COMISIÓN NACIONAL DE LOS MERCADOS Y LA COMPETENCIA

GUIDE

COMPETITION AGAINST INFLATION

HOW COMPETITION AND EFFICIENT REGULATION HELP PROTECT THE PURCHASING POWER OF CONSUMERS

G-2022-02

Market Studies Collection
G-2022-02
ISSN: 2792-5919
July 25, 2023

www.cnmc.es

The National Commission for Markets and Competition (CNMC) prepares the Market Studies Collection, through competition and good regulation advocacy perspective, in order to issue non-binding recommendations to Public Administrations or other agents with the goal that enhanced competition leads to the protection of welfare and the general interest.

The CNMC publishes the market studies that make up the collection through its official website: https://www.cnmc.es/ambitos-de-actuacion/promocion-de-la-competencia/mejora-regulatoria/estudios or CNMC web repository.

ISSN: 2792-5919
Market Studies Collection
The Spanish National Markets and Competition Commission
Competition against inflation
G-2022-02
https://www.cnmc.es/expedientes/g-2022-02

GUIDE COMPETITION AGAINST INFLATION

HOW COMPETITION AND EFFICIENT REGULATION HELP PROTECT THE PURCHASING POWER OF CONSUMERS

G-2022-02

ABSTRACT

Based on the review of studies on the subject, this document explains how measures to promote competition and efficient regulation can help moderate prices and facilitate the work of economic authorities in their objective of controlling inflation. In addition, these measures have the capacity to mitigate the negative effects of inflation on purchasing power by boosting growth and employment, for the benefit of society, particularly the lowest-income and most vulnerable groups.

KEYWORDS: purchasing power; prices; inflation; regulation; competition.

CÓDIGOS JEL: D3; D4; E31; K2; L4; O4.

INDEX

EXECUTIVE SUMMARY 5

I. INTRODUCTION 7

II. OVERALL BENEFITS OF COMPETITION FROM A PRODUCTION PERSPECTIVE 10

1. Competition promotes business efficiency 10
2. Competition fosters investment, entrepreneurship, and innovation 10
3. Competition raises the productivity of the economy. 12
4. Competition creates jobs and raises wages 13
5. Domestic competition drives international competitiveness 14
6. Competition drives economic growth 15

III. HOW DOES COMPETITION HELP LOWER PRICES AND INFLATION? 16

7. Competition moderates the price level 16
8. Competition helps curb inflation and its persistence 17
9. Antitrust policies help moderate prices 22
10. Efficient regulation moderates prices and inflation 23

IV. HOW DOES COMPETITION PROTECT PURCHASING POWER AND PROMOTE EQUITY? 27

11. Competition fosters inclusive growth 27
12. Competition improves prices and consumer conditions, especially benefiting lower-income groups 28
13. Competition improves the working conditions of the most vulnerable households 30
14. Competition drives equal opportunities in markets 32
15. Competition facilitates improvements in public policies and services 34

V. CONCLUSIONS 36

APPENDICES 38

Appendix I: outstanding studies on competition in the energy sector 38
Appendix II: outstanding studies on competition and transportation 39
Appendix III: outstanding studies on competition and other essential sectors: retail, food, medicines and digital 41

BIBLIOGRAPHY 44

EXECUTIVE SUMMARY

After more than a decade with inflation at historically low figures, in the last two years there have been episodes of widespread price increases worldwide. Economic authorities of the affected countries are adopting measures to address it. Although competition is not a first-line tool to fight against inflation and its effects, it does play an important role in controlling profit margins and in the effectiveness of public policies aimed primarily at fighting inflation. Monetary policy, for example, is more effective when implemented in efficient and competitive markets. Redistributive policies and measures to protect purchasing power consume fewer resources when markets function properly.

This document focuses on reviewing academic and institutional studies that analyze the impact of efficient and competitive markets on the price level, inflation, and purchasing power. From there, 15 points are presented that try to gather and synthesize the state of science on this issue. The purpose of the Guide is to promote a greater culture of competition and provide information to authorities and citizens on the potential of competition and efficient regulation as useful tools in an inflationary context.

This document shows that investing in efficient and competitive markets can help combat price rises and protect the purchasing power of citizens by promoting cheaper products, greater variety and choice, and higher quality along with more jobs and better working conditions, more business opportunities, and better public services. In turn, this would benefit society as a whole and, particularly, the lowest-income and most vulnerable groups.

From the information presented in this document the following conclusions can be drawn:

Having efficient and competitive markets can help to moderate prices and facilitate the work of the economic authorities in their objective of controlling inflation.

Firstly, competition contributes to the moderation of the price level thanks to the promotion of a more extensive supply, a more efficient production, and greater incentives for companies to lower their prices as a result of competitive pressure. This may reduce inflationary pressures, which would facilitate the price stabilization work of the monetary authorities. Secondly, a more flexible, competitive, and efficient economy may have a greater capacity to adapt to changes in circumstances, minimizing the impact of shocks on price stability and economic activity. Thirdly, price formation processes in efficient economies with a high level of competition will also function better, facilitating a lower persistence of inflation.

Measures in favour of efficient and competitive markets can boost growth and offset potential losses in purchasing power, to the benefit of all citizens, including particularly the lowest-income and most vulnerable groups.

Competition and efficient regulation have a high capacity to create wealth thanks to the fact that they encourage effort, innovation, international competitiveness, efficiency, and productivity. In addition, they help growth to reach the entire population because they promote better consumption conditions, more jobs, equal opportunities, and better public services, all of which particularly benefit lower-income households. As a result, measures that promote efficient and competitive markets can help mitigate the possible negative effects on purchasing power that could be caused by inflationary spikes or the policies adopted to curb price rises.

I. INTRODUCTION

After more than a decade of inflation at historically low figures, in the last two years there have been notable price increases worldwide. The economic authorities of the countries affected are adopting measures to address it. The traditional tool to control sustained price rises is monetary policy, the application of which falls on the central banks. This policy has shown its ability to stabilize inflation on several occasions, but, for it to work as well as possible, it must be accompanied by other policies[1].

Among those measures are structural reforms, sometimes referred to as supply-side or microeconomic reforms. In general terms, these are reforms to modify the operating framework of the markets, in order to strengthen the performance of an economy[2]. Their ability to help control inflation and maintain the purchasing power of citizens has been studied from academia and from institutions, reaching results that indicate that these policies have great potential to help achieve these goals.

There is a very close relationship between competition and efficient regulation. Efficient regulation will promote the highest possible level of competition. Therefore, it will only establish restrictions on competition as a result of the existence of an overriding objective of general interest achievable through said limitation (principle of necessity) and provided that there is no other less restrictive means to achieve it (principle of proportionality).

In certain markets, it is not possible to achieve adequate levels of competition without public intervention, due to the existence of market failures such as externalities, market power, or information problems, among others. In these markets, ex ante regulation and more intense supervision of operators' behaviour make it easier to achieve satisfactory levels of competition, as well as more favourable results in terms of prices and consumer welfare.

The objective of this Guide on "Competition against inflation" is to promote a greater culture of competition and offer information to authorities and citizens on

---

1 The importance of accompanying monetary policy with other policies has been repeatedly defended from academia, such as, among others, in Cochrane (2022), and also from institutions; For example, Mario Draghi, in a speech to the European Parliament when he was president of the ECB, indicated “The [ECB's] Governing Council has reiterated that we are determined to ensure that inflation moves towards our target on a sustained basis, and we remain prepared to adjust all our instruments. At the same time, a better policy mix, including fiscal policy, structural reforms, and prudential measures, can help achieve this goal faster and with fewer knock-on effects. (Draghi, 2019).

2 More detail on the nature of the structural reforms available at: https://www.ecb.europa.eu/ecb/educational/explainers/tell-me/html/what-are-structural_reforms.es.html

the potential of competition and efficient regulation as tools to moderate prices and inflation and to maintain or increase the purchasing power of the entire population. For this purpose, the main academic and institutional studies that analyze the impact of having efficient and competitive markets on the price level, inflation[3] and purchasing power will be reviewed. From there, this Guide presents 15 messages, organized into 3 main blocks, which try to collect and synthesize the state of knowledge on this issue.

Based on the studies included in this Guide, it can be concluded that promoting efficient and competitive markets is beneficial because they result in cheaper, more varied, and higher quality products together with more jobs, more business opportunities and better public services, for the benefit of society as a whole and, particularly, the lowest-income and most vulnerable groups. In addition, pro-competitive policies generally do not involve direct expenditure from the government budget; on the contrary, their boost to economic activity and the savings they facilitate in public purchases can strengthen public finances. Additionally, it is important to promote efficient and competitive markets today to take full advantage of the reform agenda that Spain must deploy under the Recovery, Transformation and Resilience Plan.

Specifically, the studies included in this document indicate that pro-competitive reforms are useful in an inflationary environment for the following reasons:

- Firstly, they can contribute to the moderation of the price level thanks to the promotion of a more extensive supply, a more efficient production, and greater incentives to lower prices as a result of competitive pressure. This can reduce inflationary pressures, reducing the number of interventions by the monetary authorities.
- Secondly, a more flexible, competitive, and efficient economy may have a greater capacity to adapt to sudden changes in circumstances, minimizing the impact of crises (or shocks) on price stability and economic activity. Price formation processes in this type of economy will also function better, facilitating a lower persistence of inflation. In addition, various studies, such as those cited throughout this document, indicate that higher levels of competition are associated with lower levels of inflation, and less persistent inflation. It should be noted that, for the countries of the euro area, the adoption of structural reforms at the national level can be particularly useful and relevant when having a single monetary policy and a single monetary

[3] Inflation is a generalized and sustained increase in the price level over time. Therefore, those variations in the price level that are specific or that, since they are not generalized, affect only a part of the sectors, would not be defined as inflation.

authority, the European Central Bank (ECB), which does not allow for the application of monetary policies adapted to each member State.

- Thirdly, promoting efficient and competitive markets can help **boost growth** and thus offset the possible negative effects on purchasing power of inflation and the contractionary policies needed to combat it. This boost to growth and protection of purchasing power is due to the fact that these types of markets can encourage individual initiative and the efficient use of resources, as well as the effort to improve, invest and innovate. This will protect the purchasing power of consumers, including those groups with lower income and thus more vulnerable.

In accordance with these arguments, the following sections present a review of the studies and the most outstanding conclusions on the role of competition on inflation, prices and welfare. Specifically, the second section sets out the general benefits of competition from the point of view of production or supply. The third section examines the moderating influence exerted by competition on prices and inflation. The fourth section analyzes how competition can boost purchasing power and promote equity. Finally, the fifth and last section presents the conclusions of this Guide.

II. OVERALL BENEFITS OF COMPETITION FROM A PRODUCTION PERSPECTIVE

This section presents the overall effects that competition has on production (or on supply) in the economy, in order to illustrate the basic features of the benefits from efficient and competitive markets[4]. These effects are the foundations that allow competition to help against inflation and protect the purchasing power of citizens, issues that are discussed later in detail in this Guide.

1. Competition promotes business efficiency

Competitor pressure makes companies strive to attract customers, in such a way that they must make the most of their resources to offer quality, good service and adjust their prices as much as possible. Thus, in competitive markets, company managers have greater incentives to manage efficiently and improve their supply (as documented, among others, by Bloom et al. (2015) or Giroud and Mueller (2010)). The opposite also is true: poor business management is easier to maintain when consumers lack alternatives in the absence of competition[5].

Similarly, competitive pressure accelerates the exit from the market of the least efficient and poorly managed companies. When these companies leave, those resources that are not being adequately used are released to allocate them to better uses, boosting the average efficiency of the economy[6].

As a result, a competitive and efficient market will be key to ensure that companies are well managed and avoid wasting the potential of the resources that an economy relies on.

2. Competition fosters investment, entrepreneurship, and innovation

The effects of competition and efficient regulation influence the long-term decisions of companies.

---

4 A more detailed description of them can be found in other CNMC documents, such as the Consumers Guide or the Decalogues for efficient public regulation and intervention.

5 This effect is exposed, among others, in Backus (2020), Bloom et al. (2015), Bloom and Van Reenen (2010) or Bloom and Van Reenen (2010).

6 As documented, among others, in Backus (2020), Decker et al. (2017), Collard-Wexler and De Loecker (2015), Arnold et al. (2008) or Foster et al. (2006).

Investment drive: a high level of competition and quality regulation is associated with higher levels of investment. Numerous studies have documented this issue. For example, the following can be highlighted:

- Matsa (2011) finds that **when a new store of the transnational company Wal-Mart (characterized by its low price policies) enters to compete in a city, the local retailers increase their investment in logistics aspects and improve their productivity**.
- Gal and Hijzen (2016) estimate that **pro-competitive structural reforms increase the capital of an industry by 4% after two years**.
- Bouis et al. (2016) observe that, **5 years after a regulatory improvement in certain strategic sectors (electricity and gas, land transport, air transport, postal services and telecommunications), investment increased by 6%**.

