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La collocazione del sistema produttivo italiano nel contesto globale post covid

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Sommario

La collocazione
del sistema produttivo italiano
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Markups, productivity and Global Value Chains in the European economies

Claudio Battiati[*]
Cecilia Jona-Lasinio[**]
Enrico Marvasi[***]
Silvia Sopranzetti[****]

Abstract

Recent empirical investigations have documented an upward trend in profit rates, markups, and concentration over the last decades, bringing a renewed interest in market power. In the same period, world production has increasingly been organized along Global Value Chains, leading to efficiency gains but also allowing few large firms to thrive. This paper relies on national accounting data to investigate these issues for four major EU countries: France, Germany, Italy and Spain. We find that, despite some common trends, EU countries

[*]   Ministero dell'Economia e delle Finanze and LUISS. Email: claudiobattiati@gmail.com
[**] Istat and LUISS. Email: cjonalasinio@luiss.it
[***] Università degli Studi di Firenze and LUISS. Email: enrico.marvasi@unifi.it
[****] Ministero dell'Economia e delle Finanze and LUISS. Email: silvia.sopranzetti@gmail.com

are rather heterogeneous. The upward markup trend is less pronounced than in the US and markups are positively correlated with productivity; while imported inputs and Global Value Chains have pro-competitive effects. In the EU, increased concentration and market power are generally of less concern than in the US, while a larger role for the most efficient firms might increase efficiency.

Sintesi - Markup, Produttività e Catene Globali del Valore nelle Economie Europee

Alcuni studi recenti hanno documentato una tendenza all'aumento dei tassi di profitto, dei markup e della concentrazione nel corso degli ultimi decenni, portando ad un rinnovato interesse sulla questione del potere di mercato e le sue implicazioni. Nello stesso periodo, la produzione mondiale si è sempre più organizzata lungo le cosiddette Catene Globali del Valore. Ciò ha consentito significativi guadagni di efficienza ma ha anche permesso ad alcune grandi imprese di espandersi ulteriormente. Questo lavoro offre un quadro macroeconomico di tali tendenze utilizzando i dati di contabilità nazionale di quattro tra le principali economie europee: Francia, Germania, Italia, Spagna. L'analisi mostra alcune tendenze comuni ma anche un certo grado di eterogeneità tra paesi. La tendenza all'aumento dei markup riscontrata negli USA non si ritrova nelle economie europee. I markup sono correlati positivamente con la produttività, allo stesso tempo l'import di beni intermedi e la partecipazione alle Catene Globali del Valore sembrano avere effetti favorevoli alla concorrenza. Nelle economie europee, l'aumento della concentrazione e del potere di mercato pongono meno problemi rispetto agli Stati Uniti, mentre un maggior peso delle imprese più produttive potrebbe contribuire a miglioramenti di efficienza.

1. Introduction

Recent empirical investigations have documented a broad upward trend in profit rates, markups, and concentration over the last decades, bringing a renewed interest in market power and its causes and consequences. While most studies have focused on the US, recent works (Calligaris et al., 2018; de Loecker & Eeckhout, 2018; Diez et al., 2019; Diez et al., 2018) identify similar patterns in other advanced economies as well. Considering these results, a growing concern is emerging about the negative effects of declining competition. While, on one side, a certain degree of market power (and profitability) is necessary for firms to have an incentive to invest in innovative products and processes, on the other side, weakening competition will probably fail to provide incentives to try to escape competition through innovation (Aghion et al., 2005) or other productivity-boosting enablers such as management practices (van Reenen, 2011). As its market power rises, a firm can increase its profits by charging higher prices and reducing output, which, in turn, leads to a lower demand for labour and capital. By reducing investment and employment, rising markups can generate economic slack. In the short-run, this may imply a trade-off for monetary policy. Rising markups may lead to higher inflation, potentially calling for restrictive policies. Yet, firms with greater market power may reduce output and investment, which instead would imply a more accommodating monetary policy stance. In the long-run, real wages will need to fall to restore an inflation rate consistent with the Central Bank's target, leading to lower participation rate and employment, and thus to lower potential output (Autor et al., 2020). Several authors have tried to link the observed increase in concentration to other recent macroeconomic trends such as the observed slowdown in productivity growth (Aghion et al., 2019;

Baqaee & Farhi, 2019), in investment rates (Diez et al., 2018; Eggertsson et al., 2018; Gutiérrez & Philippon, 2017), and in the labour's share of income (Autor et al., 2020; Barkai, 2020; de Loecker & Eeckhout, 2017; Eggertsson et al., 2018). Other studies, however, point in the opposite direction. For instance, Autor et al. (2020) and Crouzet & Eberly (2019) find a positive relation between concentration and productivity growth, although the latter finds a positive relation only in specific sectors, such as Retail and Wholesale trade and, to some extent, the high-tech. As pointed out by van Reenen (2018), if the rising concentration and markup levels reflect technological changes favouring a reallocation of output to more efficient firms rather than weakening competition, we may expect to eventually observe higher productivity, lower prices and higher real wages. This possibility raises a number of issues that have to be addressed in order to ascertain whether and to what extent increases in the average level of market power must be held accountable for the aforementioned trends.

Another phenomenon that has characterized the world economy at least since the mid-1980s is the emergence of Global Value Chains (GVC).[1] Decreasing transport costs and the *Information and Communication Technology* (ICT) revolution together with liberal trade policies and increasing financial integration made production fragmentation feasible while the wage differential between countries made it profitable (Baldwin, 2016). During the expansion of GVC, world trade grew at twice the rate of GDP, while historically the trade-to-GDP elasticity has been just above one. The value of goods and services crossing at least two borders before final consumption – the so-called

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[1] Since the Great Financial Crisis of 2008, GVC have largely stabilized. For a discussion of the more recent trends, with a focus on Italy, including on the effects of Covid-19, on GVC resilience and on reshoring, see Di Stefano et al. (2021), Giglioli et al. (2021), Giovannetti et al. (2020). A broad non-technical overview of concepts, measures and recent evidence on the role of Italy in GVC is provided in

GVC-related trade – grew from about 40% during the '80s to more than 50% (World Bank, 2020).[2] GVC allowed firms to further specialize in specific tasks, to exploit the economies of scale, and to geographically relocate their activities in search of cost reductions, higher skill and technology or market proximity. The efficiency gains brought about by GVC as well as the possibility of rapid industrialization for emerging countries, knowledge and technology spillovers, contributed to global economic growth, poverty reduction and less inequality between countries. Yet, as any internationalization form, also GVC entail costs and require upfront investments that are more easily afforded by more productive and larger firms. Together with efficiency gains, GVC also imply a self-selection of firms, and, while firms compete on the larger more competitive global market, the winners grow bigger and gain market shares. The consequences in terms of market power and markups are ambiguous. GVC lead to lower prices and contribute to lower inflation (Auer et al., 2017; Bianchi & Civelli, 2015; de Soyres & Franco, 2019), but multinationals can still benefit from market power if GVC-related cost reductions are not fully passed into lower prices, thus, allowing them to increase their markups (Antràs, 2019).

In this paper we provide an overview of the main findings of the literature and, focusing on the link between markups, productivity and Global Value Chains, we discuss the main evidence for four major European countries: France, Germany, Italy and Spain. Our results are helpful in setting the stage for further investigations on the linkages between market power and productivity dynamics in the EU. The literature focusing on EU countries is relatively scarce. Moreover, micro-level analyses typically focus on one country, while direct cross-country comparisons are difficult due to data availability.

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2   For methodological details on GVC-related trade and other measures see Borin & Mancini (2019).

