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**Working Paper**

## The working times they are a-changing: Trends in six EU countries (1992-2022)

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# The Working Times They Are A-Changing: Trends in Six EU countries (1992-2022)

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Labour, Education and Technology  
2024/04

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# The Working Times They Are A-Changing: Trends in Six EU countries (1992-2022)

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*“A true gentleman was supposed to be someone dedicated to leisure.”*

*Trust*, by Hernán Díaz

## Abstract

The time Europeans devote to paid work has consistently decreased since the Industrial Revolution. However, since the 1980s, the pace of this trend has slowed. The aim of this article is twofold: first, we develop a theoretical framework to account for the main factors determining the evolution and distribution of working hours in Europe; second, we utilize EU-LFS data (1992-2022) to analyze the primary factors explaining recent developments in working time. Our results indicate: 1) that reductions in working hours are primarily attributable to the increased prevalence of non-standard forms of work, mainly part-time; 2) that part-time work has expanded mainly due to the feminization of employment and the tertiarization of the economy; 3) that full-time workers continue to work approximately the same hours as in the 1980s, as countervailing effects push working hours up (occupational upgrading and tertiarization) and down (the expansion of public services, the shrinking of the goods-producing sector, and self-employment becoming less time-intensive); and 4) that the self-employed work fewer hours over time because part-time self-employment has become more prevalent, although the self-employed still work the longest hours on average. The theoretical and empirical implications arising from these findings are discussed, along with potential avenues for future research.

**Keywords:** employment; labour; working time; work intensity

**Joint Research Centre reference number:** JRC139815

## Executive Summary

- **Since the early 1990s, the time Europeans devote to paid work has slightly decreased, continuing** (albeit at a slower pace) **a secular trend that has been evident for more than a century.** However, in recent decades, these reductions in working time have not benefited all segments of the workforce.
- **Full-time workers continue to work similar hours to those in the 1980s.** This suggests that average **reductions in work time are primarily due to the increasing prevalence of part-time work.** Part time work makes from employment to be, on average, more fragmented and less time-intensive.
- Part-time work is more prevalent among women and in the service sector, suggesting that **the feminization of employment and the relative expansion of the service sector are key factors driving the rise in part-time work.**
- There are countervailing forces affecting working time, which together explain the relative stability of hours among full-time workers over time. On one hand, **occupational upgrading and the growth of the service sector have pushed working hours up**, as longer hours are recorded primarily among high-skilled workers (both blue- and white-collar) and in private services. On the other, factors such as **the expansion of public services** (where shorter hours are typical), **the declining weight of the goods-producing sector** (which historically involved long hours), **and the reduction in both the prevalence and time-intensity of self-employment have pushed working time down.**

Previous results emphasize the importance of several factors:

- First, they suggest that **regulatory changes have been key**: beginning in the 1980s, shifts in EU regulations promoted the rise of non-standard forms of employment. Whereas full-time work (primarily among men) was previously the dominant form, regulatory changes and the move toward de-standardization allowed for the development of more fragmented and less time-intensive employment forms, such as part-time work. These new forms of work became more prevalent in the service sector and among women. In other words, **the tertiarization of the economy and the feminization of employment are two significant factors driving reductions in working time, as they contributed to the expansion of part-time work.** This shift occurred while the most time-intensive jobs, primarily in the goods-producing sector, declined in importance. These factors reflect both changes in economic structure and shifts in cultural norms and family structures, moving away from the male breadwinner model.
- Conversely, few factors have exerted upward pressure on working time. From an individual and utilitarian perspective, it seems **the substitution effect prevails among high-skilled workers: as wages increase, so does the opportunity cost of leisure, incentivizing high-paid workers to work longer hours.** Additionally, a cultural transformation may also be driving increases in working time: **the use of time, busyness and hyperconsumerism to signal status, what helps explaining why high-skilled workers are more likely to work longer hours.**

## 1. Introduction: a secular trend towards fewer working hours

More than two centuries ago, the Industrial Revolution brought about a dramatic increase of the hours of work for most of the population, often to inhumane levels -work schedules in the new industries reached 12 to 16 hours a day, 6 days a week, or the equivalent of around 60-90 hours per week (Gilmore, 2021)-. It seems that the average hours of work reached their absolute maximum level at least in recent history during this period. From early on, there were intense debates on the need to limit working hours to more humane levels, and the earliest regulations limiting working time were the UK Factory Acts in the early 19th Century. But most importantly, the nascent labour movement took the reduction of working hours (the campaigns for the 8-hour day) as one of its main demands, and it would remain so until the first half of the 20th Century.

As a result of the pressure of the labour movement and the increasing regulatory action in the area of employment, average working hours were consistently and sharply reduced from the mid-19th Century to the mid-20th Century. The big declines in working hours took place in this period. In particular, between the 1870s and the 1930s the average weekly hours of paid work dropped from around 65 in most developed economies to around 40-45 (see figures 2 and 3 in section 4.1). Then, working hours seemed to converge and stabilise from the mid-20<sup>th</sup> century around the 40-hour workweek (8 hours per day, 5 days a week) in most developed countries. After reaching the 40-hour workweek norm, the decline has continued but at a much slower pace (Behringer et al. 2024; European Commission, 2023), often as a result of labour market fragmentation (the emergence of part-time work) rather than as a continuation of the decline in the working time norm itself.<sup>1</sup> This deceleration of working time reductions in the second half of the 20<sup>th</sup> century may be perceived as a paradox, given the multitude of technological advancements and the sustained increase in productivity over the last decades.

Since then, the decline in the hours of work has lost momentum and the fight for working time reduction has lost the centrality it used to have for the labour movement. Why? To some extent, this may be the result of its own success. When working hours in developed economies reached a level that corresponded to the historical demand of 8 hours per day and 5 days per week, which amounts to one third of the total hours of a working day and less than one fourth of a working week, the nature of the struggle changed. Rather than an existentially critical demand (the working hours of the early Industrial Revolution were literally life-threatening), it became almost a matter of preference in terms of well-being. From the mid-20th Century, the labour movement tended to focus more on other demands, such as higher wages to sustain increasing standards of living (and the increasing expectations of the working class in this respect). But even if the demand of working time reduction lost centrality and the decline in working hours lost momentum, neither disappeared completely. Demands for working time reduction periodically re-emerged during the second half of the 20th and the early 21st Century: during periods of crisis and high unemployment (as in the 1970s/ 80s, or more recently in the aftermath of the Great

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<sup>1</sup> The rise of part-time work and other non-standard forms of employment, particularly prevalent among segments of the workforce historically experiencing lower employment rates, such as women, imply there are more people active in employment, albeit through less intensive forms of employment. Consequently, the average number of hours people work has decreased. This suggests that workers do on average fewer hours due to work fragmentation, but also that regular workers continue working more or less the same.

Recession), as a potential form of sharing available employment more equitably, and during periods of economic growth and stability (as in the 1960s or, more recently, in the recovery after the Great Recession) linked to new (post-materialistic) demands for a better work-life balance or a more sustainable economic system.

In recent years, the debate on working time reduction has resurfaced (for instance, in campaigns and even experiments of a 4-day workweek in Europe; see Salazar et al. 2023, also Cuello 2023). Apart from the usual arguments related to work-life balance and workers' well-being, the current demands for shorter working hours have been linked to the idea of a forthcoming acceleration of economic growth and widespread productivity and efficiency gains as a result of big technological advances such as robotics or AI (an argument which is reminiscent of the idea of work time reduction as work-sharing that was common in the 1970s and 1980s). Also, the idea of working time reduction has been justified as a necessary part of a broader reorientation of the economic system in an environmentally more sustainable and fair direction (Schor and Tienhaara 2022).

In this context, it is useful to recapitulate and zoom into the most recent period in the evolution of working hours in Europe, trying to understand better the situation that we face if we want to collectively discuss further reductions of working time. In this paper we analyse comparative data for six European countries (Spain, Germany, Denmark, Ireland, Czechia, and France) for 1992-2022, updating the analysis of the evolution of working hours based on the most recent available data and exploring some of the factors explaining the observed trends. How many hours do people work in Europe nowadays, and how has this changed over the last three decades? Has the secular trend towards working time reduction stalled in the last three decades? What factors at the national, collective or individual level may have facilitated or hindered this decline? These are the questions that we aim to answer in this study, which is structured as follows: in section 2, we review the specialized literature and develop a theoretical framework to identify the factors explaining worktime dynamics in recent decades. Section 3 describes the data source and variables used. Section 4 presents main results. Finally, in section 5, we draw some conclusions and suggest some avenues for future research.

## 2. Debate and literature review

As previously mentioned, in the 19th century people across the world used to work extremely long hours. However, in the last 150 years working hours have decreased substantially, particularly in today's richest countries (European Commission, 2023; Huberman and Minns, 2007). In 1870, workers in most of these countries worked more than 3,000 hours annually, equivalent to 60–70 hours each week for 50 weeks per year. In contrast, today those extreme working hours have been roughly cut in half (ILO, 2022).

There have been different stages throughout this long journey, as figure 2 and 3 show. From 1870–1913 there was a relatively slow decline. Then from 1913-1938 the decline in hours steepened in the midst of the powerful sociopolitical, technological and economic changes that took shape with World War I, the Great Depression, and the lead-up to World War II. After an uptick in hours during and just after World War II (registered mainly in Germany, France and the US), the decline in hours continued, albeit at a slower pace than in the pre-World War II period. This slowdown was intensified especially from the 1980's (ILO, 2022; Behringer et al. 2024). In short, although at different paces, and



with the only exception of what happened during and just after World War II, in the last 150 years working hours have registered a continuous decline in developed countries.

Historically, the decline in annual working hours resulted from fewer working hours each day, as well as fewer working days each week and fewer working weeks in the year. The length of the workday fell between the 1880s, when the typical worker laboured 10 hours a day for 6 days a week, and 1920, when their counterpart worked an 8-hour day for 6 days a week. By 1940, the typical work schedule was already 8 hours a day, 5 days a week, with this 40-hour workweek becoming the standard in most developed countries until the present day. Although further reductions in work time since then have largely taken the form of increases in vacations, holidays, sick days, personal leave, and earlier retirement, time diary studies suggest that the workday has continued to trend downward to less than 8 hours a day (Costa, 2000).

Declines in the length of the work day and the number of working days in a year have been driven by several factors, including increases in productivity, the adoption of laws and regulations that limit working hours, or the extension of non-standard forms of work. What factors may explain the recent evolution of working hours in developed economies? More specifically, what factors may explain the recent slowdown in the secular process of reduction of average working hours in developed economies? A brief review of recent literature on this topic allows identifying a number of candidate explanatory factors, which we will discuss in this section and empirically test in this and subsequent papers.

### 2.1. On the factors determining the evolution and distribution of working hours

Recent literature on this topic has focused more on the causes behind the observed diversity in average working hours across developed countries than on the factors explaining their overall evolution.<sup>2</sup> In particular, much of the debate has centred on the reasons behind the difference in average working hours in the US (and other Anglo-Saxon economies) and European countries -see for instance Bick et al. (2019) or Huberman and Minns (2007)-. Whereas until the 1970s or 1980s, the US and Western Europe underwent a similar evolution (with slow but steady decline in working hours), from that point we can observe a growing divergence. From the 1980s, average working hours in the US stagnated or even slightly increased, in a striking reversal of the historical trend; whereas in Europe, they continued declining (albeit at a slower pace). The reasons for this divergence have been thoroughly discussed in recent Social Sciences applied research, and this literature provides useful hints for a broader understanding of the factors explaining the recent trends in working hours in developed economies.

The neoclassical model of labour supply provides the underlying framework and starting point for most of the economic literature on the determinants of hours worked and their change over time. This model focuses on the factors that affect the individuals' decision to allocate their time between work and leisure, with work providing income to purchase goods and services while leisure provides utility in itself. The primary determinant of working time in this framework is the wage rate, which can be understood as a measure of the price of time for the individual. A higher wage rate increases the opportunity cost of leisure time, and may thus incentivize the individual to work more hours (the *substitution effect*). Alternatively, a higher wage rate also allows the individual to earn the

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<sup>2</sup> Although there are important papers on this too, see Huberman and Minns (2007) or Behringer et al (2024).

same income in fewer hours, and thus he/ she may decide to work less (the *income effect*). In this framework, individuals are assumed to seek the maximisation of their utility: depending on their preferences and the wage rate, the *income* or the *substitution effect* will predominate, resulting in the decision to work more or less.