Similarly, various studies have concluded that **one of the factors causing the moderation of US investment in the 21st century is the reduction in the level of competition** (for example, Gutierrez and Phillippon (2017))[7].

Entrepreneurship boost: investment can also come from new entrants that, upon detecting an opportunity, choose to offer a new product. The creation of companies, or entrepreneurship, promotes growth through various channels, including increasing competition and promoting the emergence and diffusion of innovations (Wennekers & Thurik, 1999). The creation of new companies will give rise to a dynamic and competitive market, where new solutions are continually sought, which will benefit consumers, as well as economic efficiency, job creation and growth[8]. A dynamic and competitive economy will also benefit from a virtuous circle in which entrepreneurship and innovation will fuel economic activity, while high economic activity will in turn foster entrepreneurship and innovation. (Galindo & Méndez, 2014).

Incentive for innovation: competition and efficient regulation also encourage incumbent companies to seek to innovate and introduce new projects and different products (Shapiro, 2012, pág. 364). Incumbent companies in

[7] These studies estimate an expected level of investment based on the use of various metrics related, among other things, to profits or the value of companies. Comparing these expected levels with the actual figures recorded, they conclude that US investment has been lower than would be expected since the beginning of the 21st century. This phenomenon is attributed, according to Gutierrez and Phillippon (2017), to the reduction in the level of competition in the United States.

[8] See, for example, Urbano et al. (2019), Bosma et al. (2018), "A Step Ahead: Competition Policy for Shared Prosperity and Inclusive Growth" (2017, pág. 192) by the World Bank and the OECD, Galindo and Méndez-Picazo (2013), Aghion et al. (2009) or Aghion et al. (2004).

competitive markets will try to launch innovations to become industry leaders or prevent obsolescence, an effect known as "competitive escape" (Aghion, Bechtold, Cassar, & Herz, 2018). On the other hand, in uncompetitive markets, dominant companies can sometimes delay technological progress by acquiring innovative start-ups to absorb or, directly, withdraw the innovation in question if they consider that it could threaten their control over the market, a practice known as "killer acquisition".

- On this issue, Cunningham et al. (2021) make an estimate, which they deem as conservative, according to which between 5.3% and 7.4% of acquisitions in the pharmaceutical sector are "killer acquisitions". In the long term, this brake on innovation can have very significant and pernicious effects.

3. Competition raises the productivity of the economy.

By promoting business efficiency, investment, entrepreneurship and innovation, competition and efficient regulation boost productivity. This aspect is of paramount importance, since raising productivity (increasing production per unit of capital and worker) is essential to achieve sustainable growth in income.

Many economists have documented the existence of a positive relationship between competition and productivity[9]. Likewise, efficient regulation, an aspect closely linked to the level of competition[10], prevents sluggish productivity owing to effects such as, among others, misuse of resources or lower levels of innovation[11]. Among the studies on the subject, we can highlight, for example:

- The IMF authors Bouis et al. (2016), who examine the effect of removing entry barriers in the last three decades in five sectors (electricity and gas, land transport, air transport, postal services and telecommunications) and 26 OECD countries, estimate that **productivity rose 11% on average five years after the reform**.
- Bourles et al. (2013) analyze the effects of the adoption of pro-competitive reforms in 15 OECD countries and 20 industries, finding that **the benefits**

9 Among many others, Backus (2020), Díez and Duval (2019), Cette et al. (2016), Collard-Wexler and De Loecker (2015), Buccirossi et al. (2013), Holmes and Schmitz Jr. (2010), Bloom and Van Reenen (2010) or Nicoletti and Scarpetta (2003). Another review of the literature that analyzes these relationships is found in OECD (2014) *Factsheet on how competition policy affects macro-economic outcomes*. Available at http://www.oecd.org/daf/competition/2014-competition-factsheet-iv-en.pdf

10 Gutierrez and Phillippon (2017), for example, find evidence that indicates that the increase in regulation has been one of the causes that has increased business concentration in the 21st century.

11 See, for example, De Almeida and Balasundharam (2018) or Schivardi and Viviano (2011).

also spread to downstream industries, that is, throughout the following links of the value chain.

In addition, an efficient and competitive regulatory framework minimizes the efforts dedicated by companies to maintain "lobbying" activities to support unjustified entry barriers or other privileges, that is, to try to "capture the regulator". This term refers to a situation in which private interests manage to put the regulator under their influence, in such a way that said regulator stops prioritizing the public interest in favour of the corresponding private interests. The efforts that firms dedicate to this absorb resources that could be used in more productive allocations.

Therefore, the introduction of pro-competitive reforms has proven to be an effective tool to promote increases in productivity and thereby also growth[12].

4. Competition creates jobs and raises wages

An efficient and competitive market increases the level of production and encourages investment, all of which results, among other things, in an increase in the volume of employment. This positive relationship between efficient and competitive markets with the amount of employment is documented in many studies[13]. Among those that provide specific estimates, we can highlight, for example:

- The analysis of Veld, Varga and Roeger (2018), who calculate that **a broad program of structural reforms could increase the volume of employment in Spain by an additional 7% in a decade**.
- Similarly, Gal and Hijzen (2016), based on a sample of 10 sectors and 18 advanced economies between 1998 and 2013, observe **that employment rises by an average of 1.5% in an industry two years after registering a liberalizing reform**.
- Marinescu et al. (2021), using data from France, find that **a 10% increase in the level of concentration in labor market demand (that is, fewer companies hiring) reduces hiring by 3.2%**. In that study they also refer to the effect of less competition on wages: they estimate that this increase in concentration reduces wages by 0.5%.

12 Many other studies and articles document this idea. See, among others, the IMF paper by Georgieva et al. (2021), that of the European Commission by Varga and in't Veld (2014), or the articles by Petersen (2013), Wölfl et al. (2010) or Clougherty (2010).

13 For instance, in Bordon et al. (2018), Fiori et al. (2012) or OECD articles by Cournède et al. (2016) and Nicoletti and Scarpetta (2005).

- Azar et al. (2020) use data from the US to conclude that **the higher the business concentration, the lower the wages offered**, a result that other analyzes agree with, such as Benmelech et al. (2020).

On the other hand, economic theory and historical experience link the increase in wages in the long term with the increase in productivity, in such a way that the increase in production per worker would be the basis for a sustained increase in wages. However, in recent years there has been a decoupling between productivity and wages, in such a way that wage growth is lower than that of productivity (OCDE, 2018), a phenomenon also registered in Spain (Kranz, 2019). The weakening of competition is pointed out as one of those responsible for this decoupling[14]. Thus, as the OECD (2018) points out, pro-competitive policies not only increase productivity, they also encourage these increases to be transferred to wages.

5. Domestic competition drives international competitiveness

The benefits of competitive and efficiently regulated markets go beyond geographic borders. By making businesses more efficient and competitive, domestic competition helps a country's companies succeed internationally[15]. Having internationally competitive companies is very beneficial for an economy, since it allows more exports, encourages job creation, increases company profits and encourages investment. Having a presence in the international market will also allow companies to learn about and incorporate technological advances and new ideas that arise in other parts of the world earlier, favouring their permanence at the technological frontier and increasing productivity (Dovis and Milgram-Baleix (2009) observe this effect for the Spanish case).

Thus, as the CNMC has already argued in the past (CNMC, 2017), trade liberalisation brings numerous benefits over the alternative of protectionism. Specifically, for Spain:

- According to Campos, Coricelli and Moretti (2014), **accession to the European Communities in 1986 resulted in gains of around 14% of Spanish per capita income in 2014**. In addition, greater competition in the markets thanks to the opening gives rise to lower prices, as well as a greater variety and quality of the products available.

---

14 As exposed in various studies, for example Eeckhout (2021), Benmelech et al. (2020), De Loecker et al. (2020), OECD (2018) or Sharpe and Uguccioni (2017).

15 A pioneering defense of this idea is found in Porter (1990).

- Minondo and Requena-Silvente (2011) quantified part of this effect: they estimate that **welfare gains in Spain between 1988 and 2006 as a result of the new imported varieties are equivalent to around 1.2% of GDP**.

6. Competition drives economic growth

Competition and efficient regulation promote economic growth thanks to the effects presented in this chapter on business efficiency, investment, entrepreneurship or innovation, etc., both in the short and long term. Specifically, in the short term, they have an immediate impact on efficiency, which translates into better prices and quality and greater quantities supplied. In the medium and long term, it translates into greater growth potential for the economy. All of this will facilitate higher levels of welfare of the population.

III. HOW DOES COMPETITION HELP LOWER PRICES AND INFLATION?

This section shows how competition and efficient regulation can serve to reduce the overall price level as well as inflation.

7. Competition moderates the price level

Increasing competition encourages companies to be more ambitious, efficient and innovative to improve their products. This will promote a lower price level, along with improvements in quality and increases in variety. Such price drops have been documented by numerous studies. For example, the following can be highlighted[16]:

- In a study on the impact of the actions of the CNMC in terms of promoting competition and market unity, 12 actions and their recommendations were analyzed in depth[17]. It concludes that **following these recommendations would have generated a positive impact of between 2,000 and 2,300 million euros for the Spanish economy** thanks to lower prices, and to other benefits such as shorter waiting times, greater business turnover and savings from Public Administrations, in addition to other positive effects on employment or the quantity and variety of the supply[18].
- The aforementioned IMF study (Bouis et al. (2016)), with data from 26 OECD countries in the three decades prior to 2015 in **the five sectors of great relevance and influence on prices of the entire economy (electricity and gas, telecommunications, land transport, air transport and postal services), along with productivity gains, also revealed that prices fell by an average of 12% in five years after the introduction of reforms** to eliminate entry barriers to those markets that hindered competition.

[16] In the Appendix is a compilation of other studies that document how regulatory improvements and the level of competition result in price reductions..

[17] This study was prepared by KPMG and VVA in collaboration with the CNMC and financed by the European Commission within the framework of the 2017-2020 Structural Reform Program. In 2023, he was awarded at the "Antitrust Writing Awards 2023" in the "Soft Laws" category, organized by the publishing house specialized in competition Concurrences.

[18] More in Vidales (2022) *This is how the culture of competition affects the real economy* https://blog.cnmc.es/2022/10/24/asi-afecta-la-cultura-de-la-competencia-a-la-economia-real/.

8. Competition helps curb inflation and its persistence

Some analyses indicate that pro-competitive reforms have the potential to influence inflation (which is defined as the rate of change between two periods of the increase, generalized and sustained over time, in the price level) by affecting the general functioning of the economy. Thus, both central banks and academic researchers have conducted studies on this issue, such as:

- A study by ECB authors (Przybyla & Roma, 2005) explores the link between the level of competition and inflation for EU countries, finding that **higher levels of competition in an economy reduce inflation over a prolonged period of time**.
- Another study published by the Central Bank of Austria (Janger & Schmidt-Dengler, 2010) examines the relationship between competition and inflation using data from 15 countries between 1991 and 2005. They reach similar conclusions to those of the ECB study: they observe a significant relationship and inverse between competition and inflation, particularly in the short and medium term, in such a way that **higher levels of competition moderate inflation**.
- Similarly, Geronikolaou et al. (2016), analyzing 29 OECD countries for the period 1990-2012, find that **the implementation of structural reforms in the labour market (that facilitate labour mobility) can reduce the persistence of inflation**, making episodes of increases of prices have a shorter duration.

There are several factors that can make boosting competition and efficiency help reduce inflation and make it less persistent. Firstly, the falls in the price level mentioned in the previous point, in themselves, can help to mitigate inflationary pressures, especially when prices fall in sectors of structural relevance[19].

On the other hand, efficient competition and regulation help curb inflation by exerting downward pressure on costs and margins. Thus, they affect the so-called 'second round effects', which are cascading increases in wages, costs and prices that feed back on each other, creating an inflationary spiral. The literature on the subject indicates that these second-round effects and, in general, the ability to adapt efficiently to a shock, will be affected by the structure of the economies, which includes the degree of competition, flexibility, and efficiency. For example:

[19] The Appendix contains a compilation of studies in structural areas, such as energy or transportation, among others, that document how regulatory improvements and the level of competition result in price reductions.

- Correa-Lopez et al. (2014) analyze 20 OECD countries for the period 1961 to 2006 and find that, **in those countries with lower barriers to competition, inflation responds less to changes in the prices of imported goods**, which they attribute to the fact that, in competitive environments, companies are more likely to adjust their mark-ups than raise their prices.
- Similarly, a recent study by authors from the Federal Reserve, the US Central Bank (Bräuning, Fillat, & Joaquim, 2022), indicates that **higher concentration registered since 2005 in the US has led companies to increase by 25% the pass-through of changes in their costs to consumer prices**, which would be amplifying the inflationary pressures of recent times.

