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# OUT OF POCKET

## How governments fuelled the cost of living crisis

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# Summary


- The current cost-of-living crisis across Europe has been exacerbated by already high prices in various sectors. These sectors are notably those with higher government interventions.
- This paper analyses the tax and regulatory reasons for high price levels across five EU countries: Germany, Italy, Poland, Greece, and Romania. The various chapters outline the reasons for high price levels in various economic sectors and suggest policy solutions for national governments to reduce the burden on citizens.
- The primary burden of price increases is being felt by lower-income households, as these households spend a great portion of their income on everyday products. This may lead to social and political frictions if it remains unaddressed.
- Apart from the inflationary effects of an expansive monetary policy, it is argued that other interventions like regulation and taxation can lead to rising prices in particular industries. The high price levels in many of the sectors cited in the chapters can be attributed to excessive taxation levels, lack of competition, or misguided government policies.
- In several sectors, such as energy, housing, health, and basic consumer goods, the high levels of taxation and/or government regulation have led to additional inflationary pressures.
- The only sector that has seen continuously falling prices is telecommunication and digital services. In this sector, the effects of competition have led to technological progress, lower consumer prices, and better quality products.
- In several analysed countries, excise taxes on energy, tobacco, and alcohol exceed the mandatory lower bound set by the European Union. Countries that have room to reduce such taxes should consider tax reforms.

- Lowering the barriers to trade and competition across all product categories may prove to be the single-most efficient way to bring about a lowering of the general price level.

# Chapter 1: Introduction

***Dr Kristian Niemietz***

In his seminal book, *Capitalism, Socialism and Democracy*, first published in the early 1940s, the Austrian economist, Joseph Schumpeter, explained one of the key characteristics of capitalism:

> *"It is the cheap cloth, the cheap cotton and rayon fabric, boots, motorcars and so on that are the typical achievements of capitalist production, and not as a rule improvements that would mean much to the rich man. Queen Elizabeth owned silk stockings. The capitalist achievement does not typically consist in providing more silk stockings for queens but in bringing them within the reach of factory girls in return for steadily decreasing amounts of effort"* (Schumpeter 2003 [1943]: 67).

Schumpeter's examples and his choice of phrasing may sound a bit dated to us today, but the basic economic argument still stands. One of the greatest strengths of a capitalist economy – and one which even critics of capitalism sometimes grudgingly concede (see, for example, Wilkinson & Pickett [2010: 60]) – is its ability to turn luxury goods into easily available and affordable mass-market products.

This runs counter to the conventional – and fashionable – view of capitalism as a system that primarily benefits the rich, but which has little to offer the "average Joe", let alone the poorest in society. But Schumpeter's view is borne out by the data, and even more so in today than in Schumpeter's days.

Using US figures, Table 1 shows how many hours an average wage-earner has to work to be able to afford common consumer durables (Tupy 2017).

It shows the dramatic improvement in affordability in recent decades, and the figures would look even more impressive if we take into account quality improvements and additional features. For example, in 1979, the average American worker had to work nearly two weeks to be able to afford a TV, whereas today, just over half a day's work will suffice. This is even before we consider the differences between a 1970s television set and a modern flatscreen TV or the explosion in the choice of content.

The exact numbers would, of course, be higher if we looked at, say, wages at the 25th, the 15th, or the bottom percentiles of the wage distribution rather than the average, or, indeed, at a less prosperous economy. However, one could reasonably assume that the trends would be similar.

**Table 1: The "time cost" of durable consumer goods: the ratio of retail prices to average hourly wages, US**

| | 1979 | 2015 |
|---|---|---|
| **Refrigerator** | 75 | 36 |
| **Dishwasher** | 33 | 13 |
| **Gas cooker** | 76 | 27 |
| **Vacuum cleaner** | 15 | 3 |
| **TV** | 70 | 5 |
| **Microwave** | 61 | 3 |

Source: Tupy (2017)

In the UK, as recently as in the late 1990s, only about one in ten households had an internet connection, only about a quarter of all households had a mobile phone, and only a third had a home computer. Today, access to these goods and services is as close to universal as it can realistically get (bearing in mind that there will always be some households who, affordability aside, simply have no interest in or need for them).

**Table 2: Percentage of UK households with durable consumer goods**

| | 1998 | 2017 |
|---|---|---|
| **Internet connection** | 10% | 89% |
| **Mobile phone** | 27% | 95% |
| **Home computer** | 33% | 88% |
| **Dishwasher** | 23% | 49% |
| **Microwave** | 79% | 93% |
| **Washing machine** | 92% | 98% |

Source: ONS (2019)

I last wrote about this process just over a decade ago (Niemietz 2011; 2012), and it is instructive to note that technological progress since then has been so rapid that at least two of the examples I had mentioned back then sound almost quaint today: DVD players and digital cameras.

DVD players were considered an upmarket, high-tech product when they were first launched in the late 1990s. By 2003, a third of all UK households had a DVD player, and by the end of that decade, they had become so cheap that nine out of ten households had one (ONS 2019). Since then, ownership rates have been falling, as streaming services have rendered DVDs obsolete.

Digital cameras went through a similar life cycle process, starting out as luxury goods in the 1990s, and then quickly turning into a mass-market product in the 2000s. Today, they have been rendered almost obsolete by the equally rapid spread of a product that I had not bothered to mention in 2011 or 2012: smartphones with integrated cameras. In the 2008 US presidential election, media reports frequently mentioned the fact that Barack Obama used a BlackBerry device, since this was considered the height of tech-savviness at the time. By the time Obama left office, two-thirds of the UK population had a smartphone (Statista n.d.).

When supporters of capitalism talk about its potential for innovation, they usually emphasise "product innovations", that is, technological breakthroughs that enable us to do things that were previously considered impossible. But they arguably undersell capitalism's equally important potential for "process innovation", that is, innovations that slash production costs and

timelines. Process innovations are quintessentially capitalist. They require a market discovery process, entrepreneurship, competition, and consumer choice. It is process innovations that enable capitalism to work in favour of the least well-off in society. Thus, market-friendly, liberal economic policies are not just a way to improve overall economic efficiency, but they are also an effective weapon in the fight against poverty (Niemietz 2011: 142–146, 194–198; Niemietz 2012).

This raises an important question: if capitalist economies are so good at slashing costs and making goods and services widely available, why are we talking about a "cost-of-living crisis" today? Why do so many people struggle to pay their bills?

Exceptional one-off factors aside, capitalism's pro-poor, price-slashing effects can be realised only to the extent allowed by governments. And governments usually obstruct this process in numerous ways. If reduced prices through greater competition can be realised in some sectors but not others, then this is because governments allow the market to operate relatively freely in some sectors and not others.

There is a long history of governmental policies driving up consumer prices through fiscal and regulatory measures. What this means in practice differs from era to era, country to country, and in more federalised systems, region to region.

The chapters in this paper explain how the governments of five EU member states –Italy, Germany, Greece, Poland, and Romania – have needlessly driven up the cost of living, making life harder for their citizens.

Without wishing to pre-empt any of the authors' arguments, a few general observations are in order at this stage. The reader will immediately notice that the authors differ hugely in terms of the sectors and policies they focus on. This is not a coincidence. It is a reflection of the fact that while all governments inflate living costs in some ways, they do so in radically different ways.

This, in itself, shows us that the problems we are talking about here cannot be problems of "capitalism". If they were, we would see a lot more commonalities, as the same problems would keep popping up in country after country. We would see different authors converging on the same themes, even if they start from various places. We would see a lot of

overlap between the various chapters and see differences only in emphasis rather than substance.

But that is not at all what we observe. What we observe is the exact opposite: sectors that take centre-stage in some chapters barely get a mention in others; issues that attract one author's ire pass others by.

Socialist economies all fail in similar ways, but the problems we observe in capitalist economies are usually highly specific to particular countries/regions, time periods, or industries (Niemietz 2021: 263–264). This is because these problems are not intrinsic to capitalism. They are the result of identifiable policy choices, which can be changed.

Governments that enact policies that drive up the cost of living do so for a variety of reasons. One reason is old-fashioned clientele politics driven by economic self-interest. Policymakers often erect market entry barriers to protect well-established incumbents from competition. This can make sense politically. The cost of such policies is indirect and widely dispersed among a heterogeneous group that is hard to organise politically: consumers. The gains, on the other hand, are more tangible and concentrated among a more homogeneous group that finds it easier to campaign for specific legislative changes (for example, by setting up a lobby group). Licensing laws and trade barriers (such as tariffs, quotas, and regulatory hurdles) usually fall in this category.

In other areas, the motivation is ideological. Nanny-statist legislation, for example, is based on the paternalistic belief that, left to their own devices, too many people would consume harmful products too frequently. The opposition to the use of genetically modified organisms (GMO) in agriculture, and the hydraulic fracturing ("fracking") of shale gas, are based on the environmentalist belief that it is "sinful" to interfere with "mother nature". This can be combined with excessive caution and risk aversion, which, while legitimate as an individual attitude, becomes a problem when it is imposed on everyone.

In yet other areas, the reason is simple inertia. As the chapter on Germany makes clear, the senate of Berlin does not intentionally *try* to restrict residential development. But neither does it show much of an interest in issuing planning permits, and that remains the ultimate bottleneck, since developers cannot build without them.

Then, we have policy areas where governments just go along with the current fashion. They may promote specific technologies, such as renewable energy, because they promise a positive social image (in this case, green credentials), even if they are not what consumers would have chosen in an undisturbed market environment.

Quite often, a mix of factors is at play. Nanny-statism and environmentalism may be ideologically motivated, but they do not necessarily reflect the ideology of the governing party; rather, they are the ideologies of highly motivated pressure groups. These may act like conventional lobby groups, except that they have no financial interest in a particular policy outcome: they are ideological interest groups rather than economic ones.

One of the most powerful forces in UK politics is NIMBYism, the resistance to housebuilding. This is best thought of as a mix of economic self-interest and ideological opposition to social change, backed up by inertia.

In short, there are significant variations in the policies governments adopt to drive up the cost of living and in their motivations for doing so. It is best to leave the details to the individual authors. But the point is that, when we talk about the cost-of-living crisis today, we are not just talking about consumer price index inflation. Nor are we just talking about the one-off effects of extreme global events, such as the pandemic and its after-effects, or the war in Ukraine. We are also talking about longer-term policy issues. We are talking about government policies that systematically inflate the cost of living in ways that disproportionately affect the poorest. In doing so, they deprive capitalism of one of its most beneficial effects, which is its proven potential to make goods and services more easily available and affordable to everyone. If governments want to help their poorest citizens, they should start with the tried-and-tested mantra of “first, do no harm”.

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# Chapter 2: Germany

***Nick Stieghorst***

- This chapter finds that prices in Germany have risen by 31 index points since 2000, and that the prices of individual goods and service categories, like housing, energy, food, alcoholic beverages and tobacco, have also increased at the same time, but to varying degrees.
- The primary burden of these price increases is being felt by lower-income households, as these households spend a great portion of their income on such products.
- Apart from the inflationary effects of an expansive monetary policy, it has been argued that other interventions like regulation and taxation can lead to rising prices in particular industries as well.
- It is apparent that policies to promote other social goals inhibit the responsiveness of the market to conditions of high demand, resulting in rising consumer prices.
- In the housing sector, it is predominantly the regulation of land use, which restricts the use and conversion of land for constructing living spaces, which inhibits the responsiveness of the supply side.
- In the energy sector, a mainly politically envisioned structure of the industry is enforced via significant interventions, which on the one hand do not follow principles of economic efficiency, and on the other, are not guaranteed to achieve political goals.
- In the agricultural sector, other uses for existing farmland take precedence over agricultural production, while at the same time, more intensive use of the existing farmland via the use of more fertilisers or more productive crops is prohibited.

- The burden of taxation on tobacco products, which makes up the greatest share of consumer prices in this sector, is being felt predominantly by lower socio-economic groups.
- The only sector that has seen continuously falling price levels is telecommunication and digital services. In this sector, the effects of competition have led to technological progress, lower consumer prices, and better-quality products.

### *2.1 Introduction*

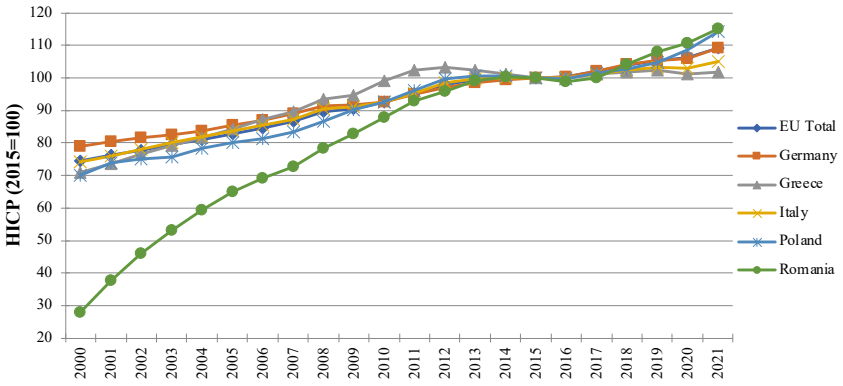
Over the last two and a half years, several crises have confronted the world. As a result of the COVID-19 pandemic and the ensuing war in Ukraine, the global population has become poorer, not excluding Western consumers. Rising prices and inflation have once again become a primary subject of the political discourse. The most recent publications by the German Bundesstatistikamt (Destatis 2022a) estimate the year-on-year (YoY) rise in the Harmonised Index of Consumer Prices (HICP) for the month of April 2022 to be about 7.8 per cent, which marks a climax since the 1980s. However, rising price level cannot only be seen since these last crises but are a commonly observable fact in economic history. Therefore, the phenomenon of rising prices cannot be attributed to individual crises alone but presents itself as the result of a diverse set of economic processes. This work does not claim to extend the field of economics theoretically but will, instead, attempt to trace potential causes for increasing price levels in various state activities like regulation and taxation.

A reduction of real incomes, as the difference between nominal income and consumer prices, will affect any citizen, yet the main focus of this work will be the effect of rising price levels upon lower income groups. It is assumed here, and justified later, that high price levels will affect the less well-off in our society much more than higher-income groups and the wealthy. Therefore, this work will mainly concern itself with those expenditures that are most relevant to the lower-income groups of our society, such as the costs of residence, energy, food, clothing, communication, and tobacco and alcohol. As will become clear, in all those areas various state activities can be traced that will have contributed to rising consumer prices. This work demonstrates that state activities which interfere with the working of the market economy come at a cost especially for lower-income groups of society which are often neglected in the public debate which focuses primarily on the desirability of intervention.

### *2.2 The Harmonised Index of Consumer Prices (HICP)*

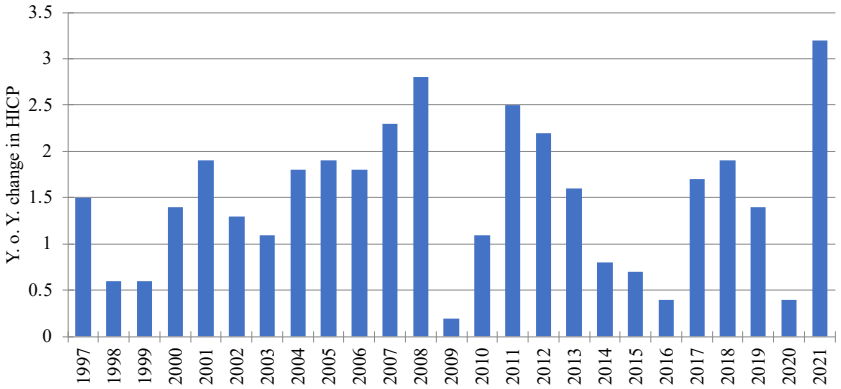
In Figure 1, we see the change in the HICP for all countries of this study as well as the European Union (EU) as a whole. The year 2015 is the base year of the index with a value of 100. It is observable that the HICP has risen over the whole period for all countries and the EU. The changes in the HCPI for Germany seemingly go in parallel with those of the EU, and it was estimated at 109.2 for 2020. From the years 2000 to 2021 the HICP for Germany rose by 31 index points. Since 2015, the index for Germany has increased greater than the HCPI for Greece and Italy, but less than the index for Poland and Romania.

**Figure 2.1: HCPI for all project countries (Eurostat 2022)**



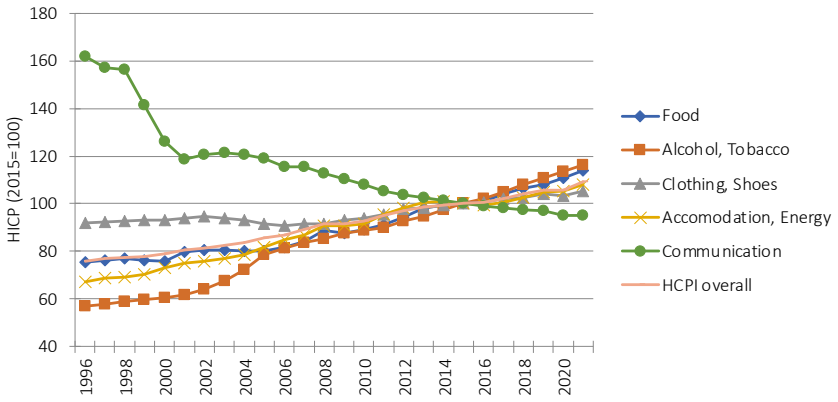

Observing Figure 2 – which shows the single YoY changes in per cent of the HCPI for Germany – we see that the last decade, especially the years 2011–13 and 2017–19, were marked by comparably strong rises in the HICP. Also, the most significant increases can be seen in the year 2021, which may, among other things, be attributed to the macroeconomic and political implications of the COVID-19 pandemic. From Figures 1 and 2 it can be concluded that for short to medium time frames, rising price levels are seemingly a normal occurrence in Western European countries. Also, over the short term, variations in the rate of change appear to be the norm.

**Figure 2.2: Year-on-year change of the HICP for Germany (Destatis 2022b)**




The HICP is an index that is composed of a great variety of goods and different classes of goods. Therefore, from looking at the overarching Index, as has been done in Figures 1 and 2, we only conclusions regarding the absolute macro sphere of the economy can be drawn. As is observable in in Figure 3, changes in price indices for specific classes of goods can barely be derived by looking at the overarching index only. For more specific statements regarding the changes in prices for various goods categories a closer look into sub-indices must be taken. All the goods categories depicted in Figure 3 have experienced at least moderate increases in their indices over the period depicted here, except for the field of communication. The greatest increases can be seen in the category of alcohol and tobacco, while the smallest increases are seen in textiles and clothing. The deeper analytical section of this work will yet again take a closer look into these individual sub-indices So far, another empirical fact can be established, namely that prices for different goods categories do not change uniformly over time but show great divergences. As will become clear in the following section, this fact is important for the analysis of the impacts of rising price levels for different consumer groups.

**Figure 2.3: Components of the HICP (Destatis 2022c)**




### *2.3 Implications of rising price levels*

The observations made in the preceding part of this work, that prices rise for different goods and time-periods in varying degrees raises the question of the implications from this established fact. In modern macroeconomics the implications of rising price levels hinge on the expectations of economic agents regarding the development of future prices. If one were to assume that economic agents can perfectly anticipate and foresee all relevant price level changes, they could integrate this information into their own economic plans and actions in the present, and thereby mitigate some of their effects. A real problem arises when the expectations of the economic agents are not met. Then, the economic plans of individuals in the present will show a misallocation of resources regarding decisions such as optimal levels of consumption and savings or the choice of investments. Due to such a misallocation, the individual's economic situation and thereby the individual's well-being will be inferior to what was anticipated when the plans were made initially. A systematic misallocation of resources across the whole economy may further result in lower growth-rates, which leads to further problems that will in turn reflect back on the individual economic agent. When incomes cannot rise in the same way as prices do, real income losses will arise, which must result in lower demand and consumption, which in turn may result in further economic fluctuations Lasting problems for an economy arise when periods of unmet expectations solidify and general uncertainty regarding the future becomes prevalent, whereby, longer-term economic planning gets exceedingly difficult (Romer 2012). At its core, lasting periods of wrongly anticipated changes in the

price level will generate a disadvantageous economic environment, which, in the first instance, directly hurts the individual; and as a second-order effect, makes efficient economic planning for the individual exceedingly difficult (Alchian 2006 [1976]).

In parallel to these efficiency problems, rising price levels cause effects on the distribution of incomes and wealth. In the first place, people with nominally fixed incomes will not be able to react to rising price levels in the short to mid-term, and will, therefore, suffer real income losses. Also, Individuals generally differ regarding their consumption preferences; and those individuals who prefer goods that experience the strongest rises in prices will be worse off than others in terms of their well-being (Fry and Paschardes 1985). Furthermore, the burden of rising prices increases when the substitutability of those goods is low. If a household cannot do without a good whose price rises strongly, they will not be able to circumvent those higher prices, which in turn means that a greater portion of their income or wealth must be given up in return for those goods. The nomenclature of classes of goods which fall into this category is always somewhat arbitrary, but generally, such a list would include necessities like accommodation, food and drink, clothing, and some source of energy or heating. People on the lower side of income and wealth distribution will suffer the most from increases in the prices of such goods as they naturally spend a big portion of their financial means on such necessities of life and do not have a lot of liquid savings to bridge bad times.

If one looks at the data from the ‘Ongoing economic calculation of incomes and expenditure of private households by net-income-class’ (Destatis 2020), it can be seen that the lowest-income groups, especially, will spend the greatest portion of their monthly available financial means on consumption. Even an average household with a net income of €3100 will still spend 75 per cent of it on consumption. For even-lower income groups, this share rises from over 83 per cent to 90 per cent. The lowest-income group, with an average net income of €891, will spend an average of above 100 per cent of this income on consumption.

Table 1 further provides a picture of how different income groups spend their financial means in Germany. First, one notices that with an increasing income, the absolute expenditure on consumption increases in all categories. Based on the shares of the various categories on total expenditure, it is observable that ‘accommodation, energy, and housing maintenance make up the greatest share of the total expenditure over all

income groups. Yet, this share drops with rising-income groups from almost 50 per cent in the lowest-income group to 31 per cent in the highest-income group. For the lowest-income groups, the next biggest share with 19 per cent of total expenditure is the category of food, drinks, and tobacco. Even in relatively high-income groups, the combined share taken up by these two categories is greater than 60 per cent and in lower-income groups it is even greater. From this, it is concluded here that, up to a certain level of consumption, expenditures for these goods and services have a high priority and therefore a a very low substitutability.

From these observations it can be followed that the lower-income groups would be especially hurt by increases in the price levels in the categories of accommodation energy and food, while increases in the price levels of health, transportation, and communication would have relatively fewer implications for their well-being. Yet, the relatively low shares of total expenditure on the latter categories could be interpreted as if the expenditure for these goods had already reached a possible lower bound. This would be because some expenditures on health or transportation could simply not be avoided by individuals, for example, in the case of a heavy illness or even just transportation to grocery stores or work. If the lower-income groups had scaled down their expenditures in these categories to such a necessary minimum, then, increases in the costs for these activities could also hardly be circumvented and substituted. The rising costs would have to be incurred in any case by the lowering of expenditure in other areas, which would, in turn, lead to sharp decreases in personal well-being. As a conclusion to this section, it should be noted, that especially, the expenditures on food, drinks, and tobacco and on accommodation, energy, and housing maintenance are exceedingly relevant for low-income groups and will therefore be looked at in detail in the following analysis

**Table 2.1: Income and expenditure on consumption by household income (Data: Destatis 2020, Author's Analysis)**

| Household type by income | Less than €1300 | €1300–1700 | €1700–2600 | €2600–3600 | €3600–5000 | More than €5000 |
|---|---|---|---|---|---|---|
| **Gross income** | 1052 | 1769 | 2672 | 3886 | 5549 | 9954 |
| **Net income** | 891 | 1500 | 2145 | 3073 | 4235 | 7364 |
| **Consumption expenditure** | 1000 | 1393 | 1786 | 2311 | 2940 | 4338 |
| **Share of consumption on gross income** | 0.95057 | 0.78745 | 0.66841 | 0.5947 | 0.52983 | 0.4358 |
| **Food, drinks, tobacco** | 189 | 252 | 300 | 373 | 459 | 594 |
| **(share on exp.)** | 0.189 | 0.1809 | 0.16797 | 0.1614 | 0.15612 | 0.13693 |
| **Clothing, shoes** | 29 | 47 | 62 | 85 | 112 | 168 |
| **(share on exp.)** | 0.029 | 0.03374 | 0.03471 | 0.03678 | 0.0381 | 0.03873 |
| **Housing, energy, maintenance** | 497 | 604 | 736 | 913 | 1085 | 1365 |
| **(share on exp.)** | 0.497 | 0.4336 | 0.41209 | 0.39507 | 0.36905 | 0.31466 |
| **Health** | 24 | 35 | 53 | 80 | 116 | 248 |
| **(share on exp.)** | 0.024 | 0.02513 | 0.02968 | 0.03462 | 0.03946 | 0.05717 |
| **Transportation** | 50 | 137 | 189 | 262 | 382 | 692 |
| **(share on exp.)** | 0.05 | 0.09835 | 0.10582 | 0.11337 | 0.12993 | 0.15952 |
| **Postal services, communication** | 37 | 50 | 57 | 69 | 77 | 94 |
| **(share on exp.)** | 0.037 | 0.03589 | 0.03191 | 0.02986 | 0.02619 | 0.02167 |
| **Leisure, entertainment, culture** | 65 | 108 | 157 | 211 | 266 | 473 |
| **(share on exp.)** | 0.065 | 0.07753 | 0.08791 | 0.0913 | 0.09048 | 0.10904 |

### *2.4 Causes of rising price levels*

The consensus in contemporary mainstream macroeconomics is, that inflation, defined as an ongoing rise in the overall price level, is related to monetary policy and the expansion of the money supply (Romer 2012). Yet, increasing prices in the short-to medium-time frames may be attributed to other factors as well. This work is concerned with general state activities, apart from monetary policy, which may have led to increasing consumer prices in single categories, therefore the general economic intuition behind such a conclusion should be laid out.