The main problem of using this framework for understanding historical trends in working time is that in practice the individual choice of working hours is heavily constrained in most cases, and it is the change in the constraints faced by individuals which explain the evolution of working hours in the aggregate. But this does not mean that this model is analytically useless for our purposes. For instance, during the initial steps of the Industrial Revolution workers were often content once they had worked enough time to gain a level of income that could cover their short-term subsistence needs, so that increases in wages beyond misery levels tended to reduce rather than increase the supply of labour. That is, in preindustrial societies the *income effect* tended to dominate. Only when consumption patterns and lifestyle aspirations changed at a large scale in the 20<sup>th</sup> Century, with an ever-growing demand for goods and services (requiring more income), did the *substitution effect* clearly dominate in the decision to work a given number of hours for most workers.

But again, this framework is in itself limited for historical analysis of the evolution of working time. Working hours are much shorter now than in the early industrial revolution, even if wages are much higher and the *substitution effect* much stronger. This is because many other things have changed since: a phenomenal growth of productivity over the last 200 years has allowed to sustain much higher levels of income with drastically lower hours of labour input, while workers' mobilisation and democratic demands for shorter working hours have resulted in extensive regulations and bargaining systems that have limited working hours directly. Thus, even if for explaining the distribution of individual working hours the neoclassical model of labour supply may offer some insights, for understanding the broad evolution and differences in average working hours across different societies we should focus on large scale factors such as overall productivity, cultural norms around work and leisure, or regulation and collective bargaining.

As mentioned, in recent years there have been many studies trying to understand the reasons behind the longer average hours of work in Anglosaxon economies, and in particular in the US. For instance, Bell and Freeman (2001) argued that the higher levels of income inequality observed in the US compared to Continental Europe since the 1970s explain the divergence in average working hours. When earnings inequality is higher, the potential rewards of working more hours are also higher, and thus we can expect individuals to prefer longer hours of work (*ceteris paribus*). Huberman and Minns (2007) later used a similar argument, suggesting that a higher level of inequality pushed for longer working hours in the US not only from the end of the 20th century, but also before 1900. This argument is consistent with the neoclassical model of labour supply, just introducing earnings inequality as an additional factor: higher earnings inequality would reinforce the *substitution effect* and thus orient the preferences towards longer hours.

Bowles and Park (2005) provided a different explanation for the observed association between inequality and working hours: when inequality is higher, individuals work longer hours to signal their productivity and commitment, in order to improve their social status and job security. Borrowing the concept of conspicuous consumption of Veblen (1899),

they argued that in more unequal societies working longer hours serves a status signalling function. This argument clearly departs from the neoclassical model of labour supply, because it introduces sociological mechanisms such as signalling, emulation and cultural norms to explain the link between inequality and hours worked. In more unequal societies, differences in lifestyle and consumption are more pronounced and visible (as well as more consequential), so emulatory and status signalling behaviour is more likely.

In a similar vein, Gershuny (2005) and Belleza et al. (2016) argued that the classical argument of Veblen can literally be reversed in post-industrial societies: a busy and overworked lifestyle, rather than leisure, has become the main signifier of social status, reason why we can talk about conspicuous consumption of time. Working longer hours and in general conspicuously displaying a high level of “busyness” therefore signals a high status: indeed, Gershuny uses data from UK time diaries to show that high income and high-status individuals tend nowadays to work longer rather than shorter hours, in a striking reversal of previous historical patterns. Gershuny does not refer exclusively to the more unequal societies of Anglo-Saxon countries but speaks in more general terms about post-industrial society, and his argument can be generalised to explain the slowdown in the secular decline of working hours across many developed economies since the 1990s. On the other hand, Bellezza et al. (2016) show that in some cases people perceive a person's status to be higher if they appear busier. However, this finding is not universal, but rather an observation primarily made in more unequal societies (such as in the US, while in Europe this does not hold). This, once again, underscores the significant role of inequality as a major factor driving longer working hours through mechanisms related to the importance of status signalling and social norms.

Other sociological studies have tried to explain the slowdown in working time reduction trends by referring to large-scale changes in cultural norms and values. Hunnicutt (1988) referred to the increasing centrality of work in the cultural system of post-war societies (with work becoming an end in itself, providing identity and purpose) as well as to consumerism as a general reorientation of life towards ever increasing consumption needs (requiring ever increasing earnings). Schor's “The Overworked American” (1993) discussed several factors explaining the stagnation or reversal of working time trends in the US, including inequality, economic insecurity and a long hours culture.

A different strand of economic literature focused on the impact of taxation and labour regulation on average working hours in different countries. Prescott (2004) argued that the main factor behind the shorter working hours in Continental Europe compared to the US is the tax system: higher marginal income taxes in Europe reduce the opportunity cost of leisure time. Alesina and Zeira (2006) criticised this argument on empirical grounds, arguing that tax rates can only explain a small amount of the difference in hours worked between US and Europe: instead, they argued that the difference results from stricter labour regulations in Europe, supported by stronger unions and collective bargaining institutions. Similarly, Burgoon and Baxandall (2004) related average hours worked with “partisan-driven” work-time policies and welfare regime institutions, giving rise to diverging working time trends in Social-Democratic, Liberal and Cristian Democratic regimes. From a sociological perspective, the same argument but reversed has been used to explain the stalling of working time reduction in recent years: since union power was one of the historical drivers of the reduction of working time, the decline in union power

observed across many developed economies since the 1980s has probably contributed to the stalling of working time reduction in this period (Burchell et al 2024).

Finally, a crucial factor to understand recent working time trends is gender. Since the 1970s, the levels of employment for women have relentlessly increased, converging with those of men in several European countries. However, because women tend to still have a disproportionate amount of home and family responsibilities and because of an increasing availability of flexible (but also more precarious) part-time arrangements, in many European countries a significant share of this increasing female employment has been part-time. In fact, the expansion of part-time work has been a key determinant of the evolution of working hours in Europe since the late 1970s (Piasna and De Spiegelaere, 2021). We will show later that the number of hours at work remains stable from the 1970s-1980s if we restrict the analysis to full-time workers (figure 2), whilst if we do the same estimations but by including all workers (also part-time workers) then we see (moderate) reductions in working time (figure 3). Cultural factors such as the prevalence of traditional gender roles or institutional factors such as the availability of childcare services have also been found to have a significant effect on the gap between the average hours worked of men and women (Andringa et al. 2015).

## 2.2. A conceptual mapping of relevant factors

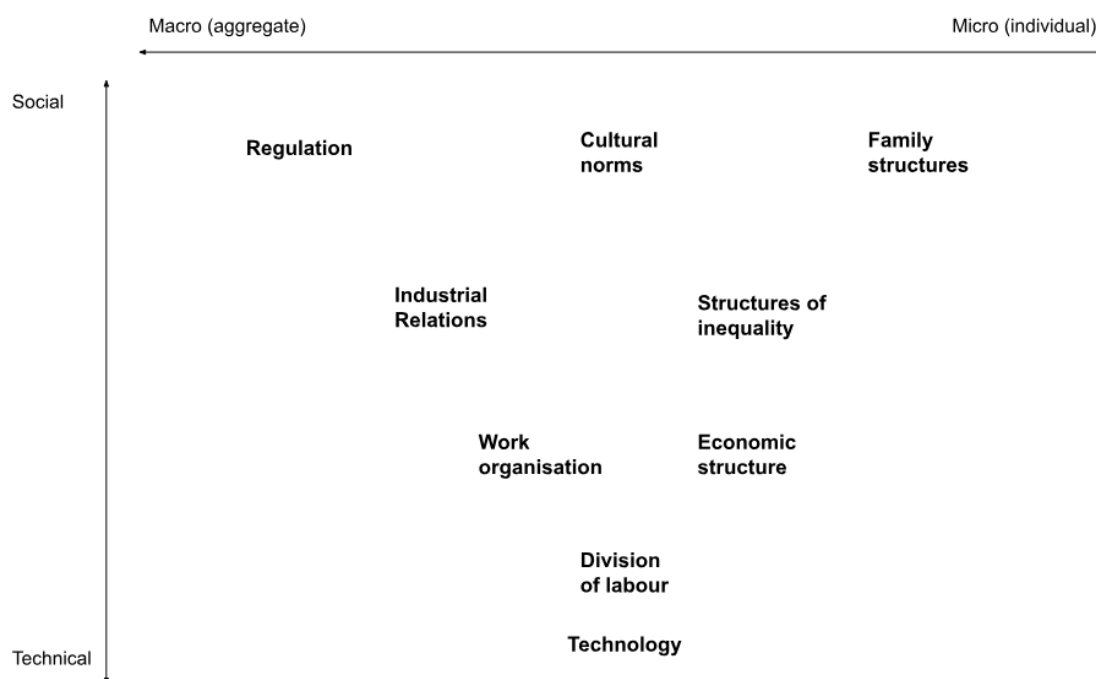
To guide our own analysis, it is useful to map all of the factors discussed in the recent literature in a broader explanatory framework, as shown in figure 1. This conceptual map of the factors determining the distribution and evolution of working time is structured in two axes. The vertical axis represents a continuum from technical to social factors, whereas the horizontal axis represents a spectrum ranging from macro (aggregate) to micro (individual) factors. At the very bottom, we have represented technology and the division of labour, which are the main underlying material factors behind the aggregate level of productivity of an economy and therefore its productive potential. This determines the average hours of work (or labour input) necessary to sustain the needs of the population: as technology and the division of labour unfold, the overall level of productivity tends to increase, making it possible either to reduce working hours or to increase the production of goods and services. Historically, both things have tended to happen simultaneously, though at different rhythms reflecting the effect of the other factors shown in figure 1. In this respect, we can say that the factors at the bottom of figure 1 are the main determinants of the productive potential of an economy, while the factors at the top of the figure are the main determinants of how this productive potential is effectively utilised and distributed (in terms of shorter or longer hours, more or less production, and their distribution across the population).

Above technology and the division of labour (and thus moving into the “social” dimension) we have work organisation (understood as the ways in which work is socially coordinated in specific production processes) and the economic structure (understood as the distribution of economic activity and employment across different markets and sectors). Both are also important determinants of the duration of working time: work organisation because it is literally about how the labour input of different employees is coordinated within productive organisations (for instance, some may be rigid in how they allocate the hours of work, some may allow for flexibility), and the economic structure because different activities and sectors impose different constraints on the organisation of

working time (for instance, service activities often require direct interaction between the worker and the client, and thus the timing of work must align with the timing of demand).

Then, moving upwards, we have industrial relations systems, which are structures for the collective representation of interest of workers and employers, and which partly shape the conditions of employment (including the hours of work) via collective action and collective bargaining. Also, on the more “individual” side, we have put the structures of inequality (referring to the distribution of socio-economic resources across individuals and social groups), which also constrain the hours of work because they directly shape the needs and resources available to individuals, and therefore indirectly the amount of work they need to provide in order to sustain their needs.

Finally, at the higher end of the “social” factors determining working hours, we have put regulation (the most “institutional” factor, which among other factors directly specifies the rules and limits specified by society with respect to working hours, shapes incentives e.g. through social and tax policies and defines the employment relationship and overall labour standards), cultural norms and values (which orient individual action and shape preferences with respect to working hours) and family structures (given that the family unit’s size, composition and roles constrain very significantly the amount of time different family members can allocate to paid work).



*Figure 1. A conceptual mapping of the factors determining the evolution and distribution of working hours*

Figure 1 should only be understood as a conceptual map of the most important factors determining the evolution and distribution of working hours in developed capitalist economies. It helps differentiate the main factors along two important axes (technical vs. social and macro vs. micro), and it can also help allocate specific historical processes that contributed to the reduction or stagnation of working time in Europe.

For instance, when we referred previously to the Neo-Weblenian concept of “conspicuous work” or “busyness as a badge of honour”, we are speaking about a change in cultural

norms which is also associated with changes in the underlying structures of inequality. When we refer to the impact on working hours of increasing female employment in Europe, we are speaking about changes in family structures as well as changes in the regulation of labour (with the appearance of new “flexible” types of contracts facilitating part-time work schemes). It is analytically useful to differentiate each of the factors shown in figure 1, because they correspond more or less to different aspects of the social system which have specific effects on the distribution and evolution of working time. But of course, they are all interrelated and influence each other, and often a specific process will involve changes in more than one factor.

