Rising Corporate Market Power: Emerging Policy Issues', IMF Staff Discussion Note, SDN/21/09

International Monetary Fund [IMF] (2022) 'World Economic Outlook, October 2022', dataset

Jung C, Murphy L, Sandher, J, Sherzad M (2022) 'Freezing the energy price cap would fight inflation and support households', blog post, IPPR. <u>https://www.ippr.org/blog/freezing-the-energy-price-cap-could-fight-inflation-and-support-households</u>

Jung C (2023) 'Why is Spain's inflation so much lower than in the UK?', *Guardian*. https://www.theguardian.com/commentisfree/2023/aug/03/spain-inflation-lower-bank-england-interest-rates

Lerner A P (1958) 'Inflationary depression and the regulation of administered prices,' in *The Relationship of Prices to Economic Stability and Growth: Compendium of Papers Submitted by Panelists Appearing before the Joint Economic Committee* (pp. 257–268), Government Printing Office

Lorenzoni G and Werning I (2023) 'Inflation is conflict', NBER. https://www.nber.org/papers/w31099

Organisation of for Cooperation and Development [OECD] (2023) 'Labour Income Share ratios', Quarterly National Accounts data, dataset

Refinitv (2023) 'Company financial statements data', dataset

Schnabel I (2022) 'The globalisation of inflation', speech. https://www.ecb.europa.eu/press/key/date/2022/html/ecb.sp220511_1~e9ba02e127.en.html

Syverson C (2018) 'Changing Market Structure and Implications for Monetary Policy' Remarks at the 2018 Jackson Hole Symposium

Stiglitz J E (2002) Globalization and Its Discontents, W.W. Norton & Company

UNCTAD (2023) *Trade and Development Report 2023*. <u>https://unctad.org/system/files/official-document/tdr2023_en.pdf</u>

Weber I (2021) 'Could strategic price controls help fight inflation', *Guardian*. https://www.theguardian.com/business/commentisfree/2021/dec/29/inflation-price-controlstime-we-use-it

Weber I (2023) 'A New Economic Policy Playbook', *Project Syndicate*. <u>https://www.project-</u> syndicate.org/magazine/inflation-targeted-price-controls-alternative-to-interest-rate-hikes-byisabella-m-weber-2023-03

Weber I and Wasner E (2023) 'Sellers' Inflation, Profits and Conflict: Why can large firms hike prices in an emergency?', UAmherst Economics Working Paper Series. https://scholarworks.umass.edu/econ_workingpaper/343/

Weber I et al (2022) 'Inflation in Times of Overlapping Emergencies: Systemically Significant Prices from an Input-output Perspective', *Economics Department Working Paper Series*, 340. https://doi.org/10.7275/0c5b-6a92

Wu T (2020) The Curse of Bigness: Antitrust in the New Gilded Age, Columbia Global Reports.

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