Interventions in the working of the market are phenomena in today's western welfare states and are usually undertaken with the idea to accomplish political and social goals. When looking at interventions one may distinguish them by the degree to which they interfere with the market outcome. Strong interventions directly prescribe a specific end state while more open interventions may merely try to exclude those end states that are deemed socially undesirable. As will become clear later in the paper, the tools employed by the executive branch to achieve its goals are very diverse and range from taxation and subsidies to more direct forms of intervention by means of formulating standards in production technologies or by directly deciding the produced quantities and prices in different sectors.

How do such practices translate into rising consumer prices? Regarding this question, methods of taxation are the most obvious. By taxing a good, the state can directly influence consumer prices. It is important to note here that the influence on consumer prices before and after a tax is introduced is rarely 100 per cent of what the introduced tax prescribes because of the adaption of the demand and supply sides of the market. The resulting market price in response to a tax will be determined by the ease with which either side of the market can avoid paying the tax via substituting the taxed product with a non-taxed product. More specifically, the price elasticities of demand and supply will influence how much of a tax will be passed on by the producers onto consumers, and the side with the lower elasticity –that is, substitution potential– will bear the greater burden of the tax (Musgrave et al. 1993). For example, a tax on every food product cannot be avoided by consumers and it should therefore be expected that consumer prices rise strongly, while a tax on an individual food item can and will be easily avoided by most consumers by simply buying another item that is not taxed. In the latter scenario, we should not expect consumer prices to increase by much.

How other state activities influence prices is less straightforward. Specifically, regulation in the way producers act will lead to changes in consumer prices because firms must adapt their behaviour to the new regulatory environment. Under the assumption that competition forces firms to operate under efficient methods of production initially–namely, those that entail the least costs– it can be followed that forced changes in the way they produce will lead to higher costs of production. If this were not the case, then, incentives would have existed initially to switch to this behaviour. The way these costs would be passed on to consumers will, again, as in the case of the tax, depend on the elasticities of both sides of the market. The way interventions that directly mandate quantities or prices influence market outcomes may be self-evident. Other activities like mandatory licenses to be able to produce in a market could be seen as artificial barriers to market entry and thereby limit competition in a sector, which would, in turn, also result in higher prices.

From this small sketch, it can be stated that the state has various means at its disposal to achieve social goals and it will be evident that all of these tools are employed in different industries. Yet, from a consumer perspective, they all entail costs that lead to higher prices in one way or another.

### *2.5 Analysis*

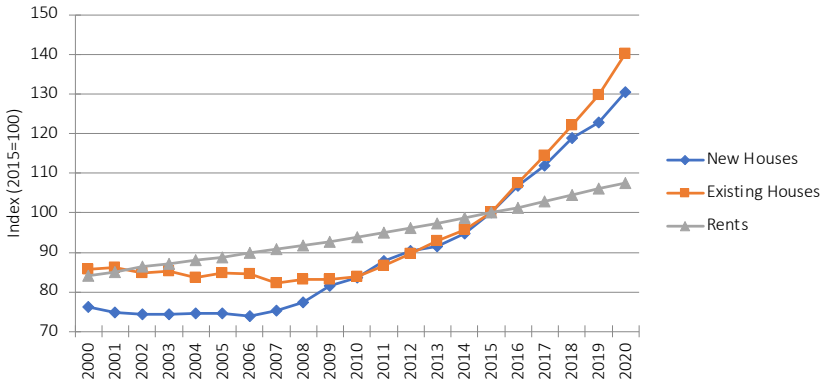
In this main section, a look at the price level changes in individual product and consumption categories will be taken and the regulatory and fiscal environment within them will be traced to show how state activities may have contributed to rising consumer prices. A special focus will be set on those categories that make up the greatest share of the total expenditures of households in the lower-income groups, which are–as we have seen earlier–mainly housing, energy, food, alcohol, and tobacco. Also, we will briefly look at the branches of clothing and communication–which is peculiar in that it is the single sector which has substantially lowered consumer prices.

#### *2.5.a Housing*

As could be seen in Figure 3, the part of the HICP that comprises housing, maintenance, water, and energy supply has risen from an index value of 67 in 1996 to an index value of 108 in 2021. Also, this branch takes up more than 50 per cent of the consumption expenditure of the lowest-income

households. These two facts explain the relevance that housing and accommodation play in the German political debate. This first section will deal specifically with housing, while in the next section deals with the energy and power supply of households.

**Figure 2.4: Rent and housing price indices (Destatis 2022c and 2022d)**




Based on Figure 4, one can say from the outset that prices for real estate and the use of real estate via renting have increased over the whole period looked at. While the rent index (Destatis 2022c) shows almost linear increases over the entire period from 2000 to 2020, the prices for new and existing houses (Destatis 2022d) were stable in the 2000s and started to increase substantially since What must be noted concerning these indices is that they are measuring the average for the whole of Germany and that regional differences are not perfectly captured in them and that the prices of immobile goods will be very strongly determined by regional differences in demand and supply conditions. We may, therefore, observe very strong differentials in the prices for housing in different regions, which, for other, more-mobile goods would be ameliorated by the movement of some of the goods from the lower- to the higher-price regions. Financial capital and investments on the other hand can be assumed to be very mobile and employed where its returns are expected to be the highest. The important question will then be why such high prices, which at the same time would imply extraordinary profits compared to other investment options, do not lead to changes in the supply for housing that would counteract the increase in prices.

A natural starting point to analyse why the supply for a good may not react to its demand are the important factors of production. Hence the first look undertaken here will be regarding the land available for building residential flats and apartments. As building regulation is handled by local authorities in Germany, a look on the whole country is not feasible. Instead, the State of Berlin will serve as a prominent and (albeit extreme) example on which the effects of land use regulation on the supply of housing space and therefore house prices and rents can be illustrated. The result of the analysis may be generalised to other parts of Germany with their respective regulatory environments.

**Table 2.2: Land prices and sold quantities in Berlin and Germany (Destatis 2022e, Authors analysis)**

| Year | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Germany (total)** | | | | | | | | | | | |
| **Number of purchases** | 60767 | 62249 | 65647 | 61511 | 62496 | 64572 | 66351 | 62503 | 60574 | 60404 | 61523 |
| **Sold area (1000 sqm)** | 46730 | 48963 | 53693 | 51159 | 51431 | 56678 | 59201 | 56556 | 53969 | 54080 | 55837 |
| **Average price (EUR / sqm)** | 152.51 | 145.33 | 141.91 | 150.96 | 161.6 | 162.49 | 182.61 | 208.86 | 219.03 | 224.95 | 233.77 |
| **Berlin** | | | | | | | | | | | |
| **Number of purchases** | 1579 | 1705 | 1369 | 1292 | 962 | 929 | 901 | 783 | 783 | 725 | 728 |
| **Sold area (1000 sqm)** | 1726 | 1788 | 1546 | 1846 | 1316 | 1236 | 1583 | 1061 | 900 | 738 | 696 |
| **Average price (EUR / sqm)** | 207.04 | 229.74 | 213.65 | 262.7 | 331.91 | 453.86 | 392.86 | 785.19 | 1135.38 | 1097.69 | 721.39 |

As seen in Table 2, the price for building land has increased in Germany as a whole and Berlin in particular over the last decade. While for Germany this increased price for building land also goes along with an increased quantity of building land sold, the quantity of building land sold in Berlin falls. Since usually an increase in prices would be expected to go along with a higher trade volume, one must conclude that the market for building land in Berlin cannot function properly, potentially due to restrictions on its supply. Even if the total land in a given area is naturally limited, the land available for building purposes only makes up a subset of this total area. Up to this upper boundary a conversion of land from other purposes to building houses and apartments should be possible. Therefore, the more appropriate question is about in what way the existing stock of land could be converted into land upon which accommodations can be built. In Germany, this question lies in the hands of the regional authorities who could, if they were determined to do so, make as much land available for building as possible. If we look at the zoning plan for Berlin (Berliner Senatsverwaltung 2020), we can see that Berlin is far from a homogeneous area on which the existing land has been used to build dwellings. Even in the core of the city, there exist numerous areas in which building could be generally possible. In the statistic of the actual land usage by state (Destatis 2022f), we find that the areas designated 'building area for housing purposes' make up almost 25 per cent of the total area of Berlin and have increased only by 2.3 per cent from 2016 to 2020; while all the areas deemed 'settlements' make up 55 per cent and have increased by less than 1 per cent in the same time frame. This observation is also confirmed in the official reports of the zoning plans (Berliner Senatsverwaltung 2021). Here, it becomes evident that very limited areas have been made available by the local authorities, while the planning horizon stretches distantly into the future, with some areas being planned to be built upon in the later parts of this decade. The availability of land upon which houses could be built is, therefore, actively politically restricted and we can learn from the same official reports to the zoning plans that the decision to designate an area to be built upon depends on a myriad of factors, most of which are not related to the economic viability of housing in said areas.

The guidelines of town development found in the report to the zoning plan (Berliner Senatsverwaltung 2020) state other political goals as the core concerns that influence decisions regarding where to build, namely, concerns over environmental protection, social justice, and the interests of the current population. If building is a political matter, and when political goals that are connected to it are deemed to be more important than

building new homes itself, it is hardly surprising that the supply side of the market is unable to counter the rise in prices for real estate and rents. The Berlin government itself states that other political goals – and the regulations which resulted from these – pose a significant obstacle to the timely development of new housing. They state explicitly that planning authorities are overwhelmed by the amount and complexity of the mandatory building applications and therefore, there exist substantial delays in the process of building (Berliner Senat 2021). Thus, in the Berlin housing situation, we witness results of over-boarding and ever-increasing regulatory requirements that come up due to many and oftentimes conflicting political goals in combination with an administration that slowly grew incapable of handling the requirements set by its legislature. The political and administrative body has become a needle eye through which the market is substantially constrained and has become unable to react to a situation of rising demand and scarcity. Rising consumer prices are the natural consequence of such a situation.

The building industry is not only regulated locally, but also at the federal level. Here, the building industry has been designated as an important industry in which efforts have to be undertaken to fight climate change and is regulated accordingly. To achieve the goals set for this sector, in terms of emission reduction and energy efficiency, the federal government has proceeded to regulate building methods and subsidise specific types of buildings (Bundesregierung 2019). Without questioning the relevance of the general need to cut emissions, a glance at the effect and applicability of the political instruments used seems important.

Under usual market conditions, we would expect subsidies to lead to an increase in the quantity of a good that is supplied to markets at lower prices. Yet, the effect of the subsidy must be looked upon in the environment present in the building and housing markets. First, if the subsidised building methods are more expensive than the initial building methods, a clear effect on average housing prices cannot be given. We would have to look at the market for both types of buildings, subsidised and non-subsidised, and may find that the amount of subsidised – yet typically more expensive – buildings increases. If this effect was prevalent, we would not necessarily expect a decrease in average housing prices. Then, due to a subsidy of a final product, we may see prices for inputs in the upstream value chain increase whereby the general costs of production may increase themselves further. What we find when looking at the building cost indices by the German Statistical Office is that costs for building materials and even

more so for labour in the construction sector have increased over the last 20 years and from 2015 to 2021 by 19 per cent alone (Destatis 2022g). The degree to which demand for these essential inputs induced by downstream subsidies of buildings has played a role here cannot be stated with certainty. However, it is evident that an increase in the costs of essential inputs exists, which one should expect to be reflected in consumer prices. Lastly, the subsidy must also be seen in the light of the overarching regulatory environment depicted earlier, which essentially seems to disallow substantial increases in the housing stock. When we embed a subsidy in this environment and sum to it the other findings, we should not expect price decreases, but only greater shares of more expensive houses built with increasingly expensive inputs – whether they are material, labour, or land. In such an environment, rents and housing prices should not be expected to fall, but mainly rise, as initially evidenced in this section.

The importance of the expenditures in the category of accommodation, especially for lower-income groups, has been pointed out, and the political system is not oblivious to them either. Yet, natural solutions to the problem are secluded by local regulatory environments. In response to this, the federal government has enabled local authorities to intervene even more directly in the markets by the so-called 'rent-break',[1] which allows local authorities to limit increases in market prices. Thus, we witness in the housing sector an exemplary case of how the combination of the prevailing social, political, and economic forces operating in an already highly regulated market generate a multitude of problems which, in turn, demanded an even more severe interference in the market by the state. We will shortly depict what the rent-break is and what economic effects can be expected from it.

The rent-break is characterised by Mense et al. (2018) as a rent regulation of the second generation. As such, it is not an overall price regulation but divides a municipality into regions and types of buildings that are regulated differently. In regions where the rent-break applies, the progression of rent is limited by a maximum of 10 per cent of the former rent contract, and if the rent lies substantially above an average level, the rent cannot increase at all. The rent-break is designated to apply to older buildings only, while the rents for houses built after 2014 and apartments renovated for at least one-third of the price of building a new comparable apartment are generally free. From the design of this regulation, Mense et al. (2018) expect

1 In German: Mietpreisbremse

investments into new buildings and renovation activity as incentives are thought to still exist in these segments. At the same time, one may also expect a decrease in the maintenance activity on existing apartments as usual maintenance does not account for one-third of the costs of building a new apartment. Thereby, one would expect a lower quality of the older housing stock. In the long term, one may expect a rolling-over of the existing housing stock into a newer one.

Empirically, Mense et al. (2018) find that rents in regulated buildings rise slower than in unregulated buildings. They also observed an increase in the rents just before the regulation was enacted. They follow from this those landlords pulled rent increases which would have occurred in the future, forward, whereby the effect of the rent control is somewhat offset. They also find a negative effect on the maintenance of the existing housing stock, as could be expected; and they find an increase in demolitions of older buildings in the regulated area, which could, in principle, have implications for the stock of housing in the short term, but which they generally do not deem to be a substantial effect.

As we have done with subsidies, to analyse the effect of this regulation on building new houses, we must put it into the regulatory framework. Again, incentives for investors to build new houses and apartments are left open. Yet, as we described prior, the regulatory framework as it exists does not allow for substantial increases in the supply of homes by building. Therefore, we should not expect the existence of the rent-break to substantially alter the calculus in these regards. An increase in the quantity above what is politically permitted is simply not possible. What the rent-break does in this environment is solely to lower the quality of the existing building stock; and when seen in combination with the subsidy we described earlier, to further enhance the share of more costly buildings within an existing building stock. The rents in the then-unregulated buildings can be expected to be even higher.

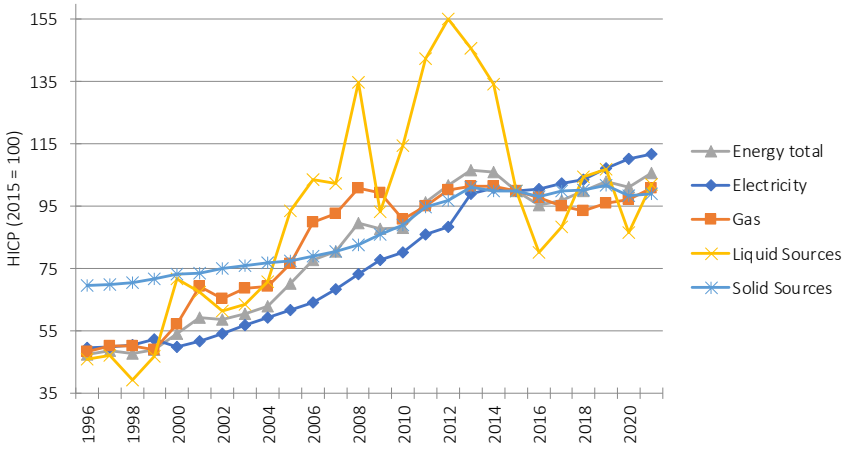
To sum up this section on housing, we can state that unless it is a political priority to not inhibit the building of new houses due to other goals and associated regulations, the building of new living space will not happen. As of today, the regulatory environment as it exists simply does not permit a reaction of the supply side of the market and therefore prices cannot be expected to fall, but more likely to rise further in popular areas. Subsequent activities like subsidies for certain types of houses will not lead to an increase in the housing stock as well. Under conditions of generally rising

input prices, we can expect that the few houses that are being built will reflect the rising costs and scarcity in their prices as well. Further measures such as rent controls appear to be a logical consequence of a social problem, yet one that will also not be able to fix the underlying problems in the long run; but rather, lead to a depreciation of the existing housing stock. Then, even under officially regulated prices, a certain propensity exists in markets to always find ways to bring together consumers and suppliers willing to make arrangements by which the 'real prices' are paid, simply in other ways. Soon, those consumers will have a lower quality product at their hands for which they pay very high prices.

### *2.5.b Energy*

The energy sector, especially for electricity and gas, are the second major expenditure class in the category of accommodation, maintenance and energy. The HICP in this part of the expenditure category has risen since 1,996 from a value of 47.5 to 102.9 in 2019 and 105.7 in 2021. In 2020, the average price for a kilowatt-hour (Kwh) of electricity was ¢45 and the average price for a kWh of gas was roughly ¢6.

**Figure 2.5: Prices for energy sources(Destatis 2022c)**




Energy expenditure is comprised of expenditures like electricity, gas, and other sources like oil. The total index underlies smaller fluctuations, while liquid energy sources, in particular, show extreme fluctuations which influence the overall index. The energy sector is itself an important factor

of production, and price changes in it can be assumed to be passed on to products and consumers along the value chain. Thereby, prices in energy sources will also influence the overall price level in an economy.

Germany itself is not a substantial natural gas- or oil-producing country and is therefore dependent on imports and world market prices. Local supply reactions to rising oil prices are excluded due to the geological conditions in Germany, while a low-cost production of natural gas via the method of fracking is being banned due to environmental concerns. Therefore, local supply reactions cannot be expected either. The determination of countries from which oil and gas can be imported underlies political scrutiny. An increase in the supply of these resources would thus be possible if the countries from which these resources could be obtained were extended. Yet, a general decoupling from world market prices should also not be expected as a result of such measures.

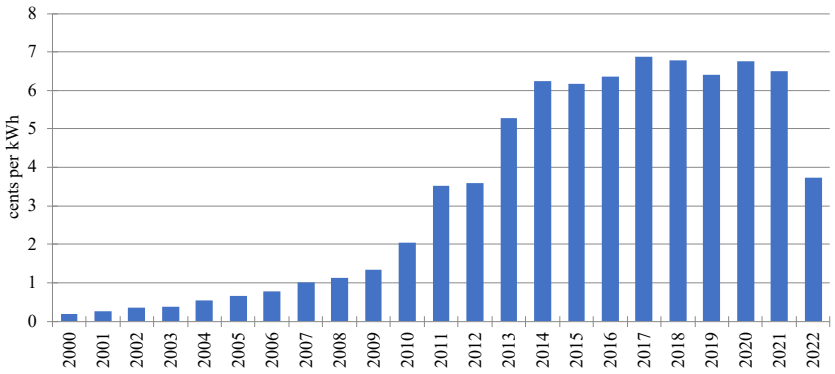
Furthermore, German politics has deemed the energy sector to be a core industry in which efforts will be undertaken to curb CO2 emissions. The externality of CO2 emissions is regulated Europe-wide via the European Union Emissions Trading System (EUETS) and supplemented by a further national emissions trading system. The rising prices of carbon emissions are intended to generate incentives for the private sector to substitute carbon-heavy production technologies with low-emission technologies. Rising prices for emission-heavy products are therefore politically intended. Emissions trading systems by themselves are open in what economic structure and processes result, yet the national economic policy in Germany also intervenes much deeper and more explicit than the EUETS would demand. Natural gas, especially, plays a core role in the political goals of the FRG as it has been deemed the main fossil fuel upon which the main supply of energy and heating shall rest until the German economy is restructured as completely carbon-free (Bundesregierung 2019). In 2021, natural gas is already the second most important fossil fuel in electricity production after coal and the most important in heating. As a result of such a one-sided policy, we may experience further positive demand shifts for natural gas in Germany, which, naturally, are accompanied by price increases for consumers.

In contrast to the primary energy sources, we do not find the price of electricity to fluctuate substantially but rise more steadily. The German electricity market was liberalised in the 1990s, and since then, consumers are not bound by a single supplier. Also, the production of energy, operation

of the energy network, and distribution have been vertically disentangled, which made competition in energy markets possible. Yet, as a general part of the energy sector, electricity production has become heavily regulated regarding general environmental and climate policies. The deepest intervention in this market can be said to be the exit from nuclear production of electricity in 2011 and the exit from the production of electricity via coal in 2019. In the year 2011, seventeen nuclear reactors were running in Germany, of which, in the same year, eight were shut down. In the subsequent years, three more reactors were shut down. By the end of 2021, another three reactors were shut down and the remaining three will be shut down by the end of 2022, thereby finalising the exit from nuclear power production in Germany. Over the course of this exit, the share of nuclear energy in the German power mix decreased accordingly, while at the same time, we experienced increases in the price of electricity.

Alongside these two major interventions, the federal government heavily subsidises renewable energy sources, mainly wind and solar. The subsidies have been enacted by the 'Renewable Energy Act' (REA),[2] which to a certain share is directly financed by final consumers via the so-called 'Renewable Energy Contribution' (REC).[3]

**Figure 2.6: Renewable energy contribution (Burger, Mayer 2014 & Netztransparenz.de)**




2 In German: 'Erneuerbare Energien Gesetz' (EEG)
3 In German: 'Erneuerbare Energien Gesetz Umlage' (EEG Umlage)

In the year 2000, we see that the REC makes up only a very small share of less than a cent per kWh of consumer prices. Then, at the beginning of the 2010s, strong increases in the REC are being seen as high as ¢6.5 per kWh. The REC stays on this high level and makes up more than 10 per cent of the resulting consumer prices. A household with a yearly consumption of 1500kwh would pay roughly €100 for the REC alone.

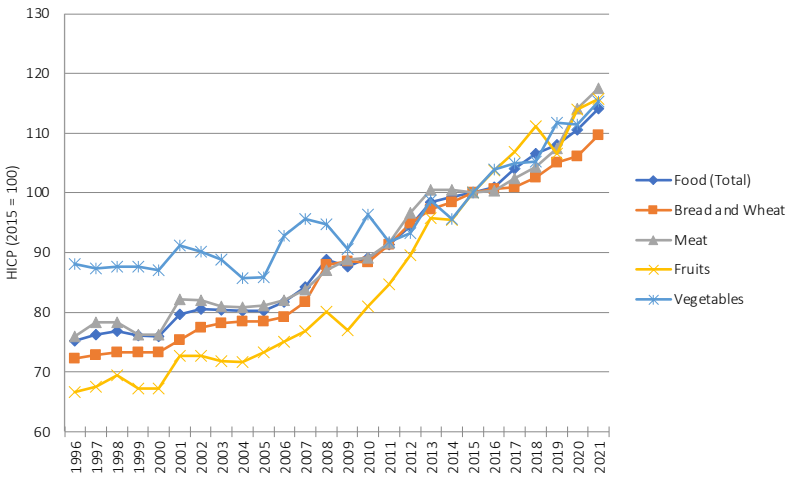
Energy and gas prices also include costs for the network operation, which make up roughly 20 per cent of the final costs. Parallelly, the private and business use of electricity and gas underlies the normal 19 per cent value-added tax (VAT) as well as an additional excise tax. Per used megawatt-hour (MWh) private households have to pay €20.5; while for the consumption of gas, €61 has to be paid per 1000 litres. In comparison to the rest of Europe, the excise taxes for all energy supplies lie above the European average (EU Commission 2021a).

The sum of VAT, excise tax, REC, and the other active interventions in energy markets along environmental and climate policy goals, has considerably contributed to the rise in electricity prices in Germany over the last 25 years. Reactions from the supply side are secluded as well, either due to geological circumstances or regulatory reasons. A return to nuclear power production also seems out of sight. As such, we should not expect a lowering of the energy prices in Germany, which could have the potential to relieve many households in a very substantial expenditure category.

### *2.5.c Food*

Food, drinking, tobacco, and alcoholic beverages make up almost 19 per cent of the monthly consumption expenditure of a household with a net income of less than €1300. As in the preceding category, we will split this into two halves. First, we will look at food and afterwards, we will look at alcohol and tobacco.

**Figure 2.7: Price index for food (Destatis 2022c)**




A look at the overarching HICP for food items shows that over time – from 1996–2021 – the index rose from a value of 75.3 to 114.1. Looking at the underlying parts of this index, we see that the prices for all the goods have risen over the long term. We see that especially fruits and grain products started from a comparably low index value while vegetables were on a comparably high level initially and fluctuated considerably over time.

Grain crops especially are globally traded goods, which means that domestic prices are to some extend influenced by world market prices and thereby global demand and supply. The continuously rising price levels in food items can be, to a certain degree, attributed to a rising global demand due to the continuously increasing global population and wealth. Yet, under normal conditions, such demand changes should also motivate an increase in supply, which could offset the demand effects to a certain degree. However, the response by the supply side does not appear to be happening in such an anticipated manner in Germany. Food markets can be said to be some of the most regulated markets in the western world in terms of production and quality regulation. The regulatory environment in Germany is embedded into the regulatory environment of the EU, which is filled and supplemented by national legislation.

