What About "Next Generation" EU?

Diverging Intergenerational Dynamics in North and South since the Euro Crisis

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Abstract

Younger European generations have not only grown up in an era of intense globalization and rapid skill-biased technological change, but have also come of age during a time of multiple overlapping crises of EU integration. The botched response to the Eurozone debt crisis as well as the effects of the COVID-19 pandemic have left lasting generational scars. These younger cohorts will now have to wade through the unfolding demographic transition as much of the EU population ages, which is introducing new economic risks as older generations place an ever-greater burden on national (and supranational) institutions. Competing demands on the welfare state – as younger generations worry about climate change and expect greater government support in rebuilding their economic opportunities, while older generations continue to anticipate generous financial assistance in safeguarding their retirements – increasingly shape distributional politics along age cohort lines. In this paper, we posit that this growing intergenerational divide is of a qualitatively different nature in the EU's Northern and Southern member states. As the EU's response to the euro crisis forced national growth models in the Southern periphery to change quite radically, this further intensified distributional conflict between old and young, as reforms and cuts tended to fall disproportionately on youth investment programs. In the meantime, Northern growth models had the fiscal space to mitigate the recession's worst effects. We conclude that this North-South dichotomy has important implications for the future regional cohesion of the EU and could potentially explain changing attitudes among different age cohorts towards EU integration.

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1. Introduction: Generational Dynamics in the European Union

Many competing scholarly and popular accounts about the consequences of the global financial crisis (GFC), the euro crisis, or the economic fallout from the COVID-19 pandemic have tried to explain the differing effects of EU integration across North/South lines. Not that many, however, have focused on a powerful source of the future sustainability of European integration, namely the lived experiences and perceptions of younger generations regarding the push towards an ever-closer union. Over the past fifteen years, young voters have increasingly flocked towards a myriad of parties seeking to challenge the status quo established by decades of center-left and center-right government, which had often been quick to ignore youth as an unreliable and hence inconsequential constituency.

The apathy and frustration among youth are palpable. Young voters in France have erased decades of left-leaning platform support, with 49 percent of the 25-34 age group, and 39 percent of the 18-24 age group voting for Marine Le Pen in the 2022 election (Tower and Gelix, 2022). In late 2021, young voters in Germany went from de-facto support for Christian Democratic Chancellor Angela Merkel's CDU and Social Democratic Finance Minister Olaf Scholz' SPD to the more radical centrism of Green and Free Democratic (FDP) parties who emphasized climate change and digitization respectively. Meanwhile, a host of "anti-system" parties, most prominent in Europe's South, seek the dramatic transformation or complete extinction of a system they consider not only incongruent with, but openly hostile to, issues of youth concern and put forward the prospect of more intergenerational equality (Hopkin, 2020).

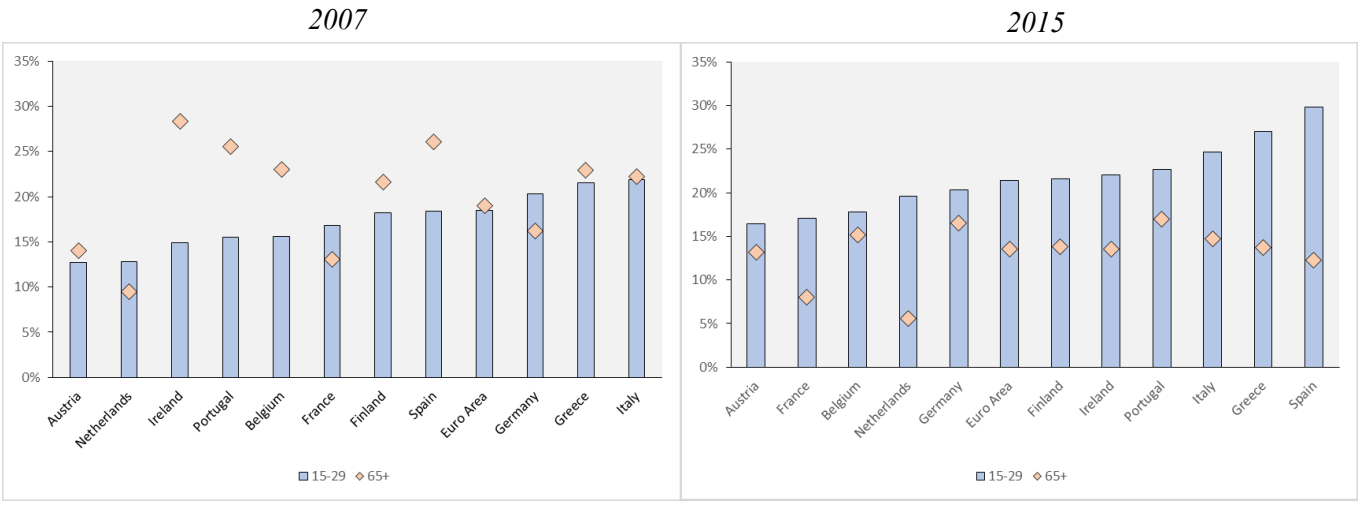
The most recent generations of Europeans, in stark contrast to their predecessors, have only known EU integration through a crisis-lens. Not only did these generations grow up in an era of intense globalization and rapid skill-biased technological change, but they also came of

age at a time where integration increasingly became defined as both cause and consequence of both European and international crises. A looming demographic transition as the EU population ages will undoubtedly introduce new socio-economic risks as these younger generations of EU citizens face growing constraints by the increasing demands of the elderly on both national and emerging supranational welfare institutions.

In the context of managing the fallout from the past fifteen years of crises, competing expectations over the welfare state retain an element of generational bifurcation, as younger generations expect greater government action on climate change and support in rebuilding their economic opportunities while older generations continue to anticipate financial assistance in safeguarding their retirements and healthcare. In this regard, country-specific experiences during the euro crisis have the potential to shape generational demands on welfare state priorities as individual member states experienced quite different levels of austerity and reform.

Nowhere was this more evident than in the EU's Southern European member states during the Eurozone crisis. The series of strict budgetary austerity measures, along with far-reaching structural reforms, often directly imposed by EU institutions, had different economic effects on different generations. While youth unemployment and poverty skyrocketed across Southern European economies, relative unemployment and poverty rates declined for the elderly (Frieden and Walter, 2017). Figure 1 shows that poverty rates since the euro crisis increased for younger generations in every single Eurozone country, with old-age poverty in Northern Europe remaining constant, while old-age poverty in Southern Europe (Greece, Italy, Portugal, and Spain) decreased to record lows.

Figure 1. At-Risk-of-Poverty Before and After the Euro Crisis by Age



The purpose of this paper is to explore the changing intergenerational dynamics of macro-economic policy in the Eurozone and how they have been shaped by the different Eurozone member states' national growth context. Using a growth model perspective, we posit that this growing intergenerational divide as it pertains to public policy and the welfare state is of a qualitatively different nature in Europe's Northern 'core' and Southern 'peripheral' member states. The EU's response to the Eurozone crisis forced national 'domestic demand-driven' growth models in Europe's Southern periphery to change quite radically, further exacerbating distributional conflict between old and young. Austerity cuts tended to fall disproportionately on youth programs, including education and labor market policies, while mostly protecting old-age pensions (with Greece as a notable exception). Northern 'export-led' growth models, under less pressure to reform, and benefiting from booming external demand in emerging markets, had more fiscal space and hence found ways to mitigate the worst effects of the recession in a more generationally balanced manner (Polyak, 2023).

The continuation of the European project ultimately requires that newer European generations perceive themselves as the beneficiaries of it. Understanding the variegated political responses of Europe's young to the growing intergenerational divide therefore necessitates a theoretical framework that looks at how youth are situated within the broader political economy. In part, this requires a clearer understanding of welfare state dynamics and their incorporation into the growth models of different countries (Johnston and Matthijs, 2022). In this paper, we will conceptually expand the meaning of growth models and strategies to an intergenerational context, whereby the growth strategies of governments form the structural basis for varying social contracts between the state and different age groups, with youth as our primary group of analysis. We use the Eurozone crisis period, which manifested considerable variation in the disruption of these intergenerational social contracts, to show the intergenerational imbalance. We also speculate how the young might respond politically to continuity, strain, and collapse of their expectations about the future under different national growth models.

