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Key challenges for the European Welfare States

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Key challenges for the European Welfare States

Rafael Muñoz de Bustillo Llorente (University of Salamanca)

Abstract

Is the Welfare State sustainable? How has it fared in the last few decades? What are the main challenges facing the Welfare State today and in the near future? This Working paper aims at offering the reader with elements to answer, if temporarily, this questions regarding the present and future of the European Welfare State. With that aim, the paper discusses the evolution on European Welfare States, making emphasis in the contrast between the discourse that has become a common place regarding Welfare State dynamics and its crisis, and the picture shown by the indicators commonly used to measure the size of the Welfare State. Against this background, we review the “old” and “new” challenges faced by Welfare States. This review includes its compatibility with allocative efficiency and economic growth, the impact of globalisation and immigration, the increase in demographic dependency rates related to the growth of life expectancy and the reduction of fertility rates, the change in household patterns, or the growing concern about gender inequality. The last part of the paper deals with the different social and economic policy options available to the Welfare State to meet its goals in a context of economic and social change driven by the digital revolution.

Keywords: Welfare State, Technical Change, Sustainability, Incentives, Globalization

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Introduction

The aim of this paper is to succinctly present the key trends of European Welfare States during last decades, as well as the trends of those economic and societal variables with potential impact on the Welfare State. By Welfare State we refer generally to different intervention of the Public Sector aimed at addressing, through different mechanism such as transfers and service provision, but also through statutory regulations, different social risks faced by population such as low income in old age, unemployment, sickness, etc. In this paper we will focus on European Welfare States, as the institutions developed by the different Member States with that aim. These national Welfare States share many common features, making it possible to talk about a European Social Model, or a European Welfare State. Nevertheless, most of competences of social policy lie in the hands of the Member States, which have developed them with different levels of ambition and chronogram. For this reason, is common, as we will do further down, to talk about “models” of Welfare State. Even if the EU, through its defence of the European Social Model has set out the context for the development of many national social policies (specially for late comers such as Spain) and has a say in the shaping of the current European Welfare States,¹ in this paper we will mostly refer to European Welfare States in order to stress their national differences in terms of resources, ambition and strategies of social protection.

The paper unfolds as follows. After this brief introduction, section 2 will discuss the evolution on the European Welfare States, making emphasis in the contrast between the discourse that has become a common place regarding Welfare State dynamics and its crisis, and the picture shown by the indicators commonly used to measure the size of the Welfare State. Against this background, section 3, the backbone of the paper, will review the “old” and “new” challenges faced by Welfare States. Starting with the “old” challenges, old in the sense that are criticisms faced by the Welfare State since its very beginning, we will briefly review:

- a) the compatibility of Welfare State policies with allocative efficiency and economic growth;
- b) the growing restrictions faced by the Welfare State resulting from globalization, with special attention to the relation between immigration and social policy, one of the issues of growing concern in the European public debate;
- c) three challenges related with demographic issues: the increase in demographic dependency rates related to the increase in life expectancy and the reduction of fertility rates (derived from the process of demographic transition), the change in households patterns, and a growing concern about gender inequality related, among other things, with the double burden of women (work and care) and their subordinate role in traditional Welfare State policies; and
- d) the impact of the recent labour market evolution, particularly the growth in non-standard employment relations and the implications of the new wave of technological change related to the digitalization of society and the economy.

As customary, the final section will present the main conclusions of the paper.

¹ The recently approved Pillar of Social Rights is a good example of both the role played by the EU in buttressing the European Social Model, and its testimonial value “as a compass” or a “guide” (preamble 12), due to the lack of enforceability of the principles included in the Social pillar. In the terms used by Hendrickx (2018): “As the Pillar’s legal profile is rather low, scepticism on its impact may become high. And we must indeed be critical. However, the Pillar obviously has the potential of bringing about a new policy dynamic” (p. 5)

Evolution and crisis of the Welfare State: fact and fancy

The idea of the Welfare State facing an imminent crisis that would inevitably lead to its demise, at least as we know it, has been a common place of social sciences almost for the last half century. Since the publication in 1973 of James O'Connor's *The Fiscal Crisis of The State*, a multitude of books and papers have dwelled on the major difficulties facing the Welfare State: *The Welfare State in Crisis* by Ramesh Mishra published in 1980, *Development and Crisis of the Welfare* by Evelyne Huber and Stephens John in 2001, *The Future of the Welfare State: Crisis Myths and Crisis Realities* by Francis Castles, published in 2004, or *Contested Welfare States* edited by Stefan Svallfors, in 2012, to name only a few. In July 2018, a search in Google produced 19 thousand results related to the Welfare State Crisis.

In contrast, social expenditure data shows that the European Welfare State has been remarkably resilient in recent decades, at least in terms of the existence of a sharp reduction in the amount of resources allocated to social policies in relation to GDP. In this section we will first look at this issue from the perspective of social expenditure trends in relation to GDP, the indicator most widely used when referring to the size of the Welfare State. It is important to notice that this indicator tends to underestimate the size of the Welfare State, as education is not generally considered part of social expenditure². Later on, at the end of the section we will briefly discuss whether this perspective based on aggregate analysis of social expenditure covers all possible ways of Welfare State restructuring and/or downsizing, or whether there are other mechanisms in play, not captured by this indicator, that could affect the strength of the Welfare State in the future.

In order to have a general view of the long-term evolution of public social expenditure, Figure 1 reproduces the evolution of average public social expenditure in 14 EU countries, the countries with the maximum and minimum indices of public social expenditure, and the United States, from 1880 to 2007. Figure 2 focuses on EU(14) countries and the USA and a shorter period, 2008-2016. The rationale of presenting the data in two different periods is to isolate the impact of the Great Recession on the evolution of social expenditure, as economic crises, regardless of the economic policy followed, have an automatic statistical impact on social protection expenditure, due to the reduction of GDP (reduction of the denominator of the index of social protection), that might lead to its increase even in a context of fiscal austerity and reduction of social expenditure.³

The two key conclusions that can be drawn from these figures can be read as stylised facts regarding the Welfare State in advanced societies:

- The first one is the absence of a decreasing trend in terms of the relative share of GDP allocated to social expenditure in the set of countries considered in the analysis. If anything, there is a reduction in the maximum level of social expenditure around the end of the 1990s decade (in Sweden), although that decrease is explained by the previous increase from 1990 to 1995, product of Swedish financial and economic crises of 1991-1992. The stability of social expenditure is also a characteristic of the second period

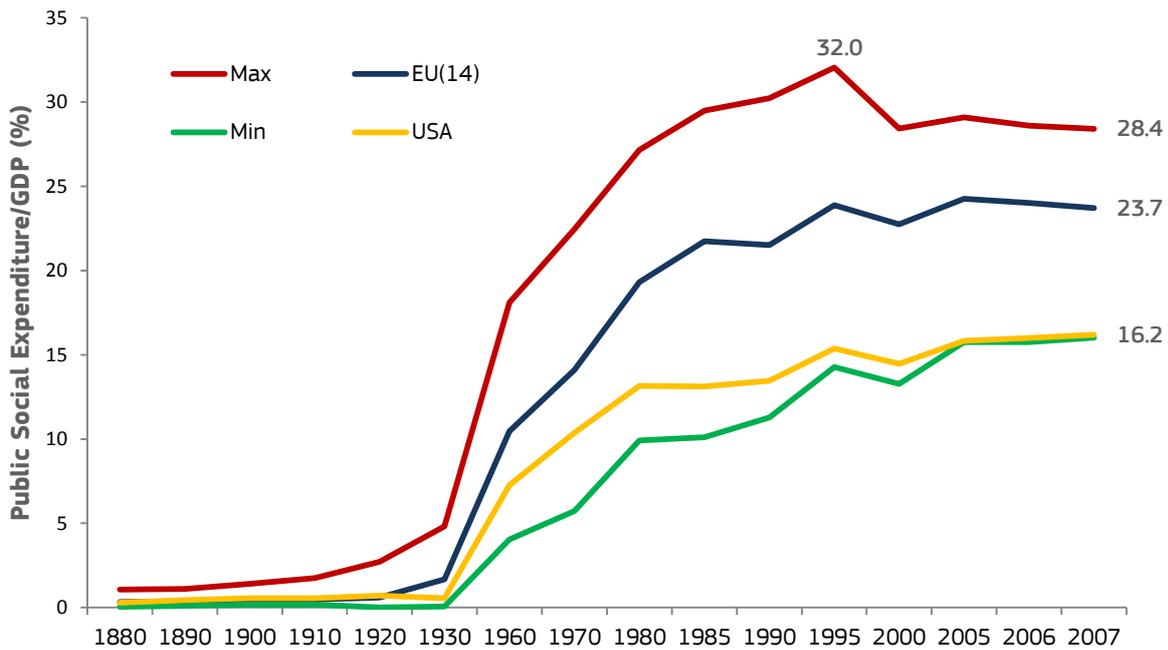
² This is the case European System of Integrated Social Protection Statistics, ESSPROS, or the OECD SOCX Database.

³ For a review of the impact of the Great Recession on the EU Members States' Welfare State see, for example: Vaughan-Whitehead (2015), the special issue of *Intereconomics* 2012(4) on *The Welfare State After the Great Recession*, Kersbergen, and Hemerijck (2014) or Taylor-Gooby *et al.*(2018).

2008-2016, in this case with the above-mentioned expected increase due to the reduction in GDP during the Great Recession.

- The second stylized fact is the existence of a wide diversity of social protection efforts among the OECD countries –as well as in the EU– resulting from the existence of different “models” of Welfare State.⁴ In any case, the stability of social protection expenditure in the long run can be extended to all models, as none of them shows a long run decrease in social expenditure (although some of them, such as the Scandinavian, experienced corrections along the way).

Figure 1: Evolution of public social expenditure in OECD countries^a: EU(14)^b average, USA, and countries with the maximum and minimum index^c, 1880-2007



Note: (a) Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States.

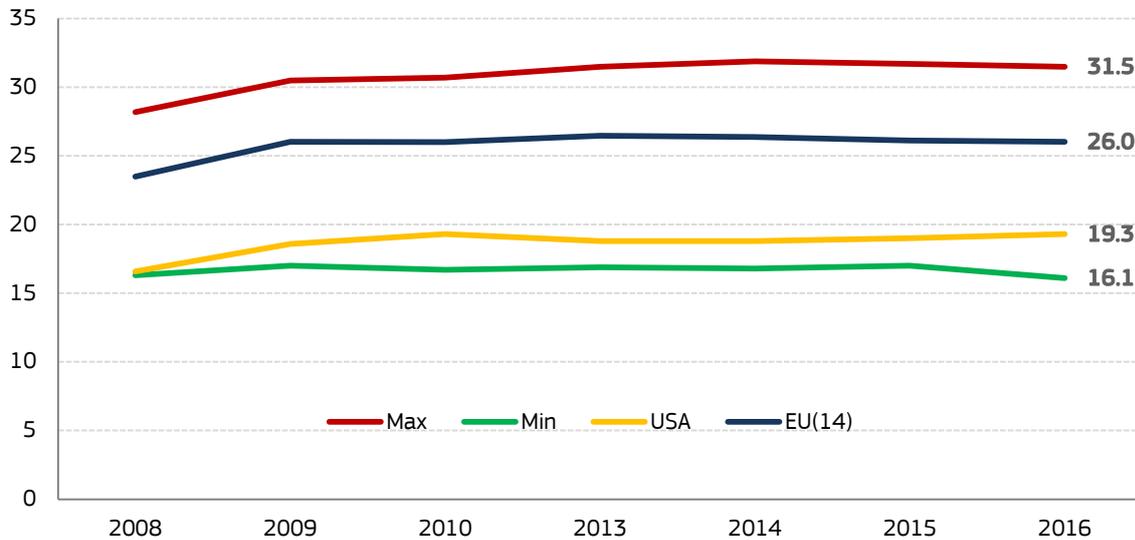
(b) EU(15) – Luxembourg.

(c) The minimum and maximum lines are constructed by the countries with the highest and lowest public social expenditure in each year.

Source: Author's analysis from the following data bases: 1880-1930, Lindert (1994); 1960-1970, OECD (1985); 1980-2007, OECD Social Expenditure Database (SOCX).

⁴ The analysis of social policy in different countries searching for underlying similarities that would allow for a classification in terms of models of Welfare State has a long tradition, with proposals that go back in time as far as Richard Titmuss' classification of Welfare State in terms of an *institutional model*, characterized by the universality of programs, its wide area of interventions and its preference for service provision and generosity of benefits, and a *residual model*, characterized for a more limited intervention profile, based on selectivity and basic benefits. The literature on Welfare State models received an important push with the publication of Esping-Andersen (1990) *The Three Worlds of Welfare Capitalism*, in which the authors proposed a quantitative methodology to objectivize the allocation of the different Welfare States into three models: *social-democrat*, *social-corporatist* and *liberal*, based on the so-called de-commodification index and the level of social stratification. This classification, that has become the standard classification of Welfare State models, has been complemented by the consideration of other models, such as the so-called Mediterranean model (Ferrera, 1996), with major differences with the three models proposed by Esping-Andersen. An updated review of the different taxonomies of Welfare States can be found, for example, in Arts y Gelissen (2002).

Figure 2: Evolution of public social expenditure in OECD countries^a: EU(14)^b average, USA, and countries with the maximum and minimum index^c, 1880-2007



Note: (a) Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States.

(b) EU(15) – Luxembourg.

(c) The minimum and maximum lines are constructed by the countries with the highest and lowest public social expenditure in each year.