Our paper contributes to fill this gap. To do so we rely on national accounting data (EUROSTAT and EU KLEMS), which ensures cross-country comparability and allows us to provide for the first time an aggregate cross-country analysis for EU countries. We find that the four EU sample countries are rather heterogeneous. After a declining trend from 1995 to 2007, especially for France and Italy, markups show country-specific dynamics with an increase in cross-country dispersion after the 2008 financial crisis. However, in all four EU countries markups are lower than in the US. Productivity dynamics are also heterogeneous with Germany being the only country with no clear sign of a productivity slowdown. The country-level aggregate markups and productivity series do not seem much correlated. At a more disaggregated level, however, there is a positive correlation between markups and productivity. These correlations apply both to cross-sectional country-industry markups (period averages) and over time. Import penetration is associated with markups, but further analysis reveals that the type of goods imported matters. Considering imported inputs and GVC there is a clear negative correlation between markups and (backward) GVC participation. This correlation holds after controlling for several factors as well as country-industry and year fixed effects. Overall, our results highlight that despite the EU single market, France, Germany, Italy and Spain had specific trends. Nonetheless, markups remained lower and market power did not play the same role as in the US. In the EU, the association between markups and productivity is positive. This is in line with the idea that the EU economy is now more fragmented and competitive relative to the US. Market shares reallocation towards the most productive firms may still be beneficial in terms of efficiency while the risk of monopoly rents does not seem imminent. GVC participation and the use of imported inputs may have contributed to moderate markup increases.

The paper is organized as follows, section 2 provides a literature review while section 3 is focused on data and methodological issues in measuring markup. Section 4 illustrates the empirical findings and section 5 concludes.

2. Literature review

The literature on market power is largely focused on the identification of the main drivers of markups as there are several mechanisms potentially affecting markups dynamics.. A number of studies, postulates a positive relation between productivity and market power, at least at the firm level, and a crucial role of technological advancements in linking the two. In contrast with this evidence, other works suggest that rising market power may eventually undermine aggregate productivity growth, even if it is driven by a reallocation of resources to most productive firms. In what follows we briefly review the literature highlighting the role of productivity, reallocation of marker shares within and between sectors, firm's innovation activity and Global Value Chains (GVC).

2.1. Markups and productivity

The association between markups and productivity is of primary importance to gauge whether increased concentration and market power represent a major concern. However, theoretical considerations show that the relation between these variables is non-trivial and causality can go in either direction, implying that the issue is mainly empirical.

A positive correlation between markups and productivity can be driven by the propensity of high-productivity firms at setting higher markups and by their larger market shares. This holds when products are vertically differentiated or when large upfront investments – for instance, in innovation – are required. In a study on a large sample of French manufacturing firms over the period 1998-2007, Bellone et al. (2014) find a positive association of markups with firms' productivity and a negative relation with variables describing the competitive environment such as the size of the local markets where firms operate or the degree of import penetration. They also find markups to be positively related to productivity and export participation, the size of the effect growing with the wealth and the distance of the destination countries, which, the authors speculate, suggests quality differentiation across markets. In Aghion et al. (2019), high-productivity firms exploit IT improvements to expand their reach into new markets. As these firms also enjoy higher markups, we observe a temporary surge in productivity coupled with rising average markup. But eventually they run into a high-productivity incumbent: at this point, both firms curtail their efforts at creative destruction, knowing they will face stiffer competition. Autor et al. (2020) find evidence of a positive relationship between the growth of concentration and the growth of patent intensity and labour productivity both in the US and in other OECD countries. They speculate that this is explained by greater competition resulting from globalization and improved abilities of consumers to find low-cost or high-quality firms, made possible by advances in information technology. Bessen (2017) finds a positive relation between industry concentration in the US and the use of IT systems, which in turn is associated with enhanced performance of the top firms within each industry. The paper shares the idea that higher concentration may be part of an efficiency-enhancing shift, but the

author suggests that this is explained by a growing role of scale economies and network effects rather than by increased competition. Other works also stress the role of technological change in driving market power and markups. Guellec & Paunov (2017) point out that in markets where competition is based on digital innovation, "winner-take-all" dynamics allow winners to extract a rent, by raising the price of output and/or lowering the price of inputs, and this mechanism is reinforced by globalization, which allows successful firms to expand beyond their national markets. Calligaris et al. (2018) find that firms in the top-digital sectors display on average higher markups than firms operating in low-digital sectors and that this gap is larger nowadays than in the past. Aghion et al. (2019) build a model of endogenous growth through innovation and creative destruction that links the recent trends of productivity and markups to the IT improvements in the mid-1990s to mid-2000s which allowed the most efficient firms to expand their boundaries.

But the correlation between markups and productivity can also be negative, or lead to negative outcomes for the economy. As Jan Eeckhout (2021) puts it in his book: "*The trouble with competitions is that somebody wins them*" (George Orwell in its 1944 review of "The Road to Serfdom" the by F.A. Hayek). Once incumbents are large enough, their efforts to maintain their position may point towards reducing competitive pressures and entry of competitors rather than towards genuine innovation and productivity gains. Competition becomes "for" the market rather than "in" the market, with possible negative effects for the economy as a whole. Aghion et al. (2019) and de Ridder (2019) provide theoretical frameworks, based on innovation-led endogenous growth, that link the rise in concentration to a slowdown in aggregate productivity. In de Ridder (2019), the rise of intangible inputs gives firms with low adoption costs a competitive advantage that can be used to

deter (potential) competitors from developing higher quality products, thus reducing the rate of creative destruction and innovation. The rising markups observed in the last decade may be in part due to lax antitrust enforcement of mergers and acquisitions (Grullon et al., 2019) or, on the contrary, growing federal regulation creating entry barriers, and thus reducing competition (Andrews et al., 2016; Gutiérrez & Philippon, 2017). While this explanation may apply relatively well to the US, it would hardly be the case of EU countries, which instead have undergone major product market deregulation since the 1990s, and where competition law and policy is widely seen as stringent in international comparison (IMF, 2019).

As there are theoretical reasons both for positive and negative correlation between markups and productivity, a more nuanced view is to try to understand in which circumstances we should expect one or the other. The sign of the correlation might depend on the degree of market power. Diez et al. (2018) find support for this hypothesis using data on publicly traded firms from 33 advanced economies. They find that at low levels of markups, an increase in market power is associated with more investment, but the relation is eventually reverted for higher markup levels, and particularly for firms operating in industries with high levels of market concentration. Aghion et al. (2005) propose a model in which innovation increases with competition for low initial competition levels; at higher levels of market competition, however, innovation decreases, as the potential payoffs decline. Crouzet & Eberly (2019) find that the relation between intangibles, markups and productivity may vary across sectors. Their evidence points to a positive association between intangible investment by industry leaders and productivity gains in the consumer and high-tech sectors. By contrast, in the healthcare sector (and to a less extent in high-tech), intangible investment is associated with rising

markups, suggesting that it may have been used by leading firms to exert market power.