The rest of the paper proceeds as follows. Section 2 reviews the relevant literature in political economy on the euro crisis response, growth models, youth, and generational inequality. Section 3 establishes broad trends in intergenerational dynamics and fiscal policy response to the the Eurozone crisis in North and South. To do so, we adapt Vanhuysse 2013's "Elderly Bias in Social Spending" (EBiSS) indicator to track the development of generationally specific fiscal policy. Section 4 develops our theoretical framework that should help to better understand these intergenerational dynamics. Section 5 adds a qualitative case analysis of different growth models, with Germany's export-led growth model providing an example of attempting to fulfill the intergenerational social contract for youth, while Portugal's and Spain's demand-led growth

models represent a broken social contract for youth (with Italy and Greece more akin to attempts at a corrective solution to a broken contract). Section 6 concludes.

2. Literature Review: Growth Models, Youth, and Eurozone Crisis Response

The most basic questions surrounding youth dynamics on political and economic opportunity center on the relative role of agency versus structure in determining outcomes. Those focused on structure (the approach in this paper) have largely addressed the different institutional features that guide youth transitions into adulthood across capitalist countries (Breen and Buchmann, 2002; Walther, 2006). Many studies start from Gøsta Esping-Andersen's seminal work on welfare regimes and extend his classification (liberal, corporatist-static, and social democratic) to the effects they have on transitions into adulthood (Esping-Andersen, 1990; Ferrera, 1996). Walther 2006 provides the first attempt at concise classification of youth transition regimes to match with Esping-Andersen's, with "under-protection" in Mediterranean countries to an "employment-centered" dynamic in continental corporatist welfare regimes. These classifications, however, suffer from intra-classification heterogeneity that preclude a clean classification of youth transitions into neat welfare regime typologies (Van de Velde 2008).

How younger and older generations interact in the political sphere is also shaped by structural factors. Evidence for pro-elderly welfare states include structural explanations, which highlight the relative size of the baby-boomer cohort compared to newer generations, as well as their overall consolidation of resources (Chauvel 2010, 2016), which in general gives the older generation greater political and economic power over public policymaking (Gilens 2012). New generational interactions with conventional politics can further complicate the ability of youth to mitigate socioeconomic risk through traditional welfare state remedies like unionization or party

affiliation, structures largely dominated by older generations (Dalton 2004; Norris 2011). Some authors highlight the fact that reforms, even those that appear devoid of generational factors such as cracking down on tax evasion and tax hikes on the rich, represent a disproportionate burden on the elderly who make up the voting constituency (Bocking 2012).

The context-dependent nature of young-old interactions in politics and subsequent welfare state outcomes leads some to view youth as a metonymy of greater systemic influences, drawing youth into the larger macro-social trends of the country itself (see Tepe and Vanhuysse, 2010; Lynch, 2006; Cote, 2014; Birnbaum et. al, 2017; Chevalier, 2020). This literature posits that the distinction of youth as a specific part of the life course is not in question, but youth transitions (both economic and political) must be collocated within the context of larger macro-social trends for researchers to fully appreciate the causes of their economic precarity.

This last strand of youth transition research fits well with the overall thrust of the literature surrounding the past decade of European crises. In the context of crisis, youth are largely placed within the broader category of economic "outsiders" – which also includes women, minorities, and low-skilled workers – that structurally suffer disproportionate burdens over the short and long run because of crisis period dynamics (Emmenegger et al. 2012, Hausemann and Schwander 2013; Bell and Blanchflower 2011). Youth employment, in particular, is highly sensitive to business cycle oscillations, implying that they are the first to be cut during periods of economic stress or recession, while general labor market reforms aimed at fostering employment often reach youth the least (Ghoshray et al. 2016). Scholars who have highlighted the intergenerational inequality in Europe emphasize that a combination of macroeconomic policies, spending priorities, and pension prioritization of current over future pensioners has led to a significant disadvantage for younger generations (Huttl et al. 2015).

The 'Varieties of Capitalism' literature emphasizes that youth fall into this category largely in the context of high liberalization and low labor coordination, which further impairs employment precarity and prevents inroads into the labor market as labor institutions shield old hands from newcomers (Hall and Soskice, 2001; Marques and Salavisa, 2017; Baccaro and Howell, 2017). Solutions to mitigate the issue of youth 'outsiderness' range from ex-post facto welfare provision to ex-ante investment to curb youth unemployment through better skill formation (Ferragina et al., 2015, Morel et al., 2012). However, this strand of literature is less specific on why these mechanisms fail to materialize sufficiently across different country contexts. Lower union density and liberalization, while still unequal across the European context, have been Europe-wide phenomena, yet countries have largely found ways to adapt these globalizing trends to national-specific contexts (Vail, 2018). These broad forces, rather than viewed exogenously, need to be analyzed within the broader context of political and economic strategies of both national and supranational actors.

A promising locus for investigating generational divide within the broader strategies of national economic actors centers on growth strategies and their outsized role in shaping the roles assigned to generations within productive society. Underlying each of these growth strategies is a social coalition that structures, and is subsequently shaped by, the socio-economic institutions that ultimately locate youth within the economy (Hassel and Palier, 2020). For example, export-led models, which require highly skilled labor forces, are willing to invest in youth as a form of growth model security, indicating that countries with these growth models will invest more in youth-centric policies as they pertain to the goal of maintaining the skilled workforce necessary to drive growth (Martin and Swank, 2012; Chevalier, 2016). The extent to which youth are

included (or excluded) from that social coalition driving the growth model has lasting consequences for the economic opportunities with which youth are presented.

Baccaro, Blyth, and Pontusson (2022) build on Hassel and Palier (2020) and on earlier work on "growth models" by Baccaro and Pontusson (2016) and on "macroeconomic regimes" by Matthijs and Blyth (2017) in an effort to bring back some classic themes in political economy – including an emphasis on the inherent instability of capitalism, the importance of macroeconomic policy, the effects of distribution on aggregate demand and growth, and the emphasis on actors and growth coalitions. The growth model approach combines a comparative perspective on national diversity with an international political economy (IPE) perspective on the role of systemic forces. Despite similar evolutionary patterns (for example, liberalization and financialization), the national *diversity* of capitalism remains significant. But the conditions under which national variety arises and reproduces itself are influenced by a highly uneven and stratified international political economy in which some units have far more power than others. As Johnston and Matthijs (2022: 119) showed in a chapter in that edited volume, "EMU's tolerance of growth model diversity radically changed during the second decade of the euro's existence." This had particularly significant consequences for Southern Europe, with quite different consequences for young and old.

We aim to contribute to the growth model literature by suggesting a more dynamic understanding of generational outcomes, particularly in the context of economic crisis. A continuing gap in the CPE literature involves when a particular growth model is disrupted by crisis and whether countries adapt to said crises along the lines of their predicted growth model. The nature of growth models leads to a social embedding of citizens (including youth) into certain relationships towards pertinent economic variables (employment, wages, skill formation,

etc.) Our aim in this paper is to provide a better understanding of the consequences for youth in Europe's Northern and Southern member states when growth model strategies were disrupted during Eurozone crisis in the South but not the North. As we will see, Mediterranean 'debt-led' growth models, through a combination of economic crisis and severe austerity reforms, became subject to inconsistencies that disproportionately disrupted younger European cohorts compared to older ones within the established growth model dynamic. This was not the case in Northern 'export-led' growth models like Germany.

3. Mapping the Intergenerational Dynamics of the Euro Crisis Response

Before turning to our theoretical contribution, we map out key developments in generation-specific welfare spending as it pertains to the Euro crisis. We will first highlight the labor market context under which younger and older generations found themselves in the pre-crisis period and how those indicators evolved during the crisis. We then turn to an analysis of 'generational bias' in social spending expanding on Vanhuysse 2013's EBiSS indicator. We accompany that analysis with some trends in particular generation-specific categories.[1]

Labor Market Outcomes of the Euro Crisis

The academic literature is replete with studies on the dynamics of older and younger generations with regards to employment outcomes in Europe. Here we will summarize and contextualize these findings as they pertain to pre- and post-crisis period in the Eurozone. Tables 1 and 2 highlight the disparity between older and younger unemployment rates, with most countries exhibiting rates two to three times higher for the young population (ages 15-24) compared to the

[1] We also performed a cyclicality analysis to test how certain spending categories responded over the period to business cycle fluctuations but have included that in the appendix for space reasons. (See Appendix C3)

older population (55-64) in the pre-crisis period. Reasons given for this general disparity include lower attainment of firm-specific human capital and labor market experience for younger workers, as well as labor market rigidities that allow older workers to maintain preferred positions (Bell and Blanchflower 2011; Dietrich 2012). Labor market rigidities across Europe often result in a disproportionate number of young workers on temporary contracts (see Table 3), a trend that only deepened in response to the Eurozone crisis as upwards of 70 percent of youth in some Southern Eurozone countries were moved onto these types of employment contracts (albeit from fairly elevated levels pre-crisis).