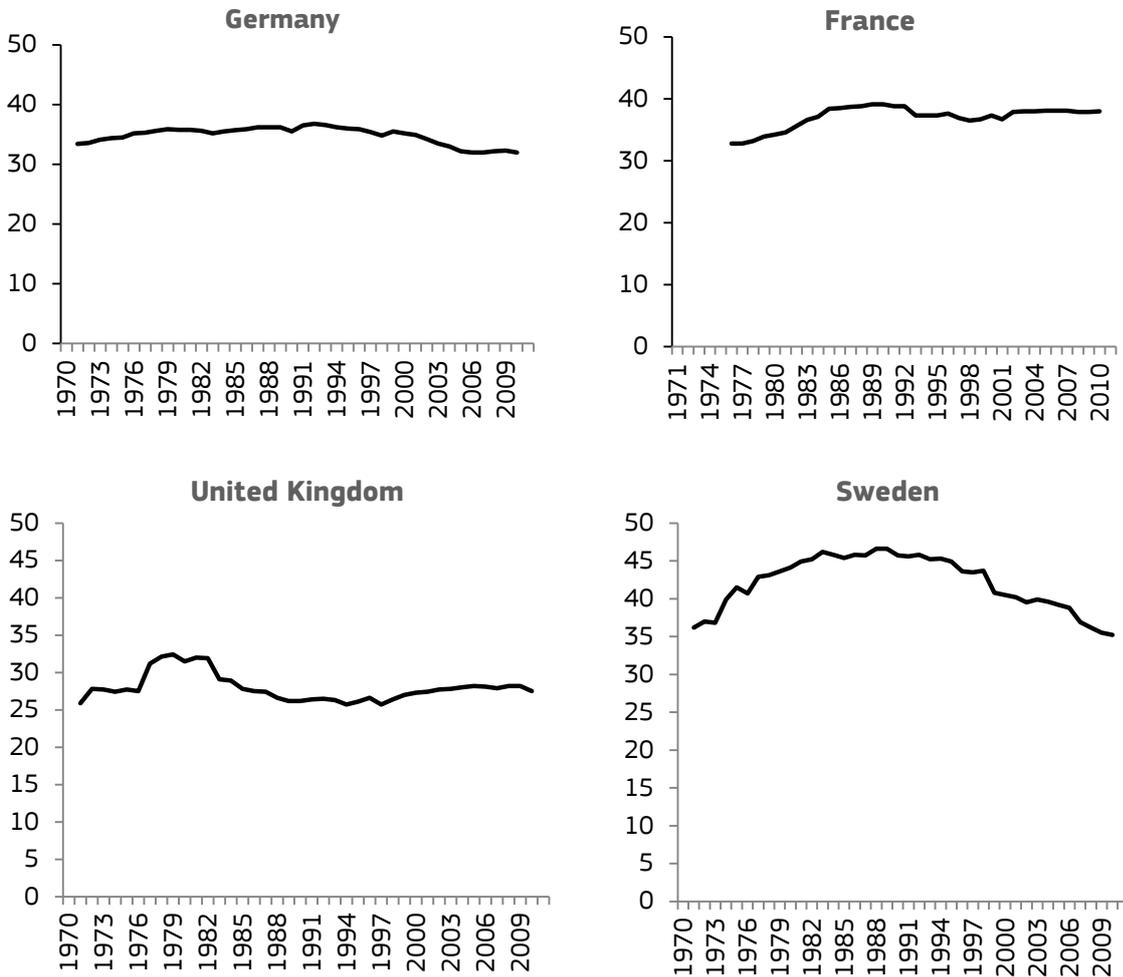
Source: Author's analysis from OECD Social Expenditure Database (SOCX).

It could be argued that the lack of correspondence between the generalized feeling of crisis of the Welfare State and the evolution of social protection expenditure could be the product of a lack of finesse of the indicator used. In order to check to what extent our result, the high level of resilience of the Welfare State to the headwinds faced for many decades, is linked to the indicator used, we present in Figure 3 the evolution of the Welfare State in four major EU countries using an index developed by Scruggs and Allan (2006), following the *decommodification* concept of Esping-Andersen (1990), calibrating the generosity of three major Welfare State programs (retirement pensions, unemployment benefits and disability pensions) using three indicators: requirements, generosity and coverage, from 1971 to 2002.⁵ The picture shown by the cases of Germany, France, United Kingdom and Sweden, that represent three of the major models of Welfare State used in the literature (the Conservative-corporatist model the first two, the Liberal model the United Kingdom and the Social-Democratic model, Sweden), is coherent with the above stylised fact of relative stability of Welfare States during the last three decades of the 20th century, with only minor changes.⁶

⁵ Very briefly, the concept of *decommodification* developed by Esping-Andersen tries to address the question of to what extent a person can have access to income (through social expenditure programs) without selling his or her labour in the labour market. The proposal of Scruggs and Allan (2006) updates the original analysis of Esping-Andersen improving some of the methodological decisions involved in the construction of the indexes and updating the results. The resulting generosity index, in their terminology, takes into consideration the replacement rates (amount of the benefit in relation to the former wage) the qualifying conditions, and the coverage or take-up rates. The higher the replacement rate and coverage ratio and the lower the qualifying condition, the higher the generosity index.

⁶ Probably with the exception of Sweden, which nevertheless is still among the EU countries with higher public social expenditure.

Figure 3: Welfare State “Generosity Index” for Germany, France, United Kingdom and Sweden, 1971-2010



Source: Author's analysis from Scrugg et al. (2017) data base available at Comparative Welfare Entitlements Dataset (<http://cwed2.org/>)

In any case, the acknowledgement of the high level of resilience shown by the Welfare doesn't necessarily mean that no major developments have taken place in recent decades in the realm of social protection. In fact, as shown by a recent strand of political science literature (Streck and Thelen, 2005, Hacker, 2004), there are several ways in which ongoing changes in institutions, in our case the Welfare State, can be hidden to the eye of the observer.

A first caveat that should be considered is the possibility that the stability of social expenditure could lead to a deterioration of social protection in a context of growing social needs. A good example of this dynamic is old-age pension expenditure. According to Eurostat, in 2014 the EU average expenditure in old age pensions was equivalent to 9.8% of GDP, while population 65 and older was 18.9% of total EU population. The base line population projection for the EU estimates that people 65 and over will reach 28.5% of total EU population by 2050. Old age pensions are the major component of social expenditure, making almost 39% of total social expenditure. As we will see further down, a major concern regarding social expenditure is the forecasted increase in old-age pension expenditure as a result of ageing (EC, 2018). Such concern has been the main

rationale for most of the approved pension reforms of the recent past. In this context, a stable share of pension expenditure, in terms of GDP, could mean a deterioration of the program, as the same share of GDP would have to be “shared” by a higher percentage of population. The share of 9.8% of GDP going to 18.9% of total population (old age pensioners) in 2008 would be equivalent in 2050 to 14.8% of GDP for an expected population over 64 of 28.5%. Anything below this percentage could be interpreted, *ceteris paribus*, in terms of a deterioration of pension adequacy, even with stable, or even growing, share of GDP allocated to pensions.⁷ The acknowledgement of this potential risk has led to the adoption of measures in many countries to safeguard the adequacy of pensions. In this regard, as mentioned in the *Pension Adequacy Report 2018* (EC, 2018, p. 17), the pension reform dynamic in Member States started to shift in 2014-2017, reflecting the recognition that the sustainability gains achieved through earlier reforms should be accompanied by measures to safeguard pension adequacy.

The potential deterioration of the Welfare State programs, even in a context of stable social expenditure effort in terms of GDP, could lead, following the intuitive narrative of A. O. Hirschman (1970), to a process of *exit* of the programs of those who can afford it (by contracting private pensions in this case, for example) and to the corresponding loss of *loyalty* to the Welfare State by part of the population, further weakening the Welfare State in the future. In this regard, it is important to acknowledge that one of the main strength of the European Welfare State is the high level backing of the European population to the major intervention of the Welfare State. For example, according to the Eurobarometer 467 (2017), 83% of EU population tend to agree (45%) or totally agree (38%) with the statement that free market economy should go with a high level of social protection.⁸

Other ways in which changes in the Welfare State can be undetected by the indicators commonly used include:

- (a) Lack of adaptation of the Welfare State to new social needs. This dynamic, known as drift in the literature, implies that some social risks are left out of the umbrella of social protection, weakening its results in terms of social inclusion. Think, for example, in the growth of single parent families, in the context of family programs tailored to the needs of the traditional standard family.
- (b) Weakening of traditional programmes by the development of complementary programmes based on different principles (layering), Schickler (2001). This strategy, would allow undermining traditional programs with large popular backing by developing alternatives based on different principles. One example of this strategy would be to incentivise the development of private pension's plans (Hacker, 2004) in a context of rising concern about the sustainability of traditional pay as you go pension systems. Another example, (Rothstein, 1998), would be a

⁷ All data from Eurostat, baseline population projections, [proj_15npms] and ESSPROS. We take 2008 to avoid the impact of the recession. With the old age expenditure of 2011 of 11,1% the equivalent 2050 share would be of 14.8%

⁸ From a different perspective, whether people or governments should take more responsibility in their own lives, out of the 48 countries of the European Values Study of 2008, 12, i.e. the 25%, considered that people should take more responsibility (respond 1 to 3 in a scale of 10, where 1 is people or governments should take more responsibility), while 75% considered that the responsibility was well balanced (answers 4 to 7). The International Social Survey Program 2016 also offers relevant information about this topic. When asked whether government was responsible to provide healthcare for the sick, living standard for the old and the unemployed, provide decent housing or reduce income differences between rich and poor, a majority of the people interviewed in the 15 EU countries participating in the survey responded that these items definitely should be or probably should be government responsibility: 97.1%, 96.6%, 72.3%, 80.1% and 79.4%, respectively (simple average of Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Hungary, Latvia, Lithuania, Slovakia, Slovenia, Spain Sweden and United Kingdom).

policy of increasing subsidies to private schools (in a context of frozen or decreasing budgets of public schools), with implications in terms of weakening of some of the values (such as inclusiveness) defended by public education systems. In this regard, as argued by Streeck and Thelen (2005), the question is whether the new layer will coexist with the old, or whether it will affect its survival.

- (c) Transformation of the goals of the institution (conversion), Thelen (2002). In this case, the program doesn't disappear, nor the budget reduced, but the aim of the program is altered, changing its nature. Think, for example, of the worldwide movement away from welfare and towards workfare, and the corresponding substitution of the goal of income protection by labour activation.
- (d) Consecutive approval of small changes, cumulative change, none of them important, but that with the passing of time add up to a major change of the programmes in question.

Summing up, the data on social protection expenditure stubbornly shows that the Welfare State has weathered the different criticisms that have targeted its policies for more than four decades fairly well, showing a high level of resilience. But this does not mean that the Welfare State has been unscathed by such criticism, as different changes have been approved, from the outsourcing of the production of social services to the change in requirements of access to social benefits, with relevant implications for the landscape of European Welfare State.

Key challenges

Compatibility between the Welfare State and the market

The (in)compatibility between Welfare State policies and the Market is probably the oldest of the criticisms faced by the Welfare State. The good functioning of the market relies on incentives, and public social policies affect incentives twofold. Firstly, by offering access to different social services and transfers –the concept of decommodification mentioned earlier– it reduces the market incentives to work (and save). Secondly, social expenditure requires financing, and taxes generate a wedge between the market remuneration of labour (or capital) and the net income received by workers (or capitalists), leading to a reduction, again, of the incentives to work (and save or invest). Such changes in the incentive system might lead to allocation inefficiency (in the short-run) and lower growth (in the long-run).

From a theoretical perspective, most of the research on the issue has dealt with the short-run perspective (allocative efficiency), due to the bias of standard neoclassical theory towards short-run analysis. However, the long-run analysis is more important for the purpose of this paper, as it is GDP growth, and not so much the GDP level, what determines the wellbeing of people in the long-run. In this regard, most of the available literature points to the lack of concluding evidence regarding the negative impact of the Welfare State on growth. For example,

- Atkinson (1999), after reviewing the major papers studying the impact of the Welfare State on economic growth concludes: “The results of econometric studies of the relationship between social transfer spending and growth rates are mixed: some find that high spending on social transfers leads to lower growth, others find the reverse. The largest of the estimated effects—in either direction—do not, however, seem believable.”
- Lindert (2004), examines three periods of growth in the OECD Welfare States: 1880-1930, 1962-1981, and 1978-1995, finding a statistically significant positive effect of cash transfers on economic growth during the first two periods and a very small and statistically insignificant negative effect during the third.
- Furceri and Zdzienicka (2012), after analysing a panel of OECD countries from 1980 to 2005 conclude that social spending has expansionary effects on GDP (with a multiplier effect around 0.6), with expenditures on health and unemployment showing larger impacts.
- More recently, a paper by Ostry et al. (2014), of the IMF, on the impact on inequality and redistribution on economic growth, concludes that “there is surprisingly little evidence for the growth-destroying effects of fiscal redistribution at a macroeconomic level” (p.26).