2.2. Markups and Global Value Chains

International trade and participation into Global Value Chains (GVC) may also affect markups. Trade openness is typically thought to yield pro-competitive effects. Moreover, it is well known that the most productive firms tend to be larger and are more likely to internationalize and being involved into GVC operations. But larger and more productive firms also tend to face more rigid demand, i.e. have more market power, and can set higher markups. These firms can benefit from GVC-related cost reductions as they are only partially passed into lower prices, thus, allowing them to increase their markups (Antràs, 2019). GVC participation and, more specifically cost reductions stemming from the use of imported inputs, can therefore represent a specific channel affecting markups. De Loecker et al. (2016) document that Indian firms importing inputs from abroad increased their markups after an input trade liberalization. The 2020 World Development Report (World Bank, 2020) shows evidence suggesting that the correlation between markups and GVC participation might actually be ambiguous. For instance, for firms in developed countries GVC participation is associated with rising markups, while the opposite holds for firms in developing countries. The sign of the correlation is thus likely to depend on the modality through which firms participate into GVC. Different positioning implies different bargaining power. Lead firms in GVC, while incurring in increased fixed costs due to complex internationalization strategy, may benefit from input cost reductions (or

quality improvements) relative to other GVC participants. The GVC-driven increased markups are also likely to contribute to a lower labour share (Karabarbounis & Neiman, 2014). If cost reductions due to imported inputs may imply higher markups for the firms involved, the aggregate country-level effect remains ambiguous. When cost reductions are only partially passed-through, it is possible to have rising markups and declining prices. This may force local competitors to lower their prices as well, but without the benefit of GVC-related cost reductions, thus forcing them to reduce their markups. GVC may thus increase market power of (lead) firms involved but at the same time yield pro-competitive effects on their competitors (or on GVC-firms in low-end tasks). The net effect at the country-industry level is thus ambiguous. While we are not aware of any paper addressing directly the relationship between GVC and markups at the country or industry level, the idea that GVC may contribute to moderate price increases is in line with some macro-level findings. For instance, Auer et al. (2017), Bianchi & Civelli (2015), and de Soyres & Franco (2019) argue that GVC and lower input prices have contributed to lower inflation. Using disaggregated data for the EU, Chen et al. (2009) show that openness reduces both prices and markups while raising productivity.

3. Data and methodology

Markups are the most rigorous measure of market power on theoretical grounds (Syverson, 2019). However, markups also presents important challenges in terms of data requirements and measurement methods. In this paper, we adopt a macroeconomic perspective. Our aim is to explore what evi-

dence emerges calculating a measure of markup based on national accounting data compared to standard econometric based indicators. To this end we use the EUROSTAT and EUKLEMS country and country-sector databases. This choice has pros and cons. The main advantage, also compared to micro-level indicators, is economy-wide representativeness as well as cross-country comparability. National accounts data are highly harmonized at the European level and guarantee representativeness at national and sectoral level. A main limit however, is that, a national-accounts-based macro-level measure of markups can be criticized on theoretical grounds as conceptually the idea of markup applies to a production unit rather than a sector or a country. We discuss the issue more in detail below. Aggregate macroeconomic data are used in relatively few studies. Eggertsson et al., (2018) exploit the assumption that under constant returns to scale production, markups are proportional to the profit share of the economy (in particular, they are equal to the inverse of the share of production not accounted for by pure profits) in formula:

$$\mu = \frac{1}{1 - \text{profit share}}$$

As the profit share is computed by subtracting labour and capital income from output, the main weaknesses are in the estimation of the latter and in the omission of overhead costs. Another approach for measuring markups, based on aggregate data, is to look at the ratio of price to average variable costs, which is equal to the ratio between revenues and total variable costs, once both of these are divided by quantity produced. Certainly, simpler than the micro-level estimations, these methods, relying on national accounts data, also improve the comparability across countries and sectors. In this paper we adopt the latter approach, and calculate the markup as the ratio of price to average variable costs, which is equal to the ratio between revenues and total

variable costs. In formula:

$$\mu_{NA} = \frac{\text{output}}{\text{intermediate consumption} + \text{compensation of employees}}$$

where the total compensation of employees includes the compensation of self-employed workers.[3]

A macro approach can complement micro-level measures and overcome some of their limitations. Moreover, a direct estimate of markups requires data on prices and marginal costs at the firm or plant level. As the latter are not readily available, different micro-level estimation methods have been proposed. The demand approach (Berry et al., 1995, 2019) requires assumptions on market competition and consumers' behaviour and to estimate the demand function using data on prices, market shares and product attributes. Given the estimated elasticities of substitution across the goods considered, markups can then be recovered from the first-order conditions, after specifying a model of competition. Due to the large amount of data (and assumptions) it requires, such approach, while appropriate for market-level studies, is ill-suited for larger and less homogeneous aggregates. The production approach of from de Loecker & Eeckhout (2017) and de Loecker & Warzynski (2012) uses accounting data to estimate a firm's production function, and notably the output elasticity of variable inputs as, following Hall, (1988, 2018), markup is equal to the ratio between the elasticity of output to a variable input and the share of revenues the input is paid. The production approach is relatively parsimonious both in terms of assumptions and data inputs, but

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3   For the calculation, the (unobserved) compensation of self-employed workers is assumed to be equal to the average compensation of employees.

it is not exempt from critiques related to the identification of variable costs and the possible discrepancies in accounting practices, simultaneity and selection biases, functional dependence problems (Ackerberg et al., 2015), the biases introduced by multi-product firms or by the use of industry-level price deflators.

Relative to micro-level estimates, macro-level measures are more parsimonious and guarantee representativeness and international comparability but may suffer from an aggregation bias. Our country-sector markups are calculated from official national accounts and do not require complex procedures. Differently from de Loecker & Eeckhout (2017) and de Loecker & Warzynski (2012) our measure of markup is not estimated but it is a direct measure observed ex-post. The integration of micro- and macro-measures is still a gap in the literature that we will have to be addressed in future research. In this paper, to validate our aggregate measure, we compare it with a similar indicator obtained from firm-level data sources. Specifically, to check the robustness of our markup measure we compare the national accounts markup series to the indicator obtained using Structural Business Statistics data calculated as:

$$\mu_{SBS} = \frac{\text{turnover}}{\text{purchases of goods and services} + \text{personnel cost}}$$

where, similarly to μ_{NA}, the total personnel cost includes the cost of unpaid employed workers.[4] Overall, these measures are quite similar with the differences amounting to few percentage points. Relative to the NA markup series the SBS-based indicator increasingly underestimates markups over time, es-

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4 The calculation is analogue to the NA one as the (unobserved) cost of unpaid employed workers is assumed to be equal to the average personnel cost.

pecially for Spain, Germany and France, while Italian NA and SBS data seem to be more consistent.[5] To measure GVC participation, we rely on inter-country input-output tables (ICIO-TiVA) and the methodology by Koopman et al. (2010, 2014).[6] The calculation is based on elaborations on input-output tables that allow to retrieve a value added decomposition of country-sector bilateral trade flows. The literature has highlighted several measures capturing different aspects of GVC participation. In this paper, we concentrate on one of the main indicators, the foreign value added incorporated in a country's exports as a share of exports (FVAX). A higher FVAX share signals a deeper integration into GVC and, more specifically, a more intense *backward* participation due to the use of intermediate inputs. This measure is particularly important for the countries in our sample, which are advanced industrial countries, whose export competitiveness also relies on imported inputs. Investigating other aspects of the complexity of GVC participation is crucial, but is out of the scope of this paper, and we leave it for future research.

In the following analysis, we investigate the trends in markups and productivity at the country and sector level. We look at the correlations between these variables and investigate to what extent (backward) GVC participation can explain the observed variability in markups.

4. Results

Most empirical studies on market power and productivity developed so

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5   For more detail on this comparison see Battiati et al. (2021).
6   On this matter also see Borin & Mancini (2019). For methodological details on the TiVA database and indicators see the TiVA-OECD guide available at:
      https://www.oecd.org/sti/ind/tiva/TiVA2018_Indicators_Guide.pdf

far focused their attention on the US emphasizing that the increasing extent of imperfect competition in the US firms might partly explain aggregate productivity slowdown. On the other hand, the evidence for the European countries is still scant and as a consequence comparative analysis for markups dynamics is at the very beginning. This paper aims at providing some evidence in this respect and to offer new evidence on markup and productivity trends within the EU market economies. Therefore, the main question is: what are the markups dynamics in the EU? Are they similar to the US ones? To get the sense of the differences between aggregate markup size and dynamics between the US and four big EU countries, Germany, Italy, Spain and France, Figure 1 shows markups for the market sectors over the years 1995-2017. The main evidence can be summarized as follows.