As in the sector of housing and building, agricultural production is dependent on the available land and the intensity with which the existing land can be used. Looking first at the available land that is used for farming in Germany,

we find that the total land used for agriculture (that is, farming and animals combined) has decreased in recent years from 2016 to 2020 from 182,637 sqkm to 180,934 sqkm, while in the same period, land used for forests and transportation has increased (Destatis 2022f). While this loss of roughly 1700 sqkm is less than 1 per cent of the total area used for agriculture in 2016 and we should not attribute rising prices to this fact alone. However, one should note that a diminishing area used for farming does not serve to counteract rising food prices by quantity expansions either.

More specific implications for how the existing land in the agriculture sector has to be used can be derived from the common agricultural policy of the EU (CAP). In the CAP, the general goals of the European agricultural policy are laid out, which, at the same time, build the basis upon which the eligibility for receiving subsidies from the agricultural funds of the EU is determined. In Germany, the CAP is expanded upon by various guidelines that define goals with regards to an environmental and climate compatible agriculture. This results in regulations that demand that bigger agricultural farms that use more than 15 hectare (ha) must deem at least 5 per cent of their land as an ecological safety area, which cannot be used for the production of food items but has to be conserved and protected from direct interference from agricultural practices. Hereby, the share of land that can be used to produce food decreases even further It may be concluded by the way in which subsidies to farms are handed out, that an increase of agricultural production in Germany by way of increasing the land used for productive purposes cannot be expected.

The existing stock of agricultural land also underlies further conflict in terms of usage, as land in German agriculture is not only used to directly produce consumer goods but also as a source of feed for animals or energy production purposes by the way of biogas. Land therefore also plays a role in the energy policy of Germany as the production of biogas to generate electricity is being subsidised via the REG. By directly subsidising one cultivation option, this option becomes more attractive at the margin, and we can expect that a greater share of the existing area is used to grow biogas-convertible crops. Over the last decade, the share of the total land used for growing crops to be used as animal food or as a source of bioenergy has increased by 17 per cent (Destatis 2021). A closer look into this statistic is impossible, yet an influence of the subsidy on the expansion of this type of land used should be expected.

From this overview of German agricultural policy, it should become clear that the expansion of the use of land for the production of food items is not a political priority. Regulations and other interventions that promote conflicting goals to the production of food items influence the individual calculus in the sector in ways that counteract an expansion of production. Therefore, decisive reactions to rising food prices by increasing the production of food items by the way of increasing the land used for farming purposes should not be expected.

Still, the existing stock of land may be used more intensively to achieve a comparable result of increasing production. This, on the other hand, would have to be possible within the regulatory framework that is concerned with production methods and standards in the agricultural sector. A more intensive use of the existing farming land may for example be achieved by extending the use of fertilizer or by switching to more productive crops. The standards in fertiliser use are laid out in Germany in a specific fertiliser regulation, which defines the types of products and components that may be used as fertilizer, as well as maximum amounts of fertilizer that may be used on a given area of land.[4] A second regulation that inhibits an expansion of the use biological and especially animal waste as fertilizer is the EU nitrate regulation. Here as well a cap on the amounts of animal waste that may be brought out on the fields is introduced. A more intensive use of the existing faming land viaan expansion of chemical or biological fertilizer thus seems to be excluded by the regulatory framework.

This leaves the use of more productive crops as a way to make more intensive use of the existing agricultural land. The most effective way would be the use of genetically modified crops, as is already being practiced in the United States, yet, as of 2022, no genetically modified crop has been certified for use in Germany. The use of more efficient and resilient methods of cultivation by this method, therefore, is also excluded. Considering the ongoing adversity of the German public to such farming methods, a certification of genetically modified crops may even in the future be politically unfeasible. Which leaves only a last way to still get more efficient crops by ways of natural cross breeding and active selection of existing certified plants. A more intensive use of the limited land in the agricultural sector via the introduction of more productive plants, thus, also faces extreme hurdles in Germany.

4 In German: ‘Düngeverordnung’

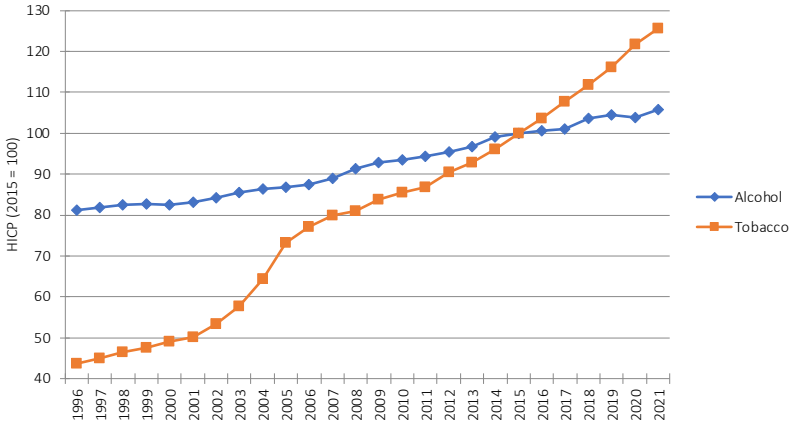
To conclude this section, it may be justified to state that a reaction of the supply side to steadily increasing demands in agricultural products seems to be improbable, due to political concerns with other, and potentially conflicting goals. Therefore, prices for food items should be expected to rise even further in the future. Also it should be noted, that the regulatory environment in the food sector extends even further than what has been laid out here already. If we look for examples of regulations regarding livestock husbandry and slaughter, it becomes even more obvious that cheap consumer prices are not the main regard of German society and concerns regarding humane conditions for the livestock are clearly in the foreground. Without questioning these general concerns, we should note that it is mostly the bigger industrial farms that can comply with such regulatory demands, while smaller farms may be unable to provide the necessary conditions that the regulatory framework demands. Then, mainly bigger farms will be left in a less-competitive market, which would usually result again in higher consumer prices.

Farming is most likely one of the most politically influenced sectors of the economy, mainly by regulation and at the same time by very strong subsidies. The political goals with which the agricultural sector must comply do not only allude to environmental concerns but even energy policy. The way in which the land used for agriculture is changing and the way in which the existing land is being used clearly shows that the extension of produced quantities is not in the political forefront.

### *2.5.d Alcohol and Tobacco*

Following the branch of food production in Germany, the second part of the common expenditure category food, drinking, alcohol and tobacco is taken up by the latter goods. Looking at the change in the HICP for both goods, we can see that both are marked by a steady increase in their prices since 1996. The index value for tobacco has risen from a value of initially 43.6 in 1996 to a value of 125.5 in 2021, while the index value for alcohol rises simultaneously from a value of 81.3 to 105.8 during the same period (Destatis 2022c). The limiting of the consumption of tobacco and alcohol is a goal of health policy; and therefore, we expect a strong political influence upon these prices.

**Figure 2.8: Price index for tobacco and alcohol (Destatis 2022c)**




The overarching regulation of tobacco sales is based on an EU guideline but is further extended on by national legislation. Most importantly the ingredients of tobacco products, the sold quantities per package as well as the design of the packages and consumer information are mandated by EU law. Furthermore, the EU mandates special excise taxes on sold alcohol and tobacco. These extra excise taxes stand next to the general German VAT of 19 per cent of the net price and thus we can assume a strong fiscal influence on consumer prices.

In Germany the excise taxes on alcohol depend on the type of drink that is being sold, its quantities and the amount of alcohol within the product. For example, beer is priced at ¢74.8 per hectolitre, while sparkling wines and other industrial alcohols are priced at €136 and €153 per hectolitre sold (EU Commission 2021b).

The so called 'tobacco tax' is composed of two parts, one fixed net value–independent part that will always be applicable per sold unit and basically builds a price floor; and a second part that is based on the net value of a unit sold. The German tobacco tax has been increased several times over the last twenty years, mainly in the years from 2002 to 2007 and from 2011 to 2016. Since January 2016, a fixed fee of ¢9.82 and a share of 21.69 per cent of the net value per cigarette must be paid in tobacco taxes. For the coming years, another round of price increases has been determined that will culminate in a fixed part of ¢12.28 and a variable part of 19.84 per cent by the year 2026 (EU Commission 2021c). The shared part of VAT

and tobacco tax already makes up a considerable share of the final consumer prices and thus we can state that high prices are definitely a political decision, and it is certain that further rising consumer prices will happen.

The taxes on consumption of tobacco and, less-openly, the taxes on alcoholic beverages are promoted under health policy reasons. In a society that is generally organised around the principle of individual freedom, the freedom of consumption should be acknowledged. Also, in addition to the fact that the negative consequences of consumption of these goods result primarily to the consumers themselves and adds to this the prohibition of smoking in enclosed public spaces in Germany, we should expect negative externalities due to passive smoking to be minimised in Germany. Therefore, an additional justification of taxing tobacco to reduce negative effects on third parties does not seem to be viable. Furthermore, the latest amendment to the tobacco tax law[5] seems to counteract health policy concerns as well, since newer products by which nicotine can be consumed and which entail less-harmful substances than ordinary cigarettes and tobacco products are included in excise tax as well. Thus, we conclude here, that the tobacco tax is primarily an instrument to generate funds for the state.

When analysing taxes, one should also look on the incidence and distributional consequence. Schneider and Schneider (2012) find, based on the data of the German Socio-economic Pane (SOEP), that regular consumption of alcohol comes with characteristics generally associated with higher socio-economic positions, while smoking can be associated with lower socio-economic positions. From this, we derive that taxes on tobacco will mostly pose an economic burden to the lower-income groups in society. In an evaluation of the tax incidence of a tax upon tobacco, the authors – Evans, Ringel, and Stech (1999) – find that 100 per cent of the tax burden accrue to consumers. It can be stated therefore, that smokers generally do not display a sensitivity to rising prices in the short to medium run and, therefore, price increases are entirely passed on to them. Thus, taxes on tobacco will be passed on almost entirely to consumers which therefore bear the total burden of the tax. At the same time, it is primarily the consumer with a low socio-economic position which smokes, thus a tax on tobacco will directly hurt the lowest income households in a society.

From the analysis of the interventions into the prices of tobacco and alcohol it becomes clear the high prices for tobacco especially are predominantly

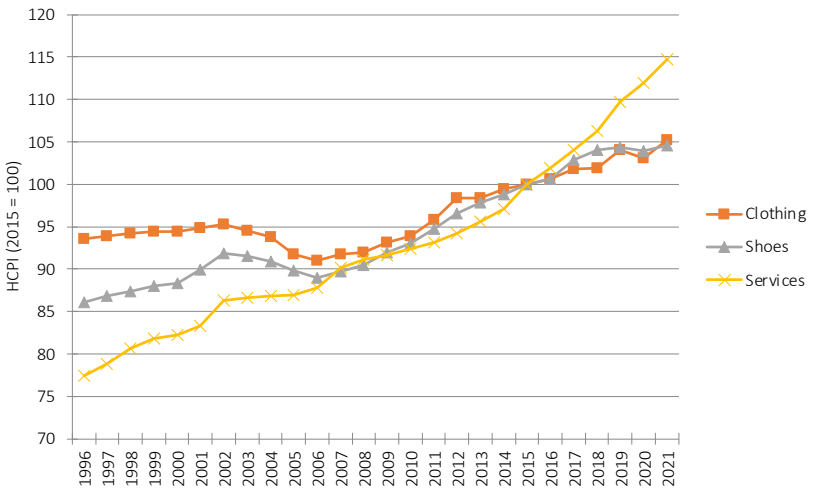
5 In German: ‘Gesetz zur Modernisierung des Tabaksteuerrechts‘.

due to taxes levied upon them. When putting closer scrutiny on the supposed health policy concerns underlying these taxes it becomes evident, that such justifications cannot hold up to the overarching institutional principles of a free society and the broader regulatory framework that already aims to minimise harm to third parties. What remains is a system of taxation that heavily raises consumer prices and directly burden consumers, who will be predominantly found to occupy the lowest socio-economic positions in society.

### *2.5.e Clothing*

In the area of clothing, we can identify the smallest changes in the overarching price index of all product categories considered here. The Index value has increased from 92.1 initially in 1996 to 105.1 in 2021. Looking into the composites of the index, we find the general trend confirmed. The index for shoes rises comparatively stronger than that for other clothing, while the greatest increase is found in the category of services relating to the maintenance, repair, and rent of clothing.

**Figure 2.9: Price index for clothing (Destatis 2022c)**

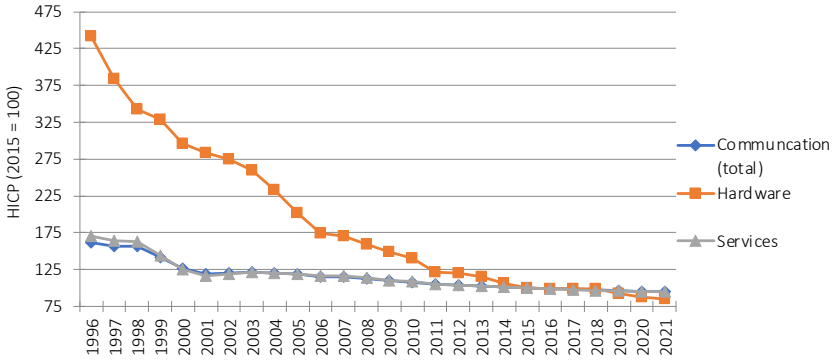


Considering the characteristics of clothing, namely, the ease by which to transport it in vast quantities, makes clothing a very tradeable good. At the same time, the production of clothing is generally associated with very high labour inputs. As such, Germany appears to have a clear competitive disadvantage in the production of low-cost clothing, while especially countries in Asia seem to have considerable comparative advantages (Palan and Schütz 2015). Accordingly, the production indices for clothing have decreased considerably since 1996 and fluctuate for several years around the 2015 index value. Additionally, the index for further processing of cloth falls under the same timeframe, albeit not in the same drastic manner (Destatis 2022h). Accordingly, we can observe an excess of imports in the clothing sector in recent years for Germany in general, while the most important import regions are Asia and the EU (Destatis 2020). Since the expenditures in the category of closing only make up a small fraction of the overall expenditure, and since prices in this industry have risen very slowly compared to other areas only some general remarks will follow. German legislation cannot have considerable impact on the production conditions in other countries therefore the best way to keep consumer prices low would be to make trade with countries that have comparative advantages in clothing production easier. Either by lowering tariffs or by interfering as little as possible into the dealings between German firms and Asian producer.

### *2.5.f Communication*

In comparison to the other price indices, the communication index is the only one that has decreased in the last twenty-five years. In 1996, the overarching index had a value of 162, while in 2021, it had an index value of 95 only. The costs for communication hardware have decreased even stronger than the price for communication services. Initially at a value of 441.7 in 1996, while it had already fallen to a value of 295.6 by the end of the last millennium. By the end of the 2010s, it was only ten index points above the index benchmark set in 2015. In 2021, the index value was at 93.6.

**Figure 2.10: Price index for communication (Destatis 2022c)**




The decreases in the price for communication-related services since the middle of the 1990s should particularly be seen in light of the liberalisation of the mobile and telecommunication sector. Up until the early 1990s, the whole telecommunication market in Germany was handled by a single state-owned company – the German Telecom. Thus, the market was essentially monopolised and the Telecom as well as the associated networks were regulated as a natural monopoly. Following the liberalisation of the telecommunication markets primarily promoted by the EU, the German Telecom as well as the postal services were privatised, the markets opened for competition, and the regulatory framework was amended to fit the new market structure (Dewenter and Haucap 2004). Due to increased competition in suppliers for communication services consumer prices decreased strongly at the end of the 1990s and, after a short period of consolidation, further decreased since 2004 until today, but at a lower rate.

The price for hardware in the communication sector, most importantly – the mobile phone – should also be seen in the light of increasing price competition on the supply side accompanied by a steady technological progress that keeps on making the production of hardware cheaper. The advent of smartphone technology arguably took place with the release of the first iPhone by Apple in late-2007. The further development of the smartphone market may be seen as very good example as to how markets develop following a significant innovation. The various number of producers and subsequent innovation dynamics have, over a rather-short time, led to the diffusion of technologically superior models which, at same time, are sold at a fraction of the initial prices.

The developments we observe in communication markets can be attributed to display standard effects of competition in a formerly strictly regulated market. Following the liberalisation of the markets, ensuing competition drives down prices and increases innovation at the benefit of the consumer. What should be noted here is also that cheap access to communication hardware and services builds the backbone of the digital economy, which would require careful study in its own right.

### *2.6 Conclusion*

As we have seen in the preceding analysis of the various expenditure categories, almost all prices for different consumer goods are rising, except for those related to digital communication and telecommunication. What can be stated with certainty as well is that the observed price level rises are not equal over all expenditure categories but are stronger in some. Therefore, we will attest here – first, that there is a general inflation in the German economy over the long run. Following our deeper analysis of the branches of industry related to the various expenditure categories, we also conclude further that some of the short-term increases in the consumer price level may be attributable to various state activities, mainly with regards to regulation and taxation.

In the housing sector, we attribute the rises in rent and housing to a combination of rising demand and an inhibited supply. The main reason for this inhibition in supply is postulated to arise primarily due to various land-use regulations that are enacted with regards to other policy goals that appear to take precedence over the cost of living. Given this regulatory backdrop, all subsequent policies that aim to increase the building stock will only be able to shift the composition of the building stock, primarily toward more expensive building methods. The increasing costs of building will presumably be be passed on to the consumer in some form as well. What springs forth from this regulatory environment is a further and even more direct price regulation via the rent-break that may, in the short term, be able to limit the progression of (official) rents at the medium- to long-term cost of decreasing the quality of the housing stock due to discouraging investments in maintenance.

We find a similar pattern in the energy sector, which is also highly regulated, mainly with regards to the curbing of CO2 emissions to prevent global warming. The interventions in the energy sector are especially concrete and aim to bring about a specific economic structure following a political

vision. As such, we have witnessed a multitude of very specific interventions, such as the exit from nuclear power and coal along politically set timelines and the expansion of renewable-energy production via concrete subsidies. The main problem that arises here is that a politically envisioned structure of energy production may not be the most efficient means to promote consumer interests because competition to find the most efficient and cost-effective ways of supplying households is, to a certain degree, discouraged. Consumers are then burdened in two ways: they are forced to finance the political measures that are designed to bring forth a new industrial structure of power generation while, at the same time, find themselves facing rising consumer price levels due to a less-than-optimal structure of energy supply that results more from political visions and less from considerations of economic efficiency.

In the branches of food production, we first postulate that global demand for food rises steadily due to the increase in world population and increases in global income and wealth, and that these global phenomena will, to a certain degree, influence prices in Germany as well. At the same time, the German agricultural sector appears to be politically discouraged from meeting the increasing demand and prices by expanding the production of food items. An increase in agricultural production might arise from expanding the land used for it or by using the existing land more intensively. Both ways of increasing agricultural production are discouraged by the regulatory framework, mainly with regards to environmental protection. In general, the incentive structure in the agricultural sector appears to be such that actual production is not the main goal of policy. The result from this focus can only be that food prices will rise further.

Consumer prices for alcohol and tobacco are mainly influenced by taxes that appear to aim at discouraging consumption due to health policy concerns. State action with regards to this goal can only be applied in limited terms under principles that acknowledge the sovereignty of the consumer. Alluding to externalities for secondary and third parties due to passive smoking will not sustain closer scrutiny once it is seen that more strict policies to curb these problems are already in place. The combination of the population strata that heavily consumes tobacco, the mostly inelastic nature of demand for tobacco, and the way in which additional excise taxes on tobacco are proceeding – does already and will even more so under future increases in the tobacco tax – lead to a situation in which it is the weakest groups of the economy that are made to bear the greatest burden under the so-called tobacco taxes in Germany.

The clothing sector has been discussed in a rather short term as Germany is mainly reliant on imports of clothing products.

At last, the communication sector has been seen to be one of the only sectors in the economy in which prices have fallen consistently. This has been attributed to the liberalisation of the sector following the mid-to-late 1990s and the increases in competition in both, the production of hardware and services in the digital and telecommunication sectors. The telecommunication sector thus is an example how liberalising a sector of industry and leaving competition to work can benefit consumers in the short and long-term.

### *2.7 Policy recommendations*

We will end this paper by making specific policy recommendations to lower consumer prices in Germany.

1: In many cases, the excise taxes for energy, tobacco, and alcohol exceed the level that is enacted as a mandatory lower bound by the European Union. Therefore, the FRG should lower excise taxes to this bound.

2: To lower prices for housing and rents the supply side must be able to provide more living space. This is only achievable when land is made available for the construction of rental apartments and houses. Regulatory demands that preclude such a conversion of land use should be lowered.

3: The rent-break, as it is designed today, will only lead to a lowering of the quality of the building stock, but will never lead to lower ‘shadow’ market prices. Therefore, it should be lifted in all municipalities in which it is applied.

4: The need to curb carbon emissions does not imply that an entirely politically envisioned structure for the industry must be imposed. A well-designed Emissions Trading System that is expanded to all relevant sectors of industry could achieve the goals reliably, while at the same time allowing the industry to find ways to serve consumers in the best possible way.

5: Piecemeal interventions that are necessary to impose a structure of industry should generally be avoided. Neither politically proliferated exits from, nor subsidies to specific ways of power production, can form the backbone of a cost-efficient structure of industry. Also, in all cases where

compensations and subsidies are handed out to specific groups, it hurts the general society since it is they who will finance these measures via taxation.

6: If an extension and intensification of agricultural production by conventional means is not politically desirable, a switch to new methods of production may be feasible. The banning of genetically modified foods in the EU and Germany should be lifted to allow for innovation and efficiency gains.

7: Intensification of competition in the agricultural industry may simultaneously induce greater innovative pressures, either due to the lowering of subsidies aimed at structural conservation in these sectors or by increasing the competitive pressures from outside the EU by lowering barriers to trade.

8: Lowering barriers to trade over all product categories may prove to be the single-most efficient way to bring about a lowering of the general price level.

9: It has become evident through the analysis that the demographic change in Germany is slowly but surely arriving. The result is a lack of labour for essential services, which already does and will even further, lead to rising prices in these categories. Policies to promote immigration of skilled labour may be one feasible option to counter these tendencies.

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# Chapter 3: Italy

***Giacomo Da Ros and Carlo Stagnaro***

- The pandemic and the war in Ukraine, along with governments' and central banks' responses to these events, have ushered in the most significant inflationary episode in recent history.
- Italy's inflation rate has constantly been low since the introduction of the Euro, recently being very close to zero or even negative. Projections for the next quarters, however, paint a picture of rising inflation, to levels that are considered high.
- High prices are not, however, always the result of complex international crises. Many of the examples cited in the paper can be attributed to excessive taxation levels, lack of competition, or misguided policies.
- This chapter focuses on four major sectors in Italy: electricity, gas, and other fuels; communications; health; and transport services.
- Excise duties on energy and fuels in Italy is among the highest in the European Union: Italian consumers systematically pay more for electricity, automotive fuel, and heating compared to their European peers.
- The communications sector is instead a success story: due to the 2016 merger of two of the biggest players in the market, Wind and Tre, the European Commission mandated the entry of a fourth company in the market. French carrier Iliad was able to gain a significant portion of market share due to its very low prices, thus driving overall prices significantly below the EU average.
- Italy is a significant outlier in the health space. Citizens' out-of-pocket expenditures are much higher than the EU average. Moreover, drug prices are kept high by the low uptake of generic pharmaceuticals and an inefficient market structure.

### *3.1 Introduction*

Inflation is on the rise again. After a long period of very low inflation rates, the cost of living has started to increase for reasons ranging from the Covid-led disruption of supply chains to the energy crisis due to Russia's invasion of Ukraine. The increase in the cost of several products has a variety of reasons , and its impacts may be severe, especially for lower-income households. Italian consumer associations estimate that a two-children family will face an increase of €2,275 in yearly expenses due to increases in the prices of energy and food, of which a relevant increase of €367 pertains to the latter category (Il Sole 24 Ore 2022). Thus, the global situation is placing considerable strain on families' budgets with respect to categories that are considered to be essential, that is, the demand for which is inelastic. In addition to this, governments' and central banks' policies in reaction to the Covid crisis have ushered in the most significant inflation episode in recent years.

Annualised inflation in the eurozone has reached 3.2 per cent in its core component, excluding energy and food. Including those metrics, annualised inflation stands at 7.5 per cent as of March 2022 (Eurostat Euro Indicators 2022). Price tensions are certainly exacerbated by supply chain disruptions and war; however, expansionary fiscal and monetary policies are also part of the story. As shown in Figure 1, according to Eurostat (2021a), government expenditure in both EU27 countries and the eurozone jumped by almost 10 per cent between 2019 and 2020. Along with other factors, expansionist policies are classically linked to increases in inflation.