All in all, according to the authors, redistribution appears generally benign in terms of its impact on growth (excluding the extreme cases where there is “some” evidence that it may have direct negative effects on growth. Last, Garfinkel and Smeeding (2015) argue that “Taken in conjunction with the findings about public education and public health, the research on social insurance and other cash benefits indicates that the overall effect of the welfare state on economic growth is undoubtedly positive (...) In short, capitalism makes countries rich and the socialized portion of the welfare state further enriches nations”.⁹

⁹ Using different panel data analysis and different sample of countries, OECD countries in the first two cases and a large sample of developing countries in the last, Dreger and Reimers (2005), Beraldo, Montolio and Turati (2009) and Baldacci

Obviously, this should not be taken as there is no reason for concern. In the EU, on average, nearly 27% of GDP goes one way or another through the Welfare State, a sizeable part of the economy, so undoubtedly some of its actions do have negative incidence on growth, although others, undoubtedly too, have positive incidence. But the long-term narrative can be interpreted, following Lindert, in terms of the Welfare State not being a major impediment to growth, as, otherwise, those countries with bigger Welfare State would have ended up showing lower rates of growth and innovation (a major source of growth) in the long-run. Something that has clearly not happened.

Three caveats before concluding this section.

- The first one is that, as just mentioned, we should not be surprised if one or another program of the Welfare State has a negative impact on growth. The founding purpose of the Welfare State was not to increase growth, but to reduce risk and socialize its cost. The impact on growth is something that needs to be studied and considered when (re)designing specific Welfare State programs, in order to, if negative, minimize it, but from our perspective it should not be enough to discard or discontinue them.
- Secondly, economic growth is clearly a factor that contributes to wellbeing, but as has been demonstrated by a relatively long list of empirical studies about economic growth and wellbeing, there is a significant gap between the two (*e.g.*, Sharpe, 1999; Office for National Statistics, 2014). It would be wishful thinking to consider that economic growth solves all social and economic problems making the Welfare State redundant.
- Thirdly, in the context of climate change and growing environmental problems, many suggest that the ultimate economic goal should be sustainability rather than growth, and the impact of Welfare State in sustainability is likely to be more unambiguously positive

Globalization and immigration

The undeniable growth of international trade, the liberalization of financial flows and the growth of immigration has also imposed new restrictions to the Welfare State. Starting with the first item, the world and especially the EU has gone through an intense process of growth in foreign trade, with exports rising from less than 20% during the 1960s to 43% in 2014.

The almost complete opening of national economies to international trade affects the Welfare State in four different ways:

- First, Keynesian economic policies of aggregate demand management have been a traveling companion of Welfare State policies. Such policies face higher restrictions in open economies, diminishing their performance (especially in a context of lack of coordination) and leading to higher unemployment rates.¹⁰
- Second, in the EU, in 2017, labour costs other than wages and salaries (mostly social contributions) amounted to almost a quarter of labour costs, and as much as 32.7% in Sweden. In open economies, the decisions taken in terms of social protection financing may have potential negative impacts on firm competitiveness and trade balance. The fact that

et al. (2004) conclude that there is a long-term positive relationship between health expenditures (an education in the last two papers) and economic growth.

¹⁰ In the standard IS-LM macroeconomic model, an increase in public expenditure will lead to an increase in effective demand and income, along with an increase in the interest rate. In an open economy with a flexible rate of exchange, the increase in interest rates will lead to an increase in the inflow of capital and the appreciation of the national currency. This appreciation, in turn, will reduce the competitiveness of exports (and increase imports), reducing the expansive effect of the increase in public expenditure.

most EU international trade is intra-EU (64% of imports in 2017) or intra-regional (70%) trade, weakens this source of pressure of Welfare State, as long as the region share similar welfare models. In any case, the pervasive discussions about the risks of social dumping in a global world reflect the concerns about its implication for the future of European Welfare States (Kiss, 2017).

- Third, open economies reduce the cost of outsourcing, increasing the power leverage of firms vis a vis governments and trade unions, with implications in terms of the tax systems (specially taxes on capital), wages and working conditions (Bernaciak, 2014, 2015).
- On the other side, following Rodrick 's argumentation (1997, 1998), open economies, being more prone to fluctuations, tend to be more supportive of large Welfare States as a protection mechanism against the higher risk faced by the population.¹¹

In any case, regarding the above-mentioned restrictions, things are, once again, more nuanced. In relation to the impact on labour cost of social protection mentioned above, often it is considered that the downsizing of the Welfare State and the residualisation, or marginalization, of social policy would reduce labour cost by reducing social contributions, while in fact, as long as the need for pensions or health remained, the only difference would be that such cost would have to be covered privately, whether by the firm, the worker or both. Taking the US as example, in 2017 the cost of pensions and health insurance for the US firms amounted to as much as 13.5 % of total compensation.¹²

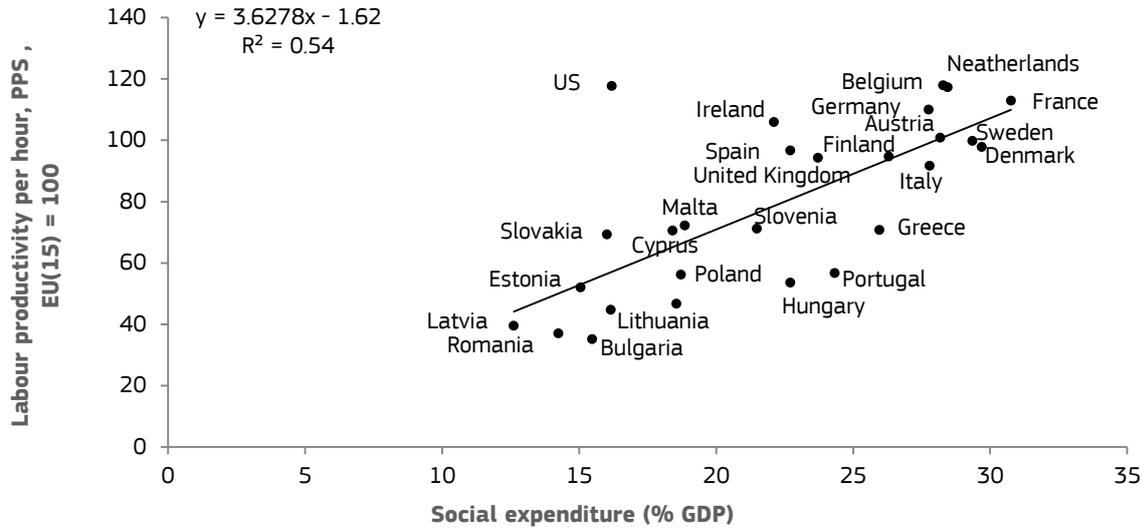
In relation to the impact of social protection on labour costs, it is important to keep in mind that what matters is not so much cost itself, but the relation between cost and productivity (unit labour cost). The competitiveness worth pursuing is the one resulting from high productivity levels, and not the one resulting from low wages (Gough et al., 1991). It can be argued that Welfare State programs, when well designed, contribute through different mechanisms: education (Krueger and Lindahl, 2001), health (Aghion, 2010), reduction of inequality (Cingano, 2014; OECD, 2014), etc., to higher productivity and growth.

In fact, as we can see in Figure 4, there is a tight correlation between relative social expenditure and labour productivity, with countries such as Sweden, France, Denmark or Belgium on top positions in both rankings. Obviously, we should not be as bold as to argue that the causation goes from social protection to productivity and not all the way around. But the figure at least can be interpreted in terms of the compatibility between both goals.

¹¹ For a critical perspective from an empirical point of view of Rodrick's arguments see, for example, Benarroch and Pandey (2012) or Borghi (2010). For a general empirical analysis of all the different implications of globalization for the Welfare State see Swank (2002).

¹² Bureau of Labour Statistics, *Employer costs for employee compensation* – June 2018 (p. 4). Includes non-legally required cost for sick leave, insurance and retirement, June 2018. The legally required benefit amount to 7.3% of total compensation, and the total share of benefits to 32%.

Figure 4: Relative social expenditure and labour productivity in the EU and USA (2008-9)



Source: author analysis from Eurostat

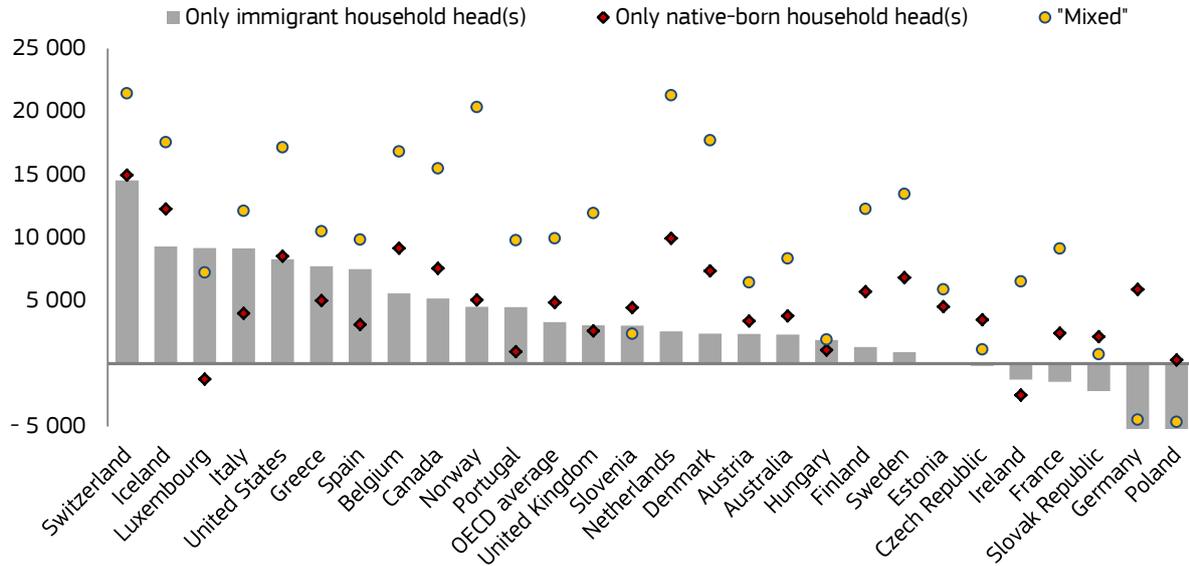
Within the process of globalisation, the liberalisation of international trade has been in the critical eye of many social (*e.g.* Attack) and political (President Trump campaign) movements. However, it is international migration, the less liberalised, and quantitatively less important dimension of globalization, that has recently attracted more attention and concern, triggering a Eurosceptic political reaction that often revolves around the implications of immigration for the Welfare State and vice versa.

Immigration can affect the Welfare State in three different ways. In the first place, immigrants, just as nationals, will make use of the different programs of the Welfare State. Specifically, immigrants are often blamed for overusing Welfare State program, increasing their cost. The growing empirical literature on this issue does not seem to back this assertion. For example, two different studies on the use of Welfare State programs in Spain, covering monetary transfers (Muñoz de Bustillo and Grande, 2017) and health services (Muñoz de Bustillo and Antón, 2010) show that immigrants, when controlling for the characteristics of the immigrant population, make a similar use as nationals of the programs studied, if not lower. A recent extensive report of the UK Migration Advisory Committee (MAC, 2018), arrives at similar conclusions for the UK regarding the impact of EEA¹³ migrants on UK health services as well as overall financial impact. From a European comparative perspective, Boeri (2010) finds no residual welfare dependency (higher dependency on social benefits by immigrants after controlling for socioeconomic characteristics), while Huber and Oberdabernig (2016) conclude that immigrants tend to receive less social benefits than locals (after controlling for socioeconomic characteristics). This overall conclusion is compatible with “the existence of substantial heterogeneity in differences in welfare dependence between natives and immigrants across EU countries” (p. 104), which the authors relate with the relative generosity of the welfare state.¹⁴ These conclusion fit well with the estimates of the OECD (2013) of the average net direct fiscal contribution of households by migration status of the household head, reproduced in Figure 5, where in most cases (the exceptions are Germany, Poland, Slovakia, France and Ireland) immigrants have a positive net contribution to public finance.

¹³ The EEA includes EU countries plus Iceland, Liechtenstein and Norway.

¹⁴ For a review of the economic impacts of immigration, see, for example, Kerr and Kerr (2011) and Edo et al. (2018).

Figure 5: Average net direct fiscal contribution of households by migration status of the household head, 2007-09 average



Note: Euros (PPP adjusted)

Source: OECD (2013), p. 147

In the second place, immigration might increase the ethnical diversity of the country, with potential implications in terms of support of redistributive policies, which tends to be higher between people sharing the same ethnical and cultural background (the most common context for redistribution is the family), between the “likes” than between strangers. In this regard, for example, the political scientist Martin Gilens (1999), in his well-known book *Why Americans Hate Welfare*, explains the frustrated development of the Welfare State in the US during the 1960s by the identification commonly made by the media between poverty and Afro-American citizens and the lack of support of the white majority of programs that would, according to their belief, largely benefit Afro-American citizens. The same perspective has been followed by Alesina et al. (2001) to explain, based on the higher level of ethnic homogeneity of European countries, the higher development of the Welfare State in Europe.

These dynamics could lead to two different outcomes: reduction of support to Welfare State programs considered to benefit mostly immigrants, with the danger of residualisation of such programs, or alternatively the development of what has been called “welfare chauvinism” (Koning, 2013; Van Der Waal et al., 2013), limiting access to Welfare State programs to nationals. Both paths would lead to a change in the Welfare State as we know it and a betrayal of its foundational principles.