To guide our analysis, in the next subsection, we hypothesize and describe how relevant factors identified in the literature have developed in Europe across different phases, with a special focus on the period from the 1980s to the 2020s.

### 2.3. Main hypotheses and explanations for Europe (1980- onwards)

Using the framework set out in figure 1, we can now provide a more systematic listing of the factors and processes behind the recent evolution of working hours in Europe. In fact, the framework can be used to go beyond the most recent period and contextualise it in terms of the previous historical trends, going back to the industrial revolution.

	1. Industrial revolution (approx. 1750-1850)	2. The fight for shorter hours (approx. 1850-1945)	3. The consolidation of the 40h norm (approx. 1945-1980)	4. Destandardization and fragmentation (approx. 1980- now)
<b>Social factors</b>				
<b>Regulation</b>	Minimal, laissez faire, creation of labour market	Gradual regulation of work and w. time	Strong regulation, high taxation	De-regulation, atypical contracts, part-time
<b>Cultural norms</b>	Pre-capitalist, enforced factory discipline	Consolidation of homo economicus	Consumerism, aspiration to middle class	Hyperconsumerism, conspicuous work
<b>Family structures</b>	Family as econ. unit, all work, gender and age div.	Separation of work/home, some private life, misery	Nuclear family, male bread-winner, private life	Female employment, double burden, increasing labour market participation
<b>Industrial relations</b>	Embryonic unions, powerful employers	Stronger unions, industrial conflict	Powerful, institutionalised	Weakening, fragmenting
<b>Inequality</b>	Oversupply of labour, proletarianisation	Polarised, high inequality	Tight labour markets, declining inequality	Unempl. and insecurity, esp. for low-skilled
<b>Work organisation</b>	Generally authoritarian	Generally authoritarian, professional mgmt.	Tayloristic and bureaucratic	Post-taylorist (flexibility, HR), Neo-taylorist
<b>Economic structure</b>	Agrarian transitioning to industrial	Consolidation of industrial capitalism	Shift to services and clerical work	Mature service economy, post-industrial
<b>Technology / division of labour</b>	Industrialisation, early mechanisation, surplus	Mechanisation, electrification, fast growth	Mass production, automation, affluence	Digitalisation, flexibility, globalisation
<b>Technical factors</b>				

*Table 1. The evolution of working hours in Europe - factors and processes*

Each of the rows of table 1 reflect the factors mapped in figure 1, going from technical factors at the bottom (starting with technology and the division of labour) to social factors at the top (finishing with regulation). Then, each of the columns refers to one of four big historical periods in the evolution of working hours since the industrial revolution:

1. First, the industrial revolution itself (which in the canonical English case would correspond approximately to the period between 1750 and 1850, varying in other countries), when average working hours were longer in historical terms;

2. the period of fight for a shorter working week (approximately between 1850 and 1945), when faster and steeper reductions in working hours took place;
3. the period of consolidation of the working time norm of 40 hours per week (between 1945 and 1980), with continuing but slower working hours declines;
4. and finally, the period of deregulation and fragmentation that starts in the late 1980s, and which is the one that we will study empirically in this paper.

Our main focus in this paper is on the latest period (1980- now), and we will therefore concentrate our discussion and later analysis on the factors and processes included there, although we will refer to previous periods for context. According to this framework, the main factors explaining changes in working time in this period are:

- Starting at the top, we can characterise the most recent period of **regulation** with respect to working time as one of de-standardisation, promotion of new forms of work and atypical contracts, and expansion of part-time work with the overall aims of making labour markets more flexible in an attempt to limit labour costs and foster competitiveness. This contrasts in particular with the immediate previous period, which was marked by strong regulation and high taxation of work. This change has resulted in an overall flexibilisation and liberalisation of labour markets in Europe aiming at increasing employment rates, and has surely had a significant impact on the distribution of working time, not only in terms of duration but also in terms of its organisation. As previously discussed, in recent years there has been an important growth of new forms of work and part-time work (often linked to growing female employment), which has been an important factor in explaining the continuing (albeit slowing) decline in average working hours in Europe. At the same time, governments have used tax systems and social policies to foster labour market participation more broadly, including also of young and older workers. In other words, since the 1980s, more segments of the population have become active in employment, often through less time-intensive forms of employment that have become more prevalent over time. This explains why, despite more hours being worked than ever before, the average workweek has been reduced in aggregate terms. Also, there has probably been a certain diversification and flexibilisation of working time as a result of these policy shifts. While this is the broad picture in terms of labour regulation, there have been various precise legislative initiatives that may have influenced working time.
- The row referring to **cultural norms** includes for the most recent period two of the most widely discussed factors behind the stagnation of working time decline (especially in the US, but also in Europe): (hyper)consumerism and the conspicuous display of long working hours as a symbol of status. Although consumerism already appeared as an important factor shaping working time in the previous period, when mass production of goods was consolidated, it probably had a more limited effect on the choice of working hours, while the idea of “busyness as a badge of honor for the new superordinate working class” (Gershuny 2005) is probably a more recent phenomenon. This may be because the higher inequality, the higher the probability of using busyness as status markers (Belleza et al. 2016; Bowles and Park; 2005; Pybus et al. 2022; Velandia-Morales

et al. 2022). Therefore, we can expect these factors to become more important in the periods in which inequality has substantially increased (that is, from the 1980's in the cases of the US and Europe). These cultural norms contrast strikingly with the pre-war period, when there was a widespread demand for shorter working hours. As previously discussed, in the initial period of the industrial revolution a pre-capitalist time culture prevailed in which higher wages reduced rather than increased labour supply (De Vries 1994). While in the XIX century 'conspicuous abstention from labour became the conventional mark of superior pecuniary achievement and the conventional index of reputability' (Veblen, 1899), and consequently those with higher earnings did fewer hours of work (Costa, 2000), it seems that this situation was reverted at some point in the second half of the 20<sup>th</sup> century, when work and busyness started being used as status symbols.

- In terms of **family structure**, the last period also contrasts with the previous one in significant ways. In the most recent period, increasing female employment but with a continuing allocation of most family and home responsibilities to women imposed a heavy constraint on their paid working hours, resulting in shorter hours (often part-time). In contrast, the previous period saw the consolidation of the nuclear family model, with the male partner as the sole bread-winner (in particular during the child-rearing stage) and a strong gender differentiation between paid and unpaid (family) work. The expansion of female (paid) work from the end of the 20<sup>th</sup> century, often through less time-intensive and non-standard forms of employment, have pushed aggregate working hours down in many countries.
- Another significant process affecting the evolution of working hours concerns the **industrial relations** system. Whereas the period of 1945-1980 was marked by strong unions and institutionalised collective bargaining, the most recent period witnessed a deliberate policy drive to fragment collective bargaining, with the objective of developing more flexible wage-setting mechanisms. This has weakened trade unions and workers' voices, and has surely affected the evolution of working time too. Even if in the period 1945-1980 unions were not so focused on reducing working time as before (wages and other working conditions tended to gain more prominence), their strength and importance in the collective determination of working conditions surely played a role in the limitation and standardisation of working hours, and thus their weakening has probably played a role in the fragmentation and stagnation of average working hours in recent years. Evidence supporting the hypothesis of weaker unions and collective bargaining institutions promoting longer hours (and vice-versa) can be found in Alesina and Zeira (2006), Burchell et al. (2024), Burgoon and Baxandall (2004) and Huberman and Minns (2007). This has occurred, in part, because these institutions have diminished in importance, capacity and influence in traditional sectors (such as manufacturing), but also due to the process of tertiarization and the emergence of new forms of work -such as platform work (Fernández-Macías et al., 2023)-, where unions and collective bargaining institutions do not have yet a significant penetration.



- In terms of structures and levels of **inequality**, the most recent period has seen an increase in several countries that may have contributed also to the stagnation of average hours of work -in particular, in Anglosaxon economies, as previously discussed-(Behringer et al. 2024; Belleza et al. 2016; Bowles and Park, 2005; Huberman and Minns, 2007; Pybus et al. 2022; Velandia-Morales et al. 2022). But in Europe, perhaps the most important change in structural inequality affecting working time has been the growing unemployment and labour market insecurity (resulting from changing macroeconomic priorities and the previously mentioned flexibilisation of labour markets), which has weakened the labour market position of many workers in ways that may have forced them to accept undesirable conditions such as longer working hours. Again, this contrasts with the previous historical period characterised by frictional unemployment and generally shrinking inequalities.
- **Work organisation** has also changed in recent years in ways that may have affected working time. If the post-war period was dominated by Tayloristic (in manufacturing) and bureaucratic (in services) forms of work organisation that tended to be associated with standardised and negotiated hours of work, the post-80s period is associated with “flexible” (and increasingly digitalised) post- or neo-Tayloristic forms of work organisation which often entail de facto longer hours of work, concealed behind flexible schedules or a blurring of the line between work and private life. In this context, in the 21st century, we are witnessing the expansion of algorithmic management of work entailing the use of algorithms and data-driven technologies to automate managerial functions within organisations (Baiocco et al., 2022; Rani et al., 2024). While algorithmic management has clear potential to reduce time spent at work by streamlining work processes, enhancing efficiency in task allocation and performance and by automating some forms of human labour, it appears that instead of resulting in increased leisure time, workers who are managed algorithmically experience pressures towards incessant availability (Piasna, 2023). Similarly, another recent study suggests that the potential productivity gains brought about by algorithmic management, if they exist, may lead to better service delivery, labor displacement, or increased work intensity, but not a reduction in working hours, as their primary objective is efficiency rather than improved working conditions (Rani et al., 2024).
- In terms of the **economic structure**, the most recent period has seen a continuation of the secular shift towards a service-based economy, and within services towards personal on the one hand and knowledge-based on the other (Torrejón Pérez et al. 2023; 2024). This has also been a period of increasing national and international fragmentation of value chains. All of this further contributes to some of the previously mentioned processes of fragmentation, economic insecurity and weakening of the post-war institutions of labour regulation, with probable effects on the distribution of working hours.

- Finally, in terms of the underlying **technology and division of labour**, the key developments of the last three or four decades with respect to working time have been an increasing digitalisation of economic activity, and an increasingly global division of labour. In this respect, it is useful to highlight the historically changing role of productivity growth as a driver of working time reduction. In the second period shown in table 2 (1850-1945), fast productivity growth was translated into steep reductions of working time as well as into growing wage levels. In the following period (the consolidation of the 40h norm, 1945 to 1980), even faster productivity growth translated mostly in a very marked growth of wage levels, with a much more limited impact on working time reduction. But from 1980 onwards, continuing (even if milder) productivity growth did not result either in wage growth or in significant working time reductions, implying a significant reallocation of the surplus generated by productivity growth towards capital, which has been documented in many papers (Karabarbounis and Neiman 2014).

While there may be other factors explaining changes in the evolution and distribution of working hours in different contexts, we contend that the previous list is comprehensive enough, covering the principal factors that have played a significant role in Europe (and other developed capitalist countries) in recent decades. Furthermore, we have endeavoured to classify these factors based on their nature and characteristics (ranging from technical to social factors), scope (from macro to micro determinants), and historical context, trying to emphasize the boundaries between factors and processes that are often highly interrelated. In doing so, our objective is to provide conceptual and theoretical clarity to a debate that encompasses diverse arguments and hypotheses. In other words, our aim is to help unravel this complex puzzle and, this way, better understand the evolution of working time in Europe in the last three decades.

In the following pages we examine trends in working time in six EU countries from 1992 to 2022. Through this analysis, we conduct an initial assessment of the relevance of various of the factors described above. However, this framework may be applied and used in subsequent studies, aimed at delving deeper into the drivers explaining trends in working time across different locations and timeframes.

### 3. Data source and variables

To construct series on working time from 1992 to 2022 we rely on the EU Labour Force Survey (EU-LFS). Our sample includes Spain, Germany, Denmark, Ireland, Czechia, and France. They represent different welfare state regimes, according to various taxonomies (Esping-Andersen, 1990; Scruggs and Allan, 2006; Ferragina et al., 2015), and encompass the full range of economies covered in the literature on varieties of capitalism (Hall and Soskice 2001; Molina and Rhodes 2007). Additionally, this sample captures differentiation in the regulation of working time, both in terms of the definition of standard working hours within the margins of the EU (ranging from the 35-hour workweek in France to closer to 40 in the Czech Republic and Spain) and the additional margin of flexibility in working time introduced by collective agreements. In this regard, Denmark and France show a high degree of prevalence of work-life balance topics in collective agreements, an issue which is also present in sectoral agreements in Germany, while having limited prevalence in Spain and Czechia (Eurofound, 2017). This regime

variety allows for considering the institutional factor when interpreting differences in working time across countries.