Stylized fact 1 – Lower markups than in the US, differentiated trends

Aggregate markup dynamics of EU countries are differentiated, but markups are lower and do not seem to follow the increasing trend observed in the US. Markups were instead stable or on a decreasing trend at least until the 2008 financial crisis.

In the US, markup increased steadily since 2000 outpacing the EU economies. In Spain there has been a slight decreasing trend between 1995 and 2006, followed by a rising tendency started after the financial crisis. Italy, Germany and France kept a decreasing dynamics since the beginning of the period up to 2008 when Germany and Italy experienced an upward trend while France slowed down. The declining trend that characterized all the EU countries between 1995 and 2000 was likely driven by the improvements in intra-EU competition fostered by both the inception of the Single Market in 1993 and of the monetary union in 1999. Then the cyclical drop started in

2008, because of the financial crisis, hugely affected the competitive environment in the European economies (Weche & Wambach, 2018) who experienced a sharp fall in average market power (markups). But, since 2010, many EU economies, Spain, Germany and Italy among them, started a process of industry restructuring associated to a rise in firm level markup likely affecting the aggregate figures for the market sector (Figure 1). Firm level markup estimates for EU firms reveal a significant heterogeneity within them, with some countries (Spain, Italy and Germany) showing increasing average post crisis trend and others (France) markedly decreasing dynamics.

Figure 1 **Aggregate markup trends in US, France, Germany, Italy and Spain**
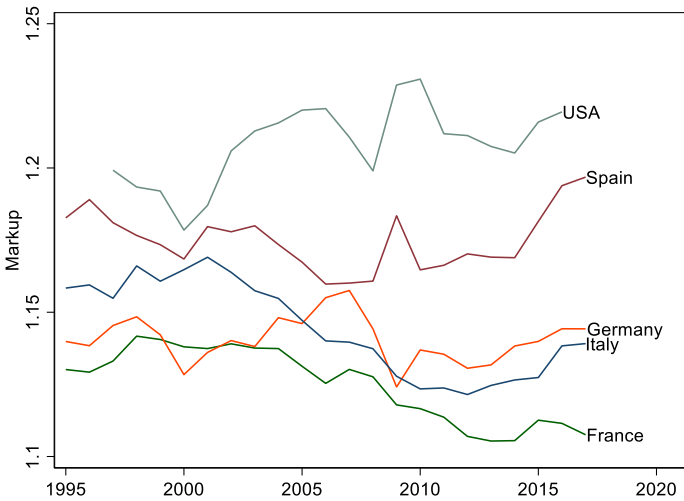
There are several factors associated with markup dynamics, the most important one being productivity. Different cross-country productivity dynamics might help explaining the observed heterogeneity in markup trends. We thus ask: are markups associated with productivity at the country level? Fig-

ure 2 shows total factor productivity (TFP onwards) for Italy, Germany, Spain and France. The TFP series are correlated and shows two groups: i) USA, Germany and France (except for the last years) with increasing productivity; ii) Spain and Italy with stagnating productivity growth.

Figure 2 **Aggregate TFP trends in US, France, Germany, Italy and Spain**
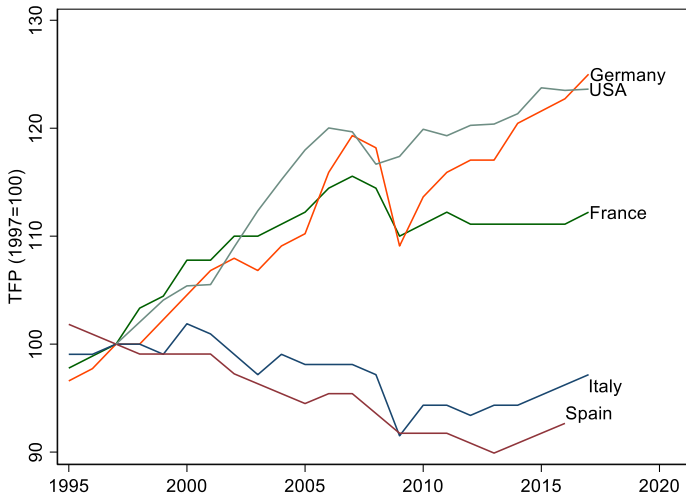
The heterogeneity of markup dynamics is evident across the four countries with Spain displaying significant fluctuations over the whole period. Italy and Spain experienced the largest TFP slowdown. In France, TFP grows until the financial crisis and then stops. Relative to its European peers, Germany shows positive productivity dynamics before and after the financial crisis, with a fast V recovery.

Comparing markups and productivity at this level of aggregation does not provide a homogeneous figure as each country displays specific trends; however, the overall association between markups and productivity seems to be

positive. The sluggish productivity growth of Italy and France is accompanied by markup reductions. In Spain, the productivity slowdown matched a slight tendency towards a reduction of markups until the crisis. After the crisis however TFP and labour productivity of Spain start to visibly diverge. At the same time, after the crisis markups start to increase following labour productivity and in the last year a slight TFP increase. The association between markups and productivity is more visible in Germany after 2000. Productivity increases are closely matched by markups increases either before, during and after the crisis. Looking at the correlations confirms the above description. Pooled correlation between markup growth and TFP growth is positive (0.4004) and is statistically significant at the 1% level. Similarly, the correlation with labour productivity growth is positive (0.3884; $p<0.01$). Markup-TFP growth rates country-level correlations, however, are heterogeneous: positive for France (0.4769; $p<0.05$) and Italy (0.4350; $p<0.05$), positive but higher for Germany (0.7028; $p<0.01$), and zero (-0.0438; insignificant) for Spain. Similar results hold for labour productivity.

All in all, aggregate markups and productivity trends seem to display a positive correlation for the four EU countries analysed together, but the picture is heterogeneous at the country-level. While aggregate trends raise important questions on the different degrees to which EU countries experienced the productivity slowdown, they do not seem to improve our understanding of markup dynamics in the four sample EU country. Arguably, more disaggregated data are needed and more factors must be considered. A first step in this direction is to consider that, by construction, markup movements result from both output and cost components. It is thus informative to decompose markups and ask: what is the role of output and cost components in aggregate markups trends in the EU? We investigate this in Figure 3, where we single

out output, intermediate cost and labour cost. We find that, despite the heterogeneous dynamics, markup components show a similar pattern in all the four EU countries analysed:

Stylized fact 2 – Intermediate costs moderated markup growth

Since 1995, intermediate costs have increased more than output, thus contributing to attenuate markup growth, while labour costs did not contribute much to markup changes. The heterogeneous markup dynamics result from the different balance of these forces.