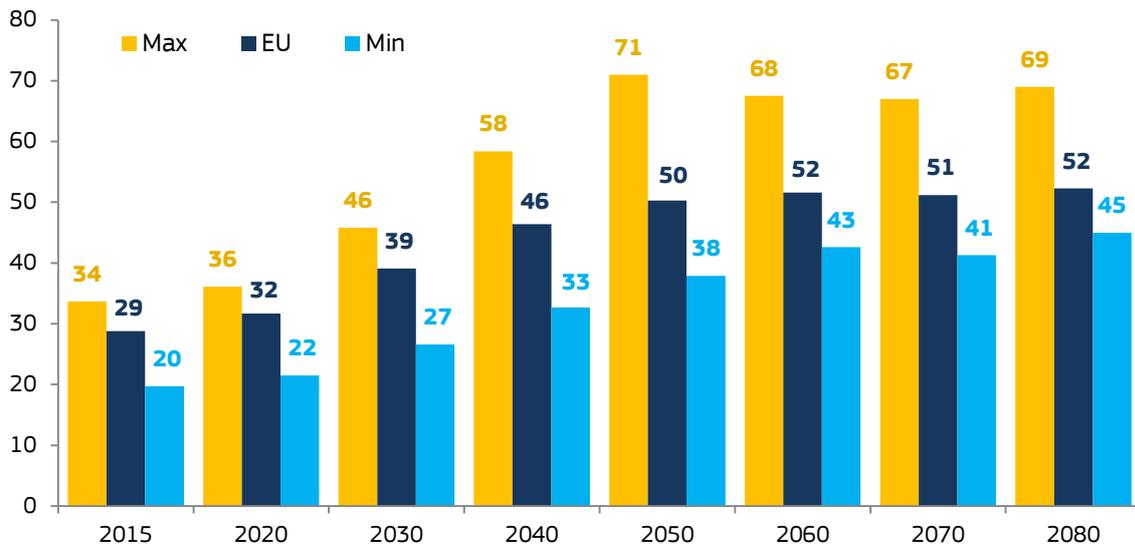
Demographic changes

Under this heading we will review three different items related to demography: changes in the age composition, changes in household patterns and the evolution of the societal understanding of the role of women. In all cases, these changes have profound implications for the way Welfare States are structured.

Demographic ageing

Resulting from the combined effect of the increase in life expectancy and reduction of fertility rates, the share of population 65 or older in high income countries is increasing rapidly.¹⁵ To illustrate this trend, Figure 6 reproduces the so called “Age Dependency Ratio”, ADr, defined as the relation between population over 64 years of age and working age population (between 15 and 64).

Figure 6: Evolution of projected age dependency ratio (%) in the EU, and EU countries with the lowest and highest ADr in each year, 2015-2080.



Source: Author analysis from Eurostat.

The figure, based on Eurostat's 2015 population projections, reports the average ADr for the EU(28) as well as the ratio of the EU Member State that in each year had the higher and the lower ADr. As we can see, the ageing trend is shared by all EU countries, although with significant differences. For the EU as a whole, the ADr is expected to increase from the actual 29% to 50% in 2050, stabilizing around this percentage from then on (i.e. an increase of 74%). Other countries such as Spain, Italy and many of the Central and Eastern Countries will experience larger increases, multiplying by two (or more) their ADr.

This evolution has two important implications for the Welfare State. In first place, old age pensions are the major expenditure of the Welfare State, so the increase in population over 65, until recently the standard retirement age, will increase Welfare State pension expenditures. At the same time, the relative (or absolute, depending of the country) shrinking of the working age population means that fewer potential workers will have to generate the revenues used for financing public

¹⁵ Although we will focus on high income countries and specifically the EU, the growth in the share of older persons is a worldwide phenomenon: according to the UN's *World Population Prospects: the 2017 Revision*, the number of older persons — those aged 60 years or over —, now 13% of the global population, is expected to more than double by 2050 and to more than triple by 2100, rising from 962 million globally in 2017 to 2.1 billion (21% of total population) in 2050 and 3.1 billion in 2100 (27% of total population).

expenditure, including pensions. For the EU this process of ageing means that while now there are around 3.5 persons of working age per retiree, in 2050 there will be only 2. In other countries, such as Poland, the change is even more pronounced, going from 5 in 2015 to 1.8 in 2050, reaching a minimum of 1.5 in 2060. Although we have to be cautious when dealing with long run projections, as unexpected changes in fertility rates or immigration could affect the results, this undeniable process of “demographic ageing” will have an impact on the Welfare State. The longstanding debate about the sustainability of pensions, triggered by the 1992 World Bank Report *Adverting Crisis in Old Age*, and the worldwide process of pension reforms witnessed since then proves this concern.

Nevertheless, without denying the implications of this ageing process, it is important to point out that the important indicator regarding the sustainability of pensions is not so much the ADr, constructed from demographic age variables, but the economic age dependency ratio, EADr, where the denominator is not all working age population, but employed population, and the numerator includes those dependent (not working) because of old age (>64), but also those dependent by being underage (<15). When we look at the dependency ratio with these glasses three things look rather different:

- First, there is an increase in the dependency ratio, as the numerator grows (as result of adding population under 15) and the denominator shrinks (as result of considering only those employed and not all population 15-64).
- Second, from a long run perspective, the increase in the dependency ratio ceases to be a novelty, as in the past, the EADr was much higher as a result of the higher share of population under 15 and the much lower share of employed population of working age (resulting from very low female activity rates). In this sense, we could say that the future looks more like the past, than the present.¹⁶
- Third, this perspective offers more degrees of freedom to deal with ageing: the increase in labour force participation rate and the reduction of unemployment. Together with these policies, the expected increase in productivity, related to the digital revolution that is taking place in our societies, will offer another important tool to confront this challenge. The growth in productivity could make possible the squaring of the circle: stable or even shrinking labour force and higher GDP per capita that allows for higher share of GDP allocated to pensions without compromising the improvement of income of the working population (see Box 1).

Demographic ageing can also affect the Welfare State through its impact of health expenditure. It is a well established fact that older people make higher use of health services, taking as example the consultation of doctors, for the EU, while 58% of population had not contacted a medical professional during the period of reference, the equivalent percentage for people over 64 was 37%.¹⁷ This fact could lead us to believe that a growing share of old age population will lead to growing health care cost. Paradoxically, the relation between population over 65 and health expenditure as we can see in Figure 7 is not very intense (very low R^2), pointing to the existence of other more important factors affecting health expenditure, beside the age composition of the population.

¹⁶ Although from an economic point of view centered in the resources, dependency is dependency, and it really does not makes a difference if is fueled by a large old population or by a large young population, from the perspective of the public sector there is: older people get their income mainly from public transfers, while younger people's need are mostly covered privately by their families. But the underlying economic problem is the same, regardless to whether is privately or publicly addressed.

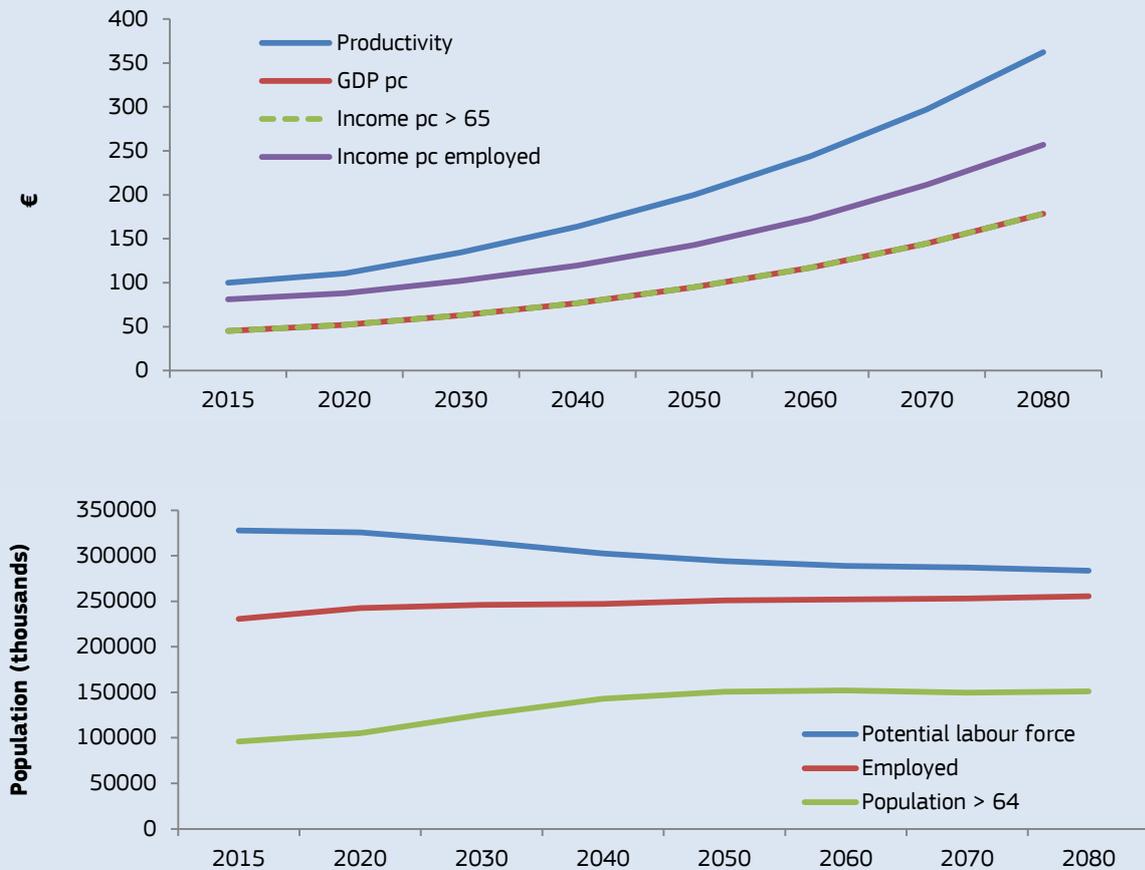
¹⁷ Eurostat, Self-reported consultations of a medical professional, 2014

Box 1: The role of productivity growth in the context of demographic change.

In order to exemplify the role of productivity growth as mechanism that could allow the increase in pension's related public expenditure, even in the context of reduction of population of working age (as forecasted in the UE in the future), we present below a very simple accounting exercise under the following assumptions: (a) the evolution of population, working age population (16-64) and population over 64 is taken from the base scenario of Eurostat population projection, (b) increase in labour force participation rate until reaching 92% in 2080 (still below the level of 94% of Iceland nowadays), (c) reduction of unemployment rate from 11% to 2% in 2050, (d) the share of total income of population 65 and over is equivalent to its population share through time, (e) increase in labour productivity of 2% per year. This increase, which might look excessive, lies between the increase of US labour productivity for the period 1996-2004, which was 2.5%, and the increase of the period 2004-2012, which was 1.3% (Gordon, 2012).

As we can see Figure 7 below, the increase in labour force participation rate and the reduction of the unemployment rate compensates the reduction in working population rate. At the same time, the increase in productivity allows the financing of a growing share of total output allocated to population above 64 year old from 19% GDP to 29% of GDP, without jeopardizing the increase in income per capita of working population (multiplied by three from 2015 to 2080).

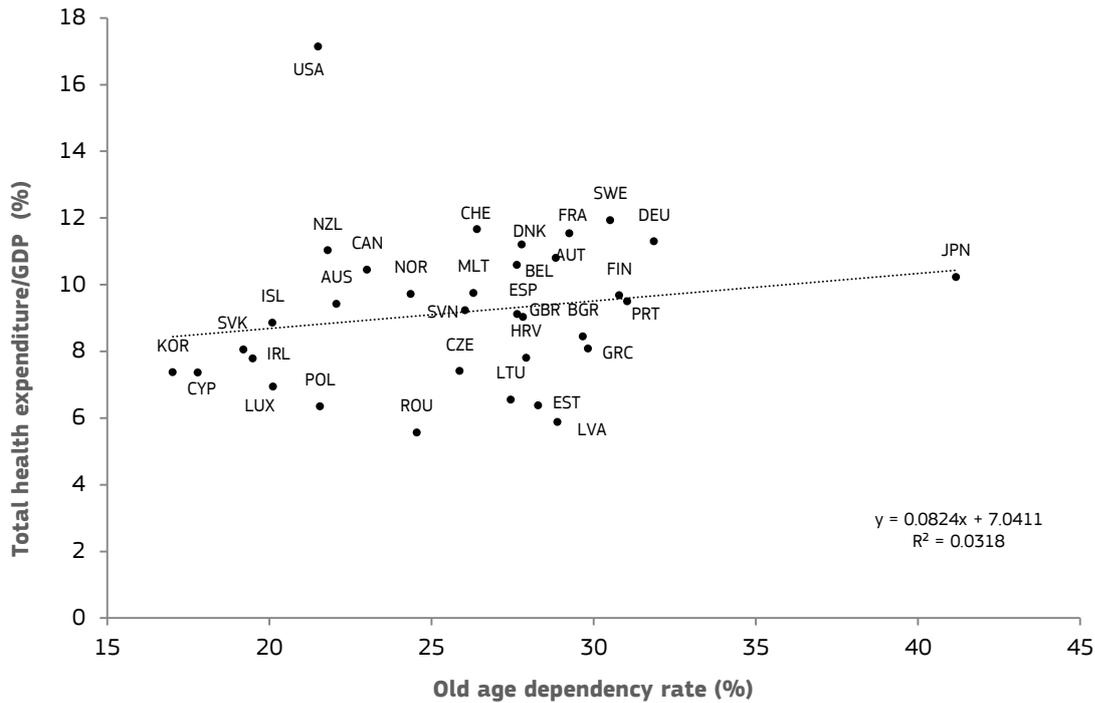
Figure 7: Hypothetical impact of an increase in employment rates and productivity on income per capita of employed and retired workers



Source: Author's analysis from Eurostat data

A similar exercise, with a more modest productivity increase of 1.5%, leads to similar conclusions in terms of the viability of allocating a share of income to population over 64 equal to its population share, and still allowing for the increase of income per capita of working population (this time the income at the end of the period 2.3 would be higher than the income at the beginning the period).