Our analytical sample comprises employees aged 15 or over. The sample size in the initial year (1992, 1997 in the Czech Republic) is 62,716 in Spain, 145,584 in Germany, 13,222 in Denmark, 48,819 in Ireland, 33,683 in the Czech Republic, and 67,137 in France, while in the final year (2022) it amounts to 34,022 in Spain, 99,763 in Germany, 43,521 in Denmark, 9,896 in Ireland, 16,757 in the Czech Republic, and 27,666 in France.

The main advantage of the EU-LFS is that it uses a harmonized methodology, ensuring comparability across countries. In addition, it allows for the creation of consistent series covering long periods with the same variables and definitions. As such, it allows analysing labour market transformations in the long run at both national and EU levels. Its main limitation is that National Labor Force Surveys differ with respect to the sampling of reference weeks over the year, which may be a problem for this paper because hours worked exhibit a strong degree of (country-specific) seasonality. This may affect comparability of results. However, we address this issue and minimize this potential bias by relying on *usual* rather than *actual hours* as the main variable of our interest. *Usual hours* are defined as the number of hours per week usually worked in main job. The EU-LFS also provides information on the hours actually worked in the main job in the reference week (that is, *actual hours*). We chose the former for the following two reasons:

- We are interested in capturing the amount of time workers *typically* spend at work in a standard week, rather than focusing on the time spent at work in a specific week. While the number of hours workers dedicate to their job in a given week may vary due to special circumstances such as holidays, sick leaves and medical visits and other factors, our goal is to study the average or usual patterns of work as reflected in the usual work schedules.
- *Usual hours* enhance comparability of results. Since the fieldwork is conducted at different times across countries, there is the possibility that the timing could impact results. If the fieldwork in one country is carried out while many workers are on leave or sick, this may influence results, especially if compared to a scenario where most workers are active. While *actual hours* reflect these changing circumstances, *usual hours* refer more broadly to the workload in a typical week rather than the specific week when the fieldwork is conducted. In other words, *usual hours* have as a reference a more extended time period, capturing the situation that is more common for workers, and leaving special circumstances aside. Thanks to this, *usual hours* contribute to minimize the bias in comparability due to country-specific seasonality.

While this variable is appropriate for our study, it might not be so well suited for comparative analysis including countries outside the EU. This is because an important source of variation in worktimes is due to the divergence in the number of days off, that are not captured this way: half of the gap in annual worktimes between the old (Europe) and the new world (Anglo Saxon countries) is due to the divergence in the number of days off (Huberman and Minns, 2007). However, this is not a problem because we are

primarily interested in the evolution of the working week. Furthermore, the differences in days off across EU countries are limited.

Apart from analysing how the number of *usual hours* at work different segments of the workforce register has evolved over time in six EU countries, we decompose these trends (and an indicator on the share of part-time contracts) according to some key variables: age (15-29, 30-44 and 45-64); gender; educational attainment (low, medium and high)<sup>3</sup>; professional status (self-employed and employees); working time arrangement (full-time and part-time); occupation (low skilled blue collar, low skilled white collar, high skilled blue collar and high skilled white collar)<sup>4</sup> and economic sector (the goods producing sector, private services and public services).<sup>5</sup>

In short, the value added of the analyses of section 4 arises from our ability to generate consistent series of data on working time dynamics in at least two ways: 1) over time in the long run, covering a period of three decades (1992-2022); and 2) for comparative purposes at the EU level. Therefore, this data is well-suited for conducting an initial assessment of the importance that various factors (such as those described in section 2) have in explaining the evolution and distribution of working hours, as we do next.

#### 4. The determinants of working time in Europe

This section has four parts. First, it focuses on the emergence of part-time work as the main factor driving down working time in recent decades. Second, it sheds light on the reasons behind the increasing prevalence of part-time work. Third, it shifts the focus to full-time workers, examining the factors that explain why their working hours have remained relatively stable over the past decades. Finally, it explores why those who used to work longer hours (the self-employed) are also reducing their workloads.

##### 4.1. The key role of part-time work in reducing working time

###### 4.1.1. Providing a long-term context (1870-2022) for the most recent period

Before focusing on recent trends, we provide some historical context. To this end, figures 2 and 3 show how weekly working hours have evolved over time in the long run, in a period covering one century and a half (from 1870 to 2022) in the four EU countries of our sample for which there is data available from that starting point (plus the United States for comparison).<sup>6</sup> While Figure 2 shows the hours per week worked by full-time production workers in non-agricultural sectors, Figure 3 depicts data points from 1992 referring to the hours worked by all workers. In both cases, data prior to 1992 is sourced from Huberman and Minns (2007). From that year, we extend the series to the most recent available data, utilizing the EU-LFS as our data source from 1992 to 2022.

We present two figures to offer comprehensive historical data. The first one maintains consistency with Huberman and Minns's (2007) methodology over the whole period. Figure 3 displays a break in 1992, as from that point we transition to analysing all workers

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<sup>3</sup> Low corresponds to ISCED levels below 1 and until 2; *medium* to 3 and 4, and *high* to 5 or over.

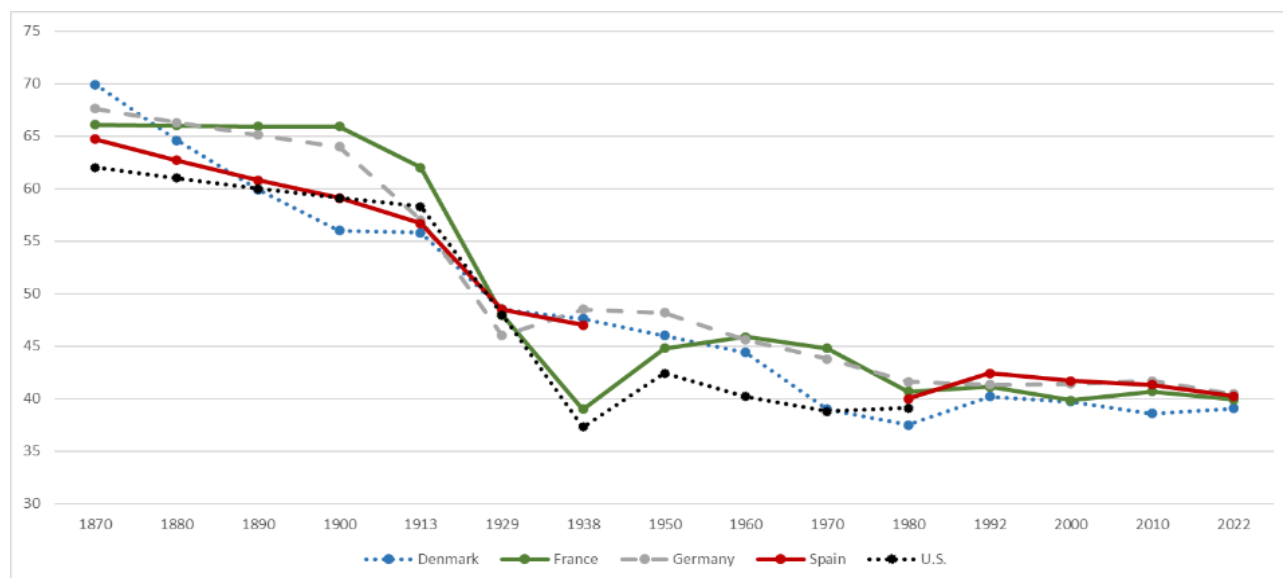
<sup>4</sup> *Low skilled blue collar* corresponds to ISCO codes 80 and 90, *low skilled white collar* to ISCO 40 and 50, *high skilled blue collar* to ISCO 60 and 70, and *high skilled white collar* to ISCO 10 to 30.

<sup>5</sup> The *goods producing sector* encompasses agriculture, mining, construction, utilities and manufactures (NACE groups from A to F in NACE Rev.2); *public services* include the public administration, health and education (categories O, P, Q and U in NACE Rev.2), and *private services* the rest of services.

<sup>6</sup> We maintain the United States in the figure, just to provide additional context and benchmarking.

rather than solely full-time production workers in non-agricultural sectors. This shift in focus is crucial given the growing significance of part-time work since the late 20th century, which largely accounts for reductions in working hours during that period. Consequently, excluding this segment of the workforce from our analysis would result in an overestimation of total working hours. This discrepancy explains why estimates appear higher in Figure 2 compared to Figure 3, where we observe a reduction in working hours.

Figure 2. Hours of work per week (full-time production workers in non-agricultural activities), 1870–2022

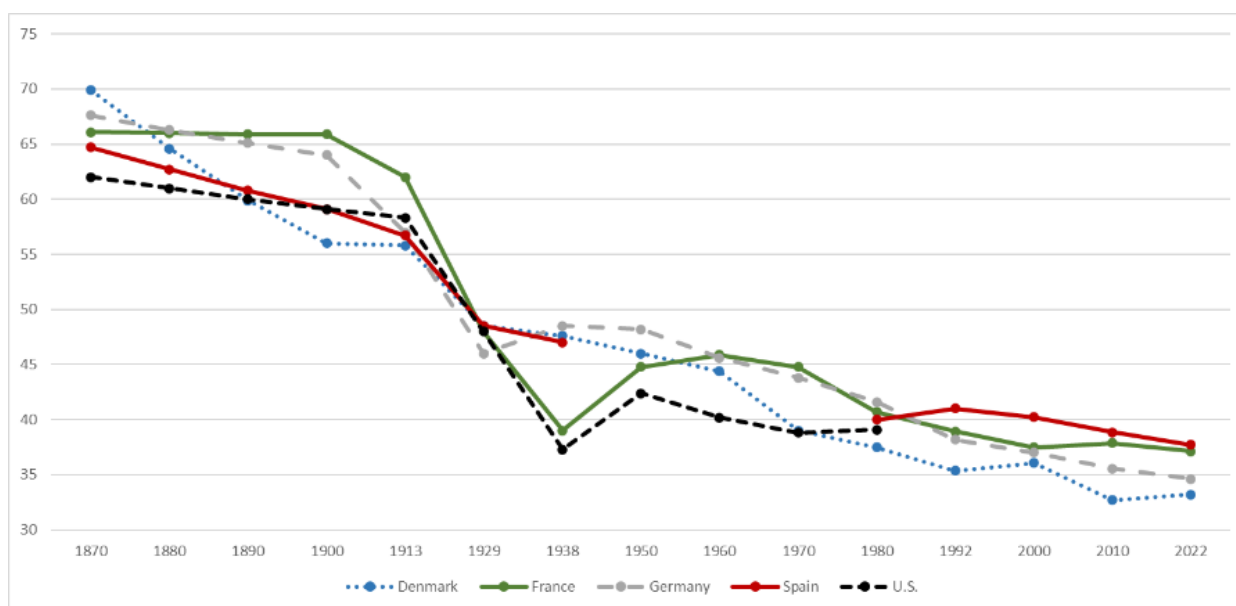


**Source:** Huberman and Minns (2007) for data until 1980, and author’s elaboration with the EU-LFS for data from 1992. For consistency reasons, this figure adopts Huberman and Minns (2007) approach, that captures weekly hours of full-time production workers in non-agricultural activities.

From the end of the XIX century until the 1980’s, reductions in working time were constant. In the European context, there have been two exceptions where this general trend was reverted for few decades: France from the late 1930’s until the 1960’s, and Germany from 1929 to 1950. In these two precise periods and countries, the number of hours increased after reaching historical minimum levels. Leaving these particular circumstances aside, the general trend in the long run is clearly downward. However, the period going from 1870 to 1980 can be split in three main subperiods:

- **The pre-war period (1870-1913).** In this sub-period, hours of work were consistently reduced in all the countries of our sample (plus in the US).
- **1913-1950.** This convulsive period, which witnessed World War I and II, corresponds with the late stage of “the fight for shorter hours” -as described in our framework (table 1)-. These years hours of work continued decreasing in all countries at a faster pace. The largest reductions in working time in contemporary history took place during these decades (specially in France and the US).
- **The “golden era” (1950-1980).** After the Second World War, a downward trend continued in all countries, although the pace of this trend was reduced. Trends these years were more similar to those registered in the pre-war period.