**Figure 3.1: Development of total expenditure and total revenue (2010–2020)**

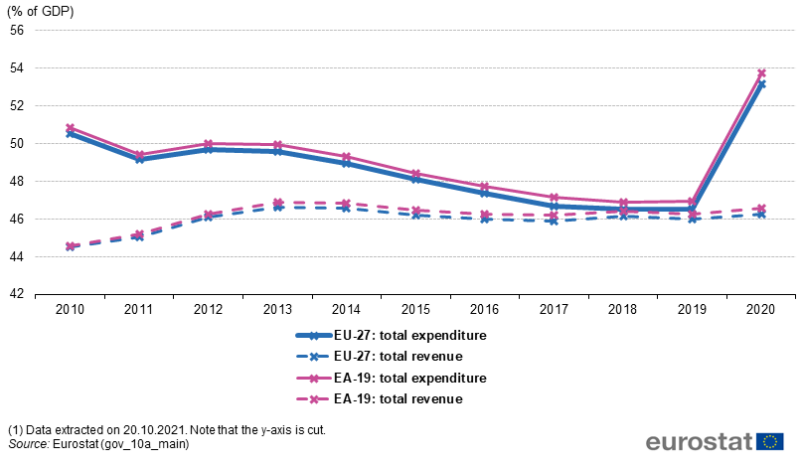



**Figure 3.2: Year-on-year change in Italy's HCPI**

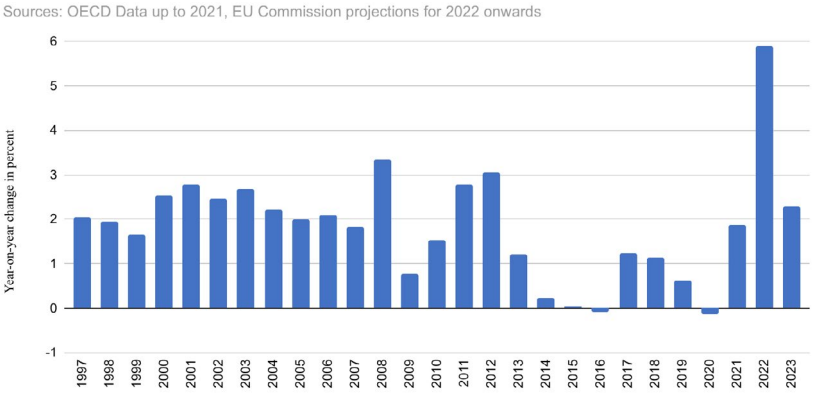



Figure 2 shows how year-on-year inflation has evolved over the past 25 years, while also incorporating European Commission projections for 2022 and 2023 (2022b). As is evident, after a period of very low or even negative inflation, the beginning of the 2020 decade is characterised by inflation numbers not seen since the introduction of the common currency, the Covid pandemic being the obvious turning point.

Additionally, some categories of products, such as energy, tobacco, and alcohol, have historically been the object of high taxation, such as excise duties. These exist all over Europe and minimum rates have been introduced at the EU level. Table 1 shows the level of minimum excise duties on some products. However, according to the European Commission Directorate-General Taxation and Customs Union, countries, such as the Netherlands or Italy, often set duties at much higher levels, which is bound to have noticeable effects on families' purchasing power (2021).

**Table 3.1: Minimum excise duties on products**

| | Product | Rate expressed per | Minimum rate | Italian rate |
|---|---|---|---|---|
| **Alcoholic beverages** | Beer | hectolitre/ degree Plato | €1.87 | €2.99 |
| | Wine | hectolitre | €0 | €0 |
| | Intermediate products, e.g., port, sherry | hectolitre | €45 | €88.67 |
| **Tobacco products** | Cigarettes | % of weighted average retail selling price (WAP) | 60% | 59.8% |
| | Kilogram of fine-cut smoking tobacco | kilogram | 60 | 130 |
| | Cigars and cigarillos | kilogram | 12 | 35 |
| **Energy** | Unleaded petrol | €/1000 litres | 359 | 728.4 |
| | Gas Oil | €/1000 litres | 330 | 617.4 |
| | Natural gas | €/GJ | 0.3 | 1.19–5.03 |
| | Electricity | €/MWh | 1 | 22.7 |

Source: European Commission, Directorate-General Taxation and Customs Union

Especially in complex geo-political situations such as the present one, this ensures that a large portion of families' incomes is spent on commodities featuring scarcely compressible demand. Again, the households set to suffer the most from high prices on such products are those that spend a larger part of their disposable income on them, that is, lower-income ones. For instance, as noted by Faiella and Lavecchia (2021: 22–23), higher energy prices have a profoundly regressive effect, hitting lower-income households far more noticeably than others. Moreover, as evidenced by Bagus et al. (2014: 497–517), inflation erodes the purchasing power of lower-income households more noticeably than that of higher-income ones. First, as we have previously remarked, a larger share of those households' income is spent on essential goods and services. Secondly, Bagus et al. note, lower-income households have fewer means to protect themselves from it: they are generally less financially literate and have more limited access to financial instruments. Finally, because of the negotiating process required to raise wages in most circumstances, the wages from employment often fail to adjust to inflation in a timely and adequate fashion.

Other factors might play a part in high consumer prices. For instance, in sectors such as transport services or communications, in many cases, prices are dependent on the competitiveness of markets. The liberalisation of such markets may provide a long-term solution to high prices and also reduce inflationary pressures while protecting the salaries' buying power.

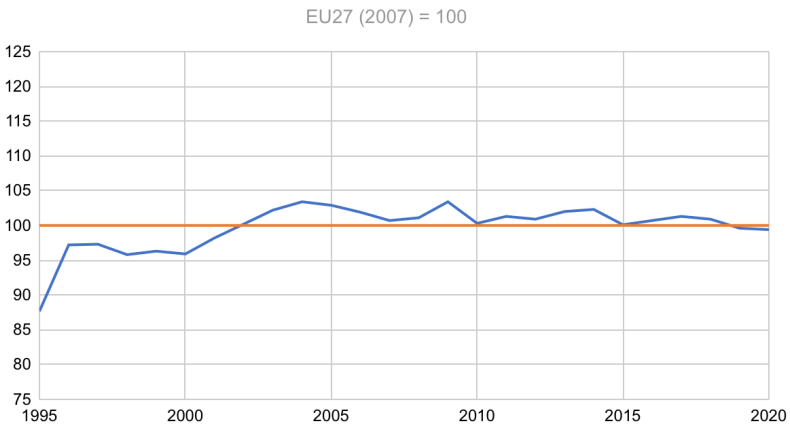
This paper will analyse the level of prices in selected categories in Italy. The second section will focus on positive or negative outliers, that is, the products that are priced substantially above or below the EU average. In the third section, we will try to provide explanations for these differences, highlighting effective and ineffective policies. The price levels (or increases) of certain products may depend either on their growing scarcity or on policy-driven phenomena. While the former can only be solved by market-driven adjustments (for example, demand reduction and supply increase) the latter is entirely in the hands of policymakers. The conclusion will present policy recommendations based on the findings of the study.

### *3.2 Prices relative to EU27 countries*

Throughout this paper, unless indicated otherwise, the source of the data is Eurostat, specifically the purchasing power parity (PPP) price level indices (2022a).

In general terms, Italy's situation appears to be aligned with the EU27 average. As Figure 3 shows, expenditures related to actual individual consumption have been within 5 per cent of the PPP-adjusted average ever since the late 1990s. Moreover, the difference between Italian prices and the EU27 average appears to be decreasing over time.

**Figure 3.3: Actual individual consumption**

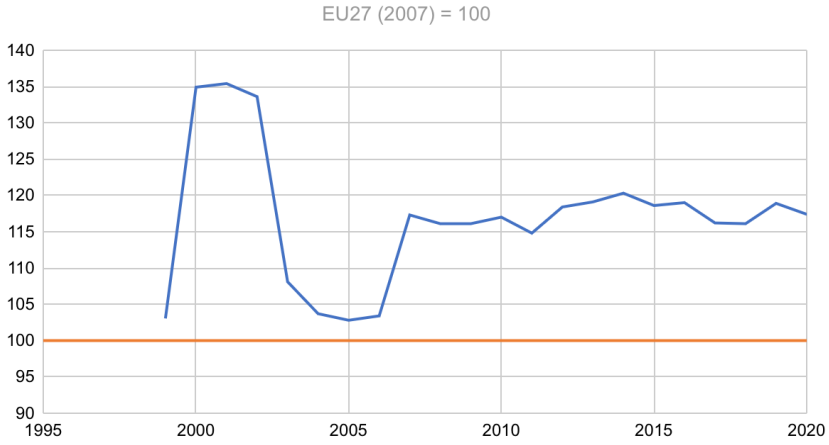



Source: Eurostat (2022a).

However, some categories are of particular interest and will be detailed in the following paragraphs namely, electricity, gas and fuels, communications, health services, and transport services.

As shown in Figure 4, electricity, gas, and fuel prices have been constantly above average, hovering between 115 and 120 per cent of the EU27 average in the past fifteen years. The reason behind this is quite straightforward: high prices are the result of the comparatively high excise taxes being applied by the Italian government on such goods. These are detailed in the next section.

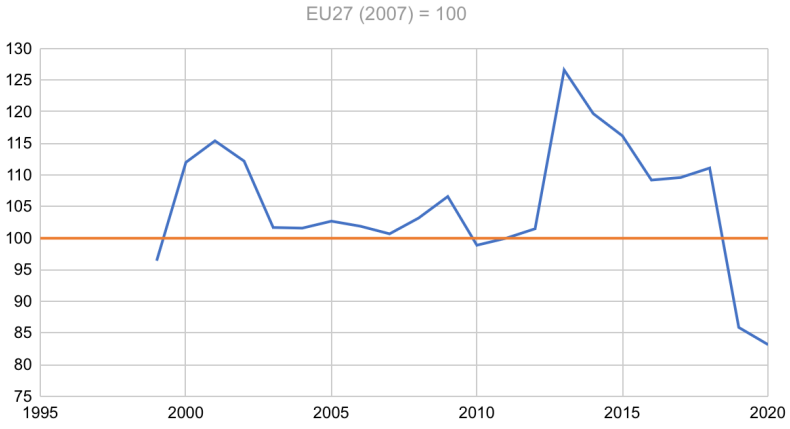
**Figure 3.4: Electricity, gas and other fuels**




Source: Eurostat (2022a).

Figure 5 describes the evolution of the price of communications services. What is most interesting is the remarkable drop in prices in the 2018–2020 period. This positive evolution can be explained by an increase in competition due to the entrance of a new competitor. (European Commission 2016).

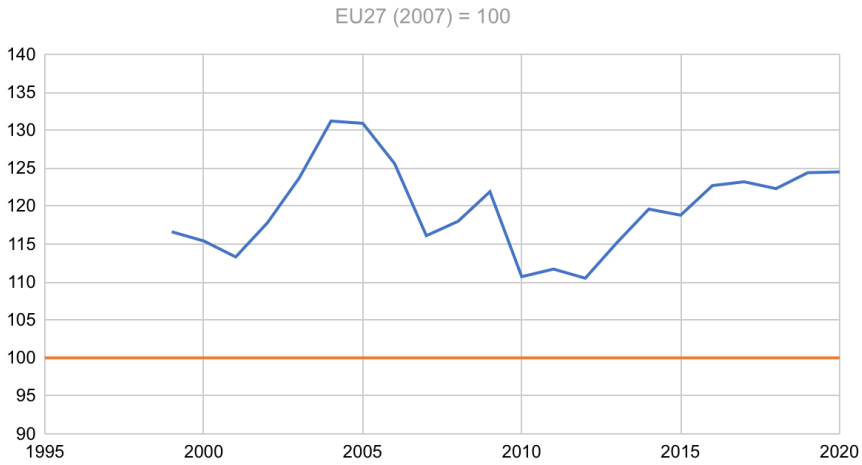
**Figure 3.5: Communications**




Source: Eurostat (2022a).

Health prices have also been constantly above average. The most recent data shows prices around 125 per cent of the average. This appears to be related to higher-than-average out-of-pocket consumer spending and comparatively lower uptake of generic pharmaceuticals. The issue will be expanded upon in section 3.3.3.

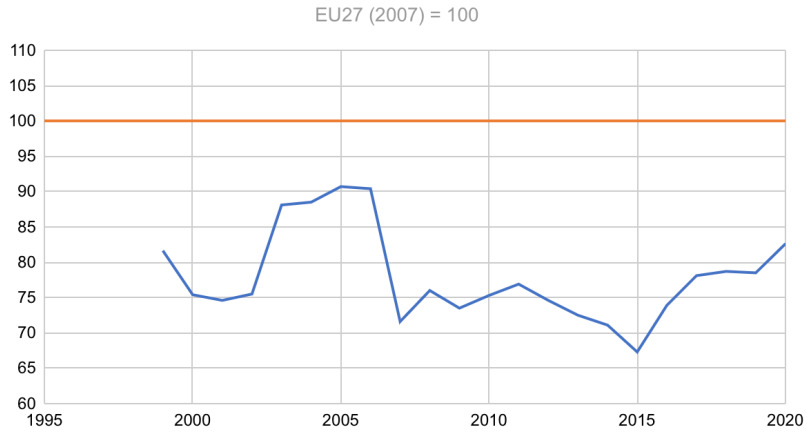
**Figure 3.6: Health**




Source: Eurostat (2022a).

As shown in Figure 7, prices in the transport services category have been consistently below average by a remarkable amount. In the last ten years, they averaged 75 per cent with negative peaks of up to 67. This could be due to the presence of effective competition in the high-speed rail market as well as to substantial subsidies to local public transportation that has kept prices well below costs.

**Figure 3.7: Transports services**




Source: Eurostat (2022a).

### *3.3 Category-specific analyses*

#### *3.3.a Energy and fuels*

One of the most glaring examples of high consumer prices as a result of taxation is energy and fuels. Prices in Italy are consistently above average in the energy category, at 117.4 per cent of the EU27 average according to the most recent data available. In the second semester of 2019, a gigajoule (GJ) of natural gas cost €41.0 to Italian consumers, compared to €29.8 paid on average by Europeans or €21.9 paid by the Germans (Eurostat 2022b). The same stands for electricity: in the same period, Italians paid €0.23 per kilowatt-hour (kWh), noticeably higher than the European average of €0.22/kWh or the price paid, for instance, by the French (€0.19/kWh) (Eurostat 2022d). Similarly, by the end of 2021, 1,000 litres of gasoline cost €1,587 in Italy compared to an EU average of €1,469, whereas petrol cost €1,722 and €1,600, respectively (European Commission 2021). After prices soared in 2022, Italy temporarily cut its tax rate on gasoline and diesel by €250/1,000 litres of product, falling below the EU average (European Commission 2022).

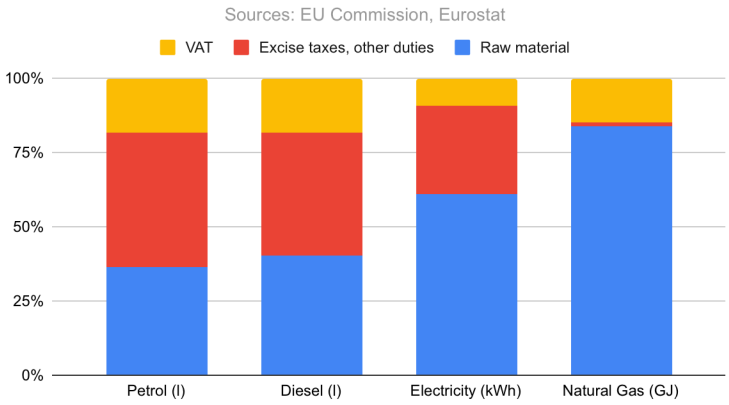
The main reason for this phenomenon lies in high taxes on energy products. In the case of electricity, other relevant causes that contribute to keeping wholesale power prices relatively low in other EU member states are a) the substantial burden of environmental levies and b) the higher cost of the generation mix: with a larger share of natural gas-fuelled power plants and a lower contribution from coal and nuclear power.

Table 2 illustrates the pre-tax and final prices of road fuels and other energy products in Italy. Particularly in the case of auto fuel, the percentage of tax being applied is extremely relevant, peaking at 175 per cent of the raw material price in the case of petrol. All data employed in Table 2 is relative to the first semester of 2019 to bypass the Covid and Ukraine crises.

**Table 3.2: Pre-tax and final prices of road fuels and other energy products in Italy**

| | Excluding all taxes (€) | VAT excluded | Final price | Tax % |
|---|---|---|---|---|
| **Petrol (l)** | 0.57863 (European Commission 2019) | 1.30703 | 1.5946 | 175.58 |
| **Diesel (l)** | 0.59737 (Ibid.) | 1.21477 | 1.4820 | 148.09 |
| **Electricity (kWh)** | 0.1427 (Eurostat 2022e) | 0.2127 | 0.2341 | 64.05 |
| **Natural Gas (GJ)** | 34.4795 (Eurostat 2022c) | 35.0302 | 41.0297 | 19.00 |

**Figure 3.8: Energy and fuels: Final price breakdown**




Due to the importance of these products, their high prices are bound to have noticeable effects on all sectors. For instance, transportation is a sector that is highly dependent on the cost of fuels and so is any production on energy prices. Thus, high prices in the fuels and energy categories have wide-ranging effects on the purchasing power of consumers. High electricity and gas prices undermine the competitiveness of Italian businesses, particularly in the manufacturing sector. They also hit households who rely mainly on gas to heat their houses.

### *3.3.b Communications*

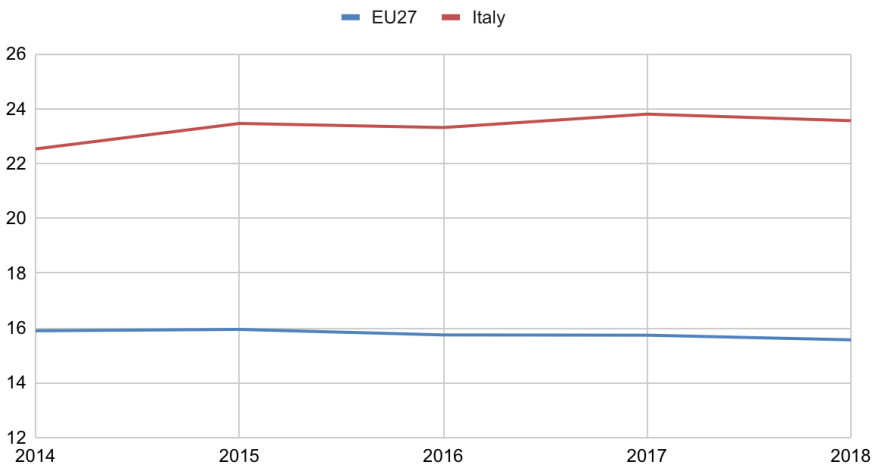
As mentioned above, the situation of communication in Italy is a positive example of competition law and antitrust regulation directly benefiting consumers. We can observe in Figure 5 that Italian prices dropped from over 110 per cent to less than 85 per cent compared to the EU average between 2017 and 2019. The prices of communication in Italy have been relatively low, especially in mobile communications, due to a lively competition environment. In the past few years' prices fell further thanks to a change in the market structure: two of the four largest operators, Wind and Tre, merged in 2016. European antitrust authorities conditioned the green light to the merger to the divestment of some assets that were then acquired by the low-cost French carrier Groupe Iliad. Iliad came onto the market in mid-2018, with its main selling point being its very low prices. The carrier now has more than 8.5 million subscribers, as per the most recent data (2022).

Cable.co.uk's research comparing the price of mobile data worldwide puts Italy in fourth place globally for the price of a gigabyte (GB) of data (2021). Italy is by far the cheapest country in Western Europe in this regard, with a GB of mobile data costing $0.27 compared to the $0.41/GB of France, the second-cheapest market. What is more interesting is this metric's evolution over time: according to Cable.co.uk (2021), in 2019, just months after the advent of Iliad, a GB of data cost $1.73. In a single year, the price fell to $0.43, reaching $0.27 in 2021.

Therefore, this is a startling success story of market liberalisation: according to Epicenter and Istituto Bruno Leoni's *2020 Index of Liberalisation*, edited by Stagnaro (2020: chapter 6), Italy is in fact among the freest markets in this regard, second only to Spain and France. Thus, effective market liberalisation and well-designed antitrust action can provide remarkable benefits to consumers on services that can be considered essential today.

### *3.3.c Health*

**Figure 3.9: Household out-of-pocket (OOP) health expenditures**




Source: Eurostat (2022a).

As evidenced in Figure 9, out-of-pocket health expenditures in Italy are noticeably higher than the EU average (Eurostat 2021b). This limits the accessibility of the healthcare system, especially for low-income households. Co-payment, that is, the partial payment of treatment or specialist visits is more frequent here than the EU average. Moreover, what is defined as

'catastrophic expenditure', that is, exceeding 40 per cent of total available income net of subsistence needs, is rather frequent in the healthcare space, concerning 8 per cent of Italians concentrated in the lowest-income households (OECD/European Observatory on Health Systems and Policies 2021: 15).

What the OECD and the European Observatory on Health Systems and Policies note in their 2021 *Italy: State of Health in the EU* report is the unusually low uptake of generic pharmaceuticals in Italy, around 20 per cent below the EU average. Moreover, the practice of price-fixing by the government has been questioned, although it does not necessarily result in too high prices for prescription drugs: rather, it distorts pricing mechanisms. According to Belardinelli and Sileoni (2019), some form of price regulation, with particular regard to the price changes, is also in place for non-prescription drugs. Italy has also introduced a mechanism called 'pharmaceutical payback', under which the regions that are in charge of supplying public healthcare have caps on their pharmaceutical expenditure. According to Belardinelli (2019), if the cap is exceeded, half of the extra cost is mandatorily charged to drug producers. They may factor in the risk of not being fully paid in their pricing strategies. The push to contain the price of prescription drugs, especially when they are paid for by national health service, may create an incentive to over-price non-prescription drugs whose prices are relatively free.

A further component of this, according to the evidence available in the literature, lies in the high margins of pharmacies (Kanavos et al., 2011; Vokerink et al., 2007; Stagnaro, 2019). Pharmacies keep a fixed percentage of the price of drugs, even though they have the flexibility to reduce it to some extent. Moreover, the number of pharmacies is set by the law and it is not possible to open one unless a new licence is tendered out by the government. Thus, pharmacies have little incentive to recommend or even stock cheaper generic pharmaceuticals, eventually driving up consumer costs. According to Salerno (2015), the price of drugs in alternative channels – such as the so-called para-pharmacies[617] and the pharmaceutical corner in supermarkets – is usually significantly lower than in the pharmacies, which however still have a very large market share. Recent reforms allowed non-pharmacist shareholders to take control of pharmacies, creating the opportunity for efficiency gains. According to Stagnaro (2019), it is too soon to tell whether the reform will deliver.

6 Para-pharmacies are stores that are allowed to sell non-prescription drugs but not prescription drugs.

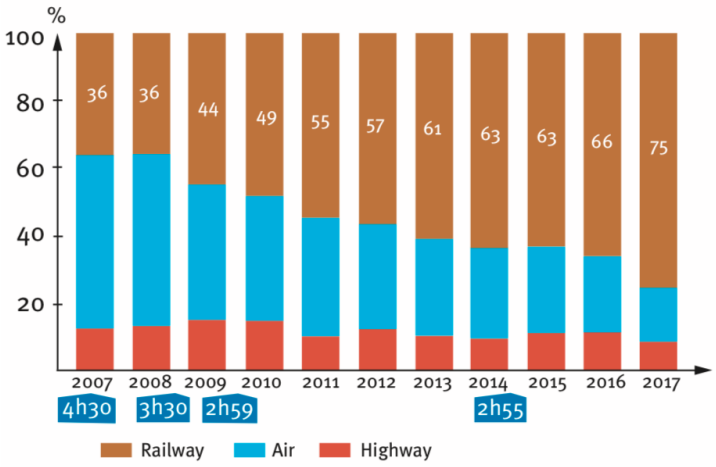
The failure of this model should be addressed to create a level playing field where consumers will be able to choose products freely and according to their needs and means. The most important steps to respond to these deficiencies are the revision of pricing mechanisms, the repeal of the pay-back and the liberalisation of pharmaceutical distribution.

### *3.3.d Transport services*

Transport services are another field where Italy is a positive outlier. There may be several reasons behind this, including the fact that a large share of local public transportation or regional railways is not paid for directly by users – it comes from public subsidies instead. The production cost of public transportation in Italy is often higher than elsewhere in the EU. Additionally, as suggested by Boitani et al., (2010: 30–31), the sector's productivity might be limited due to the public ownership of regional rail companies. Therefore costs might not be explicitly shown by consumer price metrics as they are offset by the state's budget. According to Carrarini (2020), advantages are to be had by liberalising the market, as shown by the German example. Carrarini notes the similarities between the Italian and German regional rail services market and analyses the benefits of effective liberalisation policies actuated by the German government. Again according to Carrarini, data shows noticeable improvements in service quality and supply, while also remarkably reducing the public costs associated with running the service. This approach has been shown to also promote service uptake, with user numbers growing year after year.

However, Italy also has a success story to tell in this field: the liberalisation of high-speed rail transit. In 2012, Nuovo Trasporto Viaggiatori (NTV) entered a previously monopolistic market, the only actor being the state-owned Trenitalia. Notwithstanding the considerable investments and barriers to entry, which are typical of the rail industry, the company was successful in acquiring a market share. Benefits for consumers are obvious, with more supply of high-speed train services and lower prices. Moreover, according to Desmaris (2016), as a result of competition, significant positive effects have been observed in the quality of services.

**Figure 3.10: Evolution of modal transportation share on the Milan-Rome route and travel duration by train (Antoniazzi, Giuricin, and Tosatti 2019)**




Sources: Author's personal elaboration based on FSI, 2008-2018; NTV, 2008-2018; ENAC and, AISCAT data.