Markup growth ($\dot{\mu}$) can be decomposed as the sum of three effects as follows:

$$\dot{\mu} \cong g\,(\text{output}) - [\alpha g\,(\text{intermediate cost}) + (1 - \alpha)\,g\,(\text{labour cost})]$$

where $g\,(\cdot)$ denotes the rate of growth and α represents the intermediate cost share. Figure 4 displays the contribution of each component to annual markups growth. Intermediate costs constitute the majority of costs and their importance has increased over time from about 58% to about 65%, and symmetrically the share of labour costs has reduced from about 42% to 35%. In the Figure, this implies that the intermediate cost effect is larger than the labour cost effect. Markup growth has therefore been moderated mainly by intermediate costs rather than by labour costs.[7]

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7   It is important to note that the components of the labour share of output also enter into the national-accounting-based definition of markup. Other things equal, i.e. given intermediate costs, a reduction in the labour share must be associated to markup increases; but intermediate costs are not constant and we have seen that they matter much more than labour costs for markup growth. Therefore the correlation between markups and labour share is not obviously negative and remains an empirical matter, as we discuss later in the paper.

Figure 3 **Decomposition of markups growth**

Legend:
- Markup (1995=100, rhs)
- Markup growth (%)
- Output effect (%)
- Intermediate cost effect (%)
- Labour cost effect (%)
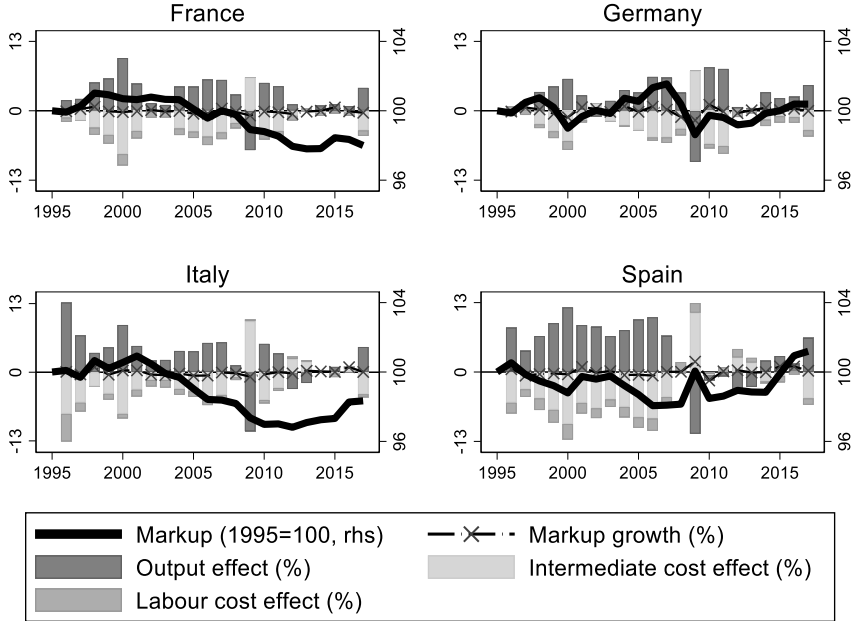
In France and Germany, all the components grow over the period. In Italy and Spain, instead, they stop after the financial crisis. Some common trends emerge. In all countries, since 1995, labour cost has increased less than output and less than intermediate cost. This is most visible in Spain and Germany. On the contrary, intermediate cost has increased more than the other components. These two cost entries have therefore increased more (intermediate cost) and less (labour cost) than output. This implies that while the labour share of output has decreased in all countries, the intermediate cost share has increased. Growth in labour costs has not been large enough to significantly moderate markups growth, however increasing intermediate costs contributed to avoid markup increases. Aggregate markups dynamics are the results of

these opposite forces. Looking at individual industries, we see that markups have increased in Agriculture (A) in France, Germany and Spain. Manufacturing (C) markups are found to be particularly stable relative to other industries. Electricity-gas (D) markups decline in all countries; this is particularly pronounced in France. Transportation (H) markups instead slightly increase in all countries. All in all, a common pattern is not immediately visible. At this level of aggregation, trends seem mostly driven country-industry specificities. In some industries markups increased while they decreased in others, yet despite the differentiated trends, industry markups may have converged towards some level or they may have diverged. This perspective might be informative of the broader market power dynamics. Higher dispersion may signal increasing market power in less competitive sectors, while closer markups may be due to more similar degrees of competition across industries. We thus ask: how did the distribution of markups by industry change over time? Again, EU countries present differentiated patterns. We find that the dispersion of the markup distribution has slightly reduced over time. This tendency is very clear for Germany and to some extent for Italy. The convergence of industry markups is less visible in France, but the dispersion was already much lower in 1995 relative to the other countries. In Spain markups seem to converge until 2000, then slightly diverge and converge again up to 2015. A somewhat consistent picture emerges instead by looking at the standard deviation of markups between industries (Figure 4). Despite countries specificities, there is a general tendency towards less dispersion of markups between industries that applies to all four countries to some degree.

Figure 4   **Standard deviation of markups by industry over time**
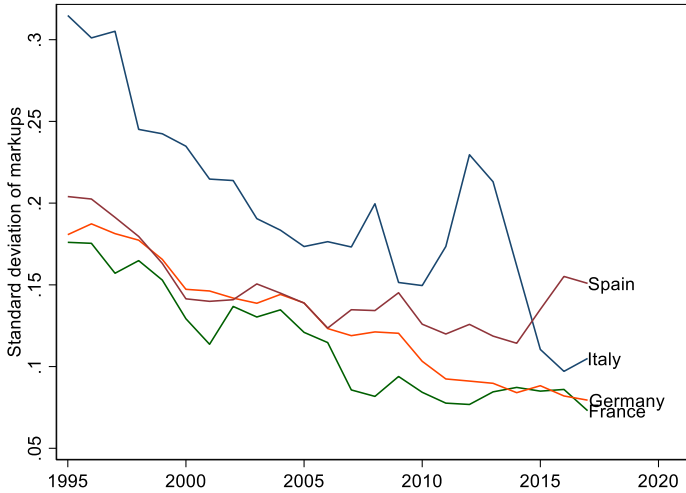
Stylized fact 3 – Cross-industry convergence of markups

Markups have become less disperse between industries, with some differences across countries. Markups distribution has become visibly more concentrated in Germany and to some extent in Italy, signalling a tendency towards convergence of the different industries. The pattern is less clear for France and Spain.

Using the more detailed country-industry data, we can exploit the higher level of variability and reformulate our initial question on the association between markups and productivity. Country-level aggregate series can mask the highly heterogeneous industry trends, making the correlation hardly visible. More disaggregated data may instead provide a different picture. We thus ask: are country-industry markups correlated with productivity and other main economic variables? In Figure 5 and 6, we investigate whether country-industry markups are associated with TFP. For the sake of clarity, we first display

the cross-sectional scatter based on country-industry period-averages, in Figure 5, and then analyze the dynamics by demeaning the country-industry series, in Figure 6. In this way, we can visualize separately correlations between and within country-industry groups. A few common elements start to emerge from the heterogeneous dynamics discussed above. Despite the relatively high level of aggregation of the data, some patterns are clear and in line with our expectations.

Stylized fact 4 – Markups are positively correlate with productivity

(a) Cross-sectional evidence: industries with higher markups are also more productive.

(b) Time-series evidence: within industries, markup growth is correlated positively with productivity growth.

Industries with higher productivity tend to have higher markups, and those with faster productivity growth also tend to increase their markups faster. This may signal the fact that efficiency improvements tend to increase market power of firms, perhaps by granting larger market shares.