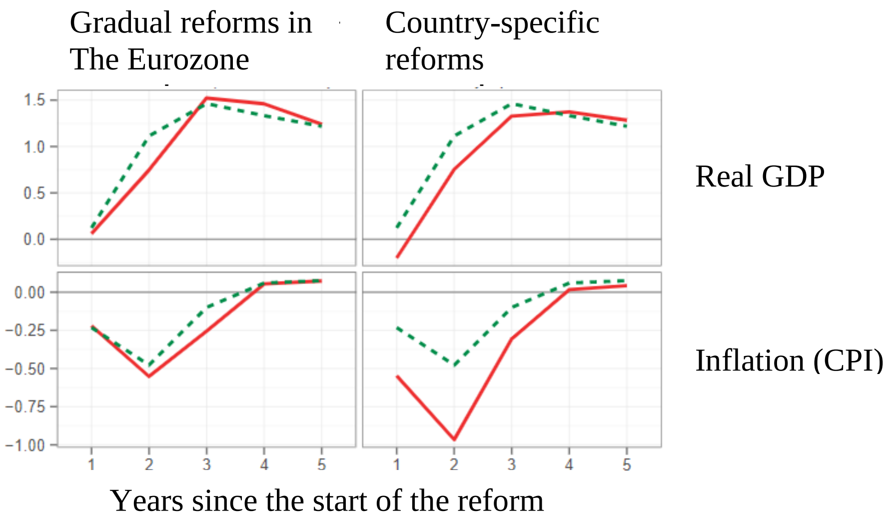
A more efficient and competitive economy will also have a higher level of potential output. This will enable to raise the level of demand that is sustainable without the appearance of inflationary pressures, facilitating the achievement of the objective of the economic authorities to stabilize economic activity and inflation, as argued, among others, by De Grauwe and Ji (2020) or the president of the Bank for International Settlements, Agustín Carstens (2022).

There are calculations on what could be the specific effect on inflation that the introduction of a program of structural reforms would have. Among them, some can be highlighted:

- According to the estimate presented by Mario Draghi when he was president of the ECB (Draghi, 2015), **the introduction of a structural reform program in the eurozone countries would generate a disinflationary effect of up to 1% year-on-year, in addition to raising annual growth to 1.5%** (see image 1).

Image 1 - Simulation of the impact of a structural reform program

Deviations of GDP in % of GPD, and of inflation in percentage points



Base case scenario: credible reforms with stable monetary policy for 2 years

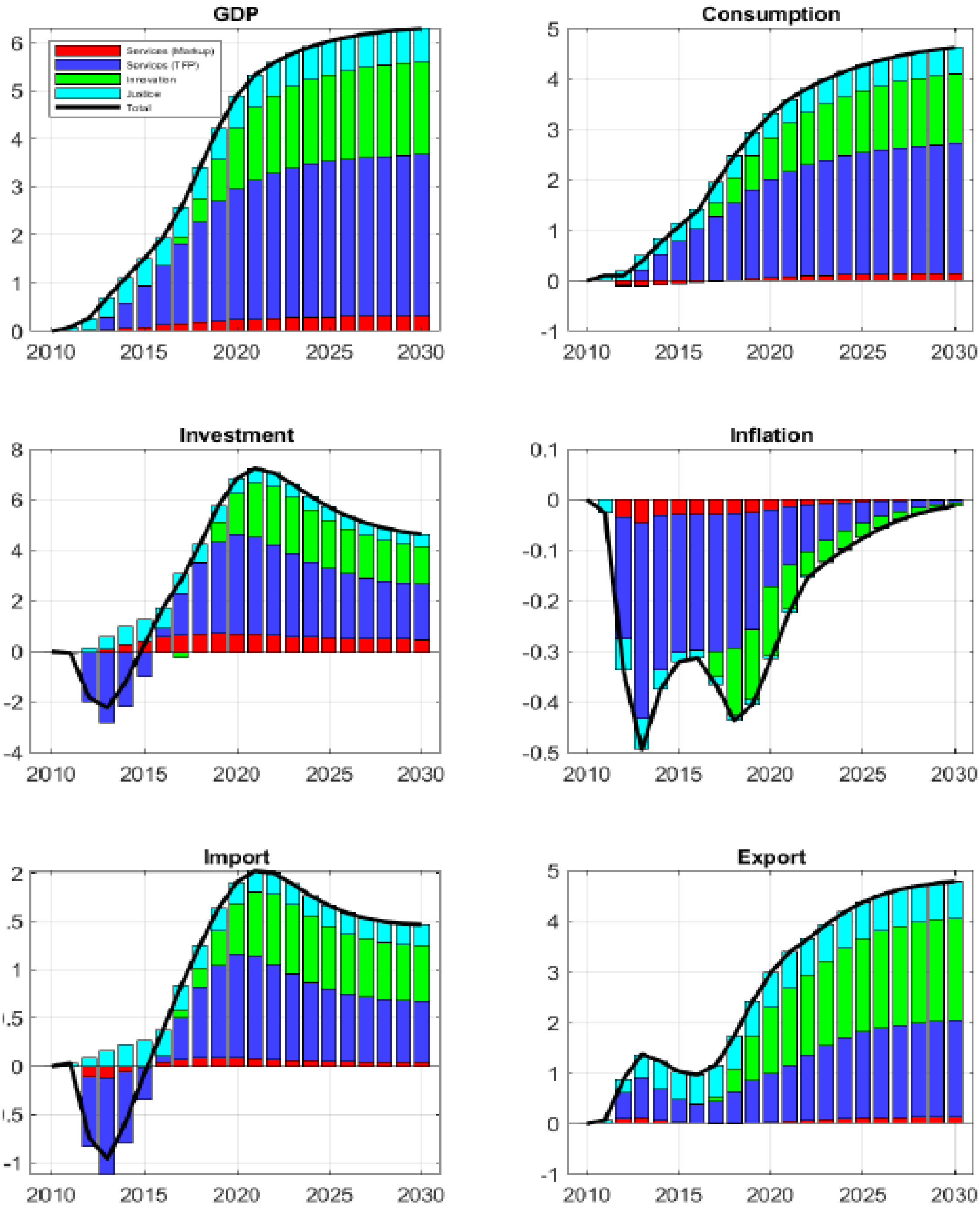
Specific case simulation

Source: Draghi (2015).

- A working document published by the Bank of Italy (Cecioni (2010)) obtains similar results. In this study, and based on data from the US economy, it is estimated that **an increase in competition as a result of a 10% increase in the number of active companies would reduce annual inflation in the US in the short term by 1.4%**.
- Another study published by the Bank of Italy (Ciapanna, Mocerri, & Notarpietro, 2020) examines the impact of a series of **structural reforms adopted in Italy** on growth, employment and inflation since the eurozone crisis a decade ago. These include service reforms in 2011 and 2012, the introduction of incentives for innovation in 2016, and a judicial reform that began to be implemented in 2010. These reforms focused on increasing efficiency, competition, and innovation, and particularly affected the energy, transportation, retail, and professional services sectors. The results **show relevant and long-term disinflationary effects, of up to almost half an annual percentage point of decrease** (see image 2).

These achievements occurred in an environment of very low inflation, which would suggest that the potential effect could be greater in an environment of high inflation.

Image 2 – Macroeconomic impact of the reforms in Italy between 2011 and 2016.



Source: Ciapanna et al. (2020). The vertical axis represents the deviations from the scenario without reforms. The colors represent the contribution of each reform package to the total effect.

The previous paragraphs have referred to structural reforms in domestic markets. However, **competition can also be increased by opening up to foreign competition**, for example, through tariff reductions or trade agreements. The academic literature has documented that openness can help fight inflation, largely due to its pro-competitive impact. For example:

- Guerrieri et al. (2010) find that **half of the reduction in inflation experienced by the US in the 1990s compared to the previous period (a reduction of approximately 2% per year) is due to international competition**.
- Chen et al. (2004) estimate that **the increase in foreign competition had a significant disinflationary effect in the EU between 1988 and 2000**.

Studies on the subject point to two fundamental ways in which opening up to international competition can help curb inflation.

The first channel relies on the fact that this trade liberalization makes it easier to acquire international goods, thereby enabling a cheaper commodity bundle. This happens, on the one hand, due to the lowering of tariffs and direct access to imported consumer products at better prices. On the other hand, domestic companies can purchase cheaper and higher quality inputs, which improves their efficiency and allows them to make their products cheaper, as indicated by an OECD study (Andrews, Gal, & Witheridge, 2018).

- Regarding the quantification of this first channel, Hufbauer et al.(2022) have calculated for the US that adopting measures equivalent to a 2% reduction in the average tariff would favor a drop in the CPI of 0.24 percentage points due to the effect produced through this first channel.

The second channel consists of improving the efficiency of domestic companies thanks to external competitive pressure. Its impact can be much more powerful than that of the previous channel, by internally unleashing the benefits of competition, promoting greater efficiency and innovation.

- On this, Hufbauer et al. (2022) have calculated that in the US, measures equivalent to an average tariff reduction of 2% would reduce inflation by over 1.3 percentage points thanks to this second channel.

9. Antitrust policies help moderate prices

Antitrust policies, including the fight against anticompetitive conducts and merger control, is another tool with the potential to reduce prices[20]. The potential of this policy to moderate inflation in the short or medium term has been more controversial (more on this debate in Vaitilingam (2022)), since these procedures focus on specific companies and sectors and, particularly in the case of sanctions of anticompetitive behaviours, require long terms before reaching a resolution.

In any case, the studies and surveys on the matter suggest that the impact on the prices of the sectors affected by anti-competitive conduct may be very significant. For instance:

- Smuda (2014), based on 191 cartels in the European market, documents that **in these markets without competition an estimated average premium of 20% is paid**.
- Connor (2014) compiles information from more than 700 studies and court decisions on cartels, to conclude that **the long-term average price premium of the cartelized markets analyzed is 23%, with peaks in some cases reaching 60% - 80%**.
- Connor y Bolotova (2006) study numerous cartels for 125 years worldwide, and estimate that **the premium paid for the lack of competition is 29% on average**.

The reflection of these benefits for the Spanish case has been examined in García-Verdugo Sales, Gómez Cruz, & Martín Ugarte (2023), not directly on prices, but on savings for consumers. In this analysis, they conservatively estimate that **the CNMC's antitrust actions saved consumers more than 23,000 million euros between 2012 and 2022**. The conservative nature of this calculation is partly due to the fact that they do not take into account the deterrent effects nor the spillovers on other sectors.

Additionally, the Portuguese Competition Authority (Autoridade da Concorrência, AdC) published a document in 2022 (AdC, 2022) on “Competition and purchasing power in times of inflation”. In it, they point out that, although competition policy is not focused on controlling inflation, it can be useful by having the capacity to moderate prices thanks to the fact that it exerts downward pressure on costs and mark-ups. In addition, it prevents behaviours and mergers that could exacerbate inflation, protects the purchasing power of households and the competitiveness of companies and, likewise, contributes to promoting a sustainable economic

20 The reinforcement or use of competition enforcement tools against inflation has been the subject of debate in some countries. See, for example, for the case of the United States: https://www.nytimes.com/2021/12/25/business/biden-inflation.html.

recovery at a lower cost. It also points out that a more competitive economy tends to adjust better to unexpected shocks.

Another fundamental element of competition enforcement is its deterrent or preventive work: the mere fact that companies are aware that anticompetitive behaviors are prosecuted and penalized prevents many of said behaviors. Similarly, companies also rule out in advance those mergers or acquisitions that may excessively concentrate the market, anticipating that they will be prevented by the competition authorities. This deterrent effect requires a solid and credible competition policy.

The impact of deterrence is difficult to quantify by its very nature. However, a study prepared by authors from the European Commission (Dierx, Ilzkovitz, Pataracchia, & Pericoli, 2022), in addition to reviewing the academic literature on this effect, makes an estimate: **the antitrust actions carried out by the European Commission in 2020 and 2021 will lead to an 0.6% increase in EU GDP in the next 5 years thanks to this deterrence**.

Lastly, competition enforcement, both in its penalizing and deterrent aspects, can be an effective tool in times of inflation to avoid "inflation laundering" practices of anticompetitive conduct. This practice consists of some companies adopting behaviours contrary to competition regulations, such as cartels or abuses, which cause price rises, taking advantage of the general inflationary trend to try to go unnoticed. Behaviours of this nature, in addition to being very harmful for the consumers directly affected, can contribute to raising inflationary pressures.

10. Efficient regulation moderates prices and inflation

An efficient regulation is one that promotes the best possible functioning of the market, facilitating the achievement of the widest, most varied and cheapest supply of goods achievable, for the benefit of society.