Lower prices have, in turn, determined an increase in the overall market share of rail services on key routes such as Milan–Rome, where high-speed rail provides an alternative to air transportation. Trains provide a better overall experience and, most importantly, shorter journey durations, while entailing a lower carbon footprint and quite often, cheaper fares. Again, competition proves to be a strong cause of consumer benefit. This is going to be reflected in the policy recommendations that are going to make up section 3.4.

### *3.4 Society-wide policies*

Along with expansionist monetary policies, expansionist fiscal policies also tend to cause inflation. In the Italian case, extensive fiscal stimulus has been a constant feature of the country's economic policy, since well before Covid. Three main examples stand out in the current situation: the universal basic income scheme, early retirement schemes and building renovation incentives.

The first two examples are the product of the League Five Star Movement government that lasted for a little more than a year between 2018 and 2019. The two measures were projected to cost €12.4 billion in the first

year of application as per the 2018 budget approved by the European Commission (Il Sole 24 Ore 2018).

The universal basic income scheme, called *Reddito di Cittadinanza*, was the flagship economic measure of the Five Star Movement in its 2018 election campaign. It has survived two changes in the governing majority almost unchanged. The scheme allows for a cash payment of up to €720/month per person. This sum represents a considerable percentage of individuals' average earnings, especially in the southern regions. In Sicily, for instance, disposable income amounts to just €13,300 (Istat 2018), which comes out to around €1100 euros per month. Then, especially in the south, we can expect the measure to have strong distorting effects on consumer prices.

The other main economic policy result of the first Conte government of 2018–2019 was the institution of the early retirement scheme called *Quota 100*. The scheme effectively creates an exception to the 2011 Fornero law on retirement payments, which was seen as a necessary condition for the improvement of Italy's finances at the time. According to the data provided by INPS, the public agency responsible for retirement payments, the measure cost €11,6 billion in the 2019–2021 period (2021). Quota 100 has since been phased out but its result was once again, in substance, a considerable financing of consumption through the use of public funds.

The most recent example, which is also interesting considering current supply chain issues and raw material prices, is that of incentives for building renovations. The measure, known as the *110% Superbonus*, was introduced by the second Conte government of 2019–2020, supported by the Five Star Movement and the democratic party. Its intent is that of improving overall building energy efficiency by providing incentives for renovation works. Featuring a tax credit rate of 110 per cent, however, it is easy to imagine how it might cause market distortions. By effectively subsidising the cost of the whole renovation project, the measure removes most budget concerns on the part of consumers. On the part of businesses, it can be exploited to raise prices at will, knowing that as the state is footing the bill the customer will not object. The attractiveness of the scheme for all actors is bound to cause a considerable demand hike for renovations. This, combined with the raw material shortage caused by the pandemic and the invasion of Ukraine, results in an extremely tense market for building materials and supplies, as noted by industry associations (Il Sole 24 Ore 2021).

### *3.5 Conclusion*

The comeback of inflation is raising several issues concerning both the economic performance and the social cohesion of Italian society. The current wave of inflation has a broader dimension that barely depends on national policies. It is driven by exogenous factors, such as the increase in the price of commodities or the long-term consequences of unconventional monetary policies. To some extent, inflation, particularly in the case of energy costs, may also depend on the way the energy transition has been designed in Europe, as European Central Bank official, Isabel Schnabel has argued (2022).

However, domestic policies may contribute to price increases in the short-run as well as long-run price levels. In some cases, though, well-designed policies could contribute to keeping prices under control and limiting undue increases.

The main instrument by which policies may result in higher prices is the use of the fiscal policy. As we have shown, in some cases – most notably energy, alcoholic beverages, and tobacco products – Italian households and businesses pay higher prices than their EU peers precisely because of higher taxes. There may be good reasons to keep taxes relatively high – for example, incorporating the external costs from the consumption of certain goods – but in that case, one should accept higher prices as an unintended but inevitable consequence. It is inconsistent and potentially distortionary, though, to vary the fiscal burden in a way that offsets increases or reductions in market prices. In the last months of 2021 and 2022, the Italian government has temporarily reduced the taxation on road fuels and shifted some levies from the power bill to the treasury, effectively reducing the price of energy (or limiting its increases) (Sgaravatti et al., 2022). That means that current prices do not fully reflect the increasing scarcity, so consumers do not adjust their demand for fuels enough. By the same token, when the current crunch will be over and the market prices of commodities will likely go down to their historical, long-term levels, the government is likely to phase back taxes and levels, therefore, reducing the take-up of consumption in an inefficient way.

While Italian fiscal policies have been erratic and inflationary, at least as far as some key products are concerned, Italy also provides a few success stories where greater competition has allowed to protect the buying power of salaries. Most notably, this has been the case with communications and high-speed rail transport. In both cases, a well-designed liberalisation

resulted in the entry of newcomers that kept enough competitive pressures to drive prices down and service quality up.

Finally, some broader policies – such as the universal basic income scheme, early retirement, and incentives for the retrofitting of buildings – may be part of the explanation for the rising inflation. As energy prices soar, the government has reacted by temporarily cutting energy taxation and by providing subsidies both economy-wide and to targeted social groups. These temporary measures that mitigate the price signal, may contribute to inflation as well.

Inflation depends on many factors, including under-investment in energy commodities, expansionary monetary policy, and expansionary fiscal policies. Moreover, the lack of competition in some product markets (such as pharmacies) and high taxation in others (such as energy) contribute to keeping prices historically high. It would be naïve to claim that inflation depends solely on bad policies – but bad policies are a key ingredient to understanding the situation in Italy. Rather than introducing temporary schemes, the government should address these long-run issues by reforming taxation, reducing public spending, cutting distortionary transfers and handouts, and liberalising the economy.

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# Chapter 4: Poland

***Wiktor Wojciechowski***

- During 2010–2020, the average prices of consumer goods and services in Poland (considering international differences in purchasing power), in relation to the average in the EU27, remained slightly below 60 per cent, which is equivalent to the GDP relation between Poland and the EU countries in general. However, the relative price level of consumer services, amounting to about 40 per cent of the EU27 average, was significantly lower than in the case of consumer goods, the prices of which amounted to about 75 per cent of the EU27 average.
- According to the EU-SILC survey, the situation of Polish households improved between 2014 and 2020: there was a clear decline in the share of housing costs in total disposable incomes, decrease in the percentage of households declaring financial problems.
- A substantial improvement of financial situation, including poverty reduction, was observed among families with children. Although it may be attributed to the launch of the 500+ programme in 2016 (monthly payments of PLN 500 per child in the family), this is not a decisive factor as the improvement in indicators was observed before the launch of the programme and it can be attributed mainly to better labour market performance.
- The increase in food and energy prices observed in recent quarters as well as monetary policy tightening leading to an increase in debt service expenditure, have certainly halted, and probably reversed, the systematic decline in the percentage of households reporting financial difficulties in recent years.

- The current tightening of the monetary policy is a necessary measure that, in the next few years, may bring inflation down to the NBP target and, as a result, stabilise changes in the cost of living of households. Although higher interest rates drive up the cost of servicing loans taken out by households, it is a necessary measure to ensure stable and high economic growth, which is ultimately the main factor determining material living standards.
- The government could, at least in part, limit inflation through the exchange rate channel if it seeks to quickly resolve the conflict with the European Commission over the rule of law. For example, any deregulatory changes that increase the scope of market competition, and, thus, reduce the level of consumer prices in the medium term may also have an impact on stabilising inflation at a low level and lowering the relative cost of living.

### *4.1 Analysis of the cost of living in Poland in comparison with the EU countries (2010–2020)*

The data used in this report, on differences in the cost of living, are mainly drawn from Eurostat's annual data on the prices of selected categories of consumer goods and services in each European Union (EU) member state in relation to the average observed across all EU countries in 2007, considering purchasing power parity. The second source of data is the representative EU-SILC survey from 2014–2020, which provides information on the percentage of households reporting problems in financing the purchase of various consumer goods. Data from this survey allows us to determine the scale of poverty.

The significant differences in prices and living costs across countries in the EU arise mainly due to differences in levels of economic development, especially between the highly developed countries of Western Europe and the newer member states (EU11). It should be noted, however, that limiting the analysis to a comparison of the aggregate household consumption expenditure would not allow for the identification of, for example, above-average variations in the prices of services accompanied by a relatively limited variation in the prices of goods.

An in-depth analysis of the reasons for international differences in price levels – for instance, the implementation of regulatory solutions that influence the scope of market competition or the taxation of selected

consumer goods – is beyond the scope of this report. However, this study pays attention to categories of goods whose prices depend on state regulation to a large extent, such as alcoholic products, tobacco, and energy carriers. It also emphasises the importance of restrictive regulation of the goods market, including regulated professions, which hampers market competition in Poland, and, thus, indirectly contributes to higher living costs. Additionally, the study presents and analyses the main activities of the government and the central bank in Poland in response to the growing inflation observed in recent months.

### *4.2 Changes in relative prices of selected categories of consumer goods and services (2010–2020)*

During 2010–2020, the average prices of consumer goods and services in Poland (considering international differences in purchasing power), in relation to the average in the EU27, remained slightly below 60 per cent, which is equivalent to the GDP relation between Poland and the EU countries in general. At the same time, it is worth noting that the relative price level of consumer services, amounting to about 40 per cent of the EU27 average, was significantly lower than in the case of consumer goods, the prices of which amounted to about 75 per cent of the EU27 average.

Between 2015 and 2019, in the run-up to the Covid-19 pandemic, the prices of consumer goods in Poland rose steeply in comparison to the EU average: for goods, this was an increase from 70 per cent to 75 per cent and for services from 41 per cent to 44 per cent. However, in 2020, i.e., when the pandemic started, while the prices of goods remained stable, the prices of services fell to 42 per cent of the EU average. It can be assumed that the relative reduction in service prices during this period was due to a fall in demand for services. However, due to a lack of data, it is not possible to assess whether this trend continued into the second year of the pandemic.

**Figure 1: The relative prices of consumer goods and services and GDP levels in EU27 countries in 2020 (EU27 = 100)**

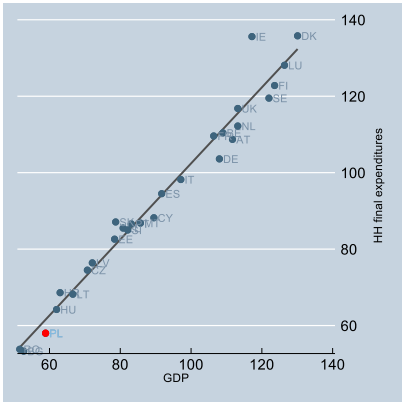
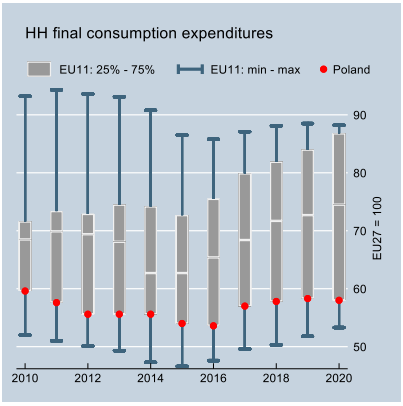



**Figure 2: The relative prices of consumer goods and services in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**




Source: Own study based on Eurostat data. Prices are presented considering differences in purchasing power parity between countries.

**Figure 3: The relative prices of consumer goods in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**

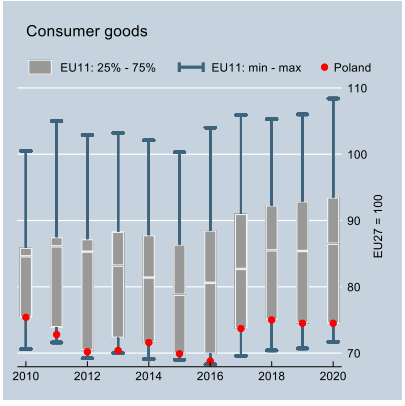
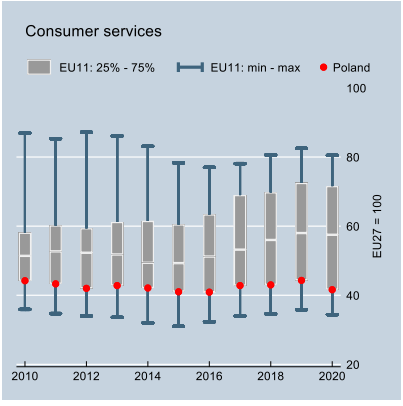



**Figure 4: The relative prices of consumer services in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**



### *4.2.a Food and non-alcoholic beverages*

The prices of food and non-alcoholic beverages underwent strong changes compared to the EU average between 2010 and 2020. After decreasing from 70 per cent to 62 per cent between 2010 and 2016, they started to increase, reaching 74 per cent in 2020. It should be noted that the relative increase in food and non-alcoholic beverage prices was not limited to Poland but also affected other new EU countries. Despite these changes, the average prices of food and non-alcoholic beverages in Poland in 2020 were still the lowest in the entire EU.

Closer analysis shows that the strong increase in food prices in Poland between 2016 and 2020 concerned practically all major categories, especially fats, fruits, vegetables, milk, cheese, eggs, and meat.

**Figure 5: The relative prices of food and non-alcoholic beverages in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**

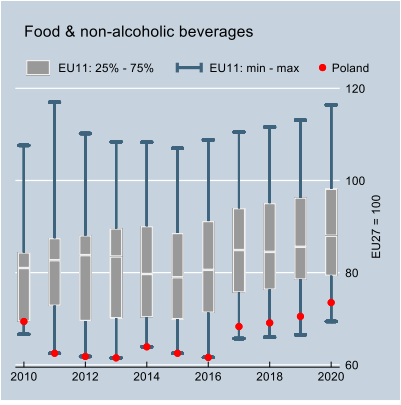



**Figure 6: The relative prices of oils and fats in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**

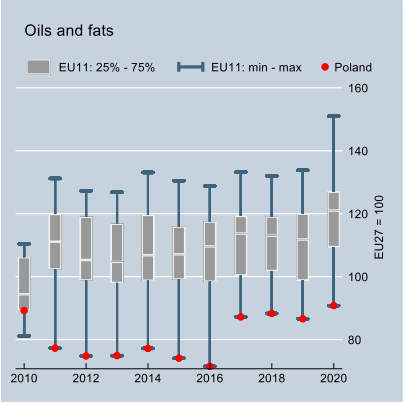


**Figure 7: The relative prices of fruits and vegetables in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**

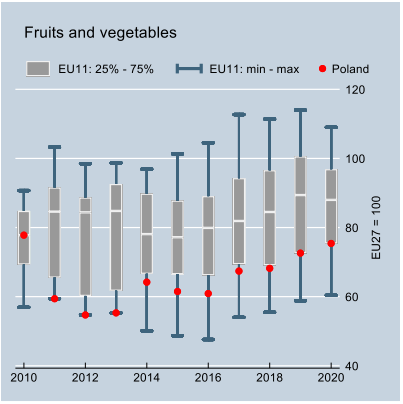



**Figure 8: The relative prices of milk, cheese, and eggs in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**

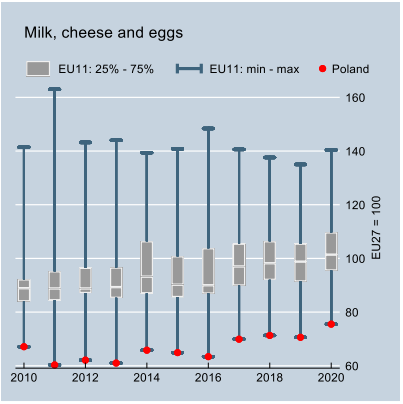
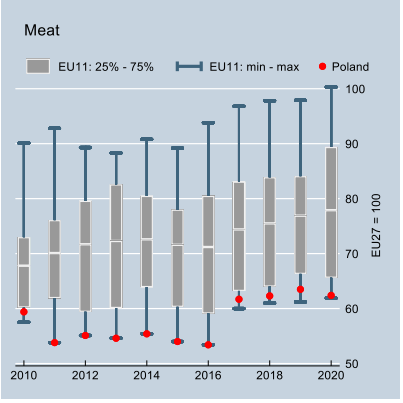



**Figure 9: The relative prices of meat in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**

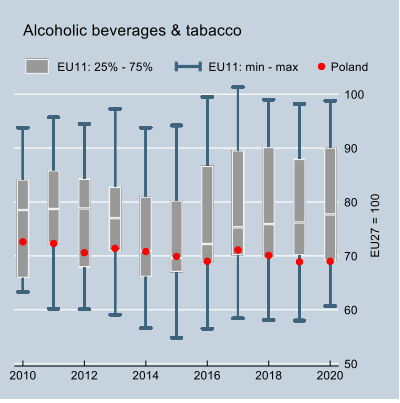



Source: Own study based on Eurostat data. Prices are presented considering differences in purchasing power parity between countries.

### *4.2.b Alcoholic beverages and tobacco products*

Between 2010 and 2020, the prices of alcoholic beverages and tobacco products in Poland decreased only slightly in relation to the average for the entire EU as well as the new member countries. In 2015, the prices of these products were identical to the EU11 average and equivalent to 70 per cent of the EU average. This level was maintained until 2020, after which their average prices increased to almost 80 per cent of the EU11 average.

**Figure 10: The relative prices of alcoholic beverages and tobacco in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**




Source: Own study based on Eurostat data. Prices are presented considering differences in purchasing power parity between countries.

### *4.2.c Clothing, footwear, housing, and energy carriers*

The price level of clothing and footwear in Poland in 2020 was very close to the average EU level. Between 2017 and 2020, there was a relative decrease in the prices of these goods from 99 per cent to 89 per cent of the EU level, which may indicate high competition in this market.

The opposite trend is observed in the case of prices of home furnishings: their price level between 2015 and 2020 remained at 60 per cent of the EU average but gradually increased to 75 per cent in 2020.

The prices of electricity, gas, and energy carriers remained stable during 2010–2020 at around 70 per cent of the EU average and corresponded to the average level observed in the new member states.

**Figure 11: The relative prices of clothing and footwear in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**

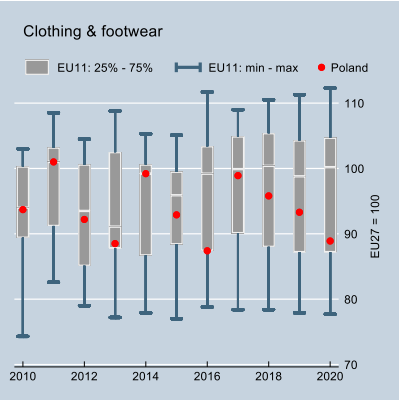
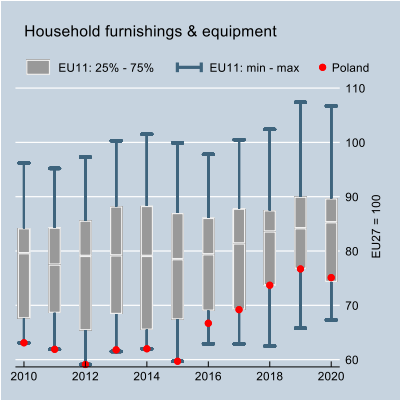
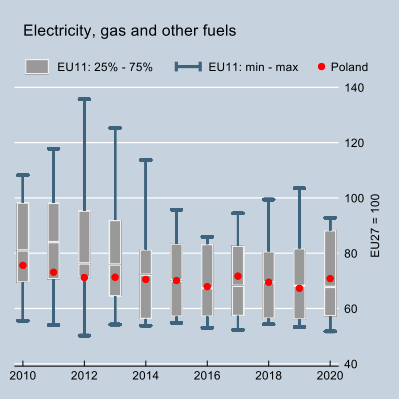



**Figure 12: The relative prices of household furnishings and equipment in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**




Source: Own study based on Eurostat data. Prices are presented considering differences in purchasing power parity between countries.

**Figure 13: The relative prices of electricity, gas, and other fuels in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**




Source: Own study based on Eurostat data. Prices are presented considering differences in purchasing power parity between countries.

### *4.2.d Consumer goods and services*

The relative prices of services in Poland are much lower than the EU average – in 2020, it was slightly more than 40 per cent of the average of EU countries. They are even lower than the percentage comparison of Poland's GDP with the EU average (60 per cent) and the comparison of its aggregate household consumption expenditure (58 per cent). It is worth noting that price levels in Poland remained virtually unchanged between 2015 and 2020, with an increase from 50 per cent to 58 per cent compared to average prices in the EU11.

Particularly low prices were recorded in Poland for health services (around 40 per cent of the EU average) and communication services (around 50 per cent). On the other hand, the prices of recreational and cultural, educational, hotel and restaurant services increased between 2010 and 2020.

**Figure 14: The relative prices of health services in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**

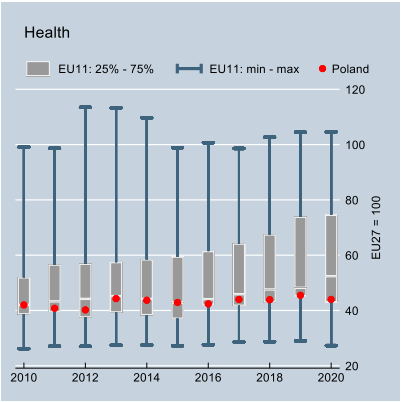



**Figure 15: The relative prices of communication services in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**

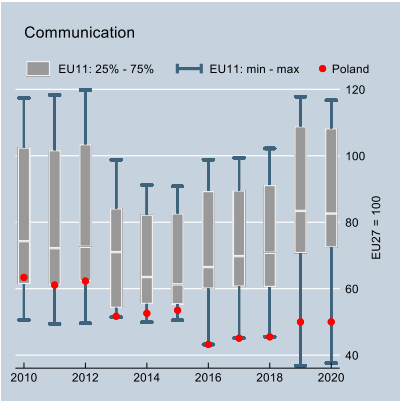



**Figure 16: The relative prices of recreation and culture services in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**

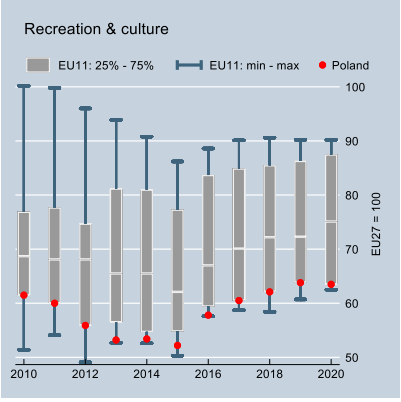
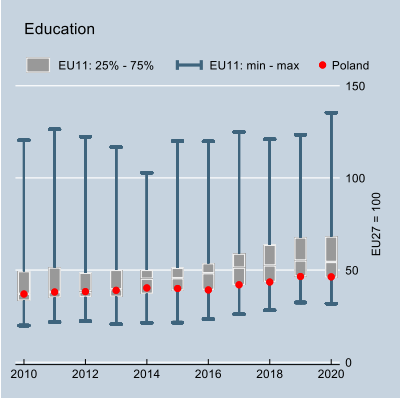
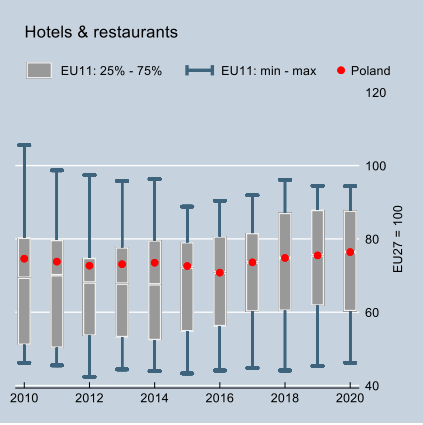



**Figure 17: The relative prices of education services in Poland compared to the distribution of prices in EU11 countries (EU27 = 100)**




Source: Own study based on EU-SILC and Eurostat data.

**Figure 18: The relative prices of hotels and restaurant services in Poland compared to the distribution of prices in EU11 countries (EU27=100)**




Source: Own study based on EU-SILC and Eurostat data.

### *4.3 The situation of households*

According to the EU-SILC survey, the situation of Polish households improved between 2014 and 2020. Since 2016, there was a clear decline in the share of housing costs in total disposable incomes (from 23 per cent in 2014 to 17 per cent in 2020). Between 2010 and 2020, there was a decrease in the percentage of households declaring financial problems (among the working population, pensioners, and families with children under 18 years of age). In the case of families with children, the figure decreased from 23 per cent in 2014 to 5 per cent in 2020. Additionally, the percentage of households declaring that they cannot afford a meat meal at least every other day or going out to a restaurant once a month has decreased.