Figure 5 **Between country-industry patterns: Markups vs. TFP; country-industry period averages**
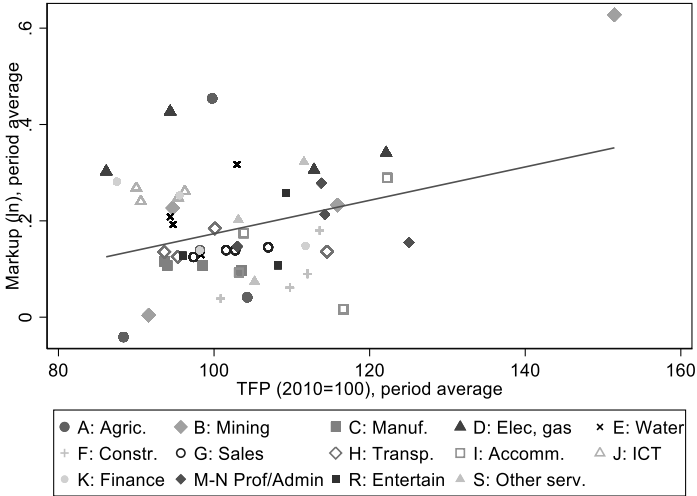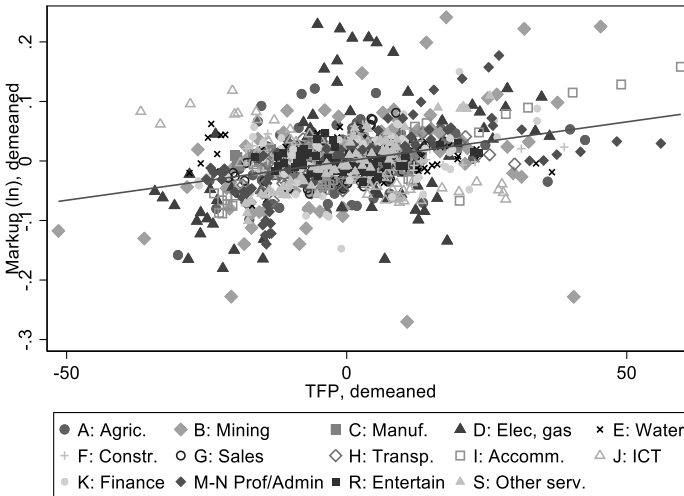

Figure 6: **Within country-industry patterns: Markups vs. TFP; demeaned country-industry series**

The evidence on the importance of intermediate cost (Figure 3) together with correlations between country-industry markups and productivity leave room to questions on the role of international trade. Trade openness is usually thought to yield pro-competitive effects. Import competition is one channel through which domestic firms get exposed to competition. When looking at the correlation between import penetration and markups, however, its role does not seem very important: industries that import more tend to have lower markups, but the correlation is not particularly strong, while changes in the degree of import penetration do not seem correlated with markup changes. Aggregated imports capture different things, from imported final goods to imported intermediate goods, raw materials and primary products. Different types of imports may have a different role in different industries and in different countries. We now investigate this possibility and ask: do Global Value Chains play a role in markup dynamics? To help answering this question, in Figure 8, we display country-industry markups against a measure of GVC participation, foreign value added content of exports (explained more in detail below). As a further check, based on a simple econometric exercise, in Figure 9 we net out the effect of the other factors considered in this paper as well as of country-industry and year specificities. The pattern that emerges is very clear.

Stylized fact 5 – Markups are negatively correlated with GVC

Markups are negatively correlated with (backward) Global Value Chain participation and the use of imported inputs.

In the figures, we consider foreign value added content of exports. As explained in the methodology section, a higher FVAX share signals a deeper

integration into GVC and, more specifically, a more intense backward participation due to the use of intermediate inputs. Figure 7 shows that there is a clear negative correlation between GVC participation and markups: a higher GVC participation tends to be associated with lower markups. In Figure 8, we explore this correlation further. We check econometrically whether the simple correlations observed hold once we control for a series of characteristics. Specifically, we want to verify if the correlations are robust to the introduction of country, sector and year fixed effects as well as of the main variables that are typically associated with market power and markups, i.e. the labour share, the investment share and the import share.[8] The signs of the control variables are in line with the expectations: markups are negatively correlated with the labour share, positively correlated with the investment share as well as with the import share.[9] Importantly for this paper, the positive correlation between markups and productivity, and the negative correlation between markups and FVAX continues to hold. In Figure 8, we visualize this result for GVC, plotting the residuals of a regression of markups on TFP, labour, investment and import shares against the FVAX share (the regression includes country-industry and year fixed effects). GVC participation clearly contributes to explain markups variability. Higher GVC participation is associated with lower markups, other things equal.

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8   We run the following descriptive regression:

$$\mu_{cst} = \alpha + \beta_1 TFP_{cst} + \beta_2 L_{cst} + \beta_3 I_{cst} + \beta_4 M_{cst} + \beta_5 FVAX_{cst} + \gamma_t + \varepsilon_{cst}$$

With no claim of causality, the aim of the econometric exercise is to check whether the descriptive evidence holds once we control time invariant country, sector or country-sector characteristics and year fixed effects as well as for some the main country-sector variables that are related to markups according to the recent literature, namely the labour (L), the investment (I) and the import (M) shares of output.

9   Here, we simply introduce these variables as controls, but each of them deserves a deeper investigation, especially investments. Considering the total investment share is likely to hide heterogeneous effects from the different types of investment – e.g. ICT, R&D, machinery or construction.

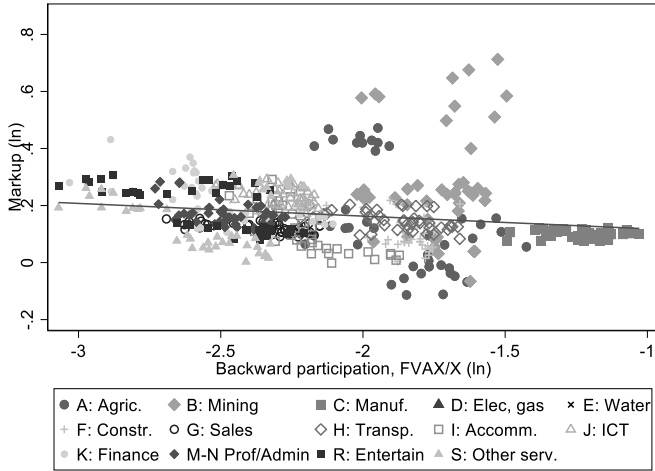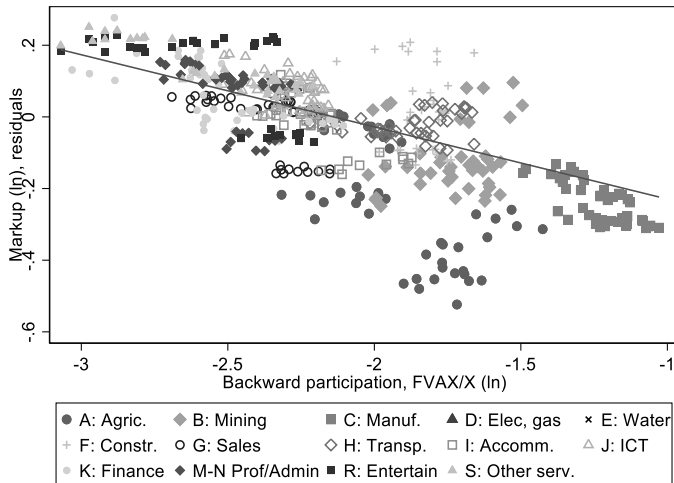Figure 7 **Markups and backward GVC participation (foreign value added in exports)**

Figure 8 **Markup residuals and backward GVC participation (foreign value added in exports)**