As stated in the previous points, there are multiple studies that corroborate how efficiently regulated markets foster competition and help, on the one hand, to reduce the price level and, on the other hand, to moderate inflation and make it less persistent[21]. Thus, for example, the aforementioned studies by the ECB (Draghi, 2015), by the authors of the Bank of Italy (Ciapanna, Mocerri, & Notarpietro, 2020) or by the IMF authors (Bouis et al. (2016)), among other analyzes point to different economic benefits of introducing reforms to improve regulatory efficiency, including benefits on prices and inflation.

[21] In addition to those mentioned in the previous points, in the Appendix there is a compilation of studies that document how regulatory improvements can moderate prices.

The ECB, the euro area's monetary authority, also regularly stresses the importance of structural reforms to achieve balanced growth and meet the inflationary stability objective entrusted to it.[22]. Thus, promoting efficient regulation can be useful to achieve better prices and contain inflationary pressures.

In certain markets there are structural features that make it difficult for competition to be achieved on its own. This shows up notably in activities where there are market failures, such as externalities, public goods, market power or information problems. In order to achieve efficient results in these markets, public intervention is necessary. This public intervention must also be efficient.

A case of particularly intense market failures is those known as "network markets", where there are such strong economies of scale in one part of the value chain that it is not economical for several competing infrastructure networks to exist simultaneously (this happens in areas such as telecommunications, energy markets, transport sectors or the postal sector). In these, it is essential that there is an efficient ex ante regulation and adequate supervision of business conduct to allow the presence of competition.

In the case of Spain, some examples of ex ante regulations that have served to promote competition can be highlighted:

- **Competition in rail transport**: in 2019, the CNMC prepared a study on the liberalization of passenger transport by rail (CNMC, 2019b) in which numerous reforms were proposed to facilitate effective liberalization, many of which were incorporated into the sectoral regulation and through the regulatory powers of the CNMC itself. In May 2021, the Madrid-Barcelona route was opened to competition, later expanding to other ones. Since then, the number of travelers on routes where competition increased has skyrocketed, rising by around 50% in the first months of 2023 compared to the figures for 2019. In addition, average prices on these routes have dropped by up to 25%, registering numerous offers well below the minimum prices existing before the opening to competition[23].

[22] More in, for instance, the ECB publication: What are structural reforms? https://www.ecb.europa.eu/ecb/educational/explainers/tell-me/html/what-are-structural_reforms.en.html and also Publications on Structural reforms (europa.eu) https://www.ecb.europa.eu/home/search/html/structural_reforms.en.html.

[23] More in: https://www.cnmc.es/prensa/INF-ferrocarril-20230526
Some estimations increase the price reduction up to 49%:
https://www.europapress.es/turismo/transportes/noticia-entrada-nuevos-operadores-ferroviarios-reduce-mitad-precio-trayecto-madrid-barcelona-20220916090217.html.

- **Competition in the energy sector**: one of the structural problems of competition is the complexity that consumers must face when comparing the different electricity and gas supply offers. To alleviate this problem, the CNMC launched an energy offer comparison tool[24], which facilitates transparency and informed choice by consumers in the energy market. Through this tool, consumers can make better choices and, thus, put pressure on companies to improve their offers and prices.
- **Competition in the telecommunications sector:** the CNMC ensures that the designated operator with significant market power (OPSM) offers reasonable technical and economic conditions to its competitors in regulated wholesale services, so that competitive pressure increases downstream and, with it, prices get reduced. The CNMC also sets and supervises the prices of the access to the OPSM's network for its competitors, promoting competition as well as investment in those networks. In addition, the CNMC establishes the technical specifications for changing operators while maintaining the telephone number (portability), which facilitates the change for users and, therefore, promotes competition, improved prices and service quality for the consumers. This type of action has achieved that the Spanish telecommunications market is characterized by a high level of competition, with portability of 10% of users in 2022, and is reflected in the fact that Spain stands out in connectivity: in fiber extension, Spain is the EU country with the greatest implementation and the third in the OECD, well above the average and only behind South Korea and Japan[25]. Regarding prices, the high level of competition in Spain has allowed us, according to a study by the European Commission, to have the second lowest broadband prices in the EU, only behind Romania[26]. The CNMC Economic-Sectoral Report on Telecommunications (ESTAD/CNMC/003/23) ratifies the good dynamics of prices in this area and even shows significant decreases in the prices of electronic communications in 2022 despite the context of high inflation.
- **Competition in the postal sector**: in the postal sector, the CNMC also supervises that the universal postal service is complied with adequately, with affordable, transparent and non-discriminatory prices. In addition, it establishes the conditions and prices with which the rest of the postal operators can access the postal network of Correos (the operator of the universal postal service), so that these operators can compete on equal terms and, thus, have incentives to offer the best possible conditions and prices for

24 https://comparador.cnmc.gob.es/

25 OECD Broadband Portal. Update February 2023.

26 Mobile and Fixed Broadband Prices in Europe (2021).

citizens. The control of the universal public service carried out by the CNMC has made it possible for the prices of postal shipments to be overall in line with or below the EU average[27].

[27] See "*ERGP REPORT ON CORE INDICATORS FOR MONITORING THE EUROPEAN POSTAL MARKET (22) 12*", or the report *Letter prices in Europe*, by Deutsche Post https://www.dpdhl.com/content/dam/dpdhl/en/media-center/mediarelations/documents/2021/letter-prices-in-europe-2021.pdf

IV. HOW DOES COMPETITION PROTECT PURCHASING POWER AND PROMOTE EQUITY?

Inflation negatively affects the purchasing power of citizens. Certain macroeconomic policies to combat inflation (for example, contractive demand policies or income policies) can also have unwanted effects on purchasing power. Faced with this challenge, the introduction of reforms that promote competition and efficient regulation have the potential to mitigate the negative effects of inflation on consumer income by boosting growth, employment and wage increases. In addition, they can especially protect the purchasing power of those people with lower income, favouring equity.

11. Competition fosters inclusive growth

For the purchasing power and welfare of society as a whole to improve, it is essential to achieve solid growth, but also that this growth reaches the entire population and, in particular, those with lower income levels. In this regard, a crucial aspect of competition and efficient regulation is that they not only promote the growth of wealth and the improvement of purchasing power, but also make growth to be inclusive.

Numerous recent studies establish links between the reduction in competition registered in the last decades and the increase in inequality[28]. For example, Ennis et al. (2019) estimate, based on a sample of 8 advanced economies, including Spain, that **the existence of market power reduces the wealth of the 20% of the lowest-income citizens by at least 11%**.

The existence of low levels of equity is an important problem both because of its relationship with low living standards of a relevant part of the population, and because of its links with phenomena of social polarization, loss of confidence in institutions, and political and economic instability, as Saadi-Sedik and Xu (2020) indicate in an IMF working paper. Likewise, Berg et al. (2018) document that inequality is linked to lower and more unstable growth levels, a conclusion shared by other studies carried out by international institutions, such as the papers by the IMF authors of Dabla-Norris et al. (2015) and Ostry et al. (2014), or Cingano (2014) in an OECD working paper.

[28] This issue is addressed in numerous articles and studies, for example, in the papers by IMF authors Akcigit et al.(2021) and Georgieva et al. (2021) or by the OECD Causa et al. (2015), as well as in other documents, for example Ennis (2019), Khan & Vaheesan (2017), or Baker & Salop (2015).

Therefore, it is in the interest of the entire population to encourage growth and increases in purchasing power to be inclusive in nature. Competition and efficient regulation can help achieve this objective, since lower-income and more vulnerable groups especially benefit from them through the following means:

A. Improving consumer conditions, particularly basic necessities;
B. Improving working conditions;
C. The promotion of equal opportunities in markets;
D. The improvement of public services.

These effects are studied in more detail in the following sections.

12. Competition improves prices and consumer conditions, especially benefiting lower-income groups

The improvement in consumer conditions that promotes an efficient and competitive market, including lowering the price of products, protects purchasing power and benefits everyone, but particularly lower-income households. On the one hand, **the lack of competition can especially harm lower-income households by making it difficult to access the cheapest and most competitive varieties of products** (Schmitz, 2020). Creedy and Dixon (1998), on the other hand, compare the welfare loss generated by monopolies for different income groups, and find that **the welfare loss derived from the existence of monopolies is greater for low-income households**.

A key element that explains why lower-income households benefit particularly from the improvement in consumption conditions is that they allocate a greater proportion of their budget to consumption. Furthermore, **lower-income households dedicate a greater part of their spending to goods that are subject to a significant level of regulation, making it especially relevant for them that regulation is efficient**, since otherwise products that have a greater relative weight in their budget may be more expensive and scarcer (Chambers, Collins, & Krause, 2019).

Thus, in the case of Spain, the data show that lower-income households spend an above-the-average proportion on basic necessities and rigid demand, such as food and beverages, communications or energy (see table 1).

Table 1: Structure of spending by quintile and spending groups, Spain (2021)

	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Average
Food and non-alcoholic beverages	20,65	20,24	18,60	16,61	12,48	**16,43**
Alcoholic beverages and tobacco	1,63	1,88	2,01	1,75	1,44	**1,69**
Dress and footwear	3,07	3,70	4,01	4,25	4,09	**3,95**
Housing, water, electricity, gas and other fuels	43,62	38,43	35,09	32,90	29,16	**33,83**
Furniture, household items and items for routine home maintenance	3,15	3,59	3,82	4,36	5,40	**4,4**
Health	2,76	3,46	3,92	4,21	4,81	**4,12**
Transportation	5,76	7,18	8,70	10,45	15,69	**11,05**
Communications	4,76	4,14	3,55	3,06	2,30	**3,2**
Leisure and culture	2,55	3,22	4,08	4,67	5,46	**4,42**
Education	0,77	1,03	1,43	1,65	1,83	**1,5**
Restaurants and hotels	3,87	5,42	7,16	8,47	9,83	**7,82**
Other goods and services	7,42	7,69	7,63	7,63	7,52	**7,58**

Source: Encuesta de Presupuestos Familiares 2021 (INE, 2022a). Note: households are grouped into five groups of equal size and ordered from lowest to highest by spending level, such that the first group (quintile 1) comprises 20% of households with the lowest spending, and quintile 5 groups the 20% of households with the highest spending.

Numerous studies document how competition can particularly benefit lower-income households[29]. Thus, for example, in the field of food and retail:

- Hausman and Leibtag (2007) show that **the opening of large shopping centers and discount stores increases competition and substantially reduces food prices**, with positive effects on consumer welfare. This same study also finds that lower-income households buy more in these businesses and are especially harmed when there are restrictions on their opening.
- Courtemanche et al. (2019) reach similar conclusions: they observe that **the opening of discount supermarkets causes a reduction in food poverty in the area where it is installed**, particularly benefiting low-income households and children as a result of the increase in food supply and the reduction of prices.

[29] In the Appendix there is a compilation of studies in structural areas of special relevance for lower-income households, such as energy or transportation, among others, which document how regulatory improvements and the level of competition result in price reductions.

- In addition, Busso and Galiani (2019), studying in this case the distribution sector in an emerging country, the Dominican Republic, find that **the increase in competition causes, after six months, a reduction in the price of products by between 2% and 6%, and also a significant increase in the perceived quality of service**. Many other studies reach similar results[30].

The analyses on other essential sectors reach similar conclusions:

- Hausman and Sidak (2004) show that **lower-income consumers suffer more from the effects of the existence of monopolies in telecommunications markets**, a conclusion that coincides with that of another study carried out by Urzúa (2013).
- Likewise, Romero-Jordán et al. (2016) document **that the rise in the price of electricity in Spain between 2006 and 2012 had a greater relative negative impact on welfare in lower-income households**.

Regarding transportation services, a means where users tend to have a below-the-average level of income is the intercity bus. On this, the Study on interurban passenger transport by bus (CNMC, 2022b) documents, based on international studies and experiences, how the introduction of competition can facilitate cheaper tickets, higher frequencies, new routes and better quality of the supply[31]. Thus, Fageda and Sansano (2018) compare the routes between the ten most populated cities in a group of European countries and find that **the rates/km for bus transport in Spain are 12%, 17%, 23%, 23%. and 36% higher than the rates of the United Kingdom, Sweden, Germany, France and Italy, respectively, countries where there is effective competition**. In the Spanish case, it is interesting that in the few cases where there is competition, lower prices tend to appear: García Crespo (2009) finds **reductions of between 25% and 50% in prices in cases where concessions are awarded through a competitive tender** (this is the case of Madrid-Pamplona, Madrid-Logroño, San Sebastián-Vitoria or San Sebastián-Bilbao, for example).

13. Competition improves the working conditions of the most vulnerable households

A robust and flexible labor market favors the purchasing power of the entire society, but especially of lower-income households, as they are more exposed to

[30] Incluyendo a los de Schivardi y Viviano (2011), Lira et al. (2007) o Abe y Kawaguchi (2010), citados previamente en este documento, u otros estudios disponibles en el Anexo.