**Figure 19: Share of housing costs in the disposable income of households in Poland compared to the EU11 countries**

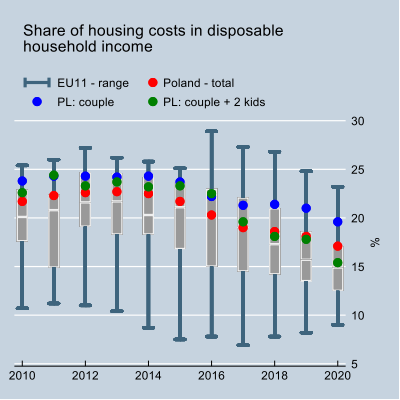



**Figure 20: Percentage of households that cannot afford a meat meal at least every other day in Poland compared to EU11 countries**

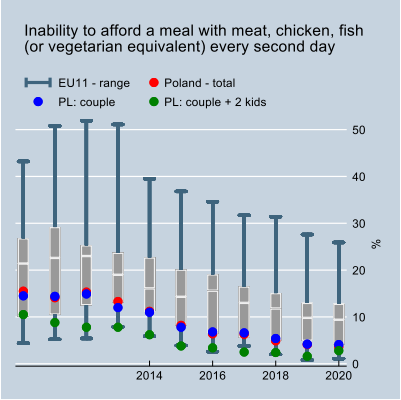



**Figure 21: Percentage of employed persons' households declaring financial difficulties in Poland compared to EU11 countries**

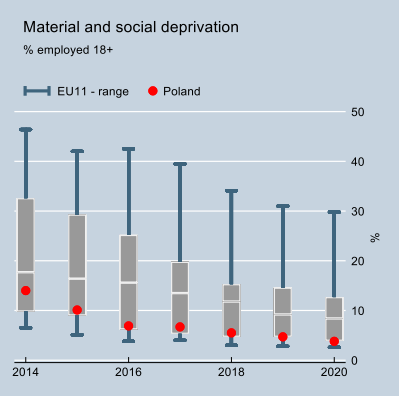



**Figure 22: Percentage of retired persons' households reporting financial difficulties in Poland compared to EU11 countries**

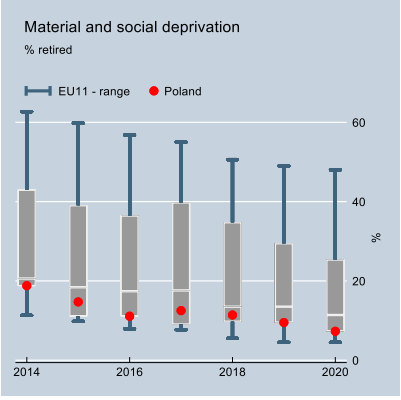


**Figure 23: Percentage of households with children under 18 years declaring financial difficulties in Poland compared to EU11 by education level**

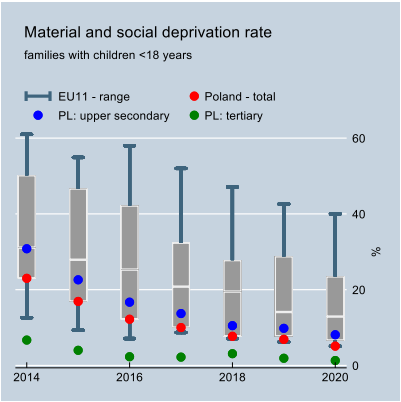
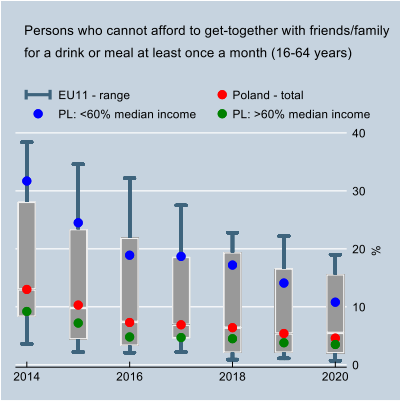



**Figure 24: Percentage of households that cannot afford to go out to restaurants at least once a month in Poland compared to EU11**




Source: Own study based on EU-SILC and Eurostat data.

### *4.4 The impact of rising prices on low-income earners*

From the perspective of the lowest income earners, food and non-alcoholic beverages are key categories for consumption expenditure, as they satisfy basic needs. Although the relative prices of these products in Poland were low both in relation to their average level in EU countries and in the new member states, the relative increase in food prices observed in years 2021-2022 may be much greater than in the economically developed countries of Western Europe. In 2020, the share of spending on food and non-alcoholic beverages in total consumer spending was 17.9 per cent on average in Poland. For comparison, in Germany, this share was only 12.0 per cent, and in Romania, it was as high as 26.4 per cent. According to Eurostat data, which ends in 2015 but well illustrates the scale of the disparity, the share of expenditure on food and non-alcoholic beverages in Poland in the first quintile of the income distribution was 23.7 per cent, but decreased to 21.6 per cent and 17.8 per cent in the fourth and fifth quintiles, respectively. In Germany, families in the first income quintile spent 14.6 per cent of their total consumption expenditure on food and

non-alcoholic beverages. In comparison, in the fourth and fifth quintiles, they spent only 11.6 per cent and 9.9 per cent, respectively. This comparison shows that the impact of rising food prices on the cost of living in Poland is on average almost twice as high as in Germany.

The increase in food prices observed in recent quarters has certainly halted, and probably reversed, the systematic decline in the percentage of households reporting financial difficulties in recent years. The rising prices of energy and fuels also contribute to the deterioration of the declared financial situation. According to the results of an opinion poll conducted in January 2022[7], the most urgent actions to be taken by the government to mitigate price increases and their effects were to reduce taxation on electricity, abolish VAT on food, and reduce taxation on motor fuels.

### *4.5 The impact of tax and regulatory policies on price levels*

Tax and regulatory policies have a potentially significant impact on the level of consumer prices and the cost of living but analysis of the aggregate data did not identify evidence of this impact. As it was already illustrated (Figure 1), the main factor differentiating relative price levels across EU countries has been the differences seen in the level of economic development – the less developed the country, the lower the price level.[8]

In the last decade, there has been a significant reduction in the scale of poverty in Poland, reflected by a decrease in the share households declaring financial problems. To some extent, this improvement concerned families with children, which may be attributed to the launch of the 500+ programme in 2016 (monthly payments of PLN 500 per child in the family). Note that this is not a decisive factor as the improvement in indicators was observed before the launch of the programme. Another important factor that influenced the situation of the households was the systematically improving condition of the labour market observed in last decade, which resulted in higher employment and salaries.

7 'Perception of inflation and government anti-inflation policy', *CBOS*, January 2022 (https://www.cbos.pl/EN/publications/news/2022/04/newsletter.php).

8 Balassa B., 1964. The Purchasing Power Parity Doctrine: A Reappraisal. *Journal of Political Economy* 72: 584-596.

### *4.6 The impact of inflation on the cost of living and anti-inflationary measures taken*

The data analysis shows a clear decrease in the cost of living in relation to income. Until 2020, the growth rate of income exceeded the growth rate of consumer prices. Currently, Poland is experiencing very high inflation. In the fourth quarter of 2020, the inflation rate was 3.4 per cent year-on-year and in the first quarter of 2022, it reached 10.2 per cent year-on-year, while the average for the EU27 was 0.2 per cent year-on-year and 7.8 per cent year-on-year, respectively. The positive trend of a decline in cost of living in relation to income is likely to have stopped in 2022, or perhaps even reversed, since inflation exceeded the growth rate of nominal average wages. In addition, the tightening of the monetary policy is leading to an increase in debt service expenditure, which is not included in consumer inflation but is necessary for the current situation.

Rising inflation has led to non-standard measures by the government, such as reducing the VAT rate on fuel (from 23 per cent to 8 per cent), heat for households (from 8 per cent to 5 per cent), and some food products (from 5 per cent to 0 per cent). These measures may reduce the prices of the indicated consumer goods temporarily, but they are unlikely to have any impact on lowering inflation resulting from excessive domestic demand or the increased cost of food and energy raw materials in global markets. Additionally, there is a weakening of the złoty exchange rate resulting from, inter alia, the legal dispute of the Polish government with EU institutions blocking the EU funds for the National Recovery Plan as well as the armed conflict in Ukraine that increased risk aversion among investors on the financial market.

Government actions can only postpone inflation processes but they are unlikely to remove them or reduce their causes because the actions are temporary – they may affect the growth of inflation in terms of products not covered by them but they do not affect geopolitical factors. This point of view is expressed by the majority of Poles. In a *Centre for Public Opinion Research* survey conducted in January 2022[9], as many as 32 per cent of people claimed that the government's actions would not have any impact on mitigating price increases, while as many as 46 per cent of respondents believed that they would have an effect but only to a small extent. The

9 'Current issues and events', *CBOS*, February 2022 (https://www.cbos.pl/EN/publications/news/2022/16/newsletter.php).

latest public opinion poll results from March/April 2022[10] show that almost all respondents perceive prices to have risen (99 per cent), including almost all who believe that the prices of goods and services have risen strongly over the past year (88 per cent). Unsurprisingly, this opinion is expressed most often among those on low incomes. For the largest group of respondents, the most strongly felt increases were in the rise in prices of food, fuels, and electricity but also the cost of housing. Interestingly, the same survey shows that despite rising inflation, there has been an increase in the percentage of respondents who believe that their household income situation has improved (39 per cent of respondents in April compared to 28 per cent in January 2022). This shows that at least so far, the rising inflation has not caused households' assessment of their financial situation to deteriorate.

At the same time, the National Bank of Poland (NBP) has increased interest rates, and in the public debate, there have been proposals to freeze the WIBOR rate and even the level of credit instalments, which, however, may have a pro-inflationary effect and offset the actions of the central bank.[11] According to the latest NBP projection of March 2022, assuming constant NBP interest rates, consumer price inflation in 2022 will amount to 10.8 per cent, after which it will decrease to 9.0 per cent in 2023 and to 4.2 per cent in 2024.[12] Whereas, according to the government update to the *Convergence Programme* prepared in April 2022, which assumes an increase in NBP interest rates in line with market expectations, average annual inflation in 2022 will amount to 9.1 per cent, followed by a drop to 7.8 per cent in 2023, to 4.8 per cent in 2024, and entering the permissible band of deviations from the NBP target only in 2025, reaching 3.5 per cent.[13] Although the initiated cycle of interest rate increases of the central bank will limit the growth of inflation, its return to the NBP inflation target (2.5 per cent ±1 percentage point) will not happen soon.

10 'Perception of inflation', *CBOS*, May 2022 (https://www.cbos.pl/EN/publications/reports.php).
11 Zieliński M., (2022) There is no justification for freezing WIBOR, FOR. Warsaw: Forum Obywatelskiego Rozwoju.
12 'Inflation report', *NBP*, March 2022 (https://www.nbp.pl/homen.aspx?f=/en/publikacje/raport_inflacja/projekcja_inflacji.html).
13 'Convergence Report 2022 Update',*Polish Ministry of Finance*, 2022 (https://www.gov.pl/web/finance/convergence-programme).

### *4.7 Recommendations*

The current tightening of the monetary policy is a necessary measure that, in the next few years, may bring inflation down to the NBP target and, as a result, stabilise changes in the cost of living of households. Although higher interest rates drive up the cost of servicing loans taken out by households, it is a necessary measure to ensure stable and high economic growth, which is ultimately the main factor determining material living standards. It is worth noting that government actions intended to mitigate the effects of high inflation reduce the effectiveness of the monetary policy, as they do not reduce aggregate demand but only shift it over time and redirect it to other goods. As a result, lowering inflation by the NBP may require higher interest rates or maintaining them for a longer time compared to a situation where the government's anti-inflationary shield is not implemented. Certainly, the government could, at least in part, limit inflation through the exchange rate channel if it seeks to quickly resolve the conflict with the European Commission over the rule of law.

Regardless of the current activities of the government and the central bank, it should be stressed that any deregulatory changes that increase the scope of market competition, and, thus, reduce the level of consumer prices in the medium term may also have an impact on stabilising inflation at a low level and lowering the relative cost of living. Therefore, these are not the proposals of changes that will bring positive effects on prices in the short term but they are worthy and should be implemented to strengthen the rate of economic growth and reduce the relative cost of living. The catalogue of such reforms includes institutional factors related to the scope of regulation of the labour market and the product market. In EU countries, the negative effects of excessive product market regulation primarily affect certain service sectors concentrated in local markets, for example, transport services or regulated professions. The problem is much less pronounced in the industry sector, where there is greater price competition, as industrial goods are traded intensively internationally.

**Figure 25: Index of total product market regulations in Poland compared to OECD countries in 2000–2018**


**Figure 26: Index of product market regulations in energy distribution services in Poland compared to OECD countries in 2000–2018**

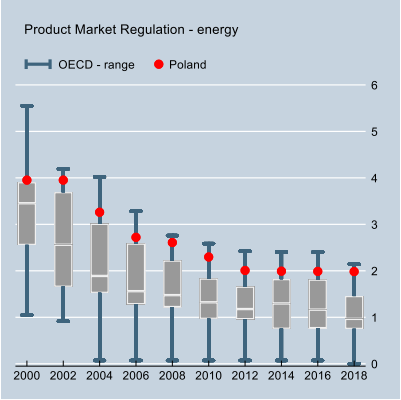



**Figure 27: Index of product market regulations in communication services in Poland compared to OECD countries in 2000–2018**

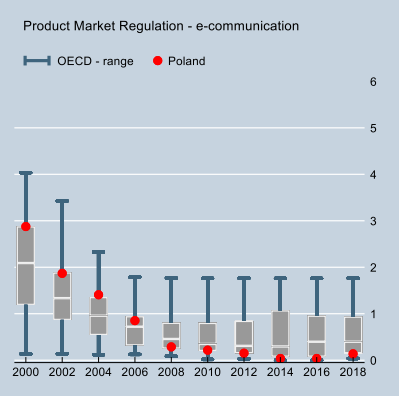



**Figure 28: Index of product market regulations in transport services in Poland compared to OECD countries in 2000-2018**

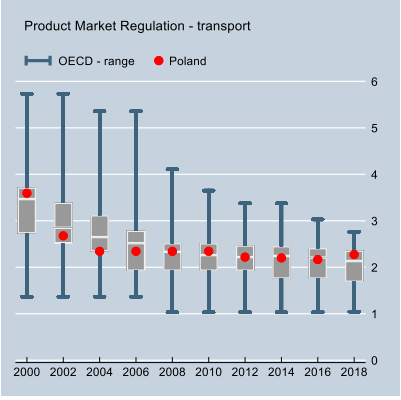


**Figure 29: Index of labour market regulations for permanent employment contracts in Poland compared to OECD countries 2000–2018**

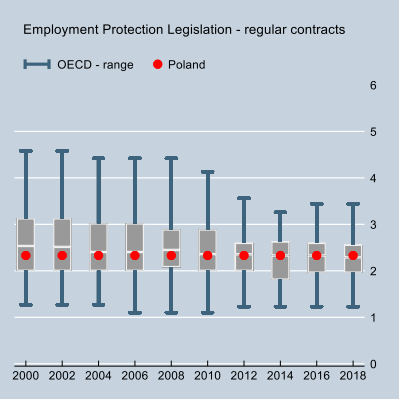
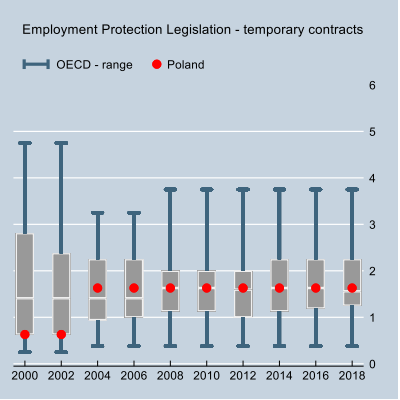



**Figure 30: Index of labour market regulations for temporary contracts in Poland compared to OECD countries in 2000–2018**




Source: Own study based on OECD data on Product Market Regulation and Employment Protection Legislation.

Despite some positive changes in the degree of access to some professions in recent years, according to OECD data, Poland is still distinguished by high barriers to the provision of, for example, legal services. In 2018 (the latest available data), Poland had one of the highest OECD indices for barriers to accessing legal services. Among the EU countries, only Hungary was more regulated in this respect.

From the Polish perspective, there is certainly considerable space for further deregulation of the service sector. Despite the decrease in the scope of regulation in this area, which is reflected in the decline of relevant OECD indicators, Poland still stands out with an above-average level of regulation in transport services and the energy sector. At the same time, regulations in telecommunication services are lower than in OECD countries on average.

Among the additional measures that should strengthen the growth prospects of the economy, it is worth adding the demands recently made by the

Warsaw Enterprise Institute, which include[14]:

– the introduction of a one-year moratorium on all new regulations that in any way restrict or disrupt the economic activities of businesses in Poland, and

– the introduction of a one-year *vacation legis* for new regulations of commercial law, including tax law.

However, the introduction of this principle should be postponed until the fiscal chaos introduced by the Polish Deal (large and underdeveloped tax law reform) has been sorted out, from which we are currently observing a retreat. Such legislation should be replaced as soon as possible by a friendly and simple tax system.

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# Chapter 5: Greece

***Michael Mitsopoulos***

- Countries that lag in institutional maturity happen to have, at the same time, a lower GDP and, proportionally, more expensive goods. On the other hand, the prices of services are generally aligned with the prosperity of a country.
- Indirect taxes can significantly influence consumer prices.
- Greece, despite the reform effort observed during the adjustment programmes, remains an underperformer relatively to other EU and OECD peers in all key dimensions of institutional maturity. As such, its GDP performance remains below the European average and goods prices remain relatively high.
- In addition, during the Greek adjustment programmes, increases in indirect taxes significantly contributed to higher consumer price levels.
- Reforms initiated or completed since 2020 are, unfortunately, not yet measured by available indexes that allow international comparisons, given that they are not available for after 2020. In addition, important reforms are planned as part of the initiatives financed by the RRF. Therefore, the degree to which Greece is on track to address the underlying causes that led, among others, to the “Greek crisis” is an evolving situation that merits close monitoring.
- As a result, continuing the path of pursuing useful reforms remains the best way to address both the issue of “expensive living” and ensure sustainable long-term growth for the county.
- Addressing the impact that sudden and large shocks have on weaker segments of society with extraordinary and well-designed measures is warranted to the extent that weaker households find it challenging to manage such shocks.

- Transport services represent somewhat of a mixed example: regional railway transport would benefit from a liberalisation process akin to Germany's, while the liberalisation of high-speed rail resulted in lower prices and better services.
- Other policies might play a role in fuelling inflation: government financing of personal consumption through schemes such as universal basic income or early retirement mechanisms. An interesting example can also be seen in incentives for building renovations, which are contributing to a rise in raw materials and construction supplies prices.

### *5.1 Introduction*

The question of 'expensive living' primarily relates to the ability of the citizens of a country to purchase goods and services that are widely accessible in other reference countries at the same time. Therefore, both disposable income and prices are determinants, while income relates directly to competitiveness and the ability of a country to generate employment with remunerations that can match the prices of goods and services.

These issues were at the forefront of the discussion in the years following the accession of Greece to the eurozone and up to 2009 (IMF 2008). One of the key drivers of concern at the time was the persistent erosion of competitiveness that was linked to a higher inflation in Greece when compared with the euro area average. Another was the 'jobless growth' of that period, which reflected the structural weaknesses of the country at a time when consumption was fuelled by an influx of cheap lending to the public and private sector as well as significant inflows of EU grants. This 'quasi-Balassa-Samuelson' effect combined a weak job market – which means weak income growth for households along with demand-driven increase in consumer prices (Mitsopoulos and Pelagidis 2003). The deflation during the 'Greek crisis' meant that the topic retreated from the front pages, only to re-emerge now in the context of the pandemic, rising geopolitical tensions, as well as the war in Ukraine.

At the time, there existed two approaches to explain the persistent inflation difference with the euro area. The convergence narrative that attributed inflation differences to a catch-up process and the structural weaknesses approach. The structural weaknesses approach was in line with a significant literature (e.g. Rogoff 2003) and eventually portrayed the departure of the euro area from the characteristics of an optimum currency area (Olivier and Giavazzi 2003, Busetti et al. 2006). At the time, estimates that identified

a need to 'either improve competitiveness in Greece by 25 per cent or face a fall in income of a similar proportion' proved, in hindsight, quite accurate (Anastasatos 2008).

This research identified pertinent, for all countries in their samples, explanatory variables. These include labour market institutions (Jaumotte and Morsy 2012, even though in the case of Greece, the use of the gross operating surplus needs to be followed with careful caveats and adjustments[15]), the level of per capita GDP and product market regulations (Andersson, Masuch, Schiffbauer 2009), as well as taxation (ECB 2009). All these variables merit closer examination in the case of Greece, as the country performs historically weakly when compared to EU and OECD peers in these dimensions.

In addition we should recall that the combination of a) high regulatory burden, b) direct state intervention in the operation of markets (especially network industries), c) de facto centralisation of wage adjustment mechanisms in a way that does not take into account productivity developments, and d) certain aspects of the Greek tax and social security system that during the past decades discouraged competition and well-paid, private-sector, salaried employment – laid, among other, the foundations for the 'triple deficits' in competitiveness, current account, and government budget. These deficits were identified by international institutions as root causes that led to the Greek crisis (for a list of the reports, see Pelagidis, and Mitsopoulos 2021). Thus, the variables investigated as root cause of persistently higher inflation are also held accountable for the other fundamental weaknesses of the Greek economy, but are also linked by existing research with overall economic performance indicators (for example, Bouis and Duval 2011).

15 It needs to be stressed that the gross operating surplus (GOS) is often labelled as 'corporate profits' even though this is not accurate. The GOS also includes the income of self-employed people, who are particularly numerous in Greece. In addition, the GOS needs to be adjusted for depreciation of capital, something that is not usually done (Dao et al. 2017). In Greece, the tax system is directly lined with the intensive use of self-employment in the economy (Mitsopoulos 2017), the low use of salaried private-sector employment, and, thus, the intensive use of capital, a fact that suppresses the return on invested capital and profitability stemming from corporate balance sheets (Ibid.; Pelagidis and Mitsopoulos 2021).

The practical question to answer today is: have these root causes been sufficiently mitigated after over ten years of adjustment programmes and in the wake of the pandemic, the war in Ukraine, and the rising geopolitical tensions? On the one hand, such mitigation would be compatible with sustainable long-term growth of Greece within the common currency area, and on the other hand, according to the hypothesis examined in this chapter, offer a significant advantage in the effort to deal with the current extraordinary international surge in prices.

To answer this question, we will look at data that refines the relationship between institutional and structural parameters already investigated in the literature, on the one hand, and prices on the other. We will compare the results with the findings of the literature that links such structural parameters with long term growth prospects. In addition, we will examine data on the impact of consumption taxes in Greece and summarise literature findings on how the structural aspect of the economy relates to the exposure of the weaker members of society to negative shocks. We conclude with policy proposals for a long-term strategy and the current extraordinary circumstances.

### *5.2 Evolution of price levels and taxation*

Every year, Eurostat publishes comparative price level data for a basic group of products and services, after a PPP adjustment. In Table 1, this data is presented for the reference EU-27, with a value of 100 for the year 2007. Here, one can see that even while Greece, proportionally, has a below-average GDP (volume per capita) and the price levels of most services are less than the EU average – with some exceptions that merit commenting on – product price levels are close to the European average. Given that ‘expensive living’ is a relative measure, one can conclude that a) Greek consumers pay for goods ‘European prices’, even though their income is below ‘European incomes’ and b) prices of services are better aligned with their income level.

**Table 5.1: Price levels in purchasing power parity per goods and services bundled in Greece with reference value 100 for EU-27since 2007**

| Greece HCPI PPP | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Food and non alcoholic beverages | 95 | 100,1 | 104,1 | 102 | 105,1 | 104,4 | 102,1 | 102 | 102,6 | 104,1 | 106,5 | 105,4 | 103,9 | 107,8 |
| Alcoholic beverages, tobacco etc | 87,6 | 82 | 84,5 | 89,4 | 96,2 | 91,8 | 91,2 | 90,8 | 88,7 | 91,3 | 97,2 | 96,1 | 94,3 | 96,7 |
| Clothing and footwear | 104,2 | 99,3 | 106 | 106,5 | 96,5 | 93,3 | 94,3 | 105,1 | 99,5 | 99 | 99,2 | 98,6 | 97,8 | 100,5 |
| Household equipment | 96,2 | 98,7 | 103,9 | 97,9 | 97,8 | 94,7 | 95 | 92,6 | 90,8 | 93,5 | 91,4 | 91 | 90,3 | 89,7 |
| Energy and housing | 73,2 | 76,4 | 74,6 | 81,3 | 83,6 | 90,2 | 101 | 100,8 | 95,3 | 95 | 99 | 91,3 | 85,2 | 86,8 |
| **Consumer products** | **92,5** | **94,4** | **96,6** | **99** | **98,9** | **97,6** | **96,8** | **98,1** | **96,3** | **98,1** | **99,4** | **98,2** | **96,7** | **98,2** |
| **Non durable products** | **90,2** | **92,6** | **95,3** | **98,7** | **100** | **98,7** | **97,5** | **98,6** | **97,2** | **98,8** | **101,1** | **98,8** | **97,1** | **99,1** |
| **Durable products** | **97,2** | **99,8** | **97,1** | **97** | **96,3** | **97,2** | **97,3** | **94,3** | **94,8** | **98** | **95,6** | **98,4** | **96,5** | **96,2** |
| Health | 81,7 | 83,5 | 86,5 | 99,6 | 95,7 | 93,9 | 87,9 | 91,6 | 88,4 | 87,3 | 85,3 | 83,3 | 85,7 | 84 |
| Transport services | 76,9 | 77,1 | 82,9 | 87,4 | 88,4 | 88 | 75,9 | 75,9 | 75,1 | 75,2 | 74,9 | 73,4 | 73,7 | 76,2 |
| Communications | 115,6 | 116,3 | 119,2 | 126,1 | 128,3 | 127,7 | 138 | 138,8 | 135,6 | 148,5 | 148 | 153,8 | 172 | 169,8 |
| Education | 104,3 | 110,6 | 110,4 | 97,9 | 96,3 | 87,9 | 76,7 | 71,1 | 62,8 | 61,1 | 58,1 | 56,5 | 55 | 51,4 |
| **Total services** | **84,6** | **87,4** | **91** | **90,2** | **89,6** | **86,3** | **81,1** | **75,8** | **73,1** | **74,2** | **73,7** | **73,7** | **73,7** | **73,7** |
| **GDP PPP** | **82,7** | **85,2** | **87,4** | **89** | **89** | **85,1** | **80,7** | **77,7** | **75,9** | **77,2** | **77,2** | **76,7** | **76,2** | **75,9** |

Source: Eurostat (2022).