Figure 3. Hours of work per week (all workers since 1992), 1870–2000



**Source:** Huberman and Minns (2007) for data until 1980, and author's elaboration with the EU-LFS for data from 1992. From 1992, data captures weekly hours for all workers.

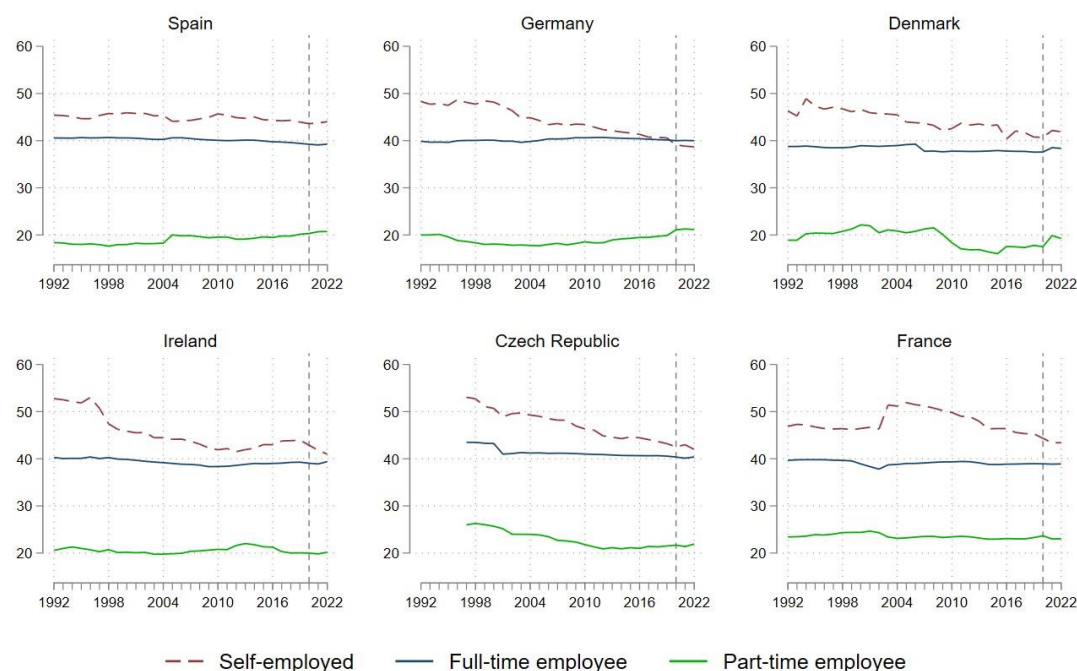
Then, there are two possible interpretations of what occurred from 1980 to 2022. According to Figure 2, during this period of "deregulation and fragmentation" (see Table 1), for the first time in recent history the number of hours stabilized in all countries, indicating no further reductions in weekly hours. However, this stabilization is only apparent if we exclude part-time (and agricultural) workers from the analysis. When we include them, as done in Figure 3, we observe that the downward trend previously observed indeed continues until 2022. This significant disparity in trends from 1992 onwards between Figure 2 and 3 underscores the growing importance of part-time work as a key variable in explaining developments (reductions) in work hours in recent times.

#### 4.1.2. A focus on recent trends (1992-2022)

Previous figures provided historical context. However, the contrast between figure 2 and 3 in trends from the 1990s already reveals that part-time work largely explains the continued (even if slower) decline in working hours in Europe in the last decades. From this point, the focus of all remaining analyses is on trends from 1992, from where we have been able to construct detailed series that are consistent over time and across countries.

Figure 4 displays trends in working time for all people in employment by working time arrangement and professional status, confirming our previous conjecture. First, it is clear that full-time workers continue working roughly the same number of hours throughout the whole period in all countries. In fact, differences across countries for full-timers are marginal, revealing that the norm of 40 hours for standard employment is consistent and pervasive across Europe. What this means is that all the reductions of working time that we observed earlier for all workers (as shown in figure 3 and figure 14 in the Annex) are due to a compositional effect: the increasing prevalence of non-standard forms of work.

Figure 4. Hours usually worked per week by country, professional status and working time arrangement, 1992-2022



Source: EU-LFS

The self-employed work longer hours than anyone else. Although the number of hours they work has decreased in all countries except Spain, they have continued working more than 40 hours per week in most cases (except in Germany) during the majority of the period. Only in recent years have they begun to approach the norm of 40 hours per week. Despite still working more than others, the fact that those who typically devote more time to work have slightly shortened their work schedules must have also contributed to the decline of aggregate working hours. We explore this further in section 4.4.

Finally, those in part-time work spend almost half of the time at work than full-timers, that is around 20 hours per week. France is the only country where part-timers have consistently been doing more than 20 hours per week.

In short, we can summarise the overall evolution of working hours in two main points:

1. Reductions in working time from the 1990's in Europe are due to a compositional effect: the higher prevalence of non-standard forms of employment over time.<sup>7</sup>
2. The self-employed are shortening their workloads, with this other factor also pushing working hours down over time (except in Spain).

For these reasons, below we analyse: the factors driving the expansion of part-time work, as the main form of work that has pushed working time down in the last decades (section 4.2); why full-time workers continue working more or less the same and which are the

<sup>7</sup> Given that part-time work emerges as a key driver of reductions in work hours, studies that analyze only full-time workers -such as Huberman and Minns (2007)- are unable to capture one of the main factors explaining developments in work hours in recent decades. Consequently, they are likely to underestimate the reductions in work hours experienced in the last decades.

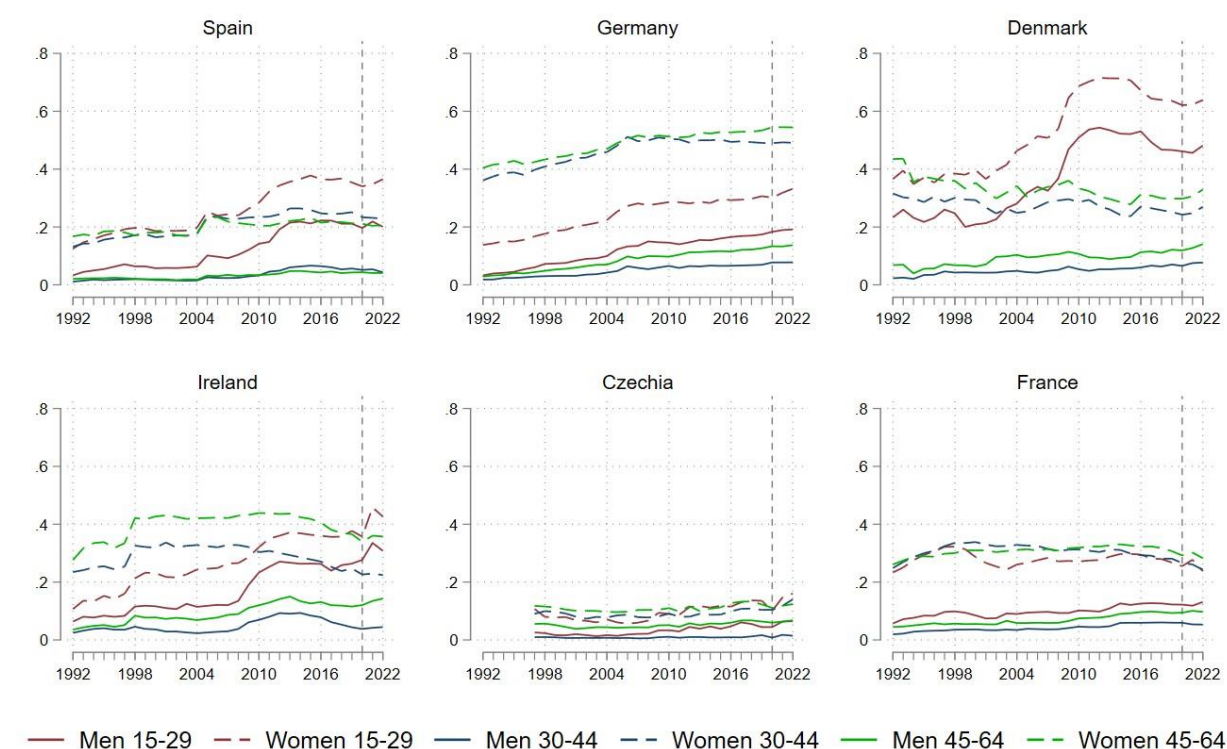


factors making from them to continue doing long working hours (section 4.3); and why the self-employed have tended to work less and less over time (section 4.4).

#### 4.2. Why part-time work expanded?

Part-time work is more prevalent among women (Figure 5). This holds in all countries and for most age bands. Young men are the only ones that, in some cases, get close or even surpass the levels of part-time of adult women, as seen in Spain, Ireland and Denmark. This is because among the young, for both genders, there are more people combining different activities (for instance, paid work and formal education), but also because firms very often offer less time-intensive forms of employment to those with less seniority and experience. This age effect, in some countries, offsets the gender gap. However, generally speaking, women are overrepresented in part-time work. For this reason, the feminisation of employment<sup>8</sup> has contributed to the reduction of aggregate working hours in Europe, largely through the expansion of part-time work.

Figure 5. Share (%) of part-time work by age and sex



Source: EU-LFS

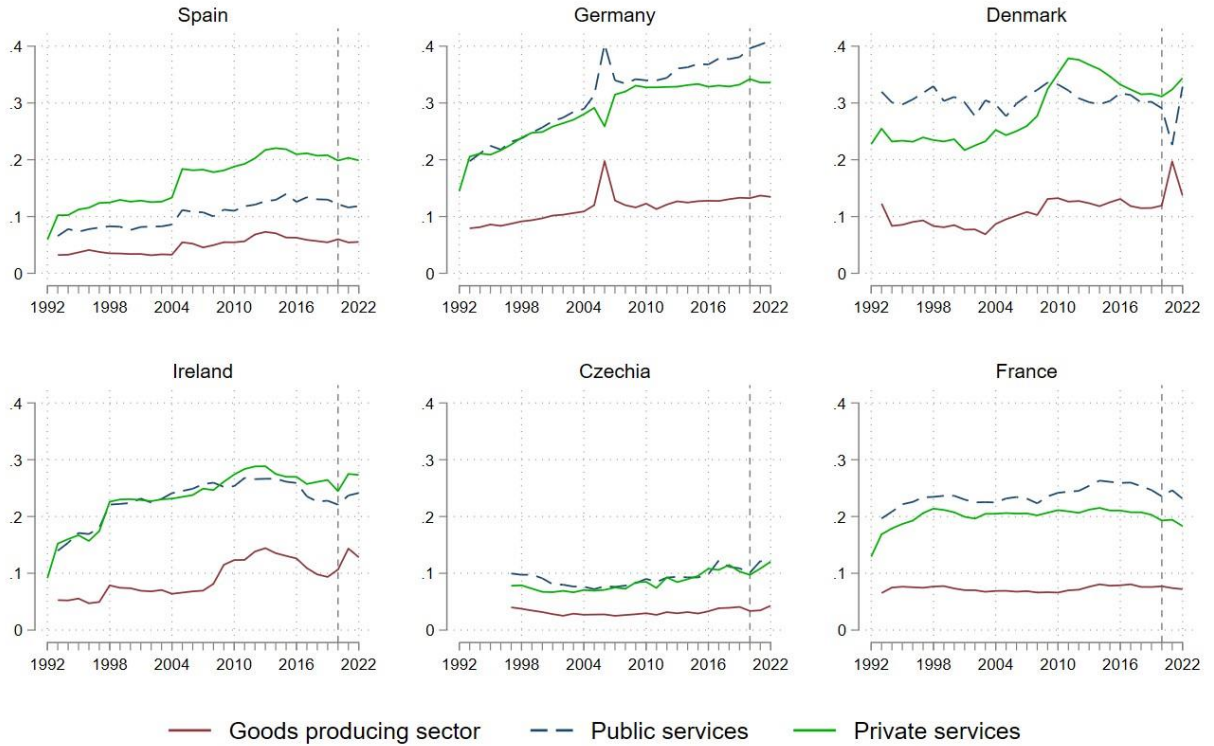
On the other hand, part-time work is more prevalent in the service sector (figure 6). In both private and public services, the share of part-timers is much higher than in the goods producing sector (a sector that encompasses construction, manufactures, agriculture and utilities). This is consistently observed in all the countries of our sample during the entire period. In fact, the difference in the share of part-time work between services and the goods producing sector has increased over time. Taking into account that Europe

<sup>8</sup> According to EU-LFS data, in 1992, women represented 40% of all workers in the six countries of our sample. By 2022, this percentage had risen to nearly half of the workforce (48.2%).



continues experiencing a process of tertiarisation of employment (Torrejón et al. 2023; 2024)<sup>9</sup>, from Figure 6 we can also infer that tertiarisation of employment must have contributed to the expansion of part-time work and the overall reduction in working time.