5. Conclusion

In the EU, markup dynamics have been rather different than in the US. Focusing on four major EU countries, namely France, Germany, Italy and Spain, we singled out some stylized facts based on aggregate country and country-industry national accounts data. While markups have been increasing in the US at least since 1995, the same does not apply to EU countries. Country-level dynamics have been heterogeneous, but markups were more stable or even declining at least until the 2008 financial crisis, while they were already increasing in the US. After the crisis markups kept increasing in the US and started increasing also in Spain, Italy and Germany, but not in France. In all the four sample EU countries, markups remained lower than in the US since 1995. Some researchers have connected increasing market power, concentration and markups in the US to the productivity slowdown. The same story does not apply to EU countries according to aggregate data. Country-level markups and productivity dynamics seem not to be closely related, while country-industry markups are positively correlated with productivity either across-industries and over time. This positive association suggests that rather than hampering efficiency, higher markups might come together with productivity gains in the EU. At the same time, Global Value Chain participation and the use of imported inputs, activities typically conducted by the most performing high-markup firms, are instead strongly correlated with lower markups in EU countries. These international activities seem to simultaneously be productivity enhancing (through cost reductions or better quality inputs) and yield aggregate pro-competitive effects, although the precise mechanism needs to be better characterized. Relative to the US, the EU market appears less characterized by rising market power and rents, on

the contrary it may be too fragmented, so that some degree of concentration towards the most efficient firms could enhance efficiency, rather than posing an imminent threat to competition. Markups and productivity gains could, however, imply lower labour shares with possible impacts on inequality calling for economic and social policy measures. Whether this is in fact the case is an open question left for further studies. Future research needs to address several issues from measurement problems to bridging micro and macro evidence, to the precise identifications of the mechanisms and the channels linking markups, productivity and other economic variables. The descriptive evidence gathered in this paper is helpful in setting the stage for deeper investigations on the causes and consequences of market power and productivity dynamics in the EU.

References

[1]   Ackerberg, D. A., Caves, K., & Frazer, G. (2015). Identification properties of recent production function estimators. *Econometrica*, *83*(6), 2411–2451.

[2]   Aghion, P., Bergeaud, A., Boppart, T., Klenow, P. J., & Li, H. (2019). *A Theory of Falling Growth and Rising Rents* (Working Paper Series, Issue 26448). https://doi.org/10.3386/w26448

[3]   Aghion, P., Bloom, N., Blundell, R., Griffith, R., & Howitt, P. (2005). Competition and Innovation: an Inverted-U Relationship. *The Quarterly Journal of Economics*, *120*(2), 701–728. https://doi.org/10.1093/qje/120.2.701

[4]   Andrews, D., Criscuolo, C., & Gal, P. (2016). The Global Productivity Slowdown, Technology Divergence and Public Policy: A Firm Level Perspective. *The Future of Productivity: Main Background Papers*, *September*,

1–50.

[5] Antràs, P. (2019). Conceptual Aspects of Global Value Chains. *National Bureau of Economic Research*, *January*. https://doi.org/10.3386/w26539

[6] Auer, R., Borio, C., & Filardo, A. (2017). The Globalisation of Inflation: the Growing Importance of Global Value Chains. *Federal Reserve Bank of Dallas, Globalization and Monetary Policy Institute Working Papers*, *2017*(300). https://doi.org/10.24149/gwp300

[7] Autor, D., Dorn, D., Katz, L. F., Patterson, C., & Reenen, J. van. (2020). The fall of the labor share and the rise of superstar firms. *Quarterly Journal of Economics*, *135*(2), 645–709. https://doi.org/10.1093/qje/qjaa004

[8] Baldwin, R. (2016). *The Great Convergence*. Harvard University Press.

[9] Baqaee, D. R., & Farhi, E. (2019). Productivity and Misallocation in General Equilibrium. *The Quarterly Journal of Economics*, *135*(1), 105–163. https://doi.org/10.1093/qje/qjz030

[10] Barkai, S. (2020). Declining Labor and Capital Shares. *The Journal of Finance*, *75*(5), 2421–2463. https://doi.org/10.1111/JOFI.12909

[11] Battiati, C., Jona-lasinio, C., Marvasi, E., & Sopranzetti, S. (2021). Market power and productivity trends in the European economies: A macroeconomic perspective. *Luiss School of European Political Economy Working Paper Series*, *1*. https://sep.luiss.it/node/3258

[12] Bellone, F., Musso, P., Nesta, L., & Warzynski, F. (2014). International trade and firm-level markups when location and quality matter. *Journal of Economic Geography*, *16*(1), 67–91. https://doi.org/10.1093/jeg/lbu045

[13] Berry, S., Gaynor, M., & Morton, F. S. (2019). Do Increasing Markups Matter? Lessons from Empirical Industrial Organization. *Journal of Economic Perspectives*, *33*(3), 44–68. https://doi.org/10.1257/jep.33.3.44

[14] Berry, S., Levinsohn, J., & Pakes, A. (1995). Automobile Prices in Market Equilibrium. *Econometrica*, *63*(4), 841–890. http://www.jstor.org/stable/2171802

[15] Bessen, J. E. (2017). *Industry Concentration and Information Technology*

(Issue 41). https://ssrn.com/abstract=3044730

[16] Bianchi, F., & Civelli, A. (2015). Globalization and inflation: Evidence from a time-varying VAR. *Review of Economic Dynamics*, *18*(2), 406–433. https://doi.org/10.1016/j.red.2014.07.004

[17] Borin, A., & Mancini, M. (2019). Measuring what matters in global value chain and value-added trade. *Policy Research Working Paper, Background Paper of the World Development Report 2020*, *8804*(April 2019), 1–64. http://www.worldbank.org/research.

[18] Calligaris, S., Criscuolo, C., & Marcolin, L. (2018). *Mark-ups in the digital era* (Issue 2018/10). https://doi.org/https://doi.org/10.1787/4efe2d25-en

[19] Chen, N., Imbs, J., & Scott, A. (2009). The dynamics of trade and competition. *Journal of International Economics*, *77*(1), 50–62. https://doi.org/10.1016/j.jinteco.2008.10.003

[20] Crouzet, N., & Eberly, J. C. (2019). *Understanding Weak Capital Investment: the Role of Market Concentration and Intangibles* (Working Paper Series, Issue 25869). https://doi.org/10.3386/w25869

[21] de Loecker, J., & Eeckhout, J. (2017). *The Rise of Market Power and the Macroeconomic Implications* (Working Paper Series, Issue 23687). https://doi.org/10.3386/w23687

[22] de Loecker, J., & Eeckhout, J. (2018). *Global Market Power* (Working Paper Series, Issue 24768). https://doi.org/10.3386/w24768

[23] de Loecker, J., Goldberg, P. K., Khandelwal, A. K., & Pavcnik, N. (2016). Prices, Markups, and Trade Reform. *Econometrica*, *84*(2), 445–510. https://doi.org/10.3982/ECTA11042

[24] de Loecker, J., & Warzynski, F. (2012). Markups and firm-level export status. *American Economic Review*, *102*(6). https://doi.org/10.1257/aer.102.6.2437

[25] de Ridder, M. (2019). *Market Power and Innovation in the Intangible Economy* (Issue 1907). https://econpapers.repec.org/RePEc:cfm:wpaper:1907

[26] de Soyres, F., & Franco, S. (2019). Inflation Dynamics and Global Value Chains. *World Bank Policy Research Working Paper*, *19*(9090).