Table 1. Youth Unemployment Rates in the Eurozone (Ages 15-24)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Austria	11.0	9.8	9.4	8.5	10.7	9.5	8.9	9.4	9.7	10.3	10.6	11.2	9.8	9.4	8.5
Belgium	21.5	20.5	18.8	18.0	21.9	22.4	18.7	19.8	23.7	23.2	22.1	20.1	19.3	15.8	14.2
Finland	20.1	18.7	16.5	16.5	21.5	21.4	20.1	19.0	19.9	20.5	22.4	20.1	20.1	17.0	17.2
France	20.3	21.3	18.8	18.3	22.9	22.5	21.9	23.7	24.1	24.2	24.7	24.5	22.1	20.8	19.5
Germany	15.5	13.8	11.9	10.6	11.2	9.8	8.5	8.0	7.8	7.7	7.2	7.1	6.8	6.2	5.8
Greece	25.8	25.0	22.7	21.9	25.7	33.0	44.7	55.3	58.3	52.4	49.8	47.3	43.6	39.9	35.2
Ireland	8.6	8.6	9.2	13.5	24.5	28.1	29.6	30.8	26.7	23.4	20.2	16.8	14.4	13.8	12.5
Italy	24.1	21.8	20.4	21.2	25.3	27.9	29.2	35.3	40.0	42.7	40.3	37.8	34.7	32.2	29.2
Netherland	11.8	10.0	9.4	8.6	10.2	11.1	10.0	11.7	13.2	12.7	11.3	10.8	8.9	7.2	6.7
Portugal	16.2	16.5	16.7	16.7	20.3	22.8	30.3	37.9	38.1	34.8	32.0	28.0	23.9	20.3	18.3
Spain	19.6	17.9	18.1	24.5	37.7	41.5	46.2	52.9	55.5	53.2	48.3	44.4	38.6	34.3	32.5

Table 2. Old-Age Unemployment Rates in the Eurozone (Ages 55-64)

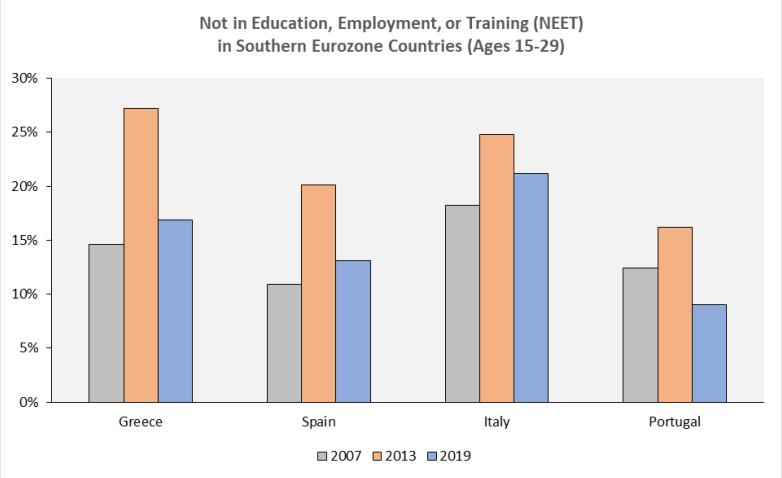
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Austria	4.0	4.0	3.4	2.2	2.7	2.5	3.6	3.4	3.8	3.8	4.7	5.0	4.2	3.9	3.4
Belgium	4.4	4.8	4.2	4.4	5.1	4.6	4.0	4.5	5.4	5.4	5.6	5.7	5.9	4.3	4.1
Finland	6.9	6.8	6.3	5.4	6.2	6.5	6.4	6.6	7.0	7.3	8.0	7.5	7.8	6.9	6.6
France	4.6	5.0	4.4	4.0	5.4	5.8	5.7	6.2	7.0	7.5	7.4	7.2	6.6	6.8	6.8
Germany	12.7	12.4	10.3	8.5	8.0	7.6	6.4	5.9	5.7	5.1	4.7	3.9	3.4	2.9	2.7
Greece	3.8	3.7	3.4	3.2	4.6	6.2	8.4	13.5	16.2	17.2	17.5	19.2	18.1	15.3	13.4
Ireland	2.8	2.4	2.5	3.4	6.6	8.8	9.7	10.7	10.8	9.6	7.9	6.5	5.8	4.6	3.6
Italy	3.5	2.9	2.4	3.1	3.4	3.6	3.8	5.3	5.7	5.5	5.5	5.7	5.8	5.7	5.4
Netherlands	4.8	4.8	4.3	3.9	3.7	4.4	4.7	5.3	6.8	7.7	8.1	7.2	5.5	4.5	3.2
Portugal	6.1	6.3	6.5	6.6	7.6	8.9	10.8	12.7	13.7	13.5	12.5	11.0	8.5	6.5	6.2
Spain	6.3	5.8	6.0	7.4	12.1	14.2	15.1	18.0	20.0	20.0	18.6	17.0	15.3	13.8	12.6

Table 3. Youth Workers on Temporary Contracts in the Eurozone

	1999	2007	2015
Germany	53.1	57.4	53.6
Ireland	12.2	22.7	33.1
Greece	29.5	26.5	33.3
Spain	70.3	62.7	70.4
France	54.4	53.6	58.0
Italy	26.2	42.2	57.1
Netherlands	33.3	45.8	53.3
Austria	32.6	34.8	35.8
Portugal	39.9	53.1	67.5
Finland	52.1	42.4	41.8

Labor market precarity for younger workers is often justified by the perceived relative number of options available for youth compared to older workers during economic downturns. Training, further education, and higher job mobility all represent potential opportunities for younger workers who thus should preserve their future opportunities against poor initial macroeconomic contexts. While this was largely reflective of the North's situation during the euro crisis, the South saw NEET rates ("Not in Employment, Education or Training") rise substantially, while all except Portugal have maintained elevated levels compared to the pre-crisis period (Figure 2).

Figure 2. NEET Rates in Southern Eurozone Countries



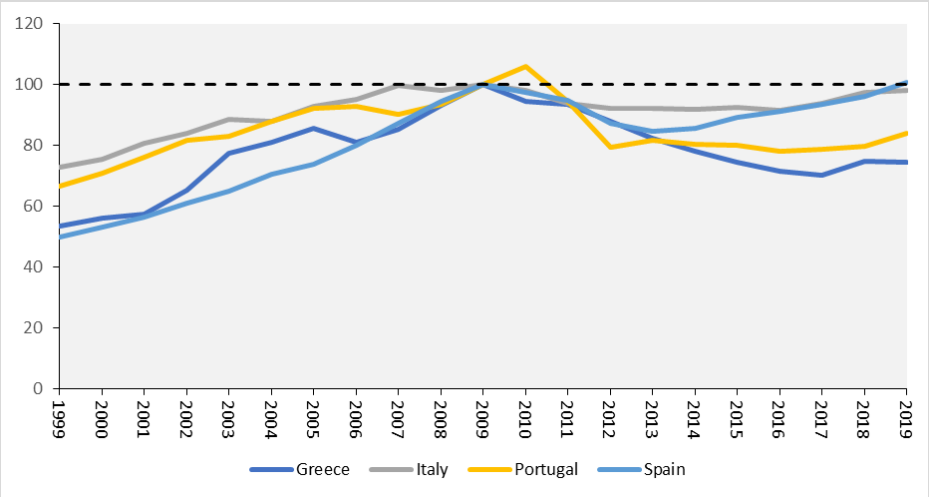
Long-term youth unemployment rates, a category which should be less prone to long-term displacement due to higher mobility, also rose and remained high throughout the post-crisis period. In Spain, the proportion of unemployed youth considered long-term unemployed (12 months or longer) went from 12.7 percent in 2007 to 38.3 percent in 2013, while in Italy and Greece more than half of all unemployed youth were long-term unemployed. The long-term scarring effects on wages, future opportunities, human capital, and health on young workers displaced during the GFC and euro crisis demonstrate that youth labor market resilience in the face of downturns is far from reality (Ayllon et a. 2022; Strandh et al. 2014; Glatt et al. 2018).