Figure 6. Share (%) of part-time work by broad sector



Source: EU-LFS

As explained in section 2.3, the evolution of working hours in Europe in the last three decades is better understood in comparison with the previous period. In this section, we have briefly discussed the factors behind the expansion of part-time work, which has been the most significant driver of working time reduction in Europe since the 1990s. Before this period, the majority of workers were employed under full-time contracts, aligning with the *male breadwinner* model of family organization. However, during the 1980s and 1990s there was a diversification in forms of employment that strongly affected the duration of working time. Regulatory changes in many countries facilitated the creation and expansion of non-standard forms of employment, often entailing reduced work hours. This shift was partly driven by efforts, often explicitly stated, to combat rising unemployment rates, extend employment opportunities to broader segments of the population and foster competitiveness. During this period, women became increasingly active in tertiary education and in the workforce, frequently through non-standard forms of work, such as part-time employment. Concurrently, developed economies, including those in Europe, underwent varying rates of transition from industrial to service-based economies. In essence, regulatory changes were crucial for the emergence and increase of part-time work, which in turn fostered a strong feminization of employment, further

<sup>9</sup> In 1993, on aggregate in the six countries of our sample, 60.8% of workers were employed in services (both public and private sectors), whereas by 2022, this figure had risen to 74.3%.

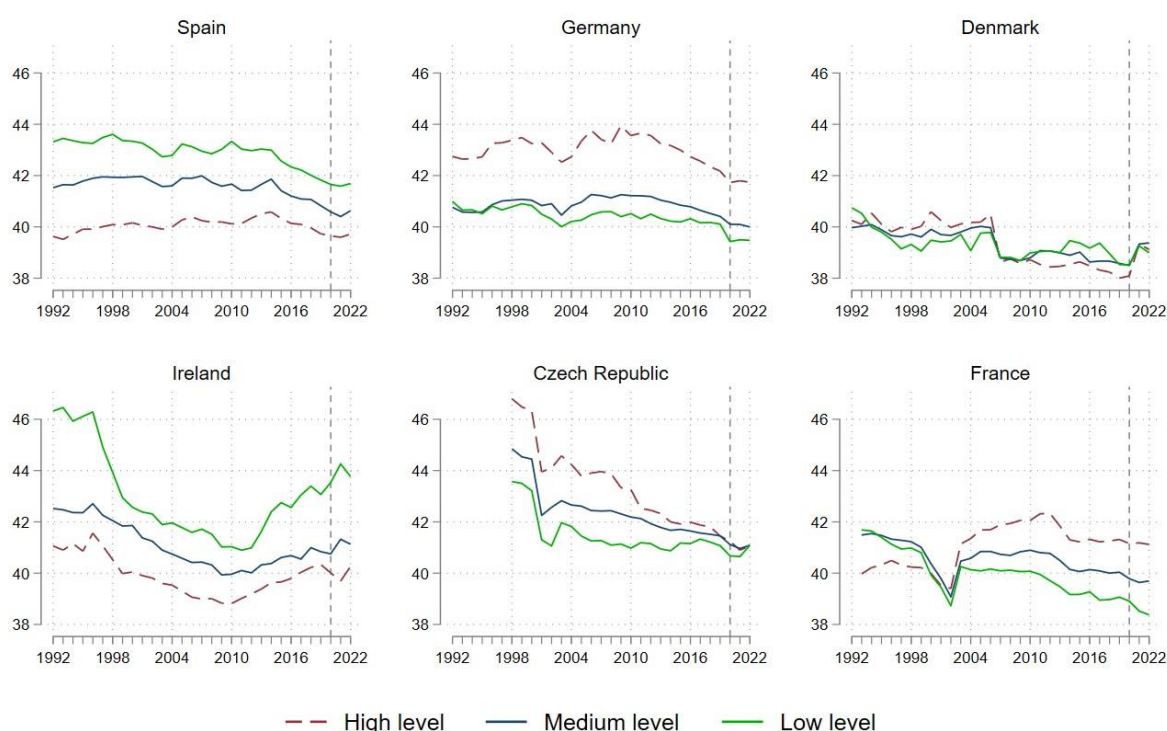
fuelled by the expansion of service-oriented sectors. These factors collectively contributed to reduce working hours in the last three decades.

#### 4.3. The case of full-time workers: why do they still work so many hours?

As seen in Figure 4, although European workers overall have tended to work less over time, the hours full-time employees devote to paid work have remained remarkably stable in recent decades. However, this stability refers to the overall average, which may in fact conceal different trends for specific subgroups of workers.

In this section, we examine in detail the evolution of working hours only for full-timers, broken down by different variables, trying to identify possible diverging trends for specific subgroups, and explore the factors behind.

Figure 7. Hours usually worked per week by country and education (full-time workers)



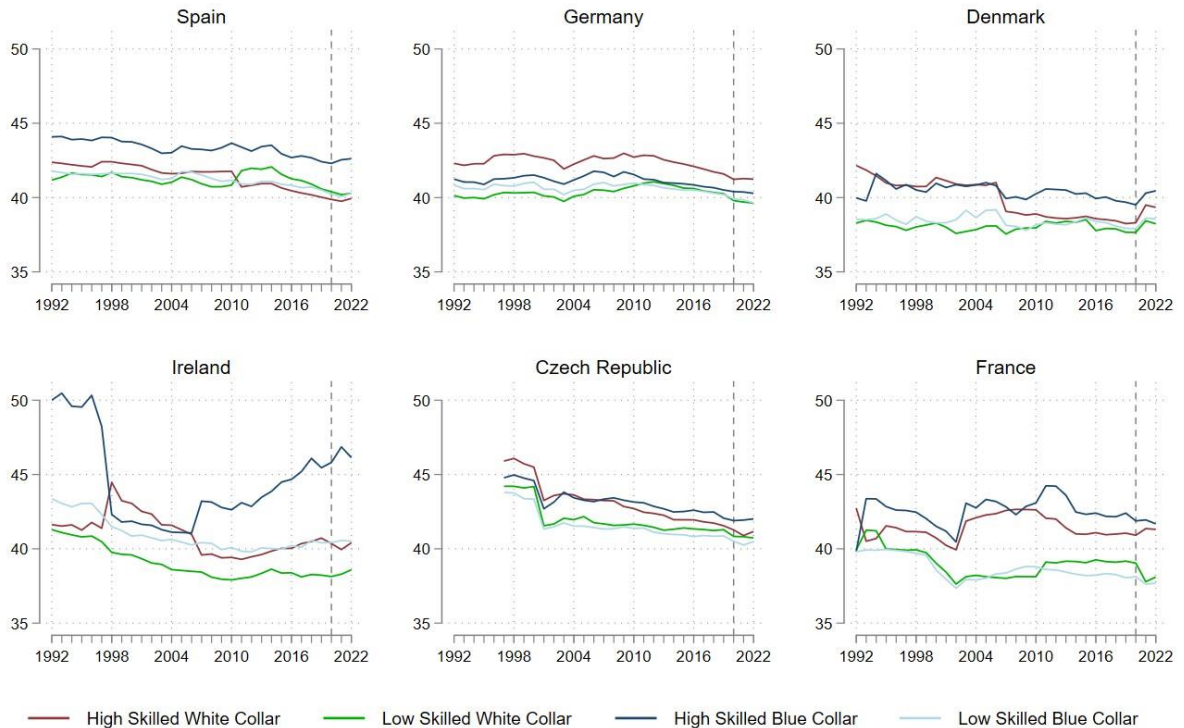
Source: EU-LFS

Results by educational attainment and country are mixed, as Figure 7 demonstrates. In Spain and Ireland, full-time workers with a lower educational attainment tend to work longer hours. The opposite is true in Germany and France. On the other hand, in Denmark and Czechia, there is no clear relationship between educational attainment and working hours. The negative association between education and working hours suggests the possible existence of an *income effect* in Spain and Ireland: individuals with higher wages (assuming a positive correlation between wages and educational attainment) may work fewer hours because they require less time at work to achieve the same income. Conversely, the opposite effect (the *substitution effect*) may be occurring in Germany and France: individuals with higher wage rates (often those with higher formal credentials) face higher opportunity costs for leisure, which may incentivize them to work longer hours. The positive association between education and working time, as seen in Germany

and France, is also consistent with the notion that individuals use work and *busyness* as a symbol of status. This may explain why those with higher status (i.e., higher educational attainment) devote more time to paid work compared to others.

In summary, trends in working time by educational attainment are mixed. On top of that, we acknowledge that the educational attainment serves merely as a proxy for wages and status. For these reasons, we further explore the aforementioned effects by analysing trends in working hours by occupation. These results (Figure 8) are more consistent: **the skill level and working time tend to be positively correlated in all cases**. Although there is not a monotonic relationship in all instances and trends by country differ slightly, we generally find that **high-skilled workers** (both blue and white collar) **work longer hours than low-skilled ones**. This suggests that the more or less consistent occupational upgrading in Europe in recent decades (Torrejón Pérez et al. 2023; 2024) would have contributed to expanding the working hours of full-timers. Two possible mechanisms can explicate these trends, as explained earlier in section 2. First, from an individual perspective, this is consistent with the predominance of a *substitution effect* among high-skilled workers. Second, from a societal and cultural point of view, this implies that those with higher occupational status may use work and *busyness* as a means to signal their status (and increase their consumption capacity). High-skilled workers tend to have more autonomy and control at work than their low-skilled counterparts, and therefore more capacity to decide by themselves the amount of time they devote to paid work.

Figure 8. Hours usually worked per week by country and occupation (full-time workers)

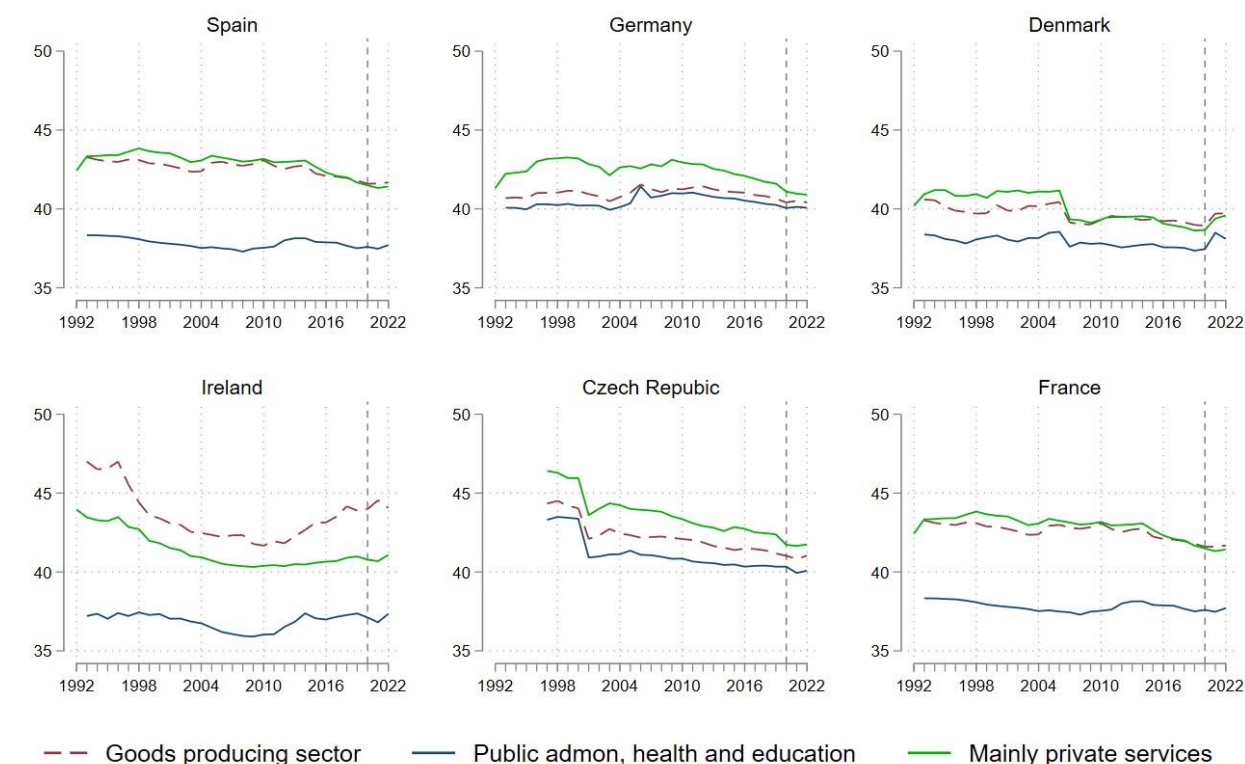


Source: EU-LFS

This positive effect of the upgrading of the occupational structure on the duration of full-time working hours would have been compensated by other (negative) effects, resulting in the stable evolution previously shown in figure 4.