[27] di Stefano, E., Giovannetti, G., Mancini, M., Marvasi, E., & Vannelli, G. (2021). Reshoring and plant closures in covid-19 times : evidence from Italian MNEs. *European University Institute, Robert Schuman Centre for Advanced Studies*, *94*. https://cadmus.eui.eu//handle/1814/73468

[28] Diez, F., Fan, J., & Villegas-Sanchez, C. (2019). *Global Declining Competition* (Issue 13696). https://ssrn.com/abstract=3397540

[29] Diez, F. J., Leigh, D., & Tambunlertchai, S. (2018). *Global Market Power and its Macroeconomic Implications* (Issue 18/137). https://www.imf.org/en/Publications/WP/Issues/2018/06/15/Global-Market-Power-and-its-Macroeconomic-Implications-45975

[30] Eeckhout, J. (2021). The Profit Paradox: how thriving firms threaten the future of work. *Princeton Univerysity Press Princeton & Oxford*.

[31] Eggertsson, G. B., Robbins, J. A., & Wold, E. G. (2018). *Kaldor and Piketty's Facts: The Rise of Monopoly Power in the United States* (Working Paper Series, Issue 24287). https://doi.org/10.3386/w24287

[32] Giglioli, S., Giovannetti, G., Marvasi, E., & Vivoli, A. (2021). The Resilence of Global value Chains during the Covid-19 Pandemic: The Case of Italy. *Economia Italiana*, *1*.

[33] Giovannetti, G., Mancini, M., Marvasi, E., & Vannelli, G. (2020). The Role of Global Value Chains in the Pandemic: Impact on Italian Firms (English version). *Rivista Di Politica Economica*. https://www.confindustria.it/home/centro-studi/rivista-di-politica-economica/dettaglio?doc=RPE_traiettorie_europee_2020_2

[34] Grullon, G., Larkin, Y., & Michaely, R. (2019). Are US Industries Becoming More Concentrated?*. *Review of Finance*, *23*(4), 697–743. https://doi.org/10.1093/rof/rfz007

[35] Guellec, D., & Paunov, C. (2017). *Digital Innovation and the Distribution of Income* (Working Paper Series, Issue 23987). https://doi.org/10.3386/w23987

[36] Gutiérrez, G., & Philippon, T. (2017). *Declining Competition and Investment in the U.S.* (Working Paper Series, Issue 23583). https://doi.org/10.3386/w23583

[37] Hall, R. E. (1988). The Relation between Price and Marginal Cost in U.S. Industry. *Journal of Political Economy*, *96*(5), 921–947. https://doi.org/10.1086/261570

[38] Hall, R. E. (2018). New Evidence on the Markup of Prices over Marginal Costs and the Role of Mega-Firms in the US Economy. *NBER Working Paper Series*, 21. https://doi.org/10.3386/w24574

[39] IMF. (2019). *World Economic Outlook, April 2019 Growth Slowdown, Precarious Recovery* (World Economic Outlook).

[40] Karabarbounis, L., & Neiman, B. (2014). The global decline of the labor share. *The Quarterly Journal of Economics*, *129*(1), 61–103.

[41] Koopman, R., Powers, W., Wang, Z., & Wei, S.-J. (2010). Give credit where credit is due: Tracing value added in global production chains. *NBER Working Paper Series*, 1–58. https://doi.org/http://www.nber.org/papers/w16426.pdf

[42] Koopman, R., Wang, Z., & Wei, S. J. (2014). Tracing value-added and double counting in gross exports. *American Economic Review*, *104*(2), 459–494. https://doi.org/10.1257/aer.104.2.459

[43] Syverson, C. (2019). Macroeconomics and Market Power: Context, Implications, and Open Questions. *Journal of Economic Perspectives*, *33*(3), 23–43. https://doi.org/10.1257/jep.33.3.23

[44] van Reenen, J. (2011). Does competition raise productivity through improving management quality? *International Journal of Industrial Organization*, *29*(3), 306–316. https://doi.org/https://doi.org/10.1016/j.ijindorg.2011.02.001

[45] van Reenen, J. (2018). *Increasing Differences Between Firms: Market Power and the Macro-Economy* (Issue dp1576). http://eprints.lse.ac.uk/id/eprint/91698

[46] Weche, J. P., & Wambach, A. (2018). The fall and rise of market power

in Europe. *ZEW-Centre for European Economic Research Discussion Paper*, *18–03*.

[47] World Bank. (2020). World Development Report 2020: Trading for Development in the Age of Global Value Chains. In *Washington, DC: World Bank*. https://doi.org/10.1596/978-1-4648-1457-0

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ECONOMIA ITALIANA 2022/1

La collocazione del sistema produttivo italiano nel contesto globale post covid

Questo numero di Economia Italiana – editor i professori **Giorgia Giovannetti**, Università di Firenze, e **Paolo Guerrieri**, Sapienza e PSIA SciencesPO – fa il punto sul processo di globalizzazione e sulla relativa posizione dell'industria italiana. Nel 2021 commercio e investimenti internazionali hanno registrato tassi di espansione superiori alla media degli ultimi anni. Non si è verificata la fine della globalizzazione e un ritorno al protezionismo, prevista da molti. "*Anzi - secondo gli editor - le catene del valore sembrano aver funzionato più come ammortizzatori e strumenti di risposta alla crisi che come amplificatori della stessa, anche se non vanno trascurati i problemi e le strozzature …*e in effetti "*L'internazionalizzazione è un canale importante per accrescere la produttività e la competitività ed è un fattore di crescita*".

L'Italia ha reagito meglio di altri paesi e sembra aver "difeso la propria posizione" nell'economia mondiale. **La reazione migliore rispetto alla pandemia sembra esser stata quella delle imprese internazionalizzate** – e in particolare di quelle partecipanti alle catene del valore - **che hanno reagito meglio delle imprese domestiche** in termini di minori perdite di fatturato, maggior usi di tecnologie digitali, e-commerce, etc.

Dai vari saggi contenuti nel fascicolo emerge con chiarezza il ruolo propulsivo delle grandi imprese italiane capaci di competere sui mercati. Tuttavia, queste non hanno un peso sufficiente a trainare il resto dell'apparato produttivo italiano. Da qui due implicazioni di policy: "il *ruolo delle imprese medio-grandi è e deve restare assai importante, sia quali attori in grado di competere nelle grandi catene del valore internazionali, sia quali potenziali locomotive dell'espansione del sistema produttivo*"; dall'altro "*è altrettanto importante favorire maggiori dimensioni e managerialità del folto gruppo di piccole e piccolissime imprese che tendono a frenare in molti casi la capacità di integrazione internazionale del nostro sistema produttivo*".

Il volume contiene i saggi di **Roberto Monducci e Stefano Costa** (rilevanza crescente delle imprese medio-grandi e multinazionali nei flussi di esportazione italiani). **Stefano Costa, Federico Sallusti, Claudio Vicarelli e Davide Zurlo** (l'internazionalizzazione per accrescere competitività e performance del sistema produttivo italiano). **Claudio Battiati, Cecilia Jona-Lasinio, Enrico Marvasi e Silvia Sopranzetti** (la concentrazione del potere di mercato potrebbe migliorare l'efficienza senza compromettere la concorrenza). **Luca Casolaro, Silvia Del Prete e Giulio Papini** (l'impatto dell'internazionalizzazione nel caso della Toscana). Completano il numero gli interventi di **Pierfrancesco Latini e Alessandro Terzulli** (il futuro possibile delle catene globali del valore) e di **Mariano Bella e Luciano Mauro** (le ricadute effettive della bolletta energetica).

ECONOMIA ITALIANA nasce nel 1979 per approfondire e allargare il dibattito sui nodi strutturali e i problemi dell'economia italiana, anche al fine di elaborare adeguate proposte strategiche e di *policy*. L'Editrice Minerva Bancaria si impegna a riprendere questa sfida e a fare di Economia Italiana il più vivace e aperto strumento di dialogo e riflessione tra accademici, *policy makers* ed esponenti di rilievo dei diversi settori produttivi del Paese.