Trends in Generational Fiscal Spending

A useful way to explore intergenerational dynamics in economic policy is identifying relative fiscal spending dedicated towards older and younger population segments. Trends of higher NEET rates and long-term unemployment speak particularly to efforts (or lack thereof) pursued on behalf of young workers by fiscal authorities, particularly as they pertain to education and active labor market policy (ALMP). Using the OECD's Social Expenditure Database, we identify the trends in Southern Eurozone member spending on education and ALMP and show that, while those countries trended upward in education spending in the decade following the euro's introduction, the crisis led to dramatic and sustained decreases in public expenditure on education (Figure 3), while ALMP spending largely trended below pre-crisis levels, though in a much more volatile fashion. This is in direct contrast to countries in the North who were able to maintain growing education expenditure during the euro crisis given their relatively smaller necessity for adjustment in accordance with the Maastricht criteria (Northern figures can be found in Appendix C1). These results are also in direct contrast to old-age pension spending,

which, apart from Greece, saw sustained increases over the euro crisis period in both North and South, pointing to the potential for "elderly bias" in fiscal policy responses to the crisis.

Figure 3. Education Spending in Southern Eurozone Countries



A predictable consequence of Europe's aging societies is a rise in popular electoral demands for "old-age related spending." In particular, because of systematically higher turnout among older voters, their power as a political constituency is reflected in the tilt of welfare state spending (Vanhuysse and Goerres, 2012). Relative fiscal spending can give some indication as to the state's "elderly bias," where, when adjusting for the old-age dependency ratio, we can identify rough estimates of the scale of elderly spending compared to youth and family-centric spending.

Using Vanhuysse (2013) as our guide, we recreate the "Elderly-Bias in Social Spending" (EBiSS) indicator for the eleven Eurozone countries in our analysis. Vanhuysse (2013) focused solely on the 2007-2008 period to draw inferences about intergenerational justice across OECD countries. The EBiSS indicator itself gives an estimation of how elderly centric spending compares to non-elderly centric spending when adjusted for country-specific demographic characteristics. So, for example, an EBiSS score of 5 would indicate that, adjusting for

demographic makeup of the country, the government, with regards to generation-specific spending, spends five times as much per elderly resident as it does per non-elderly one. Since we are interested in the evolution of this indicator over a longer time horizon we calculate the EBiSS over the 1999-2019 period to adequately capture the period from the introduction of the euro and the entirety of the euro-crisis and post-crisis period.

The data to calculate the EBiSS are largely derived from detailed country filings of the OECD's Social Expenditure Database and reflect general government expenditures. To calculate the EBiSS, one takes the ratio of explicit elderly-focused social spending of country (x) and time (t) against explicit non-elderly focused social spending of country (x) at time (t) (meant to capture youth, family, and worker-centric policies) and multiplies by the inverse of the old-age dependency ratio to account for demographic composition of each country:

$$EBiSS_{x,t} = (Elderly\ Spending_{x,t})/(Nonelderly\ Spending_{x,t}) * (1/Old\text{-}Age\ Dependency\ Ratio_{x,t})$$

For the elderly component of EBiSS, the sum of the following categories is in the **numerator**:

1. Old-age related in cash benefits (pensions, early-retirement, other cash benefits) and in-kind benefits (home-help services, residential care, etc.)
2. Survivors benefits in cash and in-kind
3. Disability pensions
4. Occupational injury and disease-related pensions
5. Early retirement for labor market reasons

For the young/family-oriented spending component of EBiSS, the sum of the following categories makes up the **denominator**:

1. Family in-cash and in-kind benefits (family allowances, maternity and parental leave, daycare, and home-help services, etc.)
2. Active labor market programs (ALMP) (employment services, labor market training, subsidized employment, etc.)
3. Income maintenance and cash benefits

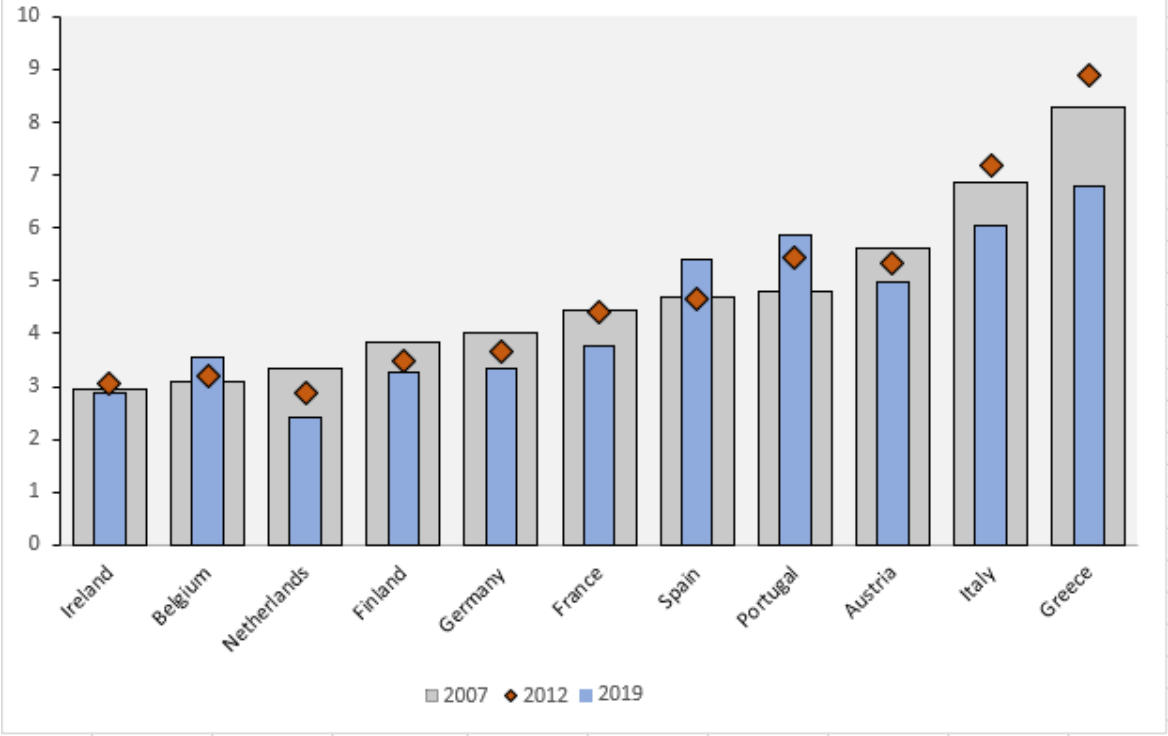
4. Unemployment compensation and severance pay cash benefits
5. Education spending from early childhood through tertiary education (obtained from Eurostat COFOG)

It is important to note that EBiSS does not include health-related government expenditures since OECD data does not isolate the proportion of spending attributed to older and younger population segments. This issue cuts in two different directions. It first may result in an underestimation of EBiSS values, given that a large portion of public healthcare spending in developed economies occurs within older age segments, indicating that spending may be even more geared, per person, towards elderly priorities. However, in the context of austerity measures, public health expenditures saw substantial declines over the crisis period. For example, between 2010 and 2017, real public expenditure on health care fell between 6 percent (Portugal) and 35 percent (Greece) in Southern European economies (Regini et al., 2021). By contrast, over the same period this spending grew 8 percent across the EU-15, indicating that real health expenditure trends diverged between Northern and Southern Eurozone members. In the context of the crisis, the omission of health-related spending may therefore fail to capture a meaningful means of adjustment.