[31] Ver, entre otros, Dürr y Hüschelrath (2015), Autorité de Régulation des Transports (2020), Gremm (2018) o Beria y Bertolin (2019).

suffering from precariousness and unemployment and since their income depends more on the labor market than on other incomes, in comparison with other social groups (Anghel et al. (2018)). Likewise, **market power in the workplace harms workers** (Naidu, Posner, & Weyl, 2018) and **the deterioration of competition in recent decades worldwide is related to the fall in the weight of salaries, a greater wage inequality and less dynamism in the labour market** (Eeckhout, 2021). On this issue, there is numerous empirical evidence that shows how little competition in the labour market particularly harms the most vulnerable households, among which we can highlight:

- De Loecker et al. (2020) indicate that **the negative impact of less competition between companies when hiring is greater in low-skilled salaries** and, in addition, the lack of competition would reduce labour participation, all of which suggests that **business concentration negatively influences the levels of inequality**.
- Likewise, Huerta and Salas (2021) point out that the rise in monopsony power (that is to say, **the lack of competition between companies to hire workers) is one of the most reliable explanations for the drop in Spain of 7 percentage points in the participation of labour income in gross value added between 2008 and 2014**.

In addition to business concentration, this power can also be due to agreements between competitors not to “steal” employees (the “no-poaching of workers” agreements), which are very detrimental to workers by making it difficult for them to change companies to improve their salaries and conditions. The widespread use of these agreements in some countries and sectors characterized by low wages has particularly harmed lower-income households, detrimental to their purchasing power and driven inequality:

- A study by Kueger and Ashenfelter (2018) using US data estimates that, in 2016, 58% of franchise workers in the US, particularly fast-food franchises, were affected by this type of no-poaching agreement. Likewise, the study indicates that these agreements are more likely in sectors with a tendency to high employee turnover, which generally also have lower salaries. In addition to reducing wages and harming the purchasing power of those affected, this type of agreement harms innovation, entrepreneurship, and job growth (Samila & Sorenson, 2011).

This explains why the US Federal Trade Commission (FTC) has proposed in 2023 to prohibit this type of clauses as they are harmful to workers and harm competition[32]. The FTC notes that one in five American workers, about 30 million people, are subject to these clauses, which reduce workers' bargaining power to the detriment of their wages, limit their ability to create new businesses, and restrict the spread of ideas and innovations by hindering the movement of employees. This institution estimates that the prohibition of these clauses would increase the annual income of workers in the United States by nearly 300,000 million dollars (close to 2,000 dollars per year on average per worker in the United States) and indicates that it would reduce the gender and racial gaps in income between 3.6% and 9.1%, therefore favouring groups with lower-than-average income. Furthermore, it estimates that the number of new companies founded by employees of an industry would double.

On the other hand, the decoupling between productivity growth and wages (explained in greater detail in a previous section) has a direct impact on inequality since the weight of wage income compared to capital income is greater in lower-income households.

In short, competition and a dynamic labour market, since they promote low levels of unemployment and good conditions, will benefit society as a whole by fostering higher levels of income and improvements in purchasing power. And, especially, it will benefit lower-income households, as the latter are more exposed to unemployment and job insecurity, and as their income depends more on the labour market.

14. Competition drives equal opportunities in markets

An economy with efficient and competitive markets allows companies to compete based on their merits in generating added value, prioritizing capacity and effort. On the other hand, when entry barriers exist, incumbents are protected from those companies capable of challenging their dominance through new proposals[33]. Entry barriers, by their nature, cause inequality of opportunities, by privileging incumbent companies.

The inequality of opportunities in access to markets means that business profits correspond to a lesser extent with effort, capacity and inventiveness. Thus, those companies protected by unjustified entry barriers receive extraordinary benefits that do not come from their own merits. This encourages the existence of inequalities linked to unjustified privileges, together with the rest of the damages

[32] See: https://www.ftc.gov/news-events/news/press-releases/2023/01/ftc-proposes-rule-ban-noncompete-clauses-which-hurt-workers-harm-competition.

[33] See, for example, Griffith and Harmgart (2012), Zingales (2012), Schivardi and Viviano (2011) or Hausman and Leibtag (2007).

associated with the lack of competition that are exposed throughout this document, such as worse consumer conditions and lower levels of employment and growth, in damage to the purchasing power of the population. Therefore, the unjustified exclusion of competitors, regardless of their merits and abilities, implies discrimination in favour of the established companies and to the detriment of others.

In general, the companies harmed by entry barriers are potential entrants, start-ups and SMEs. In this sense, it should be noted that **the vast majority of start-ups are SMEs**, which in Spain usually do not even have 10 (García Perea, 2020, págs. 6-7). Entrant companies also tend to represent a large part or most of the new employment: in the Spanish case, an OECD study (OCDE, 2016) documented that **slightly more than half of the new jobs in Spain came from companies with five years or less since created**. The existence of harmful barriers for SMEs and new companies damages the purchasing power of the entire population, but especially of lower-income groups, since these are an essential source of employment and income for lower-middle-income citizens (on average, the smaller the size of the company, the lower the salaries and the more employees earn the minimum wage[34]).

On the other hand, a lack of competition can also result in certain capital goods and inputs being scarce and expensive. Again, a competitive market can help combat this problem, encouraging greater availability, variety, better price and quality of such products. This will also benefit entrant companies, start-ups and SMEs, since they will generally have less capacity to source scarce or expensive resources and, in addition, the increase in the variety of inputs will facilitate more possibilities of opening new businesses, differentiating and innovating.

The above explains why **international organizations, such as the OECD, emphasize the importance of maintaining a level playing field between companies, or "competitive neutrality"**[35]. The purpose of said neutrality is that competition is based on the merit of companies when it comes to generating

[34] In 2021, large companies (250 employees or more) paid an average gross monthly salary of 2,845 euros and accounted for 52% of workers with gross salaries greater than 2,342 euros. On the other hand, smaller companies (less than 10 workers) paid an average of 1,476 euros gross per month and accounted for 53% of workers who earn less than 1,367 euros gross per month (INE, 2022b). Likewise, the minimum wage is concentrated in young people, temporary workers and employees of small companies: in Spain, 18% of employees earn the minimum wage, a percentage that rises to 34% in companies with 5 workers or less, compared to only the 4.5% of workers in companies with more than 100 employees (Barceló, y otros, 2021, pág. 15).

[35] More about competitive neutrality at http://www.oecd.org/competition/competitive-neutrality.htm. Likewise, the OECD has recently adopted a recommendation to its members on this matter: "Recommendation of the Council on Competitive Neutrality" available at OECD Legal Instruments.

added value and offering products with great quality-price or innovative, and not on unjustified barriers to competition that privilege incumbents to the detriment of the purchasing power of the rest of the population.

15. Competition facilitates improvements in public policies and services

A more competitive, adequately regulated and prosperous economy will facilitate an efficient, robust and sustainable public sector. Strengthening the public sector helps protect purchasing power and improve the quality of life of society as a whole, but particularly of the lowest-income and most vulnerable groups, since these households depend to a greater extent on public services, such as education, health or social assistance (Anghel et al. (2018) or Verbist et al. (2012)).

Firstly, competition and efficient regulation help improve growth and, thus, the health of public finances: greater economic strength will lead to an increase in public income, via greater tax collection, and a reduction in expenditures in items such as unemployment benefits. All of this translates into greater availability of government resources, which will provide room to reinforce redistributive policies or improve public services.

Secondly, the benefits of competition can be applied directly in some cases to the public administrations themselves, encouraging that, in addition to collaboration, there is healthy competition and learning between them in order to offer the best public services. In particular, in decentralized countries, such as Spain, in some cases the quality of public services offered by different public administrations can be compared to assess their performance, and learn about which measures work best. This yardstick competition can generate incentives for the effort of public managers, the rapid adoption of good practices and innovations, and the efficient use of resources[36]. Comparisons, which must be well designed so that the different circumstances of each area do not distort the results, can also offer information to citizens about the quality of public management in each region. The same is applicable in terms of international comparisons.

Thirdly, competition is a key component for public procurement, which has a great impact on the economy and public finances. Through open, transparent and non-discriminatory bidding procedures, concurrence and competition between

[36] For example, Rinke (2005) points out that creating competition between administrations through the “yardstick competition” model encourages the rapid adoption of improvements in the policies of those administrations. This type of comparison is applied, for example, in the urban water sector in various EU countries, although not in Spain (CNMC, 2020b).

bidders are encouraged, a condition that results in better bids for the Administration in terms of quality, economic efficiency and more competitive prices. Furthermore, the use of procedures that favor competition boosts the productivity of the business fabric, since companies are encouraged to make efforts, invest and innovate to improve their offers and win contracts.

The importance of this aspect is illustrated in the CNMC Study "Radiography of public procurement procedures" (CNMC, 2019d), where it is estimated that Spanish Public Administrations could have saved a minimum of 1.7 billion euros between 2012 and 2016 if would have used competitive procedures, since it is estimated that procedures open to competition and transparent produce savings of almost 10% on average in award amounts. Likewise, Domberger and Jensen (1997) already estimated that improving bidding processes can make public purchases cheaper by an average of 20%, without compromising quality. These savings can be used for other uses, including redistributive policies or public services such as education or health.

V. CONCLUSIONS

Throughout the document it has been explained how, although competition and efficient regulation are not the first line of defense against inflation, they can help reduce the price level, moderate inflation and make it less persistent and, furthermore, they can prevent and counteract losses in purchasing power, benefiting all citizens and, especially, the lowest-income and most vulnerable groups. The purpose of this exercise is to illustrate the usefulness of competition policy and efficient regulation in times of inflation as the foundations of a robust and prosperous economy for the benefit of the entire population.

From what has been exposed throughout the document, two main conclusions can be drawn.

Firstly, **having competitive markets helps to moderate prices and facilitates the work of the economic authorities in their objective of controlling inflation**.

Studies on the subject indicate that efficient and competitive markets encourage a broader supply, more efficient production and greater incentives to reduce prices as a result of competitive pressure. This can reduce inflationary pressures, which would facilitate the monetary authorities' task of stabilizing prices. Likewise, a more flexible, competitive and efficient economy may have a greater capacity to adapt to sudden changes in circumstances, minimizing the impact of shocks on price stability and economic activity. The price formation processes in this type of economy will also function better, facilitating less persistence of inflation.

Secondly, **measures in favour of competitive markets can boost growth and counteract the negative impact of inflation on the purchasing power of citizens, particularly lower-income and more vulnerable groups**.

Competition and efficient regulation are very closely related to each other, since a well-regulated market will promote high competition and only limit it when it is essential for reasons of general interest (principle of necessity) and in the least distorting way possible (principle of proportionality).

Competition and efficient regulation have a high capacity to create wealth thanks to the fact that they encourage effort, innovation, international competitiveness, efficiency and productivity. But they also help growth reach the entire population because they promote better consumption conditions, more jobs, equal opportunities and better public services, all of which particularly benefits lower-income households. Additionally, in general these policies do not have a direct cost for public finances, while in the long term their positive influence on the economy and public procurement can help improve public accounts. They are, therefore, ideal policies to promote a solid, sustainable and inclusive economy, which protects purchasing power and ensures welfare for the entire population.

As a result, the reforms and actions that promote efficient and competitive markets can mitigate the possible negative effects on purchasing power that could be caused by an inflationary spike or the policies necessary to curb price rises.

Therefore, it is worth remembering that **the CNMC has the legal mandate to ensure competition and the proper functioning of markets, which includes collaborating with institutions and agents to achieve the best possible design of public interventions**. To this end, the CNMC advises the authorities with the objective that public intervention adjusts to the principles of efficient economic regulation (necessity, proportionality and non-discrimination)[37], studies the effects of regulations and reforms on competition variables[38] and prepares guides and guidelines to improve the intervention of the public sector[39].

[37] Art. 5.2. of the Law 3/2013, of June 4, of creation of the National Commission of Markets and Competition (CNMC)

[38] Art. 5.1.h) of the Law 3/2013, of June 4, of creation of the National Commission of Markets and Competition (CNMC).

[39] The CNMC has published a series of documents to improve public intervention in the markets, among which are the Recommendations to public authorities to promote competition as the engine of economic recovery, the Recommendations to public administrations for market regulation more efficient and favorable to competition or the Guide on public procurement and competition, which has been recently revised and completed in terms of planning and agreements and commissions to own means.

APPENDICES

Appendix I: outstanding studies on competition in the energy sector

Energy is the basis of our economic activity. It is therefore not surprising that, historically, when energy prices have soared for one reason or another, inflation has also risen. And the reverse is also true; a moderation in energy prices can facilitate the moderation of inflationary pressures.