Figure 8: Health expenditure and old age dependency rate, 2014



Source: Author analysis from World Development Indicators, World Bank.

For example, after studying the trends in health expenditure from 1995 to 1999, Seshamani and Gray (2002)(2003) conclude that demographic changes are only responsible for 2% of growth of health expenditures in England and Wales, 6% in Australia and 14% in Canada. Only in Japan demography is the single most important factor explaining health expenditure growth. Other studies, such as Anderson and Hussey (2000) or Gerdtham et al. (1998), arrive to similar conclusions. The improvement of the health conditions of older people (growing old healthier), the fact that most of health expenditure incurred by people takes place during their last year of existence¹⁸, together with other factors, such as the growing cost of medical technology or drugs, explains this apparent paradox (or “popular myth”, according to Reinhardt, 2003). In the terms used by Gray (2005), in a review of the relationship between ageing populations and health expenditure states that: “age is not a particularly good predictor of health expenditure (...) time to death is a substantially better predictor than age of health expenditure” (p. 19).

¹⁸ For example, Zweifel, Felder and Meiers, (1999) using longitudinal data of a Swiss private health provider conclude that the remaining life time was a good predictor of health expenditure, but no so people age.

Change in households patterns

Welfare States developed in a time where the majority of households were composed of two adults (at least one of them, usually the man, working full time) plus children. This structure allowed the pulling of resources by means of intrahousehold transfers and the allocation of much of the care for dependents (children, disable or older people) to one of the members of the family, usually the woman. Over time, there has been a significant increase in single-person households (now 1/3 of households in the EU), as well as an increase in single-parent families, reaching 16% of all households in the UE, with important differences among EU Member States, from 33% in Latvia to less than 10% in the Netherlands or Cyprus.

This change in household patterns has important implications for the Welfare State.

- In first place, there is a reduction in the possibility of compensation, via intra-household income transfers, of the lack or insufficiency income of one or more of the household members, increasing the need (and role) of social transfers (some of which were previously conducted within the household).
- In second place, the growth in single, and single parent households, most likely will increase income inequality. Taking The Netherlands as example, while in the top decile, D10, only 10% of the households were full time single earners, in the middle decile, D5, the percentage increased to 44%, and in the first decile, D1, to 62% (Wiemer, 2015). If income inequality is a concern of Welfare States, the growth in single and single parent households will increase the demands for redistribution.
- In third place, single parent households will also have a lower pull of non-market time to allocate to care work and other non-market production activities, facing thus higher restrictions in terms of available market working time and/or worse work-life balance. This will affect the Welfare State in terms of higher demand of public services (especially pre-school age child care services).

Probably the most visible and dramatic implication of the growth in single and single parent households is the growth in poverty rate of this population group. As we can see in Table 1, single parent households are in many countries, especially in those that have been more successful in reducing overall poverty rates, a major source of poverty compared to those households with two or more earners. For the UE, single person households' poverty rate is 54% higher that total poverty rate (26% vs 17%), and twice as high in the case of single persons with depending children (34%).¹⁹

¹⁹ Single parent household's poverty rate for the EU in 2017 was 34%, compared to 17% in the case of households of two or more adults with children (almost indistinguishable from total poverty rate).

Table 1. *Poverty rate by household composition, 2017.*

	Poverty rate (%)		
	One adult with dependent children	Two or more adults with dependent children	Total
European Union	34.0	17.0	16.9
Belgium	39.7	14.6	16.0
Bulgaria	35.7	24.2	23.4
Czechia	31.4	7.7	9.1
Denmark	23.7	5.2	12.4
Germany	33.2	10.5	16.1
Estonia	28.9	13.5	21.0
Ireland*	47.3	13.4	16.6
Greece	30.3	23.7	20.2
Spain	40.6	25.4	21.6
France	32.6	14.2	13.1
Croatia	37.2	17.3	20.0
Italy	37.8	23.6	20.3
Cyprus	25.2	13.9	15.7
Latvia	34.3	14.2	22.2
Lithuania	48.4	16.8	22.9
Luxembourg	46.2	19.8	18.7
Hungary	31.2	12.5	13.3
Malta	45.7	15.9	16.8
Netherlands	35.7	10.4	13.2
Austria	31.4	15.0	14.4
Poland	23.3	14.5	14.9
Portugal	33.1	18.6	18.3
Romania	31.2	28.0	23.6
Slovenia	30.0	9.9	13.3
Slovakia	37.3	15.3	12.4
Finland	19.5	7.0	11.5
Sweden	36.0	13.4	15.7
United Kingdom*	32.0	14.3	15.8
Iceland*	24.9	6.1	8.8
Norway*	34.2	5.1	12.2
Switzerland*	25.5	14.2	14.9

Note: (*) 2016

Source: Eurostat

Addressing the gender bias of Welfare States

As mentioned above, the Welfare State was developed during the time of the breadwinner family model, in which women played a secondary role in terms of market income but a primary role in

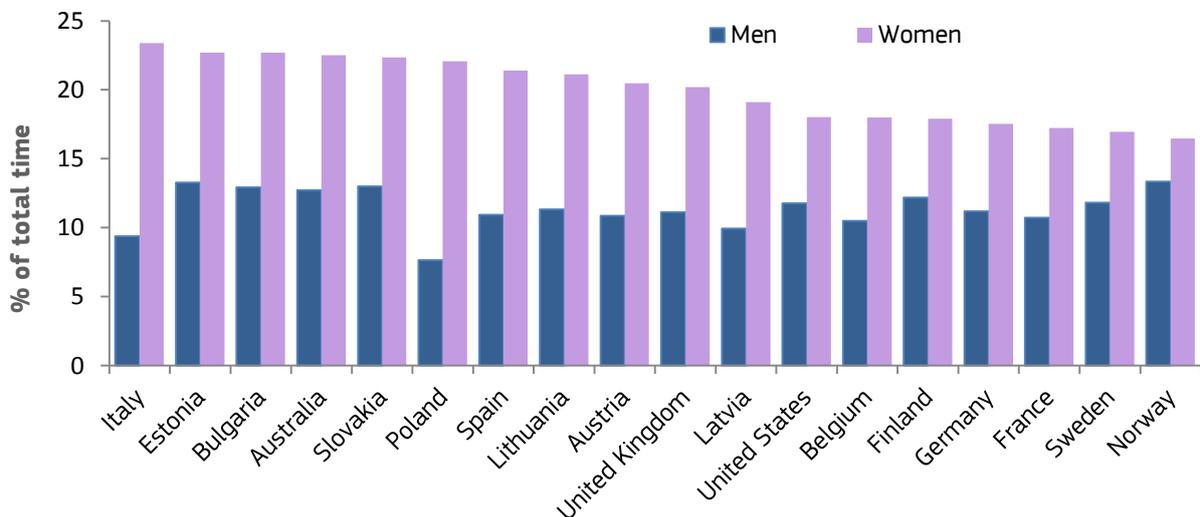
terms of household production and as providers of care to children and old dependents. These lead to an important and unfair bias: having a low level of attachment to the labour market, women were excluded from important Welfare State programs such as pensions, while qualifying to others only through their husband's rights; in contrast, as care providers they were responsible of many activities that, in their absence, would have had to be performed by the Welfare State (or the market).

The progressive incorporation of women in the labour market has reduced the first gap, although only partially as women still face a sizable activity rate, wage and part-time employment gap, with implications in terms of social benefits (a social benefits gap). In this regard, according to Eurostat, the unadjusted gender pay gap for full time workers reached in 2016 (or closest year available) - 12.6%. In terms of activity rate, in 2017 female activity rate in the EU was 11 percentage points lower than male activity rate (67.8% vs. 78.9%), implying a gap of -14%.

The difference is much higher regarding part time employment, where in 2017 women made 75.5% of part time employment, with a part time employment rate of 31.7% compared to 8.8% in the case of men (i.e., a "part-time employment gender gap" of 258 %).²⁰ But this (unfinished) process of convergence in employment rates has not been accompanied by a similar process of convergence in household duties between men and women, nor has the Welfare State keep up in terms of the provision of services that would reduce the double burden of women.

As we can see in Figure 9, which reproduce the amount of unpaid and care non-market work of men and women as percentage of total time for a group of 17 European countries and the United States, on average women spend almost 80% more time than men in unpaid and care work. It is worth noticing, that the lower unpaid and care work gender gap in the countries with gender differences owns more to the reduction in unpaid and care work of women (probably related with higher supply of public services addressed to that end), that to the increase in hours of men, that is to the "gender democratization" of household duties (Leopold et al, 2018).

Figure 9: Unpaid and care work of men and women as percentage of total time*



Note: (*) 1999-2012/13 depending of the country. Population 15 and over.

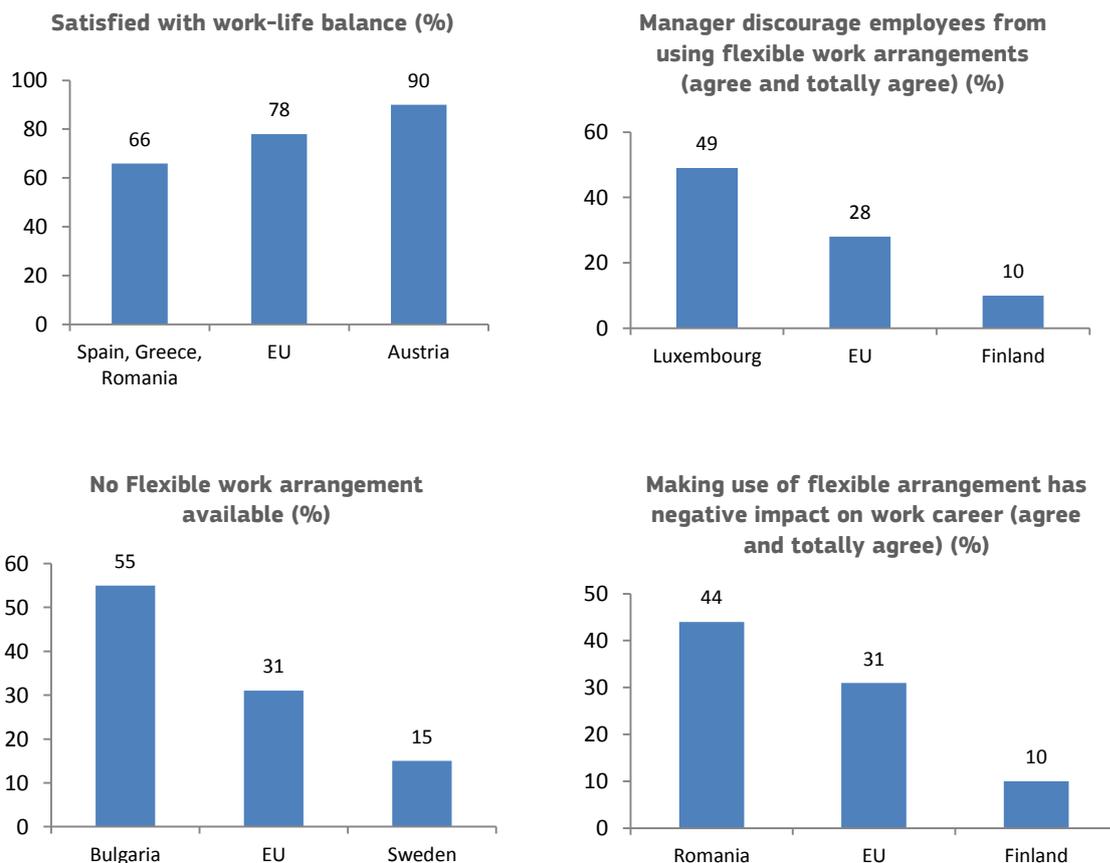
Source: author 's analysis of OECD Family Database, Table LMF2.5.A

²⁰ The part-time employment gender gap reaches 584% in Luxembourg and 480 in Germany, the two EU countries with highest part time employment gap. All data from Eurostat, gender wage gap in unadjusted form for full time workers - NACE Rev. 2 activity (B-S except O), structure of earnings survey methodology. In all cases the gap is defined as $(X_{male} - X_{female})/X_{male} \cdot 100$

While the progressive integration of women in the labour market has reduced the traditional “invisibility” of women to many of the Welfare State policies (all those based on the participation of the beneficiary in the labour market), at the same time it contributes to bring to light another important social question, so far hidden by the radical social specialization of woman in all the activities related to social reproduction (unpaid household work and care). From this perspective, the so-called work-life balance issue, is product of the end of the *de facto* radical specialization between men and women according to which women attended the needs of the family while men participated in the labour market as the sole (or in any case major) bread winner. This (unjust) agreement, if only because the market earnings of men were usually complemented by a social wage (social benefits) from which women doing the extra-market work vital to social reproduction were excluded, started foundering with the increase in participation of (married) women in the labour market.

Figure 10, reproduces information about satisfaction with work-life balance and about the use of flexible work arrangement in the EU (28), one of the working time arrangements more effective in facilitating work-life balance (Plantenga and Remery, 2009; Gallie and Russell, 2009; Tausig and Fenwick, 2001)²¹.

Figure 10: Satisfaction with work-life balance and use and implications of flexible work arrangements in the EU, and country with maximum and minimum index, 2018.