While Vanhuysse (2013) focused solely on the 2007-2008 period to draw inferences about intergenerational justice across OECD countries, we adapt his method over a longer time horizon to detail the evolution of generational dynamics in social policy spending in the Eurozone and parse out the separate effects attributable to elderly and non-elderly centric spending, as well as general changes in demographics. Our initial analysis of the EBiSS reveals some important baseline trends. Of the eleven countries analyzed, from 1999 to 2010 (see figures 4 and 5), six countries had declining EBiSS ratios (Austria, Belgium, Germany, Italy,

Netherlands, Spain) while five showed slight increases in their EBiSS ratios (Finland, France, Greece, Ireland, Portugal). If demographic adjustment is removed, the raw spending ratio only decreased in three countries (Germany, Netherlands, Spain), indicating that decreasing EBiSS ratios in the pre-crisis period may be more related to demographic changes (societies getting older) than active and discretionary spending and budgetary reorientation (e.g., reduction in elderly spending or increases in non-elderly spending). No clear distinction exists in trends between Northern and Southern European countries during the pre-crisis period; while some Southern economies have markedly higher EBiSS ratios, Northern countries (e.g., Austria) are universally lower.

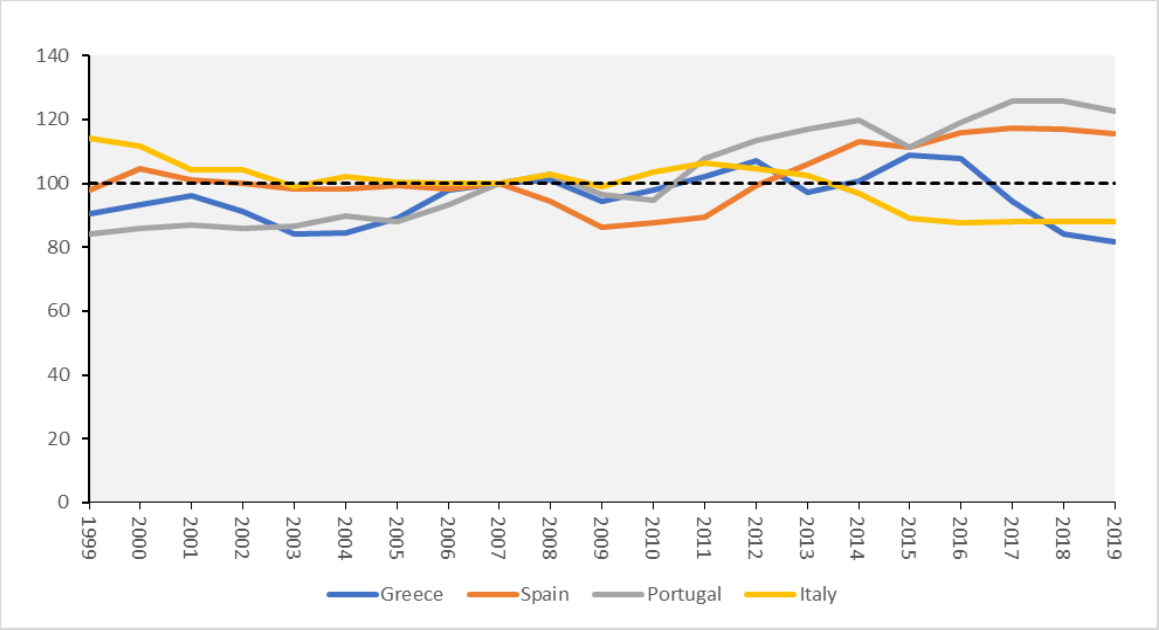
Figure 4. EBiSS Scores in Eurozone Countries



In terms of demographics, all countries in our analysis have declining dependency ratios over the 1999-2019 period, indicating that there are fewer non-elderly workers supporting each elderly

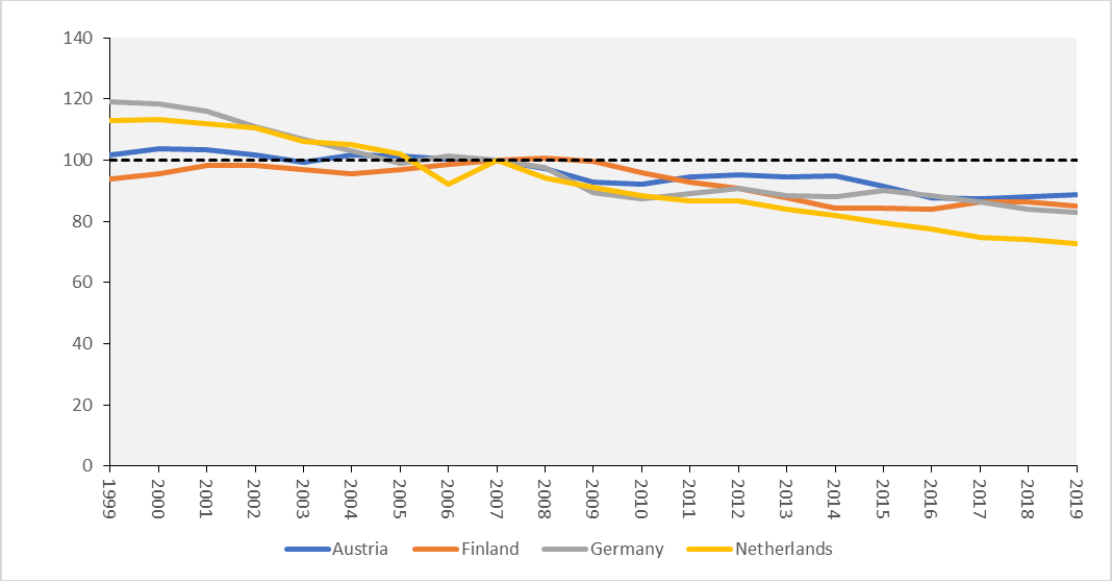
person in these economies. Ceteris paribus, this should lead to a reduction in EBiSS scores across European economies if nominal spending figures are maintained. As we will see, this is largely the dynamic experienced in Northern European countries before, during, and after the Eurozone crisis. Meanwhile, an increase in EBiSS during a period of lower dependency ratios indicates an active budget orientation towards elderly (or away from non-elderly) spending priorities. During the euro crisis, all Southern countries experienced an uptick in EBiSS from 2010-2012 as fears over sovereign defaults spread throughout the Eurozone. By 2015, only Italy (which managed to avoid a bailout package) had managed to fall below pre-2010 levels, as Greece, Portugal, and Spain had EBiSS ratios between 15.5 and 29.4 percent above their pre-2010 level. While Greece's EBiSS fell over the next several years due to prolonged recession and austere conditionality measures that saw severe cuts to public pensions, Portugal and Spain have never regained footing, sitting at 26.9 and 34.1 percent above pre-2010 levels as of 2019.

Figure 5. EBiSS Trends in Southern Eurozone Countries (Index, 2007 = 100)



The Southern Eurozone member results occur despite falling old-age dependency ratios, indicating that the rise in EBiSS is driven by the ratio of relative elderly spending. Pensions in nominal terms saw sustained growth throughout the crisis, while cuts occurred across all Southern economies in education, active labor market policies, and unemployment benefits.

Figure 6. EBiSS Trends in Northern Eurozone Countries (Index, 2007 = 100)



The story is very different in the North. Apart from Belgium, all Northern Eurozone members were below pre-2010 levels by 2015, with most having EBiSS ratios reflecting 10-15 percent reductions from 2009. Most never exceeded two percent of their pre-2010 level over the entire five-year period (exceptions are Austria in 2012 and Belgium in 2015), and as of 2019 Northern countries have continued their downward trend. The composition of this downward trend varies across countries but is largely reflective of declining old-age dependency ratios while largely maintaining a balance across major elderly and non-elderly spending categories. For example, the ratio unadjusted for demographic characteristics in Germany grew slightly by four percent from 2010-2019, yet the EBiSS fell by roughly eight percent. Other Northern countries largely saw a similar dynamic. The countries that avoided the brunt of any EU-imposed austerity during

the Eurozone crisis were able to maintain their previous generational division of spending priorities compared to the baseline period.[2]

Out of a total of 231 country-year observations, old-age pension spending fell in a mere ten of those country-year observations. Six of those country-year observations belong to Greece during the euro crisis and its draconian bailout measures. Furthermore, all ten country-year observations belong to Southern Eurozone members (Ireland included, which had a cut in 2013) who had varying degrees of bailout packages. Cuts in old-age pensions, furthermore, were only greater than 5 percent year-over-year in Greece in 2013 at the height of austerity; only two other cuts exceeded a decline of 2 percent year-over-year. However, when one looks at the 231 total country-year observations for education spending, 36 country-year observations have year-over-year declines: 21 of those observations with reductions greater than 2 percent, and nine observations with declines greater than 5 percent. 27 country-year observations with education spending declines occurred during the euro crisis, with 23 of those happening in Southern Eurozone members. Family-centric spending policies suffer similar discretionary cuts. 33 country-year observations see cuts in family-centered spending, with 25 of those observations exhibiting declines of more than 2 percent year-over-year, and nearly half exhibiting 5 percent year-over-year declines. 25 country-year observations occurred during and after the euro crisis, with 75 percent of those observations attributable to Southern Eurozone countries and Ireland. These countries also represent 10 of the 13 observations that had discretionary cuts of more than 5 percent year-over-year.