It should be noted that one of the key attributes of the PPP-adjusted price level data published by Eurostat is that all taxes are included, as opposed to the HICP data, which only tracks price changes and does not allow price level comparisons between countries. The latter is available with all taxes included as well as with an adjustment, that removes at least first-order effects of consumer taxes, and is labelled as 'HCPI with constant taxes'. Therefore, the price levels documented here were include the effect of multiple consumption tax increases during the past decades.

### *5.2.a Indicative examples of tax increases pertinent to our analysis*

The VAT increased in 2005, 2010, and 2016 (Figure 1). Gradually, the standard rate increased from 18 per cent (as was applicable during EMU accession and which was one of the lowest in the EU at the time) to 24 per cent today, which now is one of the highest in the EU. These increases of the standard rate were accompanied by a stern limitation of products and services benefiting from reduced rates. Cases of interest here include a) restaurants (food and beverage), b) tourist packages that were placed at the standard rates and hotels that were still taxed at the reduced rate, though the reduced rate also was increased and, in addition, the introduction of an overnight stay tax, and c) passenger transport, that was moved from the reduced rate to the standard rate.

Given the importance of tourism for the country, it is noteworthy that these segments were burdened with tax increases that rendered the 'tourist package' less competitive to an extent not seen in any other EU country, and especially any other EU country which has a thriving tourism sector.

In addition, Greece has an elongated shape, numerous distant islands and areas that depend on maritime and air transport. Since it is impossible to substitute in these cases air and maritime with rail or road transport, as in many other central European countries, maritime and air transport remain crucial both for tourism and the servicing of the permanent professional and private travel needs. All of them were burdened by these tax increases to an extent not seen in any other EU country. On a positive note, even though during the 2016 tax increase passenger transport was placed at the standard rate (by then already 24 per cent) it was placed again at the reduced again (13 per cent), on a temporary basis as part of the measures to deal with the pandemic adopted by Law 4690/2020 (art. 11).

Important increases in excise tax were also observed for alcoholic beverages. Through repeated increases, the excise tax on ethylic alcohol rose from 1.090 euros (1.135 with some extra charges) per hectolitre in 2008 to 2.450 (2.550 with additional charges) in 2011. As a result, proportionally for its income levels, Greece now has the highest taxation on alcohol in Europe. There was also a more than doubling of the excise tax on beer, the introduction of an excise tax on wine (Law 4346/2015, art. 4, which was a failure and was abolished in 2019) and the introduction of an excise tax on coffee (Law 4389/2016, art. 58).

A similar case is that of tobacco (IOBE, 2016). Taxes on tobacco increased from 75 per cent of the final consumer price in 2008 to over 90 per cent after 2016. Cases like that of tobacco, alcohol, and – since the introduction of the excise tax – coffee, merit attention as they are susceptible to illicit trade. The morphology of Greece means borders are notoriously difficult to guard and the large increases in taxes led to an extensive substitution of legal products with illegal ones. This, in turn, led to a decline in business for law-abiding and highly taxed businesses, a net decline of revenue for the state in many cases or at least the non-increase in excise tax revenue (but still a loss, given the decline of directly-taxed legal business activity) and, of course, exposure of consumers to unsafe products.

The tax on overnight stays (hotel tax) was introduced with Law 4389/2016 (art. 53) and was added to the VAT rate. Even though hotel services in the ‘reduced rate rate’ of 13%, it is still higher than the VAT rate used by many other EU countries with important tourism sectors.

Continuous increases in excise taxes mainly in 2009 and 2019 and the impact of VAT increases affected fuels, which are a key input, particularly

for logistics and transport that underpin the cost structure of goods distribution to consumers and manufacturing value chains. This is more crucial in Greece as road haulage is predominant here, given a failure to develop combined rail-road cargo transport during the past decades, as both needed legislative reforms and the licencing and tenders of key infrastructure moved ahead at a very slow pace. As a result, where once Greece had the lowest burden of VAT and excise tax on unleaded petrol in the EU, it is now among the 4 EU member countries with the highest tax on fuels, even while the overdependence on low energy-efficient road haulage remains. This is further evidenced by the fact that key ports only recently got connected to the state-planned rail system, the fact that the design of the rail system did not have cargo as a priority during the past decades and the fact that key logistics centres still are at the licencing and planning level.

It should be noted here that the economic and political events observed during the years of the Greek adjustment programmes hit the Greek manufacturing sector disproportionally, despite the stated aim by the first Memorandum text to place Greece on a path of an export-led recovery. This happened due to causes ranging from tax measures (for example, taxes on energy used by industry; tax handling of losses; the introduction of strict “thin capital rules” at a time when interest rates in Greece increased to very high levels etc.) to the rupture of international finance chains and trade finance for Greek companies, especially during the peak of the ‘Grexit talk campaigns’.

These measures impacted negatively and disproportionally companies deeply embedded in international value chains like predominantly export-oriented, sophisticated manufacturing companies (Mitsopoulos 2016). As a result, the production base of the country was significantly depleted and weakened during the adjustment programmes, contrary to the stated aim of these programmes, rendering even surviving companies non-bankable. The damage done still resonates through the economy and, ultimately, also affects prices of goods.

Steady increases were also observed in taxes on communications. These are important because countries that tax more heavily communications appear to lag in digital transformation. (KEFIM 2022). Reflecting this pattern, Greece had the highest taxes on communications in the EU and consistently scored either the lowest or next to the lowest among EU countries in the DESI index. VAT increases affected mobile communications

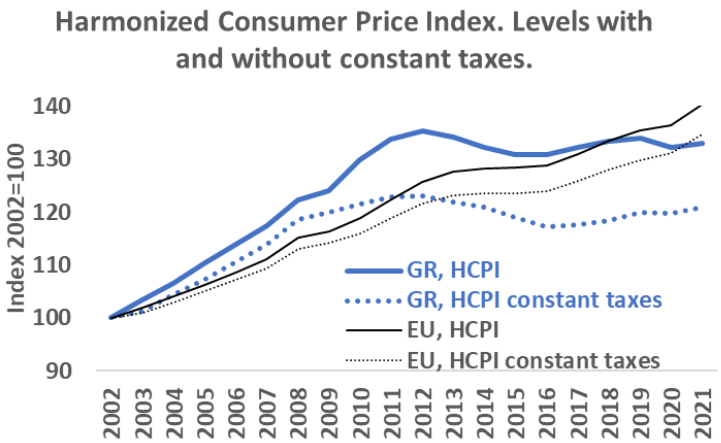
as they did all other services. However, in addition, the impact of an excise tax and regulatory burdens inflicted further and significant harm on the path of the country's digital transformation. The excise tax on mobile communications was introduced in 1998 (Law 2570/1998, art.12), making Greece one of the few EU members with such a tax and the only one with a progressive structure of this tax that reached up to 10 per cent in some cases. Changes in 2006 and 2009 further increased the tax and its progressiveness. In addition, in 2016, an excise tax was also introduced on fixed-line services, while in addition during this period the licensing process of relevant infrastructure also became extremely dysfunctional.

Recognising the damage done to the national economy by the said combination of tax and regulatory issues, in 2021, a partial rationalisation of the tax burden was adopted. Even though Greece remains the most expensive country regarding taxation on mobile communications, the difference with other EU member countries has shrunk considerably, and when one considers the exemption for young consumers and data-only services from the excise tax (this exemption was also legislated in 2021) for some consumers Greece does not have any more the highest taxes in the EU, even though it remains among the countries with a high tax burden.

The licensing issues were resolved by the law titled *Investing in Greece* (Law 4635/2019) that reduced the licensing time for base stations from over two years to a few months. Modernising the regulatory framework relates also to the rollout of broadband infrastructure that now makes it possible for providers to increase investment that is fundamental for offering services that can support the full digitalisation of core sectors of the economy but also SMEs in the logic of a comprehensive 'mobile-first' strategy. The resolution of the major regulatory and tax obstacles now creates a realistic prospect of Greece embarking on a visible path of digital convergence during the next decade, the first effects of which are already visible in the prices. According to Eurostat data, mobile communication prices fell by 1.8 per cent on a month-on-month basis in January 2022 and 3.9 per cent on a year-on-year basis, when year-on-year inflation during the same period was 5.5 per cent.

Some peculiar cases worth mentioning also persist. For example, Law 3833/2010, art. 17, introduced a luxury tax on 'goods the lower-income groups do not consume'. The ill-devised tax was estimated to yield €120 million annually. Instead, it created material damage to important sectors, like fur production in the region of Kastoria, until amendments were made to contain the damages. Overall, the article was amended five times, for example, to exclude hearses, and fourteen delegated acts or circulars were issued to clarify implementation, including detailed guidelines on gemmology to tax semi-precious and precious stones. Now, it yields about €2– €3 million a year, taxing mainly watches, and jewels sold by law-abiding shops that cater to high-end tourists, who in order to avoid the tax usually prefer to shop jewels and watches on the next cruise stop, for example, in Turkey. In addition, high-end jewellery production has also mostly departed from the country because of this tax and state-regulated insurance fees on participants to international trade fares (a deviant from EU practice).

**Figure 5.1: HCIP index evolution with and without constant taxes (2002 = 100)**




Source: Eurostat (2022).

In Figure 1 we see how from 2002 (the year data with constant taxes becomes available) the HCPI with constant taxes in Greece remains steadily and significantly below the HCPI with all taxes, much more than seen in the EU on average. We can see how consumer prices with constant taxes deflated visibly during the internal devaluation period but at the same time, prices with all taxes stayed relatively high even while the

average GDP per capita declined up to 25 per cent. This is despite the adjustment made by Eurostat considering only first-order effects of tax increases (2022).

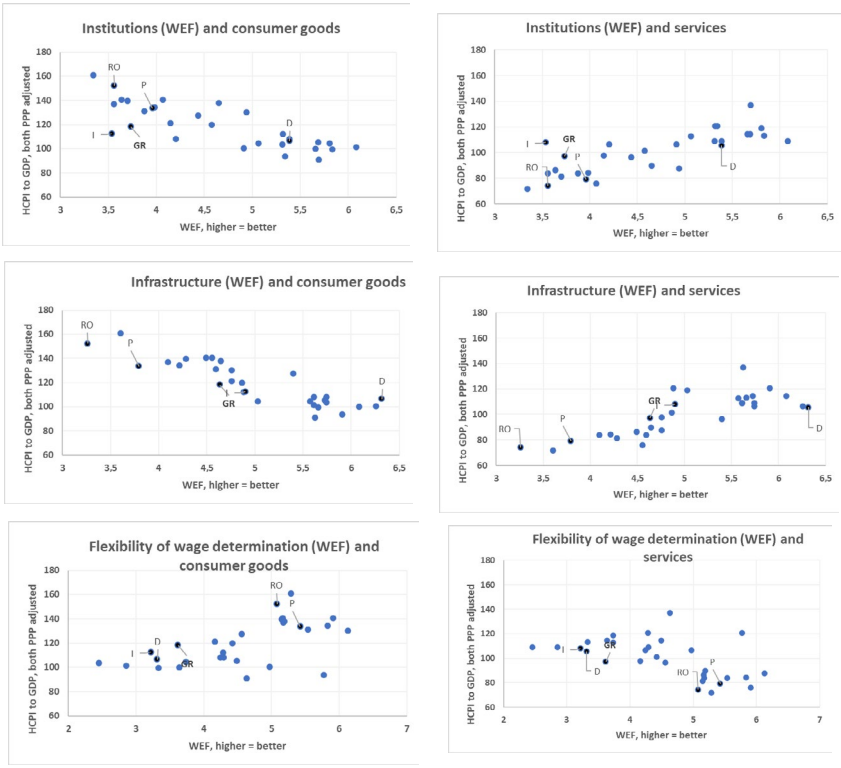
Only after 2020, the measures taken to alleviate the impact of the pandemic include a partial, and in some cases substantial, reduction of some of the indirect tax increases implemented during the previous years. This led to a positive and visible result for the benefit of the consumer, which is depicted as a reduction of the price level with all taxes in Figure 1. Note, that here we cannot see the impact of the tax increases that burdened production and supply chains, for which some countermeasures were taken recently to alleviate the impact of extraordinary events as, for example, in the case of energy consumed by companies as a result of the war in Ukraine.

### *5.3 Regulatory environment and consumer prices*

The literature identifies GDP that reflects consumption and, ultimately, the income available to consumers as a key determinant of long-term price evolution and price levels (Andersson, Masuch, and Schiffbauer 2009). Thus, higher GDP per capita leads to higher prices as a reflection of increased standard of living and purchasing power. This increase almost has a 1:1 ratio in industrialised countries but to a lesser degree in non-industrialised countries. Of course, in case the increase in demand is not aligned with productivity increases, these developments may not be sustainable, as was often pointed out in the case of Greece in the run-up to the crisis. Careful quantitative analysis suggests that product market regulation and wage increases are also important as negative competitiveness developments in these areas lead to increases in inflation relative to peer countries, especially, within the monetary union. Such findings are aligned with research (Jaumotte and Morsy 2012).
Using data from the executive opinion survey performed by the World Economic Forum (WEF 2017) in the context of the Global Competitiveness Index (GCI) we can visualise some of the literature's findings that are based on hard data, while also identifying points that may merit a focus of analysis in future research. After taking Eurostat's PPP-adjusted level of prices for product and services groups relative to PPP-adjusted GDP to filter out the impact of increased GDP on price levels, we can identify that a) a reduction in regulatory burden, b) an increase in the quality of institutions (that include the effectiveness of competition as weak institutions and the high regulatory burden they lead to in-effect distort the playing field), and c) an improvement in infrastructure lead to a relative reduction

in the price level of goods, in particular, consumer goods, durable goods, and non-durable goods. Interestingly, once we look at services, these relationships invert. A further interesting observation is that increasing wage flexibility compresses the prices of services, but not goods (Figure 2).

**Figure 5.2: World Economic Forum Global Competitiveness Index sub-indexes and correlation with consumer price level indexes by Eurostat to GDP, both PPP adjusted (2007–2017 data averages)**




Source: World Economic Forum 2017 and Eurostat.

These relationships offer suggestions for future research, as they may help increase the robustness of results obtained so far and they may also offer an interesting basis for analysis in the case of Greece.

First, we observe that the placement of Greece as a relatively low GDP country among the EU peers is compatible with the relatively high price of goods and the relatively lower price of services. Also, we note that Greece persistently remained among the weaker performers in the EU regarding issues of a) product and labour market regulation, b) institutional maturity, c) key infrastructure, and d) GDP.

The quality of the regulatory and business environment, as well as various dimensions of institutional maturity, have been extensively linked in the literature with economic performance (e.g., Bouis and Duval 2011, Bourlès et al. 2010). It is important to note that for many decades, even when progress was observed, it still was not enough to improve the relative positioning of the country relative to its peers. This was also the case in the run-up to the Greek crisis but also during the adjustment programmes when cost competitiveness was mainly improved through 'internal devaluation' and less so through non-wage competitiveness enhancing institutional improvements.

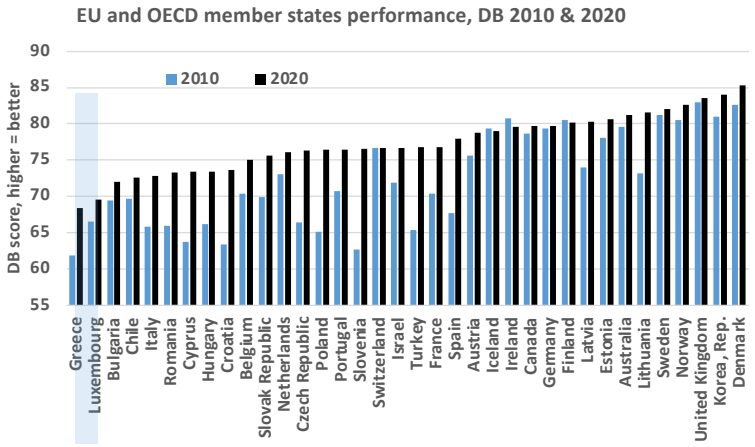
For example, OECD network industry regulation indexes (Figure 4), World Bank Doing Business performance (Figure 3), and World Governance Indicators (not shown here) help identify areas of improvement during the adjustment programmes period. In all cases, up to the latest available data that predates 2020, Greece remained a European laggard. This happened despite the documented improvement, because of the dismal starting point and the fact that other countries also reformed during this period.

This means that by the end of the adjustment programmes the key underlying institutional reasons that led to the build-up of the triple deficits and the outbreak of the Greek crisis were largely still present despite the substantial internal devaluation – which was also a reflection of the relative neglect of structural reforms, especially, in product markets and the area of regulatory burden reduction during the first years of the programmes.

As a result, it is a fact of decisive importance that available international data on structural indexes reaches till 2020, and therefore significant reforms implemented since 2020, like in the area of business licensing communications, have not yet been documented by international surveys.

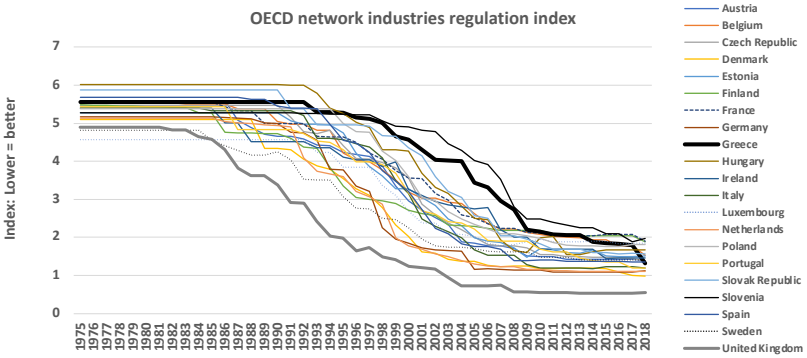
Furthermore, the national proposal submitted in the context of the RRF includes key initiatives to improve infrastructure and to finance projects that support key reforms that will improve the business environment. Therefore, a quantitative assessment of the recently implemented and ongoing reforms is critical to finding out if Greece is moving towards a path of sustainable and fast growth, with sufficient diffusion to society through the job market (Pelagidis and Mitsopoulos 2021).

**Figure 5.3: Performance score in overall Doing Business 2010 and the 2020 index of EU and selected OECD member states**




Source: World Bank, Doing Business reports for 2010 and 2020.

**Figure 5.4: Network Industry Regulation Index, OECD**

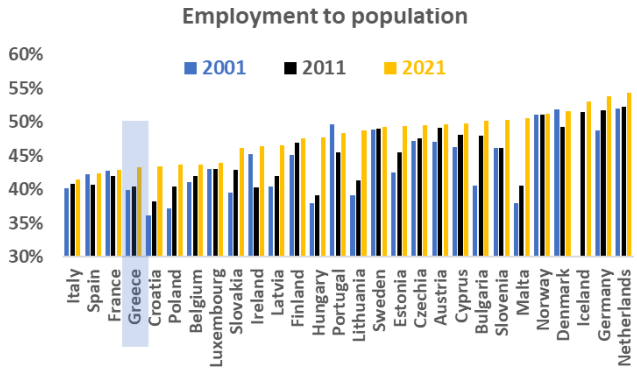



Source: OECD indicators of Product Market Regulation.

How competition and the level playing field are determined by regulation is demonstrated eloquently by the network industry regulation index of the OECD, which is available since 1975. In Figure 4, we can observe how progress in Greece always came after and was less than the progress in other EU and OECD member countries. Only in 2018 did the deregulation in the gas and rail sector put Greece in the middle of the pack, while during all the time since the first reforms, that were tied to reform plan that accompanies the ratification of the Maastricht Treaty by the Greek parliament in 1992, reforms implemented by subsequent governments lagged. This situation put the Greek producers at a constant competitive disadvantage relative to other competitors in the single market that benefited from constant improvements in the quality of regulation and business environment of their countries (Mitsopoulos 2014).

### *5.4 Social implications*

**Figure 5.5: Employment to population, EU member countries**




Source: Eurostat (2022).

The impact inflation has on the 'real' economy has been a topic of extensive debate for decades (Fischer and Modigliani 1978). Since Greece is a member of a monetary union that has fiscal rules and several institutional requirements, certain key variables that are identified as determinants of inflation (like monetary policy) in the literature are a given. Hence, the determinants that the national governments can use as 'policy levers' and that influence the balance between prices and incomes, need to be identified.

For decades, Greece stood out for its low employment to population ratio, which means that for a given population, few work and create income for households (Figure 5). This is a display of the institutional challenges and the tax system. Regulatory burden and ambiguity, and more institutional weakness relative to other EU peers, meant that it was difficult and expensive to do business in Greece – leading to the creation of relatively few jobs. In addition, a high and very progressive tax wedge for private-sector, salaried labour also contributed to an under-representation of large companies that usually depend on good institutions, rule of law, and reasonable taxation to operate (Mitsopoulos 2017). Globally, smaller companies find it easier to evade rules that are not reasonable simply by moving at least part of their activities into the shadow economy, thus, retaining competitiveness. The nexus of institutional weaknesses thus held back in particular the growth of the manufacturing sector, that is audited and supervised in more stringent ways simply because the more obvious to auditors establishments and overall activities well as health and safety requirements that make such audits unavoidable (Mitsopoulos and Pelagidis 2021).

Thus, we can see how it all fits in the same picture. The same institutional attributes that constrained Greek per capita GDP and employment for a given population, also eroded price competitiveness, and contributed to the emergence of the triple deficits that triggered the Greek crisis. They are also, as we have seen, the root causes of to the imbalance between consumer prices and household income that defines ‘expensive living’.

That said, the literature has examined ways in which average price developments affect households differently depending on their income (Almås et al. 2018). Thus, in most cases, lower-income households are more exposed to the negative implications of inflation (Easterly and Fischer 1999). This, it is argued, happens as they spend a larger share of their income on basic goods and have fewer degrees of freedom to substitute the goods or services they consume. Still, the long-term differences are usually found to be rather small, as with the exception of certain services (for example, health and education) inflation rates tend to be relatively similar in the long term. Therefore, the real challenge for poorer households emerges regarding their limited ability to respond to short-term challenges, especially, when they are acute. This limited ability to adjust and substitute goods or services with alternative options is compounded by the fact that usually, their income comes from one source, reducing the protection diversification can offer in times of crisis.

Therefore, in times of crisis extraordinary measures may be needed to support such households. It appears that from a point of fiscal efficiency and effectiveness, targeted measures channelled through social safety nets are preferable (Gill and Nagle 2022). On the other hand, in the long term and beyond the need to deal with an acute crisis, the negative impact of inflation is limited in institutional environments that a) encourage balanced economic ecosystems and their employment to emerge and b) favour the growth of the most productive companies. In such cases, a smaller share of the population remains in low-income brackets that are linked with higher exposure to the negative impact of inflationary spikes, significantly reducing the need to activate other policy tools to ensure resilience and equity in society.

### *5.5 Long-term prospects and policy recommendations*

Long-term inflation prospects in Greece depend on numerous parameters. Indicative examples include demographic dynamics, the ability to create jobs for families and to make it affordable to raise at least two children with accessible jobs. Therefore, ultimately, growth is linked to non-wage productivity levels that make services and goods competitive, creating jobs, and at the same time affordable. In addition, the transition to a growth model compatible with the achievement of the given environmental objectives, for example, those stated in the Paris agreement, will be an increased challenge. It will require increased investment and costs for a country that is energy-intensive, and that has a relatively weak production base – a country that only now regains some hope to expand. Therefore, ultimately, the prospects of the country are related to its ability to combine the recovery from the crisis with the transition needed to achieve climate targets.

The findings of the literature and the depiction of the institutional indicators show that the country has indeed embarked on a noteworthy and laudable path of improvement. However, to arrive at a point that will eliminate the dangers that led to deficits and the crisis in the past, they need to continue with unwavering commitment until Greece ranks among the most institutionally mature and competitive countries. Only then will the affordability of goods and services be secured for the majority of the population, for given incomes and non-wage competitiveness. Thus, the finding of the previous analysis is that for any country, and therefore, also for Greece, combatting expensive living is eventually aligned with increased institutional maturity and having a reasonable tax environment. Of course, always extraordinary circumstances may ask for extraordinary, but well-designed, measures.

Therefore, for Greece, combating expensive living means adopting the reform agenda that also promotes sustainable growth and a revival of the production base that will increase the employment rate of the country. In particular, Greece should:

a) continue the reform of product markets and in particular network industries;

b) keep reducing regulatory burden and increasing legal certainty, especially, with respect to licensing, using digital solutions where appropriate;

c) increase the rule of law, advance better regulation agenda and emphasise transparency, meritocracy and efficiency;

d) advance the improvement of infrastructure, especially, the infrastructure used by production and supply chain companies;

e) modernise labour market institutions to ensure that pay matches productivity in an environment in which productivity is on a path of strong and sustainable growth; continue with the reform of the tax system, in consumption taxes but also production and employment, aiming for Greece to field a competitive proposition in some dimensions of the tax system but a reasonable proposition in all dimensions of the system. This applies in particular to the tax wedge that remains high and extremely progressive compared to other EU and OECD countries, trapping private-sector, salaried employment in wage brackets that are low by EU standards and obstructing the growth of the private sector employment and, in particular, growing, successful companies;

f) reform the labour market to ensure a reduction in inefficiencies, emphasise the alignment of the education system with the needs of the job market, enhance lifelong learning and provide targeted support for the long-term unemployed to re-enter the job market; and

g) ensure a combination of low bureaucracy, rule of law and regulation that maintains a level playing field and facilitates innovation and digitalisation, in a way that aims for a sustainable growth model.