Source: Author’s analysis from Eurobarometer (2018)

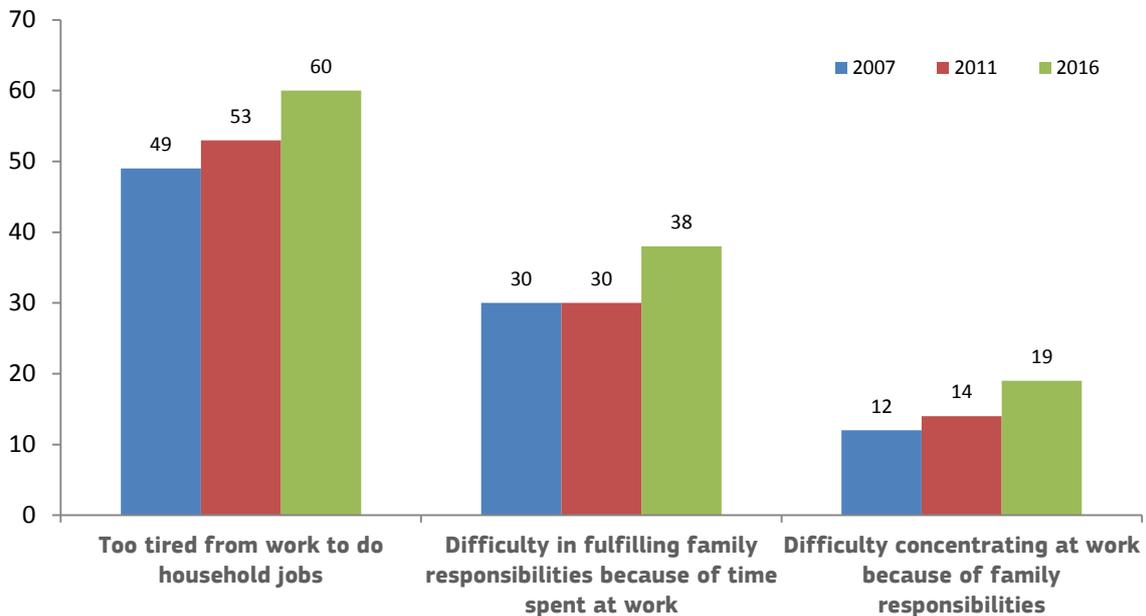
²¹ Although with potential different impact depending of gender (Hofäcker and König, 2013)

In 2018 around 1/5 of Europeans were not satisfied with their work-life balance, although with major differences between those countries less satisfied: Spain, Greece and Romania, probably not by coincidence countries with a relatively late incorporation of women in the labour market and relatively low developed Welfare State, with 1/3 of population dissatisfied, and those countries, such as Austria, (or Denmark) where this percentage is much lower. These differences explode when we look at some of the instruments, such as flexible time arrangements, that contribute to work-life balance. In this regard, 31% of EU workers work in firms where flexible work arrangements are not available, 28% work in places where manager or supervisor discourage employees from using such arrangements, and 31% consider that making use of flexible work arrangement has a negative impact on their career.

In fact, there are reasons to believe that the impression obtained by looking at the question regarding overall satisfaction with work-life balance gives a somehow rosier picture of work-life balance conflict, as satisfaction with work-life balance could be the product of strategies taken by the individual to adapt their non-working life to their working life, and not necessarily correspond to a “balanced”, i.e., adaptation of work and life from both sides.

This conclusion is somehow backed by the responds of people in employment to the 3 questions reproduced in Figure 11: (1) Too tired from work to do household jobs. (2) Difficulty fulfilling family responsibilities because of time spent at work. (3) Difficulty concentrating at work because of family responsibilities.

Figure 11: Respondents in employment claiming that work-life balance issues occur at least several times a month (%), EU.



Source: Authors analysis from Eurofound (2017a), p. 41.

Three things stand out from Figure 11.

- (a) In first place, there is an increase in the percentage of workers indicating work-life conflicts.
- (b) In second place, these conflicts seems to be more frequent that when looking at the indicators based on the level of satisfaction with work-life balance.

- (c) In third place, according to the data, faced with work-life balance conflicts, it seems that the solution prioritize work above life, as the percentage of workers saying that they have difficulties in concentrating at work because of family responsibilities is much lower than the other way around.

In a context of demographic change and potential labor force reduction, improving work-life balance, on top of being an important end by itself, could, instrumentally, contribute to the increase in labour force participation rate. In this occasion, Welfare State policies, such as the improvement of parental leave (and its equalization for men and women in order to contribute to the aim of gender equality), would have to go hand in hand with firm 's human resources policies with the same goal.

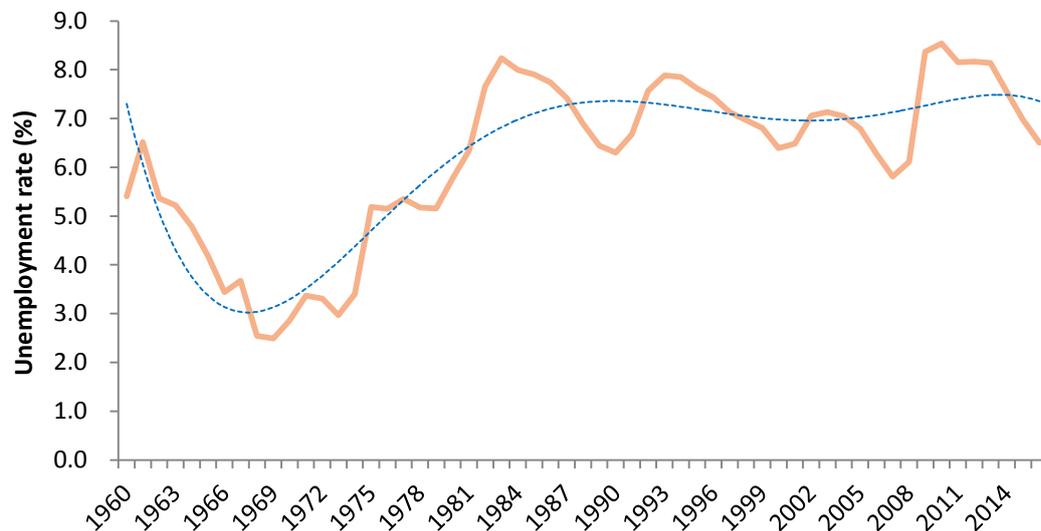
Changes in the labour market and the digital revolution

The last of the challenges faced by the Welfare State that we will review in this paper is related to the transformations experienced by European labour markets resulting from with the end of full employment (as a fact and as a goal of economic policy) and the adoption of a policy of labour market deregulation as a tool for employment growth (OECD, 1994), and to the rise of a technological revolution that according to many observers will completely change the world of work. Although these changes are intimately related, in order to facilitate the analysis we will divide this section in two. The first one will look at the changes of the labour market, while the second will focus of the implication of the technological revolution for the world of labour. The section will conclude with a reflection on the implication of these changes for the Welfare State and possible policy options.

Changes in the labour market: from full employment to precarious jobs

What has been described as the “Golden Era” of the Welfare State (Pierson, 1994), that coincided with the so called “Golden Age of Capitalism” (Marglin and Schor, 1992), was characterised by low unemployment rates and a rather homogeneous labour market in which the majority of jobs were full-time and permanent. The “oil” crisis of 1973 marked the beginning of the end of these two elements. The goal of full employment was abandoned and substituted by the so-called Natural Rate of Unemployment first, the non-accelerating inflation rate of unemployment (NAIRU) later, and now with the so-called non-accelerating wage rate of unemployment, NAWRU, a rate that easily can have two digits depending of the country (*e.g.* Spain). This change in the objectives of political economy came together with a change in the actual unemployment rate, which for the OECD average climbed to 7% staying there (or above) for more than three decades (Figure 12).

Figure 12: *Unemployment rate of the OECD, 1960-2016*

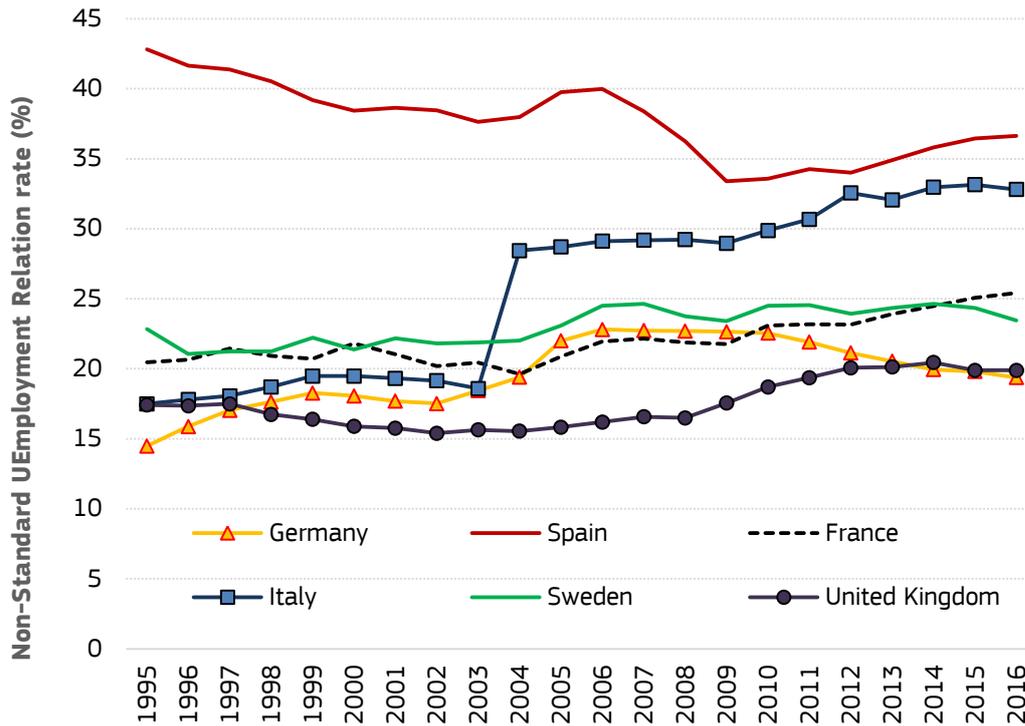


Source: Authors analysis from OECD Stats data base

The deterioration of the labour market, and the idea that the problems of (structural) unemployment were related to the supply side of the labour market, led to an agenda of labour market deregulation, epitomized by the well-known OECD’s *Jobs Study* (OECD, 1994)

that transformed the labour market landscape, with the help of the process of globalisation mentioned above and the digital revolution (see next section). In many countries, the once-dominant *Standard Employment Relation* stopped being the type of employment by default, being slowly substituted by other non-standard employment relations, NSER, of temporary nature and/or part time. As we can see in Figure 13, that reproduces the share of NSER in six EU countries (France, Germany, Italy, Spain, Sweden and United Kingdom), although with major differences, there is a growth in NSER in all countries, reaching a minimum of 1/5 of all employment.²²

Figure 13: *Non Standard Employment Relation rate in 6 EU countries: 1995-2016*



Note: (*) The increase in non-standard employment rate of Italy in 2003 is related to a break in the series of Self-employed persons without employees (own-account workers).

Source: Authors analysis from EU-LFS

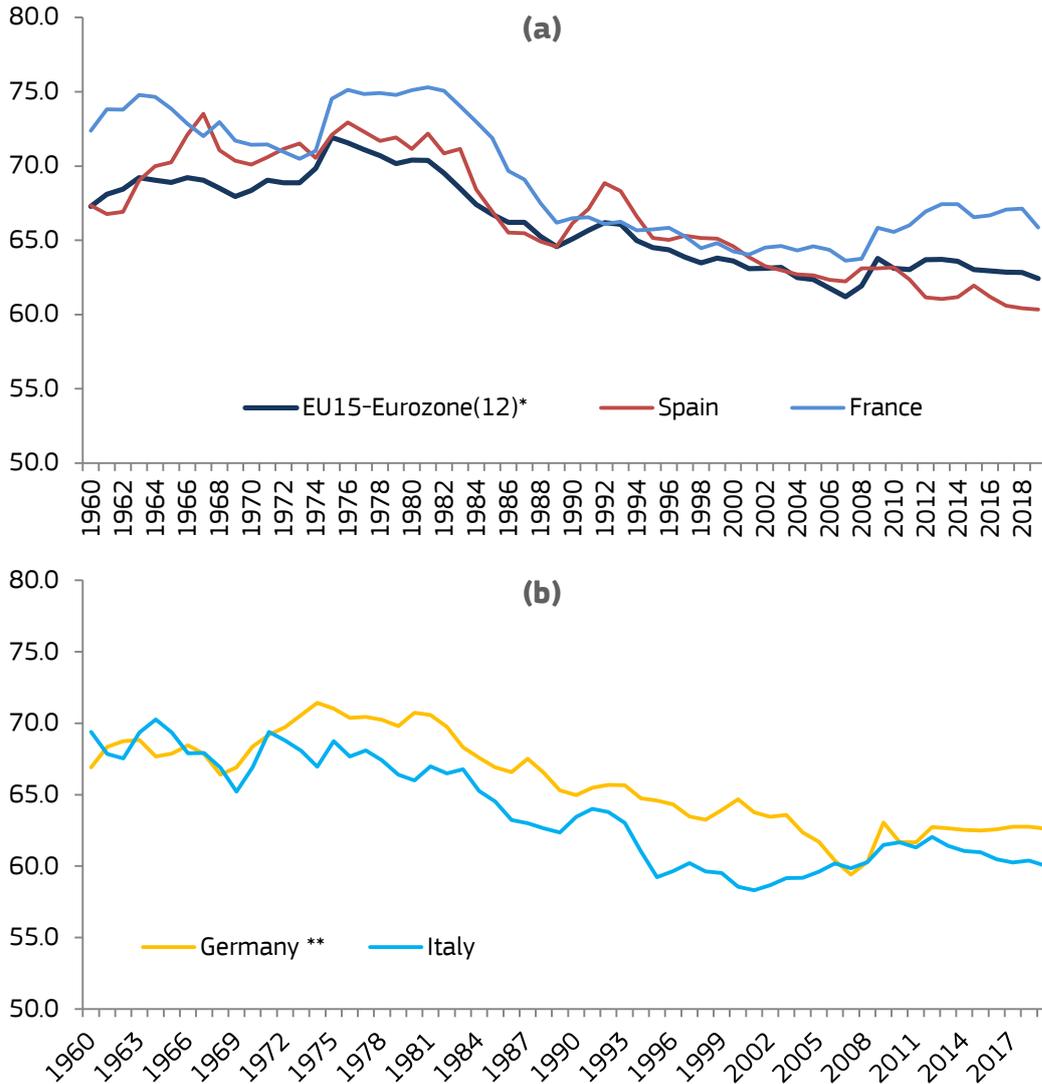
These changes, by themselves with implications for the Welfare State, have contributed to two other developments with further implications for the maintenance of the Welfare State: the appearance of a growing gap between productivity and wages, due to de fact that productivity increase is not fully translated, as it was in the past, to wage increases, and the corresponding reduction in the wage share. An indirect way to confirm the existence of a wage-productivity gap is by looking at the evolution of the wage share (total wages divided by total production). The wage share is tautologically equivalent to the wage divided by productivity²³. Therefore, the wage share will increase if wages increase more than labour productivity, will remain stagnant if both grow at

²² Estimates built from EU-LFS data. The NSER rate is defined as: temporary employment + involuntary part time employment + own account workers divided by total employment.