[2] While declining values on the EBiSS are generally representative of improving generational fairness in social spending, it is important again to remember the demographic component that filters into that analysis. When that demographic component is removed, the raw spending numbers for individual categories showcase some important differences in the structure and growth of elderly and non-elderly spending.

4. Theory: Growth Models and Generational Dynamics

To better understand the aftermath of the Eurozone crisis and the diverging generational results between North and South, we apply a growth model framework to showcase the different socio-economic logics based on their primary growth components. Rather than seeing welfare state and labor market institutions from the supply side, we can identify them as determined by the overarching logic of pursuing either consumption (internal demand) or export-led (external demand) growth. How a country chooses to grow ultimately structures what roles and prospects older and younger generations have in improving their standards of living. For example, an export-led economy may have robust public investment in higher education and vocational training, knowing that young people will ultimately assume employment in the high-skill exporting sectors upon which growth predominantly relies. In domestic demand-driven economies, public investment in education could be lower and focus more on general and transferable skills, assuming many young people will eventually land jobs in the public or more sheltered service sectors of the economy.

Chevalier (2020) shows the variation in supply-side institutional provision to structure "youth welfare citizenship regimes" that affixes the state's view of younger generations. That said, the state's organization of youth within a broader socio-economic context is unidirectional and therefore only partially captures the dynamics of generation-state interactions. It is equally important to find out how youth perceive their own opportunities within the context of a given growth model (e.g., what they can feasibly achieve and what they must contribute), largely because youth are not necessarily compelled to fulfill their state-given role.

In this context, we suggest conceptualizing national growth models as representing distinct "generational social contracts," with clear promises for cohorts coming of age within the economy. Prior research on generational welfare contracts emphasizes that sustainable welfare state regimes require generational cooperation predicated on the extent of burden-sharing for social provisions as well as the presence of accessible, evenly shared protection against all age-related social risks, regardless of when they appear on an individual's life cycle (Birnbaum et. al, 2017, 39). In the growth model context, this argument can be modified to emphasize that the sustainability of a growth model will ultimately require an intergenerational welfare contract that emphasizes both a perceived sharing of burdens associated with sustaining growth *and* beliefs that their benefits within the system will be protected. The national growth model and its subsequent welfare state institutions not only structure the paths of youth transition, but also codify norms that youth expect to persist over their life cycle (Blyth and Matthijs, 2017).

What different growth models promise generational cohorts is largely reflective of the state's needs to foster continued internal or external demand. In export-led economies, the state's overall imperative is to maintain a highly skilled and internationally competitive workforce capable of promoting exports. Youth coming of age in such a system could expect, for example, access to vocational training or higher education and higher probabilities of stable employment guarantees if they operate within the growth model itself. They may also be promised certain future benefits (e.g., promises of benefits and pensions) and bargaining representation in exchange for suppressed wages and stable prices that keep exports competitive.

Private consumption-led growth models, by contrast, seek to maximize domestic consumption through credit access, while protecting both the financial sector and housing-generated wealth. The welfare state in these systems is more austere and selective. Weaker

welfare provisions – largely from an inability to tax the higher incomes due to their influential role in the dominant growth coalition – are combined with weaker labor market or wage protections, thereby reducing the ability of non-financial workers to maintain consumption levels without turning to credit (Lynch and Watson, 2022; Hassel and Palier, 2020). This strategy increasingly marketizes public investments such as higher education and vocational training as welfare states become inclined towards loan provision, in line with credit access priorities, over grants and other public funding generally associated with promoting a productive workforce. In such systems (e.g. Spain), the opportunities for youth are structured around high barriers to entry into the standard labor market, as well as a greater responsibility in fostering their own skillsets through individualized paths in education and training. The prioritization of access to cheap credit in theory offers a guarantee to young people that they will be able to sustain consumption in line with the increasing standard of living experienced by labor market insiders. Youth are, through credit access, offered prospects of housing autonomy, which particularly in financialized systems offers an insurance mechanism against income loss (Ansell 2014).

The Eurozone from the late 1990s until the early 2010s was composed of roughly mutually reinforcing and mostly complementary variants on these growth model templates. Northern countries embodied variations on export-led strategies while Southern countries embraced debt-fueled domestic demand-led growth models. This diversity was both a structural result of the Eurozone and an actively encouraged development by European officials (Johnston and Matthijs, 2022). Adoption of a single currency made export competitiveness a function of real exchange rates which themselves were determined by a country's relative ability vis-à-vis other Eurozone members to moderate inflation (Johnston and Regan, 2016; Johnston, 2016). This provided export-led growth models with a structural advantage in export competitiveness

over higher inflation Southern demand-led economies. Meanwhile, the creation of a common financial space, lower nominal interest rates, and reforms surrounding the Stability and Growth Pact that allowed greater fiscal discretion all facilitated Southern demand expansion through debt accumulation (Jones, 2015; Heipertz and Verdun, 2010; Matthijs and Blyth, 2018; Brooks et al., 2015). Furthermore, low spreads between sovereign bonds due to peer effects of low inflationary countries made borrowing within the Eurozone considerably cheaper than accessing foreign capital (Jones, 2015; Matthijs and Johnston, 2022). Access to cheap credit drove demand-led economies to relax rules into sectors where capital was most lucrative (like housing and construction), which created unsustainable real estate bonanzas (Fuller 2018).

As the Global Financial Crisis (GFC) set in, investors questioned the sustainability of Southern debts and sudden stops ripped away the capital inflows that drove their growth over the past decade (Jones, 2015). With Northern countries as the South's creditors, bailout conditions became an exercise in re-emphasizing what constitutes "correct" macroeconomic policy centered on debt sustainability, correcting current account imbalances, and other policies reminiscent of the Northern export-led growth strategy. Quickly framed as a morality tale between "Northern Saints" and "Southern Sinners," the North attempted forced convergence in growth models on Southern countries (Matthijs and McNamara, 2015). This supranational export-led growth model came through large austerity-based conditions that cut public and social programs in return for access to low-interest EFSF (and later ESM) loans (Glassner, 2010; Matthijs and Johnston, 2022). Six-pack and Two-pack macroeconomic governance regimes implemented rigid penalties for violating export-led growth strategies of fiscal conservatism and minimal debt dependence (Matthijs, 2017; Matthijs and Blyth 2018). As a result of the push towards a supranational

export-led growth model, Eurozone officials imposed harsh fiscal and structural adjustments on Southern European countries.

During the eurozone crisis (2010-15), youth in both North and South found themselves in increasingly precarious positions. Particularly in the South, youth unemployment rates rose as economic contraction, reduced public spending, and welfare state retrenchment were forced upon debtor countries. While contagion affected Northern European countries' economies, their surplus position, years of wage moderation, and minimal adjustment needed in terms of austerity policies gave them the fiscal space to implement active labor market policies to largely shield youth from the economic fallout. In contrast, youth in Southern European economies not only faced extreme increases in unemployment, but also lost the means, due to the sudden stop of credit and welfare retrenchment from austerity measures, to maintain their living standards. Many young Southern Europeans, without recourse to employment or credit to maintain their financial independence, were forced to move back in with parents and other family members, a decision encouraged by the view that intergenerational inequality outcomes harming youth could be remedied through co-residence until markets re-equilibrated (Calzada and del Pino, 2016).