The above are largely already part of the national reform program and the program submitted to the RRF. Ensuring continuing commitment to a level of achievement that will permanently remove the causes that led to the Greek crisis remains, therefore, the overarching goal that will also ensure the achievement of a multitude of other economic and social benchmarks.

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# Chapter 6: Romania

***Radu Nechita, Christian Năsulea, and Diana Florentina Năsulea***

- Between April 2020-22, a period associated with the introduction of COVID response measures, the total Consumer Price Index (CPI) in Romania has increased by 17.45 per cent, with housing and energy prices being severely impacted.
- Romania's high overall rate of home ownership gives the false impression that the Romanian housing market is atypical and not subject to market forces. Government intervention that reduces competition and the supply of available homes in major cities is a major contributor to the increase in prices.
- Taxes and excise duties applied to the production, distribution, and sale of fuels in Romania are responsible for a significant part of the final price the consumer pays at the pump.
- While energy prices were expected to increase at European level, the law on capping and offsetting is likely to have raised prices significantly more in Romania than they would have increased in its absence.
- Lack of investment in energy production capabilities, delays in accessing EU funds, and delays in amending the law on offshore gas are all contributing to the rising cost of energy.
- High prices of fuel and energy have a compounded effect on all other sectors of the economy and contribute significantly to the rising cost of living for Romanians.
- To battle the budget deficit and achieve a balanced budget, the Romanian government ought to look at reducing expenses and improving its tax collection rate for taxes that are already in force.

- The current government's plans to change the fiscal code would have adverse effects on the economy. A good fiscal system must be predictable and must take into account the fact that the level of taxation does not directly correlate with the amount of money collected.

### *6.1 Introduction*

Economists distinguish between the monetary causes of inflation (the increase in money supply by the central banks in association with commercial banks) and non-monetary causes.

The monetary expansion caused by central banks results in an increase in goods' prices, following a certain time lag (usually between one and a half and two years). This happens because more monetary units are available to "bid" for the same amount of goods.

This increase in prices takes place at different rates across products and is influenced by a multitude of factors such as the intensity of competition between producers, the existence of opportunities to increase production, the potential to substitute some goods with others, etc.

Government intervention through taxes, subsidies, and regulations that can increase or decrease prices is a major factor contributing to price influence.

One of the oldest mistakes in attempts to combat rising prices is blocking them (capping them) by way of regulatory interventions. Measures of this kind have always had the same effects everywhere: the 'disappearance' of products from the market and/or their rationalisation and the emergence of a black market and corruption, all against the background of an even greater reduction in the supply of goods.

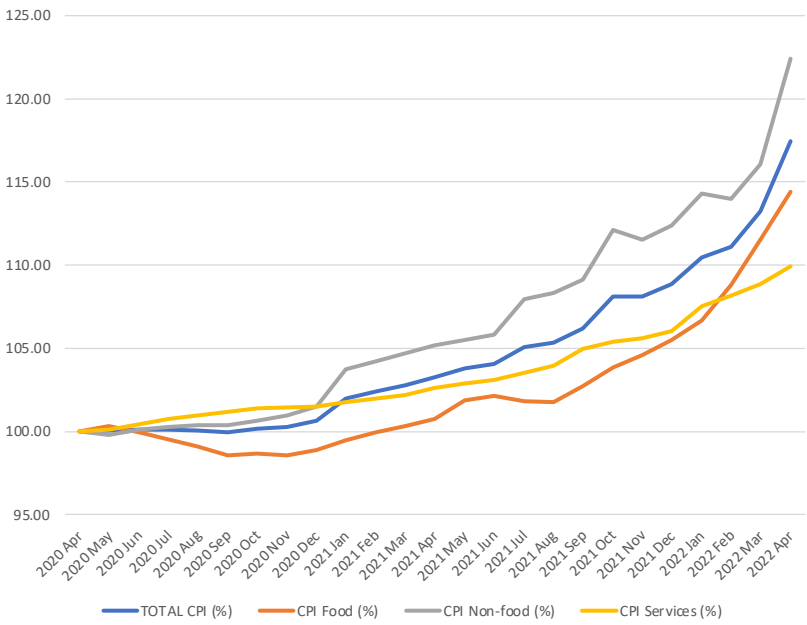
In short, no matter how critical a situation the market is in at a given time, government price control will worsen it in the long run.

In this study other causes that may lead to higher price increases for certain products over others will be analysed. However, our attention to them should not be interpreted as ignoring or minimising the responsibility of political and monetary authorities in causing widespread price increases.

### *Analysis*

Between April 2020-22, a period associated with the introduction of COVID and post-COVID response measures, the total consumer price index (CPI) in Romania increased by 17.45 per cent. The CPI for food products increased by 14.40 per cent. The non-food CPI registered a sharp increase of 22.41 per cent over the entire period, of which 6.33 per cent was recorded in the last month alone. In contrast, the CPI for services increased much lesser, by 9.91 per cent, and at a slower rate of increase compared to the other sectors.

**Figure 6.1. Consumer price index (CPI) variation April 2020-22**




Source: INS (2022)

A more detailed look at price increases over 12 months by sector reveals that some sectors, like housing and energy, are severely impacted, while others like communications have registered much smaller increases.

**Table 6.1. Price variation in Romania (12 months)**

| Sector | Price variation (12 months) |
|---|---|
| **Food & non-alcoholic beverages** | +9.33% |
| **Alcohol & tobacco** | +6.61% |
| **Clothing & footwear** | +3.75% |
| **Housing** | |
| – Apartments in Bucharest | +18.30% |
| – Real estate in Romania | +22.30% |
| – Rent | +3.51% |
| **Energy** | +15.95% |
| – Petrol in gas stations | +41.37% |
| – Diesel in gas stations | +58.30% |
| **Transport** | +15.06% |
| **Communications** | +1.63% |
| **Health** | +3.30% |
| **Education** | +5.24% |
| **Recreation & culture** | +4.55% |
| **Miscellaneous goods and services** | +7.19% |

Source: INS (2022d); Imobiliare.ro (2022); UNTRR (2022)

End May 2022, the National Institute of Statistics of Romania is yet to publish data pertaining to March and April 2022, although this data would normally be available. We can easily make several observations based on the data above, but the following two points are very important:

Data from other sources for March and April indicates much steeper price increases. When data is eventually released by the National Institute of Statistics, we will very likely see significant increases across the board.
The increase in the cost of transportation is correlated with an overall increase in energy costs. Judging by the more up-to-date increase in the cost of fuel, we can expect a large increase in the cost of transportation. As transportation plays a big part in the cost of all goods, it is reasonable to expect large increases in prices for everything else.

### *6.3 Deep dive into selected sectors*

#### *6.3.a Housing*

Romania has the highest rate of homeownership, not only in the European Union, but even in the world: 96.1 per cent in 2020 (Eurostat 2020). At the other end of the spectrum in Europe are Germany and Switzerland, with only 50.4 per cent (Statista 2020) and 41.6 per cent (Trading Economics 2020), respectively. This explains why the share of rent in the CPI is 0.98 per cent (INS 2022). From the perspective of a tenant in a university town, the CPI is unrepresentative. Indeed, the CPI – whose shares are calculated based on the *Household Budget Survey (INS 2021)* – is unrepresentative for a Romanian tenant because he is unrepresentative in a nation of landlords.

Romania's population is shrinking due to mass emigration and an insufficient birth rate to compensate for mortality. On 1 January 2022, the population was 0.6 per cent lower than the year before, following the trend of recent years. We could, therefore, expect a declining demand for housing, but these expectations are invalidated, in particular in some big cities, where the rents and real estate prices are on an ascending trend. These cities are those which attract investors, students and workers from all over the country, and their high housing prices make the front page. This maintains the idea that the real estate market is 'atypical' and that economic laws do not apply to it, requiring various interventions by authorities. The list of government interventions includes, of course, price controls – a policy whose ineffectiveness and harmfulness have been proven on numerous occasions.

People do not need housing as a mere shelter against the elements: in Romania, there are countless villages with very affordable houses that find no buyer. Actually, people need housing in very specific places, where they can build their careers and raise their children, Thus, even against the backdrop of the demographic collapse of Romania, several areas have been registering an internal migratory influx. The best known are several university, industrial, and/or tourist centres. There is a greater demand for housing in these areas than supply, which is manifested in increases in house prices and rents.

Housing prices can be reduced only by reducing the demand or increasing the supply of housing. Reducing demand can be achieved through absurd policies, such as closing universities that attract students from all over the country, expelling investors that offer graduates better-paid jobs than in their hometowns, discouraging tourists and/or foreign students, etc. The

rational solution is to increase the supply of housing, which depends largely on local authorities, even in a country as centralised as Romania.

Unfortunately, this is one of the areas in which Romania ranks poorly in the international 'Ease of Doing Business' (EoDB) index (World Bank 2020)[16]. Romania ranked 55th out of 190 countries and jurisdictions in this context. One of the 12 criteria considered for this indicator is the ease of obtaining building permits, and here, Romania ranks 147th in the world.

In other words, Romania's poor ranking can be attributed to the fact that issuing a building permit here requires more than 24 procedures, takes an average of 260 days, and costs about 2 per cent of the construction value.

The only aspect of the EoDB where Romania ranks even worse is in electrification. Romania ranks 157th for this variable as the National Agency for Regulation in the field of Energy (ANRE)[17] has allowed this sector to be protected from competition (Europa Libera 2021) and companies in the sector are therefore indifferent to the requirements of potential customers. In Romania, one needs to complete nine procedures, wait more than 174 days, and pay four times one's average annual income to electrify one's house. Only 33 countries in the world make this process more complicated.

Another explanation of higher housing prices refers to increasing costs of construction, materials and labour. The causes for these cost increases are numerous and have followed one another over time: the uncertainties generated by the measures implemented to combat the COVID-19 pandemic, the direct costs generated by the lockdown (closures of companies producing construction materials) were followed by the relaunch of real estate projects and public works as restrictions were lifted. Additionally, in recent months, the uncertainty caused by the preparation and launch of the Russian invasion of Ukraine and the direct disruption of production flows and supply chains have led to further increases in prices.

In nominal terms, the average salary in the construction sector increased by 11.54 per cent between February 2021-22. The average salary in the construction sector is slightly lower than the average salary in the economy,

16 World Bank Ease of Doing Business 2020 data set available at https://www.doingbusiness.org/content/dam/doingBusiness/excel/db2020/Historical-data---COMPLETE-dataset-with-scores.xlsx

17 https://www.anre.ro/

with a slight tendency to increase from 93 to 94 per cent of the average salary over the period February 2021 - February 2022 (INS 2022b).

The pseudo-solution of the authorities was to exempt employees in this sector from contributing 3.5 per cent of their gross salary to the second pillar of the pension system. (Romania has a 3 pillars pension system, along with World Bank recommendations. Pillar 1 is the “pay-as-you-go” mechanism, in which contributions are collected from workers and redistributed to retired people: it is a collective system, with no accumulated funds and a very weak link between contributions and benefits. Pillar 2 is based on mandatory contributions to individual pension accounts. Each pension will depend on the future market value of the accumulated and capitalized funds. Pillar 3 is similar but contributions to individual accounts are voluntary). In other words, real estate developers have been aided in reducing the gross salary paid to employees without reducing their net salary in the present, at the cost of reducing their future pensions.

All of this has taken place, as mentioned, against the background of lax monetary and budgetary policies. Rising prices were inevitable, the measures taken by the authorities were ineffective (the ‘exemption’ of workers to contribute to their own pension is downright harmful), de-bureaucratisation and increased competition by removing artificial barriers remained only promises, without any significant impact in practice.

### *6.3.b Fuel*

Taxes and excise duties applied to the production, distribution, and sale of fuels in Romania are responsible for a significant part of the price paid by final consumers ‘at the pump’.

In 2022, the excise tax for unleaded petrol is 1892.72 lei/1000 litre, meaning approximately 1.89 lei/litre; and the excise tax for diesel is 1734.66 lei/1000 litre, meaning approximately 1.73 lei/litre (Ministry of Finance 2022). Given that the 19 per cent VAT also applies to this excise tax, in the event that oil products were free, i.e., if their prospecting, extraction, refining, transportation, and distribution would not cost anything, the Romanian consumer would still pay around 2.25 lei for a litre of gasoline and 2.06 lei for a litre of diesel.

On 25 April 2022, in Romania, gasoline cost 7.84 lei/litre on average while diesel cost 8.72 lei/litre on average (Cargopedia 2022). Without VAT and excises, petrol would have cost 4.7 lei/litre, and diesel, 5.6 lei/litre. 40 per cent of the money paid for petrol and 36 per cent of the money paid for diesel goes to the state budget on account of VAT and excise taxes.

The excise tax formula, which is correlated with the exchange rate, has increased the excise tax on petrol and diesel by 3.6 per cent in 2022 compared to 2021. As the price of fuel influences the prices of all products in the market that require to be transported to be sold, any increase in the price of fuel produces a domino effect that leads to an increase in all market prices. Generalised price increases lead to a decrease in the exchange rate used to calculate the value of the excise duty. We are thus dealing with a vicious circle that contributes to the increase in the price of products and services and a sustained loss in purchasing power.

### *6.3.c Energy*

Energy prices have increased in Romania because they have increased in Europe in general, but also because Romania has adopted bad policies like the law on capping and offsetting (Romanian Parliament 2021). This law is likely to have raised prices significantly more than they would have in its absence.

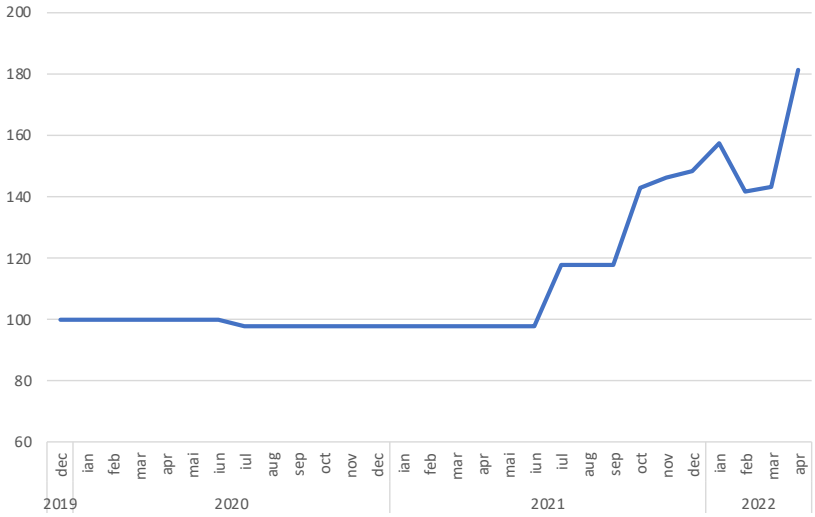
Prices rose rapidly in the second half of 2021 for industrial consumers as opposed to households (Expert Forum 2022), which could play a huge role in increasing inflation in 2022 – something that will be felt in consumers' pockets harder than the energy bills themselves. The laws passed in Romania to cap and offset energy prices went through several forms, which increased uncertainty – thus aggravating the situation. In its current and potentially final form (Guvernul Romaniei 2022a), the rules succeed in limiting energy costs for both domestic and industrial consumers by transferring a part of the cost to the state budget. However, this means that there's a higher overall increase in cost because competition which ensures that sellers are motivated to sell at their best possible price has been eliminated from the system. To make matters worse, allocating large amounts of money from the state budget to offset energy costs makes a balanced budget even more unlikely and drives politicians to consider actions that may be even more harmful to the economy in the long run, such as switching back from a flat personal income tax rate to a progressive one. Romania had a progressive personal income tax until 2004, with

brackets between 19% and 40%. Since 2005, it adopted a 16% flat tax, reduced at 10% in 2018. This system survived under various government coalitions, despite being under constant criticism by left wing parties, most recently in May 2022 (Stirile ProTV 2022).

In Europe, gas consumption increased significantly in the first half of 2021 but then collapsed due to high prices. Wherever it was possible, especially in electricity production, European producers have returned to using coal, resulting in a rapid rise in the price of $CO_2$ certificates. This has led many people to point to the European energy market model as a primary culprit behind the price increases. While emission certificates do add to the costs of certain types of energy, electricity prices have not risen 'because of emission certificates' (Bursa 2022) as the prices and rules for these certificates have remained the same. Prices have risen due to the gas shortage, which Gazprom, the Russian majority state-owned energy corporation, has been deliberately deepening since the summer of 2021. The fact that there has been speculation in the certificate market and therefore increased $CO_2$ costs as a consequence of this speculation has turned out to be wrong (Expert Forum (2022).

Natural gas prices for the non-household segment rose by almost 80 per cent until November 2021; while for households, they remained roughly the same. Industrial consumption has been declining since the summer of 2021 which explains, in part, why the Romanian GDP has decreased in the fourth quarter and inflation has increased. The energy price increases are not caused by the liberalisation of the energy market. There was no increase in price after the liberalisation of gas prices for household consumption in the summer of 2020. On the contrary, prices decreased by about 27 per cent and continued to decrease until the summer of 2021 when prices started to increase everywhere in Europe.

**Figure 6.2. Gas prices for final consumers between December 2019 and April 2022**




Source: Glăvan, B. (2022)

Energy prices are also impacted negatively by lagging investment in the development of new energy production capabilities. There are multiple causes for this, all of which have to do with various branches of the state:

There are EU funds available to Romania specifically for this sector through the EU Modernisation Fund (European Commission 2022) which the Romanian Ministry of Energy has only begun to access on 4 May 2022 (Ministerul Energiei 2022).

Energy companies in Romania, of which the Romanian Government is a shareholder, are forced by the government to pay out as much as 90 per cent of their 2021 net profit in dividends (Guvernul României 2022).

The law on offshore gas (Parlamentul României 2022), which Romania had agreed to change in 2008 (Europa Liberă 2022), was amended on 25 May 2022.

Generally, energy has a huge impact on the competitiveness of the economy as a whole. Cheap energy makes local producers more competitive in the global market, while expensive energy simply makes certain activities entirely impractical. Given the significant involvement of the Romanian

government in its energy sector, both through hostile fiscal policy and through direct ownership, this is likely the sector that produces the largest impact on the rising cost of living.

### *6.4 Impact on low-income earners*

The median household income in Romania was 6055 lei in the fourth quarter of 2021 or 2395 lei/person (INS 2022c).

Of this income, Romanians will, on average, invest 0.3 per cent, pay 32.1 per cent in taxes, spend 60.6 per cent on consumption, and spend another 7 per cent on household production and other expenses. The 32.1 per cent paid in taxes does not include VAT, which means that as much as 12.8 per cent out of a household's total expenditure of 67.6 per cent might represent taxes as well, in the form of VAT – potentially bringing the average Romanian household's total fiscal burden up to 44.9 per cent (if we add in the excise tax on fuel).

The data from the National Institute of Statistics paints a picture in which the largest percentage of the average household's expenses (32.3 per cent) is represented by food and non-alcoholic beverages, and the second-largest (16.3 per cent) is represented by housing costs – including heating, electricity, and running water. However, the situation will be quite different when analysing low-income households. Based on the data from the same report, there are three categories of households in which the 'head of the household' earns less than average:

Retirees earn on average 77.28 per cent of the median income per person. Agricultural workers earn on average 58.83 per cent of the median income per person.

Unemployed citizens earn on average 32.66 per cent of the median income per person.

People with below-average incomes will typically allocate a larger percentage of their expenses to the acquisition of food and non-alcoholic beverages (as much as 42.4 per cent) (INS 2022a) but will typically allocate similar amounts towards covering housing and associated costs (about16 per cent). Romanians will prioritise health, food, and housing expenses above everything else according to the study commissioned by the Romanian Commercial Bank (2021)

Based on this information, we can predict that future increases in food prices and the already visible increases in prices of energy and fuel will adversely impact the well-being of Romanians and their capacity to cover their cost of living. The high rate of homeownership will save many of the lowest-earning Romanians from complete ruin, but they will still face significant difficulties in procuring even the bare necessities.

### *6.5 Public policy recommendations and conclusions*

#1 Given the most recent developments in Romania and the current government's intention to reintroduce a progressive personal income tax, the number one public policy recommendation we make for Romania is to keep things simple.

In theory, Romania has a fixed income tax rate of 10 per cent. In practice, there are already a large number of exceptions and deductions in place for different categories of workers and an increasing number of different tax rates for income earned from sources other than salaries. It is problematic enough as it is for citizens to file their tax statements correctly. The introduction of a progressive income tax scheme would further complicate things and very likely lead to a decrease in the net amounts collected through income taxation.

To be clear, we are not suggesting that existing regulations leading to lower taxation for certain sectors should be abolished. Although these regulations are most often not straightforward, they are surely responsible, in part, for Romania's competitiveness in those sectors. The case of software development and IT is one of the clearest examples of this added competitiveness (Employers' Association of the Software and Services Industry 2021). If the fixed income tax rate is to be made equal and universal once more, it should be equalised at the lowest level applied in any of the Romanian economy's sectors.

#2 Another important note must be made regarding Romania's revenue tax for microenterprises (3 per cent tax on revenues for enterprises with less than 1 million EUR in turnover, or 1 per cent for microenterprises with at least one employee). Together with Romania's 5 per cent tax on dividends, this tax on revenues provides one of the most favourable frameworks for entrepreneurs in the European Union. The added point that under certain conditions, companies can decide for themselves if they prefer to be subjected to profit tax or revenue tax constitutes another key

driver for the country's attractiveness in the global investment market (MPR Partners 2022). Again, the recommendation here is that these fiscal facilities should be at least maintained and, when possible, made even more appealing to investors.

#3 To battle the budget deficit and achieve a balanced budget, the Romanian government ought to look at reducing expenses and improving its tax collection rate for taxes that are already in force.

#4 Based on the data presented in this study, it is clear that a reduction in the excise tax on fuel and reductions in taxes on energy would have a net positive ripple effect on the Romanian economy. At certain levels of tax reduction or tax elimination, the increase in economic activity induced by lower taxes, as well as other mechanisms described by the Laffer Curve, can also lead to an increase in the net amount collected by the state through these taxes (Laffer 2004).

#5 In addition to these fiscally oriented recommendations, Romania should also take steps to reduce the non-fiscal burden of government regulation. This includes a reduction in overall regulation and improving the stability of the regulatory framework. Decisions must not be made overnight. Citizens and companies should be given enough time to prepare in advance for any new rules coming into force. For example, simply enforcing article 4 of the Fiscal Code (Parlamentul României 2022a), according to which a minimum of 6 months must pass between a change in the law and its entering into force, would bring a significant improvement over the current situation.

#6 Concrete steps must be taken in order to improve Romania's position in the EoDB Index. Problems outlined by indicators in the EoDB Index for which Romania scores poorly should be given higher priority: dealing with construction permits (score 58.4), getting electricity (score 53.7), resolving insolvency (score 59.1). At the same time, good scores, where they exist, must be preserved or improved upon: trading across borders (score 100/100), starting a business (score 87.7), paying taxes (score 85.2) (World Bank 2020a).

#7 The digitisation of public services that started during the COVID-19 pandemic must be continued and its pace increased. Digitisation provides numerous opportunities to modernise state institutions, to increase their efficiency, and optimise resource usage. Digitisation could lead to significant

improvements in several indicators of the EoDB Index. Romania has the resources and human capital that would enable it to become much more competitive.

#8 Romania must improve its infrastructure – in particular, its transportation infrastructure – to decrease transportation costs and thus increase the competitiveness of Romanian producers in the global market. Romania needs to build its long overdue and repeatedly delayed highways and do a better job of maintaining the existing road and railroad networks.

A specific aspect of infrastructure to note is energy transportation, specifically, natural gas and electricity. In Romania, the main operators, Transgaz and Transelectrica, are state-owned companies. The strategy of diversification and interconnectivity is an explicit element in Romania's national strategy. Achieving the set goals requires better cooperation at the regional, EU, and international levels. It supposes sustained material effort along with a stable strategy. Reactors three and four at the Cernavoda nuclear plant are expected to begin operation at the earliest in 2030–31 as the last significant change in the main partners took place in 2021.

#9 The rule of law must be protected and strengthened A strong rule of law provides the economy and society at large with the stability they require, guaranteeing equal protection and enforcement of rights for everyone. To get closer to this goal, clear laws and rules must be adopted. When the rules are clear and easy to understand, their application becomes easier. An independent and impartial system of justice is essential to ensure the correct, transparent and rapid settlement of disputes. Last but not least, a set of efficient institutions enables citizens and businesses to better contribute to the development of society.

#10 The most achievable political objective is to ensure a predictable business and regulatory environment as this represents a precondition with an even higher degree of importance in long-term projects, like those in the energy field. The adoption of the so-called 'off-shore law', which was postponed and modified significantly during five years of discussions, led to a blockage in the exploitation of natural gas from the Black Sea continental plateau.

Improved infrastructure combined with a predictable regulatory environment and competitive fiscal policies will do more to raise people's standards of living than any programme of government handouts.

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