Studies documenting this relationship include, for example:

- Bernardo (2018), for the case of automotive fuels in Spain, exposes how the entry of low-cost gas stations in the industrial areas of Barcelona caused a price reduction. This result is in line with what has been observed by CNMC reports and its predecessors on the matter.
- The 2012 report on monitoring the fuel market, commonly referred to as the "rockets and feathers" study (CNC, 2012a), demonstrated a clear correlation between the concentration of retail supply and the average pre-tax prices in specific regions. This evidence highlights the beneficial impact of having increased competition to mitigate the pricing. In addition, the study points to the existence of asymmetries in the speed of adjustment of domestic retail prices to changes in international fuel prices: when there is an increase in international prices, domestic pre-tax prices at service stations react faster than when international prices decrease, to the detriment of consumers and transport companies.
- Likewise, the 2012 report on the automotive fuel market in Spain (CNC, 2012b) reviewed the wholesale and retail functioning of the fuel market, in order to determine what factors influence prices at service stations in Spain. The analysis shows that the inadequate levels of competition detected in both the wholesale and retail sectors lead to higher relative fuel prices, again to the detriment of consumers, the international competitiveness of our companies and general economic activity.
- Studies of unattended gas stations also reveal the effect of the opening of this type of establishments on price levels. Specifically, the 2016 report on the fuel distribution market through unattended service stations (CNMC, 2016), analyzed their impact on the retail market as a whole and identified various unjustified barriers that made it difficult, or in some areas prevented, opening this type of establishment. The analysis showed that this type of service station contributes to making the market more dynamic, increasing the level of effective competition and reducing final fuel prices. Along the same lines, the 2019 study of automatic gas stations (CNMC, 2019a) warns about the adverse effects of barriers to the installation of automatic gas

stations, documenting, based on data on the Autonomous Region of Madrid between 2012 and 2016, that these automatic stations are a driver of competition and that their presence moderates fuel prices at gas stations in the area.

Appendix II: outstanding studies on competition and transportation

Transport is another key area for the whole economic activity, since it influences the costs of the vast majority of other sectors and, in addition, it is a very important service for citizens. Likewise, different segments of this sector are in the process of opening up to competition, which has led to various studies on the effect of this transformation.

The case of **air transport** in recent decades is illustrative: the entry of new airlines has led to the proliferation of new routes and very competitive offers, transforming the sector for the benefit of many households who previously had little access to this service. Thus, on this issue, there are various studies, such as:

- A study by the OECD (Burghouwt, De Leon, & De Wit, 2015) estimates that, in the two decades following the start of liberalization of this market in the EU in 1993, the number of air routes within the EU almost tripled and the number of daily operations almost doubled, together with the expansion of low-cost airlines and very competitive offers.
- It is equally relevant that the positive effects on prices are perceived even from the existence of potential competition: Goolsbee and Syverson (2008) document for the US that the mere possibility of a low-cost airline entering a specific route resulted in the incumbent airline lowering prices significantly. The price reduction would increase even more if the low-cost airline's entry into the market was finally confirmed.

Rail transport is another illustrative example of the effects of the introduction of competition. In particular:

- The CNMC prepared a study on the liberalization of passenger transport by rail (CNMC, 2019b). The purpose of this study was to analyze what obstacles and challenges were posed to opening passenger transport by train to competition, with the aim of proposing recommendations that could facilitate effective liberalization. This study indicates that the drive of competition produced a notable increase in passengers and railway activity in countries such as Germany, the Czech Republic and Sweden.
- Regarding the effect of competition on prices, according to a study by Finger et al. (2016), after the entry of new operators in European countries, ticket

prices were reduced by up to more than 40% in some cases, such as Italy and Austria for the period 2012-2015.

- Likewise, the allocation through competitive tenders of services subject to Public Service Obligations (PSO) has led to savings in the case of Germany of between 15% and 26%, depending on the region (Nash, Crozet, Nilsson, & Link, 2016).

Based on this background, it is not surprising that the experience of entry of competition in Spain, which began in May 2021 in the Madrid-Barcelona route, has managed to lower the average prices of this route by over 25%[40]. At the same time, the number of passengers has increased by around 50% compared to pre-pandemic figures[41]. These benefits are progressively expanding to other routes that are in the process of opening up to competition.

In the area of **interurban bus transport**, the CNMC prepared the Study on interurban bus passenger transport (CNMC, 2022b). This document includes a quantitative analysis indicating, among other things, that competitive tenders for lines previously operated with expired licenses improves the efficiency of those lines. Likewise, this study reviews other European liberalization experiences, which have had positive results in terms of price reductions and notable increases in the number of users, in the frequency, quality and variety of the supply, and also regarding the development of multimodality with other means of transport[42].

With regard to **urban transport**, in the Economic Report on the regulation of VTC in Barcelona (CNMC, 2019c), approved within the framework of the contentious-administrative appeal filed by the CNMC against restrictions on competition in relation to the exploitation of VTC vehicle leasing authorizations, it is estimated that the restrictive regulation of the number of VTC and taxi licenses in Barcelona would have caused a price increase of around 3% in €/kilometer, which would result in a loss of welfare for the consumer estimated at 14 - 15 million euros annually.

40 See: https://www.cnmc.es/prensa/INF-ferrocarril-20230526

Some estimates even extend the price drop to 49%:

https://www.europapress.es/turismo/transportes/noticia-entrada-nuevos-operadores-ferroviarios-reduce-mitad-precio-trayecto-madrid-barcelona-20220916090217.html.

41 See: https://www.cnmc.es/prensa/informe-trimestral-3t-2022-ferroviario-cnmc-20221230.

42 See, among others, Dürr and Hüschelrath (2015), Autorité de Régulation des Transports (2020), Gremm (2018) or Beria and Bertolin (2019).

Appendix III: outstanding studies on competition and other essential sectors: retail, food, medicines and digital

The retail, food and medicine sectors significantly affect the consumption and welfare of citizens and the overall price level. Again, studies in these areas have observed that promoting efficient and competitive markets can make the products of these sectors cheaper.

Regarding **retail**:

- Schivardi and Viviano (2011) examined this sector in Italy, concluding that areas with higher barriers to entry lead to businesses with lower productivity and higher consumer prices.
- Likewise, Lira et al. (2007), studying the Chilean economy, found that the entry of a hypermarket in a city reduces prices in the local market between 7% and 11%, with a perceptible effect even before its inauguration.
- And Abe and Kawaguchi (2010) found that, in Japan, the opening of a large supermarket reduced the local prices of various basic products by between 0.4% and 3.1%.

About the **agri-food industry**, the CNMC has analysed various regulations from the perspective of efficient economic regulation. Thus, both in the IPN on the food chain law of 2020 (CNMC, 2020a) and the most recent one on contracting in the dairy sector (CNMC, 2022c), the CNMC has warned that a regulation that does not promote efficiency and competition can cause harm. Specifically, in these cases, problems were identified such as the favouring of price alignments between competitors and, also, the regulatory provision that prices rise when costs rise, but not that they fall when costs fall. This can discourage competition and price drops and, therefore, result in more expensive products.

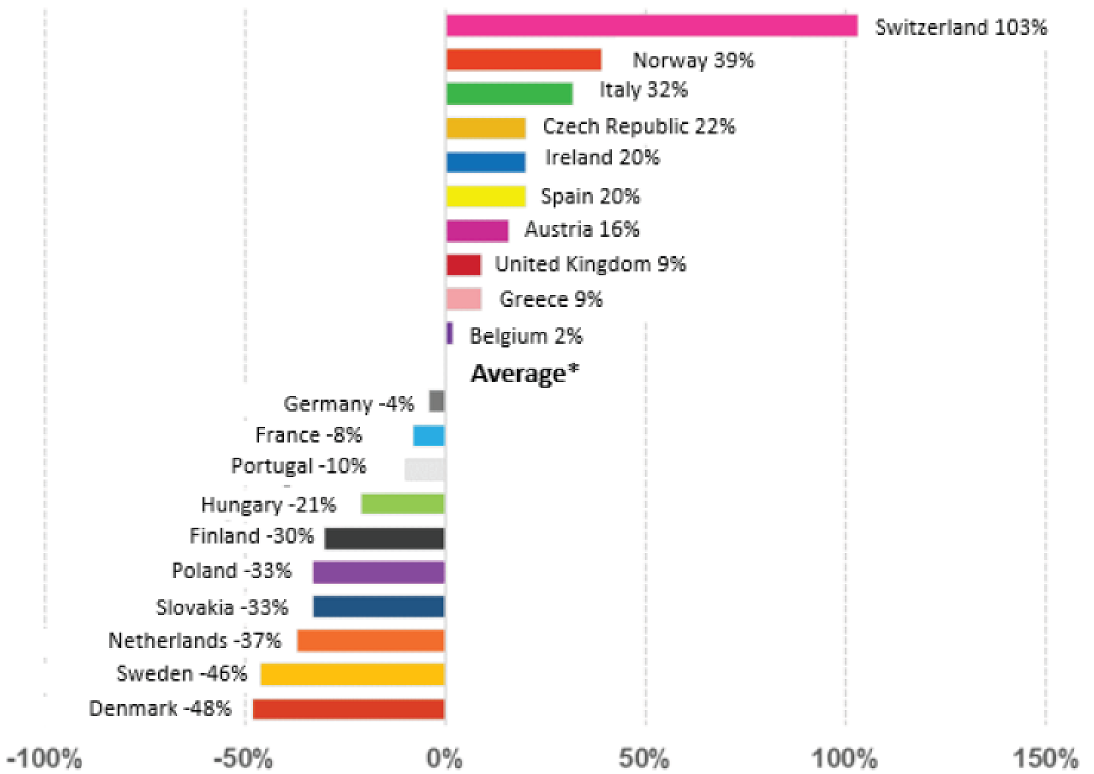
In health matters, the CNMC has published two studies on **medicines**, in 2015 and 2022, which focus on the distribution chain of these products.

- From the 2015 study on the retail distribution of medicines market in Spain (CNMC, 2015), it can be highlighted how the relaxation of criteria for opening pharmacies in Navarra led to a large expansion in the number of these establishments in this region, extending the coverage of pharmaceutical services and promoting competition and job creation.
- The Study on the Wholesale Medicines Market (CNMC, 2022a) identifies measures that could lead to significant reductions in medicines prices. On the one hand, promoting improvements in the evaluation of innovative medicines (protected by patent) that facilitate more efficient pricing. On the other hand, promoting competition in areas where it is possible, reforming the reference

price system and the distribution margin system to encourage greater competition between laboratories, for the benefit of more adjusted prices.

In this study, reference is made to a report from the Swedish government agency TLV (Dental and Pharmaceutical Benefits Agency (TLV), 2021), which reflects that countries such as Denmark, Sweden or the Netherlands, which have the system proposed by the CNMC, register average prices of competing medicines that can be half that of the Spanish ones (see image 3).

Image 3 – Competing Drug Price Comparison, 2021



Source: the Study on the wholesale market for medicines (CNMC, 2022a), based on the Annual Report on International Comparison of Medicine Prices of the Swedish public agency TLV (Dental and Pharmaceutical Benefits Agency), 2021.

The data includes the analysis of 623 competing medicines, comes from IQVIA and covers 89% of sales in Sweden in 2021. The figures reflect the percentage deviation in each country of the price level of the analyzed medicines with respect to the overall average of countries included in the analysis. *: "Average" represents the average price level of the drugs analyzed. The comparison includes the average price of the following European countries: Switzerland, Norway, Italy, Ireland, Czechia, Spain, Austria, United Kingdom, Greece, Belgium, Germany, France, Portugal, Hungary, Finland, Poland, Slovakia, the Netherlands, Sweden and Denmark.

Digitalization has become a strategic objective at the national level. This transformation will affect most of the economic activity and some sectors will play an essential role as pillars of the digital transition. Among them are online advertising and Fintech, on which the CNMC has prepared two separate studies:

- The CNMC carried out a Study on the conditions of competition in the online advertising sector (CNMC, 2021d). The study shows that there is a high degree of concentration in this area. As a result, costs may be higher for advertisers compared to an alternative scenario of greater competition, and the likely full or partial impact of these higher costs may result in more expensive consumer goods. The UK Competition and Markets Authority (CMA) reaches similar conclusions in another analysis on the matter (CMA, 2020). Specifically, it emphasizes that an environment of greater competition than the current one would allow improving conditions for publishers, promoting more and better content, and for advertisers, which would mean lower prices for final goods and services and greater options for the consumer.
- Finally, the CNMC carried out a Fintech Study (CNMC, 2018) on new information and communications technologies applied to the financial sector (Fintech). It highlighted that the Fintech phenomenon, by boosting competition in the financial sector, could have a positive impact on the economy as a whole by facilitating, through greater and better financing, the entry of new competitors in the different sectors of activity.

BIBLIOGRAPHY

Abe, N., & Kawaguchi, D. (2010). Incumbent's price response to new entry: The case of Japanese supermarkets. *Journal of the Japanese and International Economies, 24(2)*, 196-212.