In contrast, welfare state retrenchment did little to touch older generations in Southern economies. During the period, old-age pensions increased while public expenditures on education and active labor market policies (ALMP) dropped precipitously. Old-age pensions were protected on grounds of a combination of constitutional provisions (as in Spain), perceived legitimacy of pensioner entitlement, legal rulings (as in Portugal), strong support from trade unions (Italy and Spain), and more narrow political risk calculations by traditional center-left and center-right parties (Mari-Klose, 2012; Mari-Klose and Moreno-Fuentes 2021). Older workers

were also favored through employment protection legislation biased towards protecting insiders in standard employment.

The Eurozone crisis hence represents a distinct break in the intergenerational welfare contract continuity of Europe's diverse growth models. The imposition of export-led policy adjustments in domestic spending growth models was in direct political tension with the logic of social relations between generations in Southern European economies. In Northern European countries, while youth undoubtedly suffered from higher unemployment and greater financial precarity (especially the lower skilled), the government acted through labor market policies that largely preserved its promises of training and employment opportunities for youth implicit in export-led growth models. In Southern Europe, the intergenerational welfare contract was decisively broken. Youth lost the means of obtaining employment and preserving their living standards through, primarily, the sudden stop in access to credit and subsequent austerity policies that slashed youth-centric social spending. Meanwhile, older workers remained either largely employed with benefits intact, while retirees saw their pension spending maintained and, in some cases, increased (Greece being the exception). The crisis made it clear to Southern European youth that, under economic distress, they would bear the brunt of adjustment while the government would emphasize preserving older generations' welfare advantages.

Table 4. Generational Crisis Matrix

	Young	**Old**
North	↑ (impact mitigated by labor market & education spending)	↑↑ (generous pensions allowed to continue)
South	↓ (austerity & structural reform hit young; contract broken)	↑ (retirement benefits mostly protected)

Source: Authors.

5. Country Cases

A deeper dive into country-specific cases can shed even further light on the nature of cuts as they pertained to the policy environment under austerity. The experiences of the four Southern European countries differ in important ways. First, with regards to outright cuts in social policy, youth-centric policies were always deemed discretionary compared to elderly-centric policies. While this is not to say that no efforts occurred to reduce pensions, political and legal realities surrounding outright pension cuts prevented the same rigor of cuts experienced in education, family, and ALMP spending. The purpose here is to not highlight the elderly as outright beneficiaries of crisis policies in all cases; workarounds to pension scheme reform were numerous, including changes to indexation, taxation of pension income, etc. What each case does however show very clearly is the relatively protected status of elderly spending programs vis-à-vis non-elderly spending.

The (Base) Case from the North: Germany

The intergenerational social contract was always well-defined in Germany. Young people are well groomed and prepared for employment in the export sector. They are given benefits more reminiscent of labor market insiders, contingent upon their completion of Vocational Education and Training (VET). Wages would be moderated in line with the export strategy, but policies would be created to ensure that German wages are commensurate with an acceptable standard of living. Some of these policies include the creation of cheap and flexible service sectors to make domestic services relatively affordable (Avlijas et al., 2020). Employers and employee representatives tolerated the emergence of atypical forms of employment in the dualized service sector to keep the export sector flourishing (Palier and Thelen, 2010). Youth who did not pursue

employment in the export sector became exposed to the increasing precarity of service sector employment, while those following the proposed contract of VET to export-sector employment would be protected. Other objectives such as homeownership would be difficult to achieve with wage moderation and an emphasis on low inflation that depressed demand for mortgages.

The German government largely solidified this arrangement for youth during the early 2000s. The SPD-led government of Chancellor Gerhard Schröder pursued the Hartz reforms – labor market reform aimed at placing people in employment at all costs. At the same time, transitions towards a knowledge economy, particularly in the advanced manufacturing sector, fostered advances in higher education alongside traditional VET measures (Durazzi and Benassi, 2020; Thelen and Busemeyer, 2012). Export sector wage-coordination institutions remained strong despite declining unions, and youth being shaped for the export economy were integrated better into the protection of unions than their Southern European counterparts (Scharpf, 2018).

As the GFC and euro crisis hit, it became clear that Germany would not suffer in the same way as other economies. A structurally favorable position regarding debt and a current account surplus from their export-led growth strategy precluded the austere reforms imposed on Southern European economies (Jacoby, 2015; Heuer and Mau, 2017). With the space to respond, Germany implemented several Keynesian spending measures, including investing in jobs and infrastructure, providing new tax measures and tax relief, etc. In the labor market, Germany resisted policies aimed at reductions in non-wage labor costs (usually inimical to benefits) and instead focused on short time working schemes (or *Kurzarbeit*) (Vis et al., 2011; Vail, 2017). German Kurzarbeit – a reduction in work hours to reduce unemployment, paid to keep employees on payroll – during the GFC and early euro crisis were a novel example in the defense of youth's position in the intergenerational social contract. Kurzarbeit expansion was

demanded by export sectors concerned they would have to lay off their skilled employees; its enactment consisted of a typical 'corporatist' tripartite agreement with government, unions at the firm level, which monitored and enforced the workplace regime in businesses, and social partner organizations, who disseminated the message of the program (Weishaupt, 2021).

Furthermore, German spending was largely generationally balanced throughout the euro crisis. Youth-centric policies from our EBiSS calculations increased 16.6 percent over the 2010-2015 period, while old-aged spending increased 13.4 percent. Education spending, the hallmark of export-led growth strategies, increased a whopping 35.2 percent over the period. While ALMP and unemployment compensation decreased over the same period, these decreases were largely a winding down of generous support policies made available during the GFC. Germany was focused on targeting the labor market, while countries like Spain, as we will see next, were fixing the labor market as a solution to macroeconomic stability goals imposed by the Troika (Smith et al., 2018). Germany's export-led growth model and subsequent strategies spared youth from the material economic hardships experienced in Southern countries.

Spain: Pre-Crisis Trends Reversed

Spain offers the most obvious example of a generational tilt towards the elderly in responding to the Eurozone crisis. Spain's fiscal position compared to other Southern European economies was relatively sound at the onset of the Global Financial Crisis. The national demand-driven growth model in Spain, rather than government-financed, largely came from private borrowing by both households and the private sector that enabled the financing of a construction boom. The role of cheap access to credit, enabled by Eurozone membership, is omnipresent in explaining Spanish banking sector fragility from the GFC through the euro crisis (Baccaro and Bulfone 2022).

However, credit access, even more so after the adoption of the euro, made up a significant part of Spain's intergenerational welfare contract, whereby younger generations, bereft of generous social policy mechanisms, could forge an individualized path, through credit, to improve their standard of living. Once that credit dried up over fears regarding the banking sector and the government's rapid increase in public debt to bail it out, youth found themselves without the mechanisms implicit in domestic demand-led economies to maintain their standards of living.

Monetary union also forced an upward appreciation in real exchange rates, forcing a country seeking to maintain economy-wide competitiveness to pursue one of two strategies: upskilling to increase long-term productivity or labor market flexibilization to reduce labor costs. Spain chose the latter, mainly through the high use of temporary contracts, which in 2007 represented between 33 and 50 percent of employees, and a massive two-thirds of young people (Dolado, Felgueroso, and Jimeno, 2021; Etxezarreta et al., 2012; Editorial, 2013). Temporary work allowed employers to spend less on benefits and training to keep prices competitive at the expense of higher labor market precarity (Bentolila et al., 2020).

Austerity implemented as a condition of its 2012 bank bailout, given the already shaky foundations of youth labor markets and social policy spending, hit young people very hard. By 2015, nominal education and family spending were 8 and 12 percent below 2010 levels, while ALMP and unemployment compensation spending were 32 and 35 percent below 2010 levels. Temporary contracts, which represented more than half of all youth employment, were first to be cut during the crisis, sending youth unemployment to a peak of 54.8 percent in 2012 with youth poverty rates soaring towards 30 percent.

Housing autonomy, an implicit promise of debt-led economies, became non-viable, as more than 7 in 10 young Spaniards, by 2012, were living with their parents or other family

members, which, while providing shelter, eroded a key means of income security for younger Spaniards (Bruton 2013; Flynn and Schwartz 2017). The Rajoy administration's 2012 education cuts also included increases in tuition of up to 25 percent, limiting opportunities for young unemployed Spaniards to upskill during the recession (BBC 2012), while the 2012 reform RD Ley 3/2012 considerably relaxed dismissal legislation, repealed employment-promotion contracts heavily used by youth, and decentralized firm bargaining (Picot and Tassinari, 2017).