²³ $Wage\ share, t, = \frac{Wage \times Employment}{GDP} = \frac{Wage}{Labour\ productivity}$

the same rate, and would decrease if productivity increases faster than wages. Figures 14a and b reproduces the evolution of the wage share in the EU (15) and the larger continental economies: France, Germany, Italy and Spain. In all cases we can see how from the early 1980s on there is a decrease in the wage share of more than 10% for the EU (15) case. This reduction confirms the existence of a wage-productivity gap during the period in the EU²⁴.

Figure 14: Evolution of Wage share (%GDP at factor cost) in the EU(15), France, Germany, Italy and Spain, 1960-2019



Note: (*) 1960-1991 = EU(15); 1992-2019 = Eurozone 12.

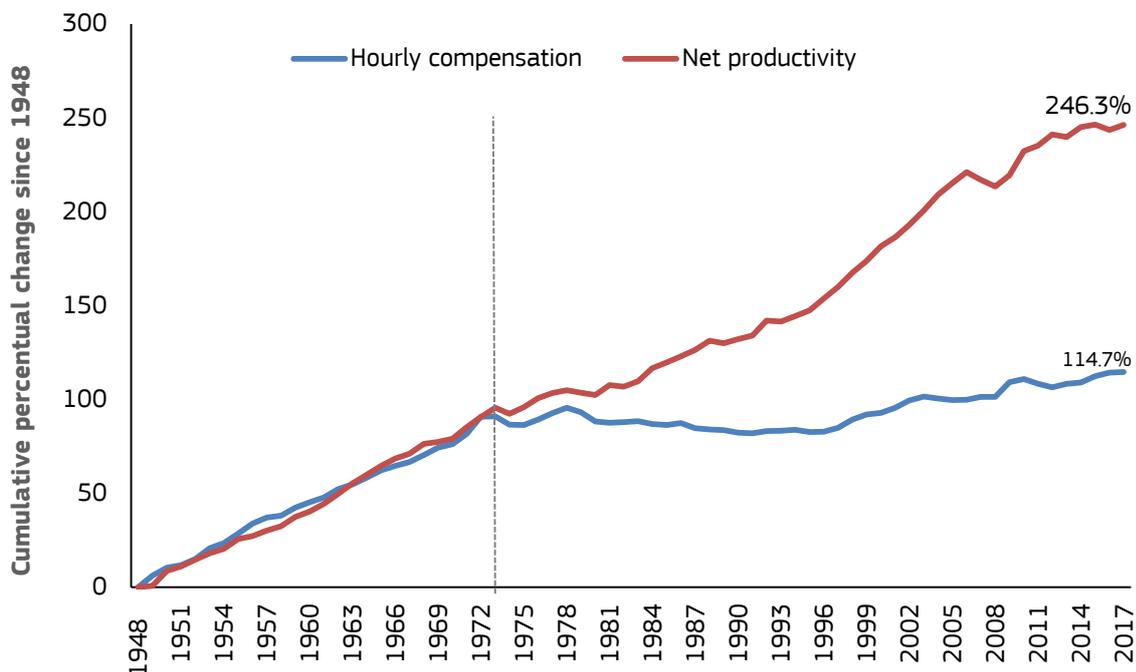
(**) 1960-1991 = West Germany; 1993-2019 = Germany

Source: Author analysis from Ameco

²⁴ The same dynamic is found for the EU – United Kingdom, although this time the data is only available since a shorter period of lower intensity and for of time. All the data corresponds to the adjusted wage share (total economy) as percentage of GDP at current factor cost as estimated by Macro-economic database AMECO of the European Commission's Directorate General for Economic and Financial Affairs.

This dynamic is shared by the US too. In fact, the availability of long run series of wages and productivity for the US allows us to represent the wage-productivity gap directly using these two variables. As we can see in Figure 15, that reproduces the productivity and hourly compensation growth, 1948–2017, from 1948 to 1973, wages and productivity grew at roughly similar rates. In contrast, the 1973 oil marks a divide in the wage-productivity relation, as since then wages remained stagnant (in real terms), decoupled from the evolution of productivity: from 1978 to 1973 total hourly compensation grew by 90% while productivity grew by 96%; from 1973 to 2017, productivity grew by 77%, while hourly compensation grew by 12.4%.²⁵

Figure 15: *Cumulative change of wages (hourly compensation) and productivity in the USA, 1948-2017*



Source: EPI (2018), *The Productivity–Pay Gap*, updated from Figure A in Bivens (2014).

The new technological revolution and the digital economy

Although the technological revolution can, and surely will, affect the way the Welfare State produce and deliver goods and services in fulfilment of its duties, this is not the main topic of this section. Our concern is how the digital revolution and the digitisation of society can affect the demand of Welfare State services and protection from risk, through its impact on the labour market.

²⁵ Data are for compensation (wages and benefits) of production/nonsupervisory workers in the private sector and net productivity of the total economy. “Net productivity” is the growth of output of goods and services less depreciation per hour worked. EPI (2018): *The Productivity–Pay Gap*, updated from Figure A in [Raising America’s Pay: Why It’s Our Central Economic Policy Challenge](#) (Bivens et al. 2014)

There are 3 different ways in which technological change can affect (and has affected in the past) labour markets:

1. Increase in unemployment, called, since Keynes (1930), “technological unemployment”, as machines substitute labour at a faster pace than the new needs of labour to produce machines.
2. Changes in the structure of employment resulting from the different rates of destruction and creation of employment in different sectors of the economy and occupations.
3. Development of new types of work relations, for instance those related to the platform economy.

Although the fear of technological unemployment has been a continuous companion of the market economy, from the industrial revolution (the Luddite movement of the early 19th century) to the automatization of the 20th century (Heilbroner, 1965), this fear has not materialized in the past due to two parallel mechanisms that have acted as countervailing forces of the increase in productivity associated with technical change: the growth in demand-GDP and the reduction of working-time. In any case, as the process of compensation of productivity growth is far from automatic, nothing guarantees that these mechanisms will work this time too. Especially if, as many of the gurus of new technologies argue, we are in the verge of a technological revolution at least as profound, if not more, than the Industrial Revolution.

Regarding the second of the above mentioned items, the different path of labour substitution in different sectors of the economy, depending of their more or less adequacy for the introduction of labour saving technology, is producing (as always has) changes in the structure of employment. Two different hypotheses have been put forward in relation to the impact of technological change on the structure of employment. The first one, known as Skill Bias Technological Change, SBTC, argues that technology mainly substitutes labour of low qualification and skills, complementing of high skill labour. These dynamics result in a process of upgrading of job quality: higher growth of good quality jobs in the upper part of the distribution of employment (e.g., Acemoglu, 2002). In contrast, more recently, the hypothesis of Routine Bias Technological Change, RBTC, argues that nowadays the substitution of labour concentrates in those jobs characterized by routine tasks, replacing jobs in the middle of the wage-job distribution. In this case, the implementation of new technology would produce a pattern of polarization of job growth, with jobs growing at the lower and upper end of the job distribution (Autor et al., 2003). However, the empirical analysis is far from being conclusive, with some analysts arguing that results are mixed, depending on the pattern of change in the job structure, upgrading versus polarization, of the period of analysis and the countries themselves (Fernández-Macías, 2012, Fernández-Macías et al., 2015, Fernández-Macías and Hurley, 2008), while other analysts (Goos, Manning and Salomons, 2007, 2009, 2014) consider that there is a generalized process of polarization across all high income countries.

Regarding the third item, the growth of platforms has led to a new (potentially important) source of labour demand outside of the traditional area of firms demanding workers to perform a given task on a more or less permanent basis. The new digital technologies now facilitate, at very low transaction costs, contacting services on a piecemeal basis and paying (usually at low rates) upon delivery, with no strings attached. This has opened up a new area of precarious and unprotected employment where all the uncertainties and non-wage labour costs of labour are shifted to the worker (Berg et al., 2018).

Policy Implications

The combined effects of higher levels of unemployment, deregulation of labour markets, growth of non-standard employment relations, decoupling of wage and productivity growth, potential wage polarization and risk of future massive substitution of labour by capital, have important implications for the future of the Welfare State.

In first place, and most importantly, the growth in precarious employment documented in Figure 13, by-product of the combination of high unemployment rates and the deregulation of the labour market, has led to the growth of unstable labour relations and lower earning for non-standard workers. If the literature of RBTC is right, the destruction of middle skilled jobs due to technical change could further aggravate in the future the process of deterioration of earnings and employment quality for a growing share of workers. In turn, this implies the deterioration of the traditional mechanism of social integration: employment. Although, as we can see in figure 16, being employed remains an efficient mechanism to escape from poverty (especially when compared to being unemployed), in 2017 as many as 10% of all employed faced risk of poverty: a lower percentage that the overall rate of poverty risk, 17%, but still quite relevant share.

Figure 16: *At-risk-of-poverty rate* by most frequent activity in the previous year, EU, 2017*

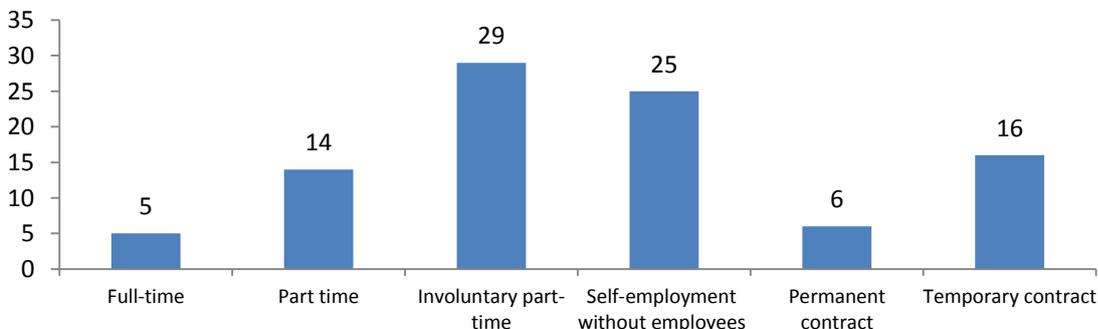


Note: (*)At risk of poverty rate (cut-off point: 60% of median equivalised income after social transfers)

Source: Author’s analysis from Eurostat

Furthermore, as we can see in Figure 17, the risk of in-work poverty is highly correlated with non-standard employment relations such temporary contract, involuntary part time or solo self-employment.

Figure 17: *Workers at risk of in-work poverty (%) by type of contract, EU, 2014*



Source: Eurofound (2017b) p.9

The combination of the reduction of efficiency of work to escape risk of poverty and the possibility of facing growing levels of unemployment due to technological change, as expected by much of the literature on the labour impact of robotisation and digitalisation mentioned in previous section, will certainly put unknown levels of pressure on a Welfare State that was accustomed in the past to coexist with higher employment levels lower levels of in-work poverty.

These present developments and future scenarios have spurred a debate about new tools that might be needed in order to confront the above mentioned risks, should they finally materialize. Some of these tools can be considered as adaptations of the parameters of standard mainstream Welfare State interventions. Others are more ambitious and could lead to a quantum leap in the design of the Welfare State. Among the former we could mention: (a) the need to adapt the requirements for social protection (developed in a context where open ended full-time dependent employment was the norm) to a new context where non-standard employment relations are an important feature of the labour market. (b) New regulations in order to bring platform work under the umbrella of employment and social protection legislation. (c) The convenience to increase public wage complements (*e.g.* like the US Earned Income Tax Credit) to confront the risk of low wages. Among latest, the development of Universal Basic Income or Employment Guaranteed Programs, are to confront the risk of growing technological unemployment and low wages.