AdC. (2022). *Competition and purchasing power in times of inflation.*

Aghion, P., Bechtold, S., Cassar, L., & Herz, H. (2018). The causal effects of competition on innovation: Experimental evidence. *The Journal of Law, Economics, and Organization, 34(2)*, 162-195.

Aghion, P., Blundell, R., Griffith, R., Howitt, P., & Prantl, S. (2004). Entry and productivity growth: Evidence from microlevel panel data. *Journal of the European Economic Association, 2(2-3)*, 265-276.

Aghion, P., Blundell, R., Griffith, R., Howitt, P., & Prantl, S. (2009). The effects of entry on incumbent innovation and productivity. *The Review of Economics and Statistics, 91(1)*, 20-32.

Akcigit, U., Chen, W., Diez, F., Duval, R., Engler, P., Fan, J., . . . Villegas-Sánchez, C. (2021). Rising Corporate Market Power : Emerging Policy Issues. *IMF Staff Discussion Notes No. 2021/001*.

Andrews, D., Gal, P., & Witheridge, W. (2018). A genie in a bottle?: Globalisation, competition and inflation. *OECD Economics Department Working Papers, No. 1462, OECD Publishing, Paris*.

Anghel, B., Basso, H., Bover, O., Casado, J., hospido, L., Izquierdo, M., . . . Vozmediano, E. (2018). *La desigualdad de la renta, el consumo y la riqueza.* Banco de España, Documentos Ocasionales. N.º 1806.

Arnold, J., Nicoletti, G., & Scarpetta, S. (2008). Regulation, allocative efficiency and productivity in OECD countries: industry and firm-level evidence. *OECD Economics Department Working Papers, No. 616*.

Autorité de Régulation des Transports, ART. (2020). *Rapport annuel sur le marché du transport par autocar et sur les gares routières.*

Azar, J., Marinescu, I., Steinbaum, M., & Taska, B. (2020). Concentration in US labor markets: Evidence from online vacancy data. *Labour Economics, 66*.

Backus, M. (2020). Why is productivity correlated with competition? *Econometrica, 88(6)*, 2415-2444.

Baker, J. B., & Salop, S. C. (2015). Antitrust, competition policy, and inequality. *Georgia Law Journal, 104*, 1.

Barceló, C., Izquierdo, M., Lacuesta, A., Puente, S., Regil, A., & Villanueva, E. (2021). *Los efectos del salario mínimo interprofesional en el empleo: nueva evidencia para España*. Banco de España, Documentos Ocasionales Nº. 2113.

Benmelech, E., Bergman, N. K., & Kim, H. (2020). Strong employers and weak employees: How does employer concentration affect wages? *Journal of Human Resources*.

Berg, A., Ostry, J. D., Tsangarides, C. G., & Yakhshilikov, Y. (2018). Redistribution, inequality, and growth: new evidence. *Journal of Economic Growth, 23(3)*, 259-305.

Beria, P., & Bertolin, A. (2019). Evolving long-distance passenger services. Market concentration, fares and specialisation patterns in Italy. *Research in Transportation Economics, 74*, 77-92.

Bernando, V. (2018). The effect of entry restrictions on price: evidence from the retail gasoline market. *Journal of Regulatory Economics 53*.

Bloom, N. P. (2015). The impact of competition on management quality: evidence from public hospitals. *The Review of Economic Studies, 82(2)*, 457-489.

Bloom, N., & Van Reenen, J. (2007). Measuring and explaining management practices across firms and countries. *The quarterly journal of Economics, 122(4)*, 1351-1408.

Bloom, N., & Van Reenen, J. (2010). Why do management practices differ across firms and countries? *Journal of economic perspectives, 24(1)*.

Bordon, A. R., Ebeke, C., & Shirono, K. (2018). When do structural reforms work? On the role of the business cycle and macroeconomic policies. En *Structural Reforms* (págs. 147-171). Springer, Cham.

Bosma, N., Sanders, M., & & Stam, E. (2018). Institutions, entrepreneurship, and economic growth in Europe. *Small Business Economics, 51(2)*, 483-499.

Bouis, R., & Duval, R. (2011). Raising potential growth after the crisis: a quantitative assessment of the potential gains from various structural reforms in the OECD area and beyond. *OECD Economics Department Working Papers No. 835*.

Bouis, R., Duval, M. R., & Eugster, J. (2016). Product market deregulation and growth: New country-industry-level evidence. *International Monetary Fund.*

Bourlès, R., Cette, G., Lopez, J., Mairesse, J., & Nicoletti, G. (2013). Do product market regulations in upstream sectors curb productivity growth? Panel data evidence for OECD countries. *Review of Economics and Statistics, 95(5)*, 1750-1768.

Bräuning, F., Fillat, J. L., & Joaquim, G. (2022). Cost-Price Relationships in a Concentrated Economy. *Federal Reserve Bank of Boston Research Paper Series Current Policy Perspectives Paper, (94265)*.

Buccirossi, P. C., Duso, T., Spagnolo, G., & Vitale, C. (2013). Competition policy and productivity growth: An empirical assessment. *Review of Economics and Statistics, 95(4)*, 1324-1336.

Burghouwt, G., De Leon, P. M., & De Wit, J. (2015). EU Air Transport Liberalisation Process, Impacts and Future Considerations. *International Transport Forum Discussion Papers, No. 2015/04, OECD Publishing, Paris, https://doi.org/10.1787/5jrw13t57flq-en.*

Busso, M., & Galiani, S. (2019). The causal effect of competition on prices and quality: Evidence from a field experiment. *American Economic Journal: Applied Economics, 11(1)*, 33-56.

Campos, N. F., Coricelli, F., & Moretti, L. (2014). Economic Growth and Political Integration:Estimating the Benefits from Membership in the European Union Using the Synthetic Counterfactuals Method. *IZA Discussion Papers, No. 8162*.

Carstens, A. (2022). The return of inflation. *Speech in the International Center for Monetary and Banking Studies, Bank for International Settlements (BIS).*

Causa, O., de Serres, A., & Ruiz, N. (2015). Can pro-growth policies lift all boats?: An analysis based on household disposable income. *OECD Journal: Economic Studies, vol. 2015/1*.

Cecioni, M. (2010). Firm Entry, Competitive Pressures and the US Inflation Dynamics. *Bank of Italy Temi di Discussione (Working Paper) No. 773*.

Cette, G., Lopez, J., & Mairesse, J. (2016). Market regulations, prices, and productivity. *American Economic Review, 106(5)*.

Chambers, D., Collins, C. A., & Krause, A. (2019). How do federal regulations affect consumer prices? An analysis of the regressive effects of regulation. *Public Choice, 180(1),* 57-90.

Chen, N., Imbs, J. M., & Scott, A. (2004). *Competition, globalization and the decline of inflation.* RTN programme "The Analysis of International Capital Markets: Understanding Europe's Role in the Global Economy" https://dx.doi.org/10.2139/ssrn.588083.

Ciapanna, E., Mocerri, S., & Notarpietro, A. (2020). The Effects of Structural Reforms: Evidence from Italy. *Temi di Discussione (Working Papers) 1303, Bank of Italy (presented at April 2022 Economic Policy panel)*.

Cingano, F. (2014). Trends in Income Inequality and its Impact on Economic Growth. *OECD Social, Employment and Migration Working Papers, No. 163*.

Claeys, G., Guetta-Jeanrenaud, L., McCaffrey, C., & L., W. (2022). Inflation inequality in the European Union and its drivers. *Bruegel Datasets https://www.bruegel.org/dataset/inflation-inequality-european-union-and-its-drivers*.

Clougherty, J. A. (2010). Competition Policy Trends and Economic Growth: Cross-National Empirical Evidence. *International Journal of the Economics of Business, 17(1),* 111-127.

CMA. (2020). *Online platforms and digital advertising market study.*

CNC. (2008). *Recomendaciones a las Administraciones Públicas para una regulación de los mercados más eficiente y favorecedora de la competencia.* G-2008-01.

CNC. (2011). *Guía sobre Contratación pública y Competencia.*

CNC. (2012a). *Informe de seguimiento del mercado de distribución de carburantes de automoción en España.*

CNC. (2012b). *Informe sobre la consulta efectuada por la Secretaría de Estado de Economía y Apoyo a la Empresa sobre el mercado de carburantes de automoción en España.*

CNMC. (2015). *E/CNMC/003/15 Estudio sobre el mercado de distribución minorista de medicamentos en España.*

CNMC. (2016). *Propuesta referente a la regulación del mercado de distribución de carburantes de automoción a través de estaciones de servicio desatendidas PRO/CNMC/002/16* .

CNMC. (2017). *Documento de Reflexión sobre los beneficios derivados del comercio internacional y sus implicaciones en materia de competencia.* PRO/CNMC/002/17.

CNMC. (2018). *Estudio Fintech.*

CNMC. (2019a). *Análisis del efecto competitivo de la entrada de gasolineras automáticas en el mercado de distribución minorista de carburantes E/CNMC/005/19.*

CNMC. (2019b). *Estudio sobre la Liberalización del Transporte de Viajeros por Ferrocarril E/CNMC/004/19.*

CNMC. (2019c). *Reglamento VTC Barcelona Recurso 159/2018 LA/08/2018.*

CNMC. (2019d). *Radiografía de los procedimientos de contratación pública en España.*

CNMC. (2020a). *Anteproyecto de Ley de Medidas para mejorar el funcionamiento de la Cadena Alimentaria IPN/CNMC/015/20.*

CNMC. (2020b). *Estudio sobre los servicios de abastecimiento y saneamiento de agua urbana E/CNMC/07/19.*

CNMC. (2020c). *Guía de programas de cumplimiento en relación con la defensa de la competencia.*

CNMC. (2021a). *Recomendaciones a los poderes públicos para fomentar la competencia como motor de la recuperación económica.*

CNMC. (2021b). *Guía sobre Contratación pública y Competencia (actualización planificación).*

CNMC. (2021c). *Los beneficios de la competencia para los consumidores: preguntas y respuestas.*

CNMC. (2021d). *Estudio sobre Publicidad Online E/CNMC/002/19.*

CNMC. (2022a). *Estudio sobre el mercado de distribución mayorista de medicamentos E/CNMC/002/17.*

CNMC. (2022b). *Estudios sobre el transporte interurbano de viajeros en autobús E/CNMC/006/19.*

CNMC. (2022c). *Informe sobre el Proyecto de Real Decreto por el que se modifican varios Reales Decretos de aplicación al sector lácteo IPN/CNMC/005/22.*

Cochrane, J. (2022). Inflation Past, Present and Future: Fiscal Shocks, Fed Response, and Fiscal Limits. *National Bureau of Economic Research No. w30096*.

Collard-Wexler, A., & & De Loecker, J. (2015). Reallocation and technology: Evidence from the US steel industry. *American Economic Review, 105(1),* 131-71.

Connor, J. M. (2014). Cartel overcharges. *The Law and Economics of Class Actions (Research in Law and Economics, Vol. 26), Emerald Group Publishing Limited*, 249-387.

Connor, J. M., & Bolotova, Y. (2006). Cartel overcharges: Survey and meta-analysis. *International Journal of Industrial Organization, 24(6)*, 1109-1137.

Correa-López, M., García-Serrador, A., & Mingorance-Arnáiz, C. (2014). Product market competition, monetary policy regimes and inflation dynamics: Evidence from a panel of OECD countries. *Oxford Bulletin of Economics and Statistics, 76(4)*, 484-509.

Cournède, B., Denk, O., Garda, P., & Hoeller, P. (2016). "Enhancing Economic Flexibility: What is in it for Workers?". *OECD Economic Policy Papers, No. 19, OECD Publishing.*

Courtemanche, C., Carden, A., Zhou, X., & Ndirangu, M. (2019). Do Walmart supercenters improve food security? *Applied Economic Perspectives and Policy, 41(2)*, 177-198.

Creedy, J., & Dixon, R. (1998). The relative burden of monopoly on households with different incomes. *Economica, 65(258),* 285-293.

Cunningham, C., Ederer, F., & Ma, S. (2021). Killer Acquisitions. *Journal of Political Economy*, 649-702.

Dabla-Norris, M. E., Kochhar, M. K., Suphaphiphat, M. N., Ricka, M. F., & Tsounta, M. E. (2015). *Causes and consequences of income inequality: A global perspective.* International Monetary Fund.

De Almeida, L. A., & Balasundharam, V. (2018). On the impact of structural reforms on output and employment: Evidence from a cross-country firm-level analysis. *International Monetary Fund Working Paper N0. 18/73*.

De Grauwe, P., & Ji, Y. (2020). Structural reforms, animal spirits, and monetary policies. *European Economic Review, 124*.

De Loecker, J., Eeckhout, J., & & Unger, G. (2020). The rise of market power and the macroeconomic implications. *The Quarterly Journal of Economics, 135(2)*, 561-644.