In all countries but Ireland, full-time production workers do longer hours in *private services*, followed by those in the *goods-producing sector*; on the other hand, shorter hours are registered in *public services* (Figure 9). Considering that employment growth in Europe and beyond has been more prominent in *private services* (Torrejón Pérez et al., 2023; 2024), this suggests that the ongoing process of tertiarization has a positive effect on working time. However, we cannot expect from this process to have a significant impact on working time dynamics, at least if we take into account: a) that *public services*, where shorter hours are worked, have also grown; and b) that the size of the *goods-producing sector* (another sector characterized by long working hours) has consistently decreased over time (Ibid.). Although there are countervailing effects, the pace of employment growth in *private services* has clearly outpaced changes in other sectors (Ibid.). For this reason, we believe that, at least among full-time workers, **tertiarization has contributed positively to the duration of full-time working hours**. In other words, tertiarisation has promoted the growth of time-intensive jobs, with this phenomenon partly explaining why regular workers do not work less than in the past.

Figure 9. Hours usually worked per week by country and sector (full-time workers)



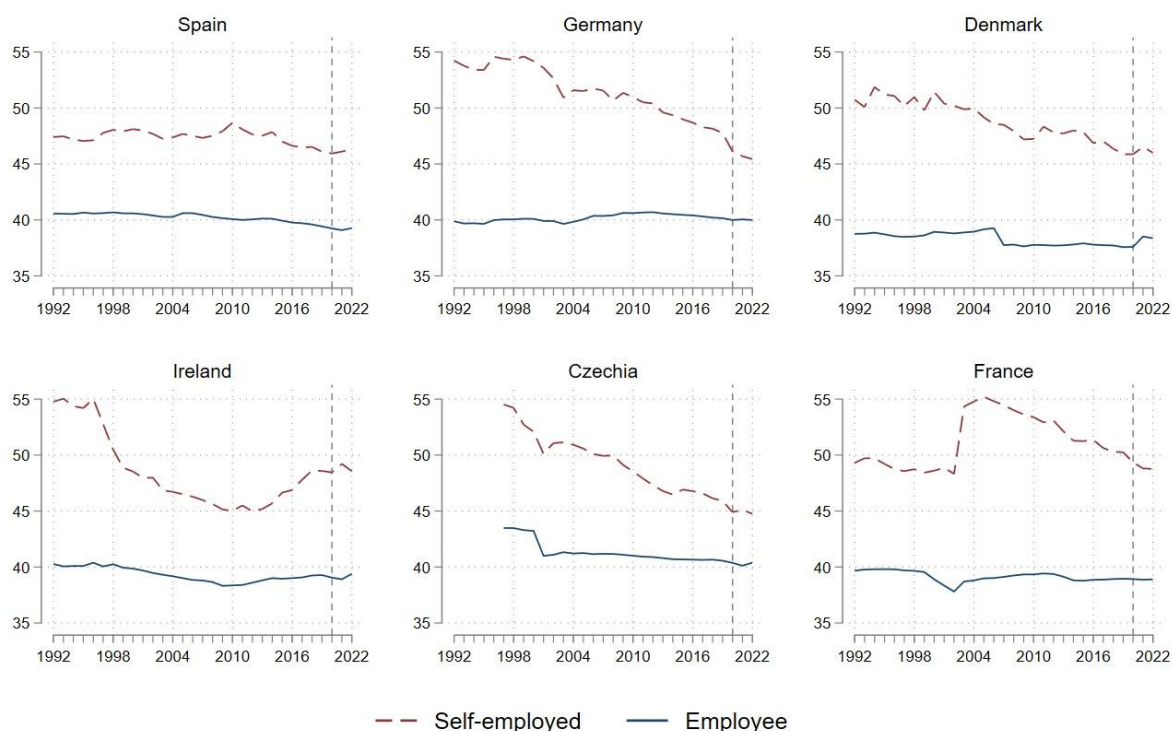
Source: EU-LFS

Finally, Figure 10 indicates that the self-employed work longer hours than employees in all countries, even after controlling by the working time arrangement. While the number of hours done by full-time employees has remained stable (around 40 per week), the self-



employed (in full-time dedication) have experienced significant decreases over time. Despite this, they continue working more than all the rest: more than 45 hours per week in all cases, a figure that raises to almost 50 in the cases of Ireland and France. Overall, the self-employed are reducing their working hours over time in all countries but Spain.

Figure 10. Hours usually worked per week by country and professional status (full-time workers)



Source: EU-LFS

According to the EU-LFS, in the six countries of our sample, self-employment as a percentage of total full-time employment has decreased from 16.8% in 1992 to 12.6% in 2022. This downward trend is consistent across most countries, with exceptions in Germany (where the share of self-employment has remained stable) and Czechia (where self-employment increased, being the only case where this has happened). Therefore, generally speaking, it seems that the declining proportion of self-employment, along with the reduction in working hours among remaining self-employed individuals, are two factors that have pushed working time down in recent decades.

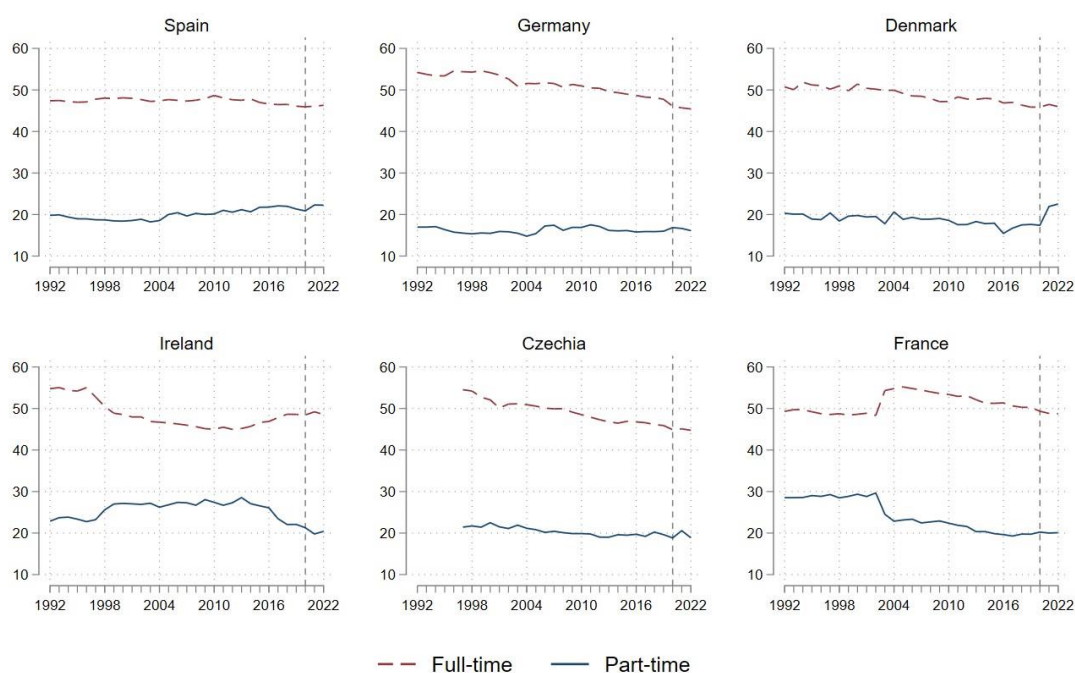
In summary, in this section we have seen that behind the apparent stability of the average hours of full-time work, there are important countervailing effects. On the one hand, we can observe occupational upgrading (with high-skilled occupations working longer hours, probably as a result of mechanisms such as status competition and signalling, and the predominance of a *substitution effect* among high-skilled workers) and tertiarisation (with the rapid growth of employment in *private services*) as some of the main factors pushing up the hours of work of full-timers. On the other hand, self-employment has become less prevalent and less time-intensive over time, with this factor pushing in the opposite direction; also, the expansion of public services and the reduction of employment in the goods producing sector have contributed to shorter work schedules for full-time workers.

The existence of these countervailing effects explains why the hours full-time workers devote to paid work has remained relatively stable over time in the last decades in Europe.

#### 4.4. Why the self-employed work fewer hours than in the past?

In the six countries of our sample, most self-employed individuals (more than 4 out of 5 in 2022, according to the EU-LFS) work on a full-time basis. They work more than twice as many hours as their counterparts with part-time contracts (reaching or being close to 50 hours per week in all cases), as Figure 11 reveals. This means that the vast majority of self-employed continue doing very long hours, explaining why the self-employed, generally speaking, continue working longer than the rest, as seen in section 4.

Figure 11. Hours usually worked per week by country and working time arrangement (self-employed)



Source: EU-LFS

Although part-time self-employed individuals are a minority, the share they represent over total self-employment in our selected countries increased over time, rising from 10.3% in 1992 to 17.6% in 2022. This increasing trend holds in all countries: from 1992 to 2022, the proportion of self-employed individuals working part-time (around 20 hours per week) has significantly increased.<sup>10</sup> **In the last decades, self-employment has thus become a less time-intensive form of work.** This partly explains why the self-employed have reduced their workloads over time, as previously seen in Figure 4. This is also consistent with Spain being the only country where the self-employed, generally speaking, have not benefited from reductions in working time, given that it is the country where the share of part-time self-employed individuals has increased the least.

<sup>10</sup> In Spain, from 1992 to 2022, the share of self-employees with part-time contracts raised from 7.2% to 9.4%; in Germany from 15.9% to 23%; in Denmark from 14.4% to 17.5%; in Ireland from 6.2% to 26.6%; in Czechia from 4.5% (in 1997) to 10.7%, and in France from 11.7% to 18.6%, according to the EU-LFS.