Elderly spending, particularly on pensions, in contrast, saw a 21 percent increase between 2010 and 2015. Elderly poverty dropped from 15.8 percent in 2008 to a mere 5.3 percent in 2016 (Guillien and Begega 2019). Attempts at pension reform, including Rajoy's 2013 plan to introduce revaluation and sustainability factors to pensions, were staunchly opposed by Spanish trade unions and the PSOE, eventually leading to the reform's termination in 2017 when nationwide strikes occurred over the potential for real-pension losses when nominal increases fell slightly below inflation (Mari-Klose and Moreno-Fuentes 2021). Reforms on contribution and retirement, such as the 2011 reform, are being gradually implemented through 2026, implying a lower burden for current pensioners (Regini et al. 2021). By contrast, cuts to the social and labor market pillars of social policy saw immediate and severe budgetary cuts. Those aged 64 and over were the only group during 2011-2014 to experience income gains (11.3 percent), while young incomes plummeted by an average of 22.5 percent (Maqueda 2018).

Portugal: Pre-Crisis Trends Extended

Portugal represents a case where elderly-tilted fiscal policy was already a drag on the economy before the GFC and euro crisis hit. Tax hikes over the early 2000s occurred on labor income and consumption, largely to finance pensions as a means to reduce old-age poverty. An increase in

the average retirement age over the early 2000s indicated that this increase in pension spending was not simply to accommodate more retirees, but rather to increase the generosity of Portuguese pensions (Reis 2013).

As a result, though structural pension reform did not fall directly under the terms of the MoU, the Portuguese government sought measures to reduce pension spending in order to exit its bailout on time. While some reforms showed moderate success, such as increasing the solidarity levy on pensions from 25 to 50 percent for the highest pensions, cuts remained largely off the table. Pensions grew 11.7 percent in nominal terms from 2010-2015, though this largely occurred for minimum non-contributory pensions, with pension freezes occurring for higher earners.

Attempts to cut pensions ran up against the Portuguese Constitutional Court, which struck down various provisions of austerity packages during the crisis. The most prominent involved an attempt to cut Christmas and summer pension payments in 2012, which would have resulted in a 14.3 percent reduction in pension spending. The Constitutional Court declared the budgetary provision unconstitutional, forcing the government to force through tax hikes that would fall on both pensioners and non-pensioners (Pedroso 2014). Public employment cuts, largely due to the protected nature of older workers within the public sector, were largely done by cutting temporary contracts disproportionately utilized to hire younger workers.

Early efforts during the MoU represented a dual strategy of liberalization and recalibration, which sought to install flexible labor markets while attempting to structurally reform inequities in employment protections and ALMP for younger workers. These initial attempts, in the face of constitutional vetoes and strains on the austerity coalition, led to much of the former without the latter (Branco and Cardoso 2020). Unemployment for young Portuguese reached over 35 percent in the first quarter of 2013.

Social pending priorities of younger workers and families bore a significantly greater burden during austerity (Minder 2013). Family allowances were subject to harsher means-testing and shrinking income brackets, pushing nearly 500,000 recipients off allowances from 2010 to 2014 as expenditure shrank by 30 percent (Silva and Pereira 2017). Education spending dropped by 25 percent between 2010 and 2015 to levels not seen since 2001 (as of 2019, that spending was still 20.7 percent below 2010 levels).

Italy and Greece: Technocratic Cuts and Treating Symptoms

Italy and Greece each represent a slightly different case of growth model, where neither private consumption nor exports reigns as the primary driver of growth. Instead, these models were largely driven by public consumption, which explains their heavy public debt burdens. These countries also faced different generational spending episodes, with either stagnation (Italy) or cutting youth spending disproportionately compared to elderly spending (Greece) driving up EBiSS values through 2015 until new family-centered policies helped slightly lower the elderly bias in social spending.

For Italy, the technocratic nature of the Monti government reduced pressure to pursue generationally imbalanced spending cuts, while in Greece, the MoU and strict conditionality imposed by the Troika forced cuts against the public sector and its overly generous pensions, but such cuts accompanied massive reduction in education and ALMP. Both countries represented the highest EBiSS in the Eurozone prior to the crisis, with values of 7.82 for Greece and 6.79 for Italy, respectively, in 2009. The decreases in EBiSS, particularly those experienced after 2015, have been concentrated in family-centric policies as they aimed to reverse the demographic issues that resulted from young, high-skilled immigration out of the country during the crisis.

Italy represents the only case where no bailout occurred and thus the country was not bound by the MoUs other Southern European economies faced. This is not to say Italy faced no pressure to reform, as the ECB under both Trichet and Draghi were frequently writing to and setting deadlines for Berlusconi and Monti to adopt legislation aimed at fiscal reform (Dinmore and Atkins 2011; Matthijs, 2017). Italy's fiscal reorientation largely occurred on the taxation side under Monti's technocratic government, which increased income and VAT rates. When cuts did occur, as they did in 2012, they were largely symmetrical across generations. Italian pension spending, while at a more modest pace than its Iberian counterparts, grew 7.2 percent from 2010 to 2015. Education spending was cut over the same period by 5.5 percent.

Other non-elderly spending categories, particularly in 2014-2015, saw massive increases in spending such as ALMP (largely employment incentives) and income maintenance through the passage of the Jobs Act (OECD 2015). However, these spending categories have regressed in recent years, only slightly compensated by an uptick in education spending. In addition, other elements of the Jobs Act fostered increased flexibilization in contracts and severance pay in exchange for employment opportunities now, a trend that only worsened the precarity that young Italians face in labor markets. While efforts to increase the length of severance have since increased, the requirement of two years of contributory service continues to disadvantage young workers who find themselves on temporary contracts, which increased relative to open-ended contracts after the Jobs Act passage (Cirillo et al. 2016). Italy largely maintained family-centric spending at pace with pension spending increases during the crisis, as Renzi's government doubled the 'baby bonus' in 2016 and increased allowances for second and third children born to long-term Italian residents.

Greece, faced with the strictest conditionality measures during the Eurozone crisis, represents a case where austerity ran the generational gamut. However, the cuts, while visible among elderly-centric spending in the form of pension reductions in the public sector, were overwhelmingly tilted towards youth-centric policies, leading to a dramatic rise in EBiSS during the first five years of the crisis. From 2010 to 2015, education and ALMP spending fell by 21 and 23.9 percent respectively, while pension spending fell about 3 percent. The EBiSS indicator rose from 8.14 to 9.04 by 2015, only beginning to rapidly shrink after the imposition of the 2015 MoU required to secure its third bailout package. The reduction in EBiSS to 6.78 by 2019 has largely been a factor of rapid increases in family-centered spending provisions, which increased 42.9 percent from 2015-2019. Greece has continued to attempt to solve the demographic problem through baby bonuses, promising a lump sum 2,000 euro benefit to children born after January 1, 2020 (Kokkinidis 2020).

With regards to the labor market, Greece was forced to pursue significant flexibilization, increasing the use and maximum duration of temporary and fixed-term contracts, installing longer probationary periods, and reducing the length and scope of collective bargaining agreements (ETUI 2017). In the context of youth specifically, a sub-minimum wage law passed in 2012 reduced youth minimum wage (those under 25) by an extra 10 percentage points below the minimum wage required for those older than 25, representing the most flagrant example of policy biased against young workers (Monastiriotis 2022).

While both countries are tackling the demographic crisis from the bottom-up through generous family provisions, one can question the wisdom of these policies as to whether they are tackling the core issues of creating an environment for demographic and intergenerational fiscal sustainability. The efforts resemble skip-a-generation logic, choosing to write off the experiences

of the generation that came of age during the euro crisis and try to reforge a sustainability through provisions for the next generation. The neglect of youth labor market opportunities remains a core issue that, without fixing, will likely fail to address the demographic crisis or the fiscal sustainability of the pension system as young workers either migrate or remain poor (Lynch and Watson 2022).

6. Conclusion: Thinking about Next Generation EU

In this paper, we have tried to show that growth models impose distinct intergenerational relationships. Using youth as our main unit (or group) of analysis, we argued that national growth strategies structure not only what the state provides youth in their transition to adulthood, but also what youth come to expect. The Eurozone crisis created variation in the stability of these intergenerational social contracts. Southern European