Decker, R. A., Haltiwanger, J., Jarmin, R. S., & Miranda, J. (2017). Declining dynamism, allocative efficiency, and the productivity slowdown. *American Economic Review, 107(5)*.

Dental and Pharmaceutical Benefits Agency (TLV). (2021). *International Price Comparison.*

Dierx, A., Ilzkovitz, F., Pataracchia, B., & Pericoli, F. (2022). *Modelling the diffusion of the deterrent effects of competition policy.* European Commission, Ispra, 2022, JRC131332.

Díez, F., & Duval, R. (3 de abril de 2019). *IMF Blog*. Obtenido de How to Keep Corporate Power in Check: How to Keep Corporate Power in Check

Domberger, S., & Jensen, P. (1997). Contracting out by the public sector: theory, evidence, prospects. *Oxford review of economic policy, 13(4)*, 67-78.

Dovis, M., & Milgram-Baleix, J. (2009). Trade, Tariffs and Total Factor Productivity: The Case of Spanish Firms. *World Economy, 32*, 575-605.

Draghi, M. (2015). Structural reforms, inflation and monetary policy. *Forum on Central Banking.* Sintra.

Draghi, M. (2019). *Hearing at the Committee on Economic and Monetary Affairs of the European Parliament, Brussels, 23 February 2019.*

Dürr, N., & Hüschelrath, K. (2015). Competition in the German interurban bus industry: a snapshot two years after liberalization. *Competition and Regulation in Network Industries, 16(3),* 188-218.

Eeckhout, J. (2021). *The Profit Paradox: How thriving firms threaten the future of work.* Princeton University Press.

Ennis, S. (2019). Market Power: The Inequality Connection. *CPI Antritrust Chronicle*, 27-32.

Ennis, S. F., Gonzaga, P., & Pike, C. (2019). Inequality: A hidden cost of market power. *Oxford Review of Economic Policy, 35(3),* 518-549.

Fageda, X., & Sansano, S. (2018). Factors influencing prices and frequencies in the interurban bus market: Evidence from Europe. *Transportation Research Part A: Policy and Practice, vol. 111*, 266-276.

Finger, M., Kupfer, D., & Montero-Pascual, J. (2016). Competition in the Railway passenger market. *Florence School of Regulation (FSR), European University Institute*.

Fiori, G., Nicoletti, G., Scarpetta, S., & Schiantarelli, F. (2012). Employment effects of product and labour market reforms: are there synergies? *The Economic Journal, 122(558)*, 79-104.

Foster, L., Haltiwanger, J., & Krizan, C. J. (2006). Market selection, reallocation, and restructuring in the US retail trade sector in the 1990s. *The Review of Economics and Statistics*, *88(4)*, 748-758.

Gal, P. N., & Hijzen, A. (2016). The short-term impact of product market reforms: A cross-country firm-level analysis. *International Monetary Fund.*

Galindo, M. Á., & Méndez-Picazo, M. T. (2013). Innovation, entrepreneurship and economic growth. *Management decision.*

Galindo, M., & Méndez, T. (2014). Entrepreneurship, economic growth, and innovation: Are feedback effects at work? *Journal of Business Research*, *67 (5)*, 825-829.

García Crespo, C. (2009). *El transporte interurbano de viajeros en autobús: ¿liberalización o concesión en exclusiva?* Valencia: XXXV Reunión de Estudios Regionales, IV Jornades valencianes.

García Perea, P. (2020). *Análisis de la demografía empresarial en España a comienzos de 2019.* Boletín Económico del Banco de España, 2/2020.

García-Verdugo Sales, J., Gómez Cruz, L., & Martín Ugarte, A. M. (2023). Impacto de las intervenciones de la CNMC en defensa de la competencia: metodología y estimación para el periodo 2012-2022. *ICE, Revista de Economía*(931).

García-Verdugo, J., & Gómez, L. (2020). Estimating the impact of competition enforcement by the Spanish Competition Authority (Revised methodology). *CNMC Document AE-01/20(0529).*

Georgieva, K., Díez, F., Duval, R., & Schwarz, D. (15 de marzo de 2021). *IMF Blog*. Obtenido de Rising Market Power—A Threat to the Recovery?: https://blogs.imf.org/2021/03/15/rising-market-power-a-threat-to-the-recovery/

Geronikolaou, G., Spyromitros, E., & Tsintzos, P. (2016). Inflation persistence: The path of labor market structural reforms. *Economic Modelling*, *58*, 317-322.

Giroud, X., & Mueller, H. M. (2010). Does corporate governance matter in competitive industries? *Journal of financial economics, 95(3)*, 312-331.

Goolsbee, A., & Syverson, C. (2008). How do incumbents respond to the threat of entry? Evidence from the major airlines. *The Quarterly journal of economics, 123(4)*, 1611-1633.

Gremm, C. (2018). The effect of intermodal competition on the pricing behaviour of a railway company: Evidence from the German case. *Research in Transportation Economics*, *72*, 49-64.

Griffith, R., & Harmgart, H. (2012). Supermarkets competition in England and planning regulation. *The International Review of Retail, Distribution and Consumer Research*, *22(1)*, 1-25.

Guerrieri, L., Gust, C., & López-Salido, D. (2010). International Competition and Inflation: A New Keynesian Perspective. *American Economic Journal: Macroeconomics, 2 (4)*, 247-280.

Gutiérrez, G., & Philippon, T. (2017). Declining Competition and Investment in the US. *National Bureau of Economic Research.*

Hausman, J. A., & Sidak, J. G. (2004). Why do the poor and the less-educated pay more for long-distance calls? *Contributions in Economic and Policy Research, 3(1),* 1-26.

Hausman, J., & Leibtag, E. (2007). Consumer benefits from increased competition in shopping outlets: Measuring the effect of Wal-Mart. *Journal of Applied Econometrics, 22(7),* 1157-1177.

Holmes, T. J., & Schmitz Jr, J. A. (2010). Competition and productivity: a review of evidence. *Annual Review of Economics*, 619-642.

Huerta, E., & Salas Fumás, V. (2021). Salarios y rentas del capital en la empresa española: Enseñanzas sobre la desigualdad. *Papeles de Economía Española (167)*, 2-21.

Hufbauer, G., Hogan, M., & Wang, Y. (2022). For inflation relief, the United States should look to trade liberalization. *Policy Briefs PB22-4, Peterson Institute for International Economics*.

INE. (2022a). *Encuesta de Presupuestos Familiares 2021*.

INE. (2022b). *Decil de salarios del empleo principal. Encuesta de Población Activa (EPA) Año 2021, https://www.ine.es/prensa/epa_2021_d.pdf.*

Janger, J., & Schmidt-Dengler, P. (2010). The Relationship between competition and inflation. *Monetary Policy & the Economy, 1(10),* 53-65.

Khan, L. M., & Vaheesan, S. (2017). Market power and inequality: The antitrust counterrevolution and its discontents. *Harv. L. & Pol'y Rev., 11*, 235.

Kranz, D. F. (2019). ¿Subir el salario mínimo en España? Sí, pero con prudencia. *Cuadernos de Información económica, 268,* 21-30.

Krueger, A., & Ashenfelter, O. (2018). Theory and Evidence on Employer Collusion in the Franchise Sector. *IZA Discussion Papers 11672, Institute of Labor Economics (IZA)*.

Lira, L., Rivero, R., & Vergara, R. (2007). Entry and prices: Evidence from the supermarket sector. *Review of Industrial Organization, 31(4)*, 237-260.

Macaluso, C., Hershbein, B., & Yeh, C. (2019). Concentration in US local labor markets: evidence from vacancy and employment data. *2019 Meeting Papers (No. 1336). Society for Economic Dynamics.*

Marinescu, I., Ouss, I., & Pape, L. D. (2021). Wages, hires, and labor market concentration. *ournal of Economic Behavior & Organization, 184,* 506-605.

Matsa, D. (2011). Competition and Product Quality in the Supermarket Industry. *The Quarterly Journal of Economics, Volume 126, Issue 3,* 1539-1591.

Minondo, A., & Riequena Silvente, F. (2011). Ganancias de bienestar por nuevas variedades importadas. Evidencia para España, 1988-2006. *Cuadernos económicos de ICE, 82*, 11-30.

Naidu, S., Posner, E. A., & Weyl, G. (2018). Antitrust Remedies for Labor Market Power. *Harvard Law Review, 132, 537*.

Nash, C., Crozet, Y., Nilsson, J. E., & Link, H. (2016). Liberalisation of passenger rail services. *Centre on Regulation in Europe (CERRE).*

Nicoletti, G., & Scarpetta, S. (2003). Regulation, productivity and growth: OECD evidence. *Economic policy, 18(36)*, 9-72.

Nicoletti, G., & Scarpetta, S. (2005). Product market reforms and employment in OECD countries. *OECD Economics Department Working Papers No. 472*.

OCDE. (2014). *Factsheet on how competition policy affects macro-economic outcomes.*

OCDE. (2016). *No Country for Young Firms? Policy failures and regulations are a greater obstacle for start-ups than for incumbents.* OCDE STI Policy Note.

OCDE. (2018). *Decoupling of wages from productivity: what implications for public policies?* Economic Outlook 2018, chapter 2.

OCDE; World Bank. (2017). *A Step Ahead: Competition Policy for Shared Prosperity and Inclusive Growth.*

Ostry, M. J., Berg, M. A., & Tsangarides, M. C. (2014). *Redistribution, inequality, and growth.* International Monetary Fund.

Petersen, N. (2013). Antitrust law and the promotion of democracy and economic growth. *Journal of Competition Law and Economics, 9(3)*, 593-636.

Porter, M. (1990). The competitive advantage of nations. *Hardvard Business Review*, 73-93.

Przybyla, M., & Roma, M. (2005). Does product market competition reduce inflation? Evidence from EU countries and sectors. *European Central Bank, Working Paper Series No. 453*.

Rinke, J. (2005). Yardstick competition and policy innovation. *Centre for European Economic Research Discussion Paper*.

Romero-Jordán, D., Del Río, P., & Peñasco, C. (2016). An analysis of the welfare and distributive implications of factors influencing household electricity consumption. *Energy Policy, 88*, 361-370.

Saadi-Sedik, T., & Xu, R. (2020). A Vicious Cycle: How Pandemics Lead to Economic Despair and Social Unrest. *IMF Working Paper WP/20/216*.

Samila, S., & Sorenson, O. (2011). Noncompete covenants: Incentives to innovate or impediments to growth. *Management Science, 57(3)*, 425-438.

Schivardi, F., & Viviano, E. (2011). Entry barriers in retail trade. *The Economic Journal, 121(551)*, 145-170.

Schmitz, J. (2020). Monopolies Inflict Great Harm on Low- and Middle-Income Americans. *Federal Reserva Bank of Minneapolis Starr Report, Nº 601*.

Shapiro, C. (2012). Competition and Innovation: Did Arrow Hit the Bull's Eye? En J. Lerner, & S. Stern, *The Rate and Direction of Inventive Activity* (págs. 361-404). University of Chicago Press.

Sharpe, A., & Uguccioni, J. (2017). Decomposing the productivity-wage nexus in selected OECD countries, 1986-2013. *International Productivity Monitor, (32), 25*.

Smuda, F. (2014). Cartel overcharges and the deterrent effect of EU competition law. *Journal of Competition Law and Economics, 10(1)*, 63-86.

Urbano, D., Aparicio, S., & Audretch, D. (2019). Twenty-five years of research on institutions, entrepreneurship, and economic growth: what has been learned? *Small Business Economics, 53*, 21-49.

Urzúa, C. M. (2013). Distributive and regional effects of monopoly power. *Economía Mexicana. Nueva Época, 22(2)*, 279-295.

Vaitilingam, R. (2022). Inflation, market power, and price controls: Views of leading economists. *VoxEU Column*.

Varga, J., & 't Veld, J. (2014). The potential growth impact of structural reforms in the EU. *European Economy. Economic Papers 541 (DG ECFIN, European Comission)*.

Veld, J., Varga, J., & Roeger, W. (2018). The Impact of Structural Reforms in the EU. En P. J. de Haan J., *Structural Reforms.* Springer, Cham.

Verbist, G., Förster, M., & Vaalavuo, M. (2012). The Impact of Publicly Provided Services on the Distribution of Resources: Review of New Results and Methods. *OECD Social, Employment and Migration Working Papers, No. 130*.

Vidales, M. (2022). Así afecta la cultura de la competencia a la economía real. *CNMC blog*.

Wennekers, S., & Thurik, R. (1999). Linking Entrepreneurship and Economic Growth. *Small Business Economics, 13*, 27-56.

Wölfl, A., Wanner, I., Röhn, O., & Nicoletti, G. (2010). Product market regulation: Extending the analysis beyond OECD countries. *Economics department working paper, (799)*.

Zingales, L. (2012). *A capitalism for the people: Recapturing the lost genius of American prosperity.* Basic books.