Starting with the less ambitious, but certainly not marginal, parametric reforms, the first, and more pressing, one would be extending the system of social protection, tailored to “permanent” full time workers, to the “new” categories that conform the once not standard employment relations: temporary workers, part time, especially in those cases with flexible hours such as the zero hours contracts popular in the UK, and solo self-employment (especially those considered as “false” self-employee).²⁶ As summarized by a recent OECD report (OECD, 2018), social security contributions should be harmonised as much as possible across all forms of employment, preferably through compulsory schemes, as voluntary schemes don’t seem to work well, due to lower coverage or to its implications in terms of additional cost to the system. Regarding the phenomenon of “false” self-employment, *i.e. de jure* self-employment that hides a *de facto* dependent employment relation, as the self-employee works mostly or totally for a single client-firm, some countries (such as Spain with the “autónomo económicamente dependiente”, or Italy with the “parasubordinato”) have addressed the problem by creating new hybrid forms of labour relations, in between dependent employment and self-employment, with higher labour rights vis a vis self-employment, although the results achieved so far are not very promising. The growth of the platform economy, which contributes to the growth of these grey forms of labour relations, offers also new opportunities of control by tax authorities and labour inspectorate, as almost in all platforms business relation are performed digitally, being thus easier to monitor. Regarding low hours flexible contracts (widely used by platforms), one possible way to compensate the translation of risks and costs (low hours, low income, social protection uncertainty of working time, etc.) from the firm to the worker could be, as done in Australia, to introduce statutory wage premiums for these types of workers (OECD, 2018b, chapter 2).

Closely related with the above-mentioned interventions is the pressing need to address the challenged for social protection and tax justice posed by the platform economy. Although ubiquitous in the urban landscape, platforms are still a marginal share of value added and employment (around 2% of adult population in the EU according to one recent estimate, Pesole et

²⁶ In line with the concerns of the European Commission, as expressed in Proposal for a COUNCIL RECOMMENDATION on access to social protection for workers and the self-employed COM/2018/0132 final - 2018/059

al., 2018)²⁷. Actions should be taken to extend the tax and labour regulations to platforms, if only for a reason of horizontal equity.²⁸

A third intervention, this time addressed to the problem of low wages, would be the introduction, in those countries where such arrangement is not present, of wage complements by which low wage workers complement their take home pay by tax credits.

Tax Credits are certainly not new in town. Since the approval in 1971 in the UK of the *Family Income Supplement*, now the *Working Families Tax Credit*, many countries, notably the US with the *Earned-Income Tax Credit*, EITC, created in 1975, but also the Belgian *Crédit d'impôt sur les bas revenus de l'activité professionnelle*, the French *Prime pour l'Emploi*, or the Dutch *Arbeidskorting*, among others, have developed similar programs aimed at increasing take home pay of low wage workers by complementing market earnings with different kinds of subsidies, normally operationalised through the income tax. As a starting point, it is important to make clear that the purpose of these programs was not fighting low wage as such, but to increase work incentives, *i.e.*, to “make work pay”, especially for those groups of population for which the combination of dependents at home, social assistance and low wage, could make the option of staying at home more financially interesting than the option of working. Empirical studies show that these types of programs have a positive impact on employment, especially in countries with low unemployment rates (as the impact on employment would be through the increase in incentives to work, that is, through the increase in labour force participation rates), although of small magnitude (Immervoll and Pearson, 2009). Regarding its effect on inequality, the microsimulation performed by Bargain (2008) for Belgium, France, United Kingdom and the Netherlands show a reduction in inequality of different intensity (larger, a reduction of Gini Index by -0,55 percentage points for the UK), while the effects in terms of poverty reduction are mixed (Marx et al., 2016). On the down side, these types of programs run with the risk of contributing to maintain low wage work, or even reducing wages in the lower segments of the market. That would be the case according to some analysis performed for the US, where according to Rothstein (2010), firms are able to capture around 1/3 of every dollar spent in the EITC.²⁹

From a more ambitious perspective, the combination of growth in precarious employment, structural unemployment and the risk of technological unemployment and labour market polarization resulting from the digital revolution, has feed a debate about the need to decouple, at least partially, income from employment, and/or employment from private labour demand. The proposal of the creation of a Universal Basic Income would be an example of the former, while the development of Employment Guaranteed Programs would be an example of the last.

²⁷ Defined as those who earn 50% or more of their income via platforms and/or more than 20 hours a week of work via platforms.

²⁸ In Spain the judiciary power has taken steps to review whether the most widely form of labour used by platforms such as Deliveroo or Glovo, self-employees, meets the criteria of self-employment. So far the results in lower courts have not been favorable to the platforms as workers have been considered in the judgments as dependent employees, and not self-employees. The adoption of similar verdicts in upper courts would certainly produce a change in the business model of platforms, largely based in the shifting of labour costs to workers. In the words of the founder of Glovo, a Spanish delivery platform: “it would be a bummer if the Supreme Court would force us to hire the delivery workers” (*El País*, 11/16/2018)

²⁹ This type of programs could be complemented by actions directed at increasing the Minimum Wage (towards the level of 60% of median wage). Compared to wage subsidies, the cost of minimum wage increase would fall back onto the private sector. Nowadays, in the high-income countries minimum wages range from 35% (USA) to 60% (France) of median wages (24% - 50% in relation to mean wages).

The Universal Basic Income, UBI, understood as the right to a minimum income, large enough to allow decent living, regardless of the personal situation, on an individual bases, without labour or any other type of requirement, could be interpreted as a radical extension of the principle of *decommodification* used in the literature of Welfare State models. Although in this occasion the possibility to live without participating in the labour market would be granted to all citizens with no strings attached. Although the debate about the UBI has lately gained attention in relation to the risk of massive technological unemployment in a non-too far future, the idea of the UBI, brought to the forefront of the economic and political debate by the work of Philippe Van Parijs (1995) among others, goes back in time as far as the 18th century (Birnbaum, 2016). In its origins, the idea of the UBI is related more to the philosophical debate about the true meaning of freedom in a context where people need to work in order to survive, than to its use as a strategy to fight against massive unemployment, although the fear of technological unemployment has given it new impulse. In fact, two of the major criticisms faced by UBI (Colombino, 2019): its negative impact on labour supply and its high (almost prohibiting for many) cost, cease to be relevant if: (1) the technological revolution reduces labour demand (as consequence of massive substitution of labour by capita/robots), making the supposedly negative incentive to work of the UBI (as work would be no longer needed to live) a no-problem, but something welcomed, as it would reduce unemployment (through the reduction of the labour force), (2) the high cost of the UBI would be much more easy to meet in a context of high productivity growth resulting from the digital revolution, while at the same time the UBI would facilitate the growth of the effective demand required to absorb productivity growth.

In any case, introducing the UBI with all its characteristics in terms of universal coverage, lack of requirements and sufficiency would imply a radical change for a Welfare State whose policies have been largely justified in terms of merit. The introduction of a true UBI would also be a major shock in a society where work is still an important source of self-stem and social integration.³⁰

The last proposal that has been launched in order to fight the risk of massive technological unemployment is the development of employment guaranteed programs by the public sector to absorb the *reserve army of labour*, in Marxian terms, that would not be able to find jobs should the fear of technological unemployment materialise. Again, this is not a new idea, as we can find different versions of such programs in the past (*e.g.* the Work Progress Administration during the New Deal from 1935 to 1943 in the US) and the present (*e.g.* the Indian Mahatma Gandhi National Rural Employment Guarantee Act 2005). In fact, one of the sharper economists of the 20th century, Hyman P. Minsky, argued in favour of developing such type of programs as the base for the US social policy, in order to create an infinitely elastic demand of labour at the level of the minimum wage that would not depend on the profit expectations of firms (Minsky, 1996). As argued by Tcherneva (2018), these kinds of programs have been criticised on different grounds: for being difficult to manage, for leading to an increase in unproductive expenditure, and for being expensive. Regarding the unproductive nature of the employment created, the activist of this type of programs argue that there is nothing less productive than being unemployed. As for the cost, the counterargument focuses on the complementary reduction in unemployment benefits and other social assistance programs that would not be necessary in a context of employment for all.³¹

³⁰ For a review of the debate on Universal Basic Income see Atkinson (2011), Van Parijs (1995, 2004), Van Parijs and Vanderborght (2017) or Standing (2017)

³¹ An example of such type of programs would be the program proposed by the progressive Center for American Progress, targeted at maintaining the employment rate for prime-age workers without a bachelor's degree at 79% (the 2000 level). In 2017, that would require the creation of 4.4 million jobs, with a total cost around \$158 billion (at a living wage of \$15 per hour plus the cost of contributions to Social Security and Medicare and an annual cost per job around \$36,000. To put

All of these intervention would, in turn, contribute to meet the expected increase in demand for social protection if the scenario of polarization of the labour market and sluggish employment growth (if not outright employment destruction) predicted by many as result of the combined impact of the technological revolution and globalization, finally materializes.

But these two drivers of change will also affect what we can consider as the ultimate restriction of social policy: the capacity of the State to have access, through the taxing system, to a sizeable part of total production. As we have seen, globalization excerpts pressure on some of the traditional sources of revenue of the public sector, such as mobile factors of production, as in a world of open markets and open borders (for capital but not for labour) is far easier for capital to relocate (in fiction or in real) to those areas of the world more taxation friendly. Moreover, in order to reduce the risk of capital flight, countries have entered in a kind of downward tax competition that has greatly reduced the taxation of capital and savings. Focusing on Corporate Income Tax, nominal corporate income tax rates have experienced an important reduction in the EU, from an average rate of 36% in the Eurozone in the mid-1990s, to 24% in 2017, (Valenduc, 2018).³² And reductions in tax rates are not the only weapon of tax competition, as there are other mechanisms, such as preferential tax regimes and tax rulings with similar results³³.

This dynamic has been buttressed by the digital transformation of the economy and the development of new multinational digital corporations (such as Google, Amazon, etc.) with more facilities for shifting profits away from the places were the value was created and towards tax havens, in order to profit from lower tax burden (OECD, 2018). Simultaneously, as we have seen in section 3.4.1, the reduction in the wage share, driven as well by the process of globalization and technical change, has weakened other of the traditional sources of public revenues: social contributions. The massive substitution of labour for capital predicted by digital gurus, if finally materializes, would further deteriorate the wage share, making it more difficult to collect the taxes required to address the new policy described above. In this scenario, new forms of taxation on capital income (or wealth, as proposed by Piketty, 2014), with coordination at supranational level, would have to be developed in order to allow the adequate financing of the Welfare State.

The good news is that, again if digital gurus are correct, the humongous increase in productivity associated with the new digital technologies would make much more easy (from the perspective of sufficiency of resources) to shift part of the growing output towards the Welfare State. A different question is whether the power relations among different groups (classes?) of society will allow the shifting of resources of the size needed to maintain social wellbeing in a context of income polarization and income concentration.

such cost in context, the proponents argue that it would be equivalent to the one-quarter of Trump's proposed tax cut for the wealthy on an annual basis (Tanden et al., 2017)

³² Although this process has not been accompanied by a reduction in the dispersion of the tax rates, as it should be expected in a context of tax competition. In fact the level of dispersion is higher now than at the beginning of the century (Valenduc, 2018).

³³ Preferential tax regimes consist of favorable base provisions or specific rates that create "niche Regimes". Tax rulings refer to MNE affiliates negotiating their tax treatment with the tax administration (Valenduc, 2018).

Conclusions

The non-exhaustive review of the challenges faced by the Welfare State carried out in these few pages allows presenting several major conclusions.

- First, the Welfare State is, we could say, alive and kicking. Since the Thatcherite conservative revolution, the Welfare State has been buried in many occasions, just to find out that its policies are now, as important to the running of European modern societies, as they were half a century ago, commanding near 30% of GDP, or more if we add education.
- Second, this means that, so far, the Welfare State has been able to deal successfully with the process of globalization making also compatible its interventions with economic growth.
- Third, nevertheless, the resilience shown by the Welfare State doesn't mean that the only way to manage modern market societies is through the Welfare State. The literature of models of Welfare State shows, with all its shortcomings, that there are many different types of WSS compatible with the market economy, and choosing one instead of another is a question, among other things, of popular backing and the existence of the appropriate power leverage between the different interests of the society.
- Fourth, regarding the process of demographic ageing, the key element to consider when debating the sustainability of pension systems in a context of growing share of retirees is what is expected to happen with productivity and GDP growth. In a context of high productivity growth, the increase in pension expenditure can be financed in parallel with growing disposable income for the labour force. Moreover, if technological change leads to increases in productivity of unparalleled intensity, the question of increasing pension cost would be reduced to a question of distribution -not for that of less importance but probably less difficult to manage.
- Six, the Welfare State needs to review all its policies from a gender perspective for both justice and efficiency reasons, as higher female labour force participation will contribute to its future sustainability.
- Seven, the increasing ethnic and cultural diversity of Western societies might reduce society's support of Welfare State policies, especially those benefiting disproportionately the foreign-born population. This could result in a segmented Welfare State or in the marginalization of those policies, altering the fundamental nature of the Welfare State.
- Eight, market economies have been able to avoid technological unemployment in the past, so we could not rule out that they will be able to do so too in the future. A different question is the possibility of the generation of a growing share of low wage employment, in which case the Welfare State would have to consider developing new policies to complement market income (whether through wage complements of some kind or Universal Basic Income).

Once again, in a context of growing GDP, the question would be of a distributional kind.

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