Figure 12. Hours usually worked per week by country and sector (self-employed)

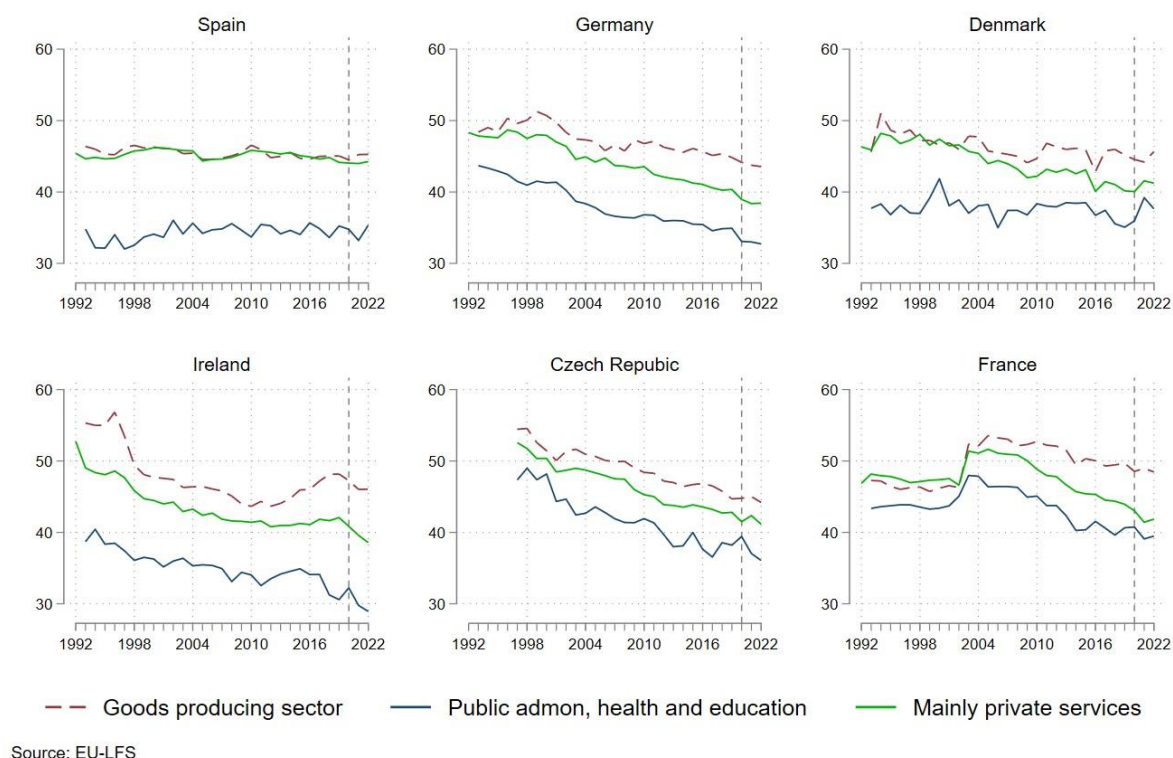
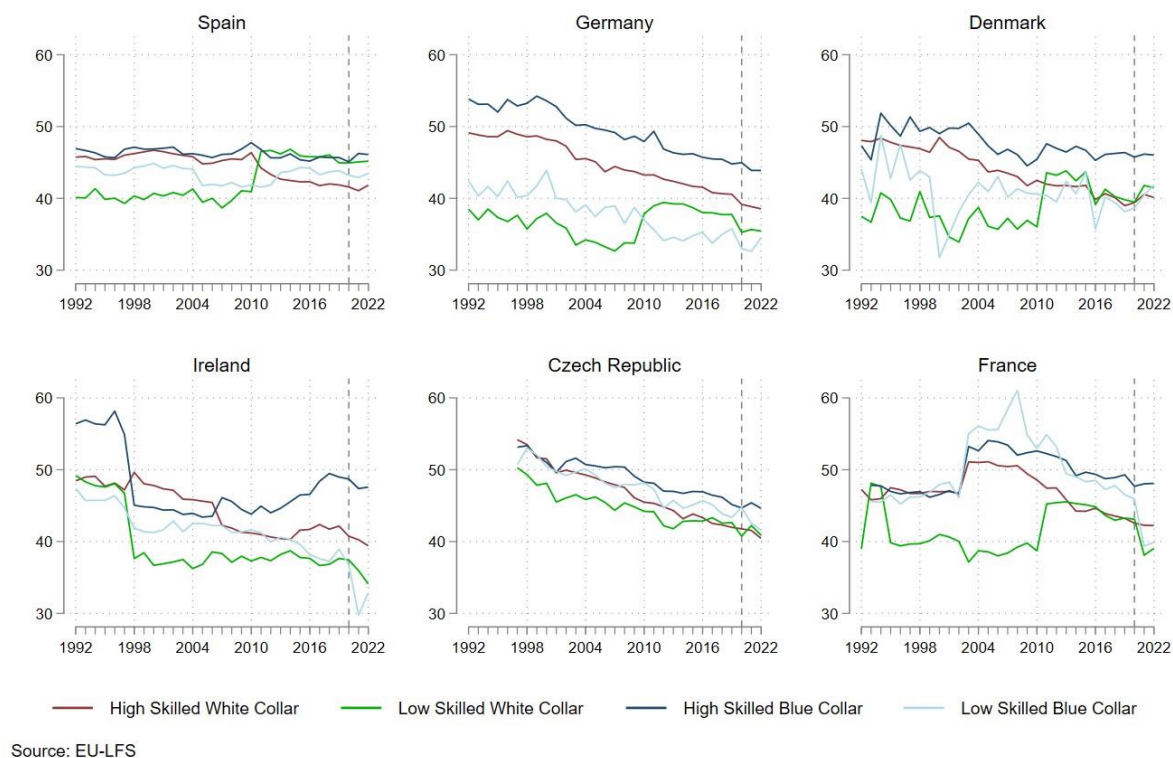


Figure 13. Hours usually worked per week by country and occupation (self-employed)



Certainly, it seems that a transversal factor, namely the increasing share of part-time self-employment over time, largely explains why the self-employed work fewer hours over

time. The following figures depict trends in working time for the self-employed by sector (Figure 12) and occupation (Figure 13). They reveal that reductions in working hours for the self-employed have been widespread (except in Spain, where there has been stability) and not driven by reductions in particular sectors or occupations.

## 5. Conclusions and future research

Since the 1990s, the time Europeans devote to paid work has slightly decreased, continuing a secular trend that has been evident for more than a century. However, these reductions in work time have not benefited all segments of the workforce; they are primarily explained by the increasing prevalence of part-time work. There are more people in employment than ever, but employment is also more fragmented. The main factors driving the rise in part-time work are the feminization of employment and the growth of the service sector. While more people, particularly women, have moved into less time-intensive forms of employment over time, full-time workers have continued working roughly the same hours over the past few decades. This overall trend conceals the varying dynamics experienced by different segments of the workforce. In other words, there are countervailing effects pushing working time both up and down, which together explain the relative stability of working hours among full-time workers over time:

- On one hand, it seems that occupational upgrading and tertiarization have pushed working time up, given that longer hours at work are recorded precisely by high-skilled workers (both blue and white collars) and in private services.
- On the other, factors such as the growth of public services (where shorter hours are recorded), the declining importance of the goods-producing sector (where long hours are done), and self-employment becoming both less prevalent and a less time-intensive form of employment have pushed working time down.

Taken together, the previous results highlight the importance of several factors described in section 2. First, they suggest that regulatory changes were key: starting in the 1980s, shifts in European regulations promoted the emergence of non-standard forms of employment. While full-time work (primarily for men) had been the dominant form of employment in earlier periods, **regulatory changes and the move toward de-standardization and liberalization** allowed for the creation of more fragmented and less time-intensive forms of work, such as part-time work. These new forms of work became more prevalent in the service sector and among women. In other words, the tertiarization of the economy (the expansion of service-oriented sectors, mainly private) and the feminization of employment are two significant factors driving reductions in working time in recent decades, as they have contributed to the expansion of part-time work. This occurred while the most time-intensive jobs (those in the goods-producing sector) declined in importance. These factors reflect both **changes in the economic structure** and **shifts in cultural norms and family structures** (moving away from the male breadwinner model). On the other hand, other factors have pushed in the opposite direction, driving increases in working time. From **an individual** and a **utilitarian perspective**, the *substitution effect* prevails among high-skilled workers: given that their wages are higher, leisure has a higher opportunity cost, incentivizing them to work longer hours. This is consistent with another **cultural change** characterizing the period we focus on, which also drives increases in working time: the use of time and *busyness* to signal



status, as well as hyperconsumerism, which at least partially explain why high-skilled workers tend to work longer hours.

This topic is highly complex. There are no simple explanations for the distribution and evolution of working time. Instead, a variety of factors, each of a different nature, produce varying effects in different contexts and periods. The main factors range from institutional and individual to technical, as well as to those related to industrial relations, work organization, and cultural norms. For this reason, our initial effort was to develop a comprehensive literature review and a theoretical framework to account for the key factors that may explain recent developments in working time in Europe. This can be conceived as a toolbox for researchers aiming to explain recent trends in working time.

Second, from an empirical point of view, our aim was to make an initial assessment of the importance of the various factors and explanations described in section 2. While the analysis has clear limitations, primarily that we cannot disentangle causation, we believe it is useful for generating some theoretical and empirical clarity and for guiding future research. Given that studies of this type are challenged by the existence of multiple hypotheses, variables and interrelated effects that are context-dependent, our results serve to provide a first comprehensive assessment, identify the variables and hypotheses that seem most relevant in the European context, and thus guide and orient future research.

Considering the existence of factors of varying natures and their differing importance across time periods and countries, a valuable follow-up would be a multilevel analysis. The EU-LFS allows for such an analytical approach, as it includes individual-level variables (such as working time arrangements, education, income, and occupation) for more than 30 countries. While its main drawback is the lack of relevant aggregate-level variables measuring institutional and country-level characteristics, it is relatively easy to combine this database with such variables (for instance, those related to inequality levels, union density, economic development, and more). This way, we could assess whether individual or institutional factors prevail in explaining the variance in working time. Additionally, this data and analytical strategy would allow for a comprehensive assessment of the relative importance of various factors across different contexts and facilitate the identification of both relevant factors and mere confounders.

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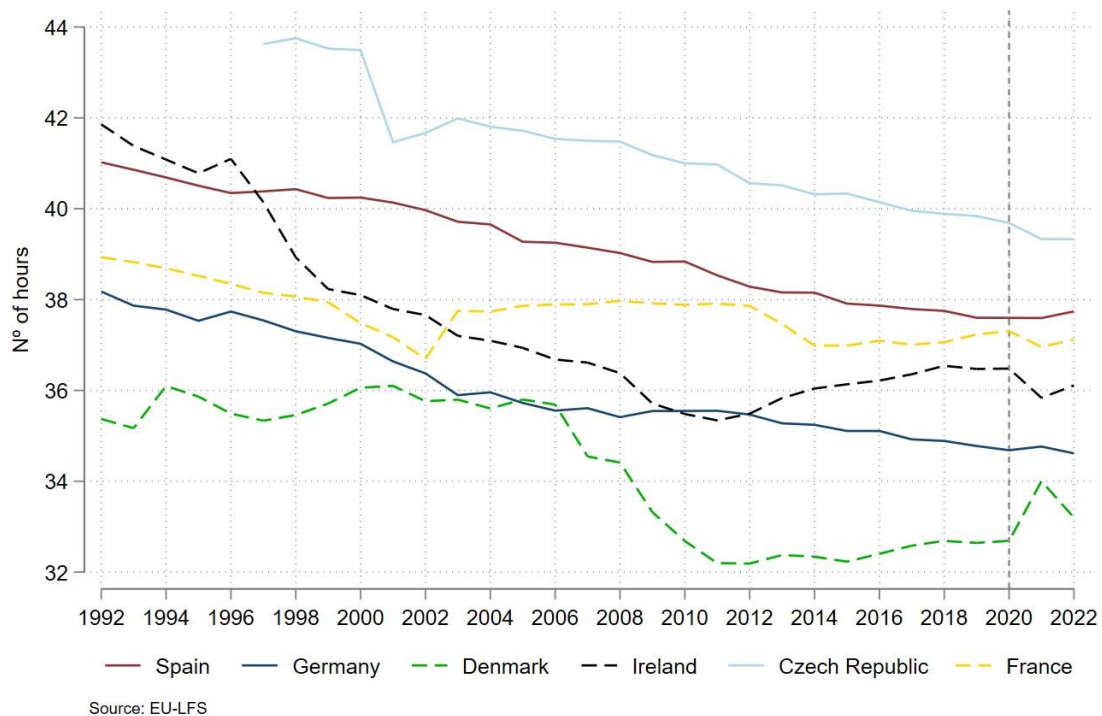
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#### Annex: a comparison across six EU countries

A comparison of trends across countries (Figure 14) reveals that employees work longer hours in Czechia. This trend has persisted throughout the entire period. Spain follows with the second-highest number of hours per week recorded, trailed by France, Ireland, Germany, and Denmark. In 2022, there was a difference of more than 6 hours in the time workers devoted to work per week between Denmark (on average, 33.2 hours) and the Czech Republic (39.3 hours). Despite these differences, the number of hours worked has consistently decreased in all countries over the last few decades. As a result, since 2019, workers in all countries have worked fewer than 40 hours per week.

Figure 14. Hours per week usually worked, by country



Reductions in working time have been more pronounced in Ireland (-5.7 hours from 1992 to 2022) and the Czech Republic (-4.3 from 1997 to 2022). Nevertheless, these are the countries in which employees spent more time at work in the nineties: above 40 hours per week, as in Spain. In Denmark and France reductions from 1992 to 2022 (-2.2 and -1.8, respectively) were the least intense. However, these are two of the three countries (together with Germany) where working hours were below 40 already in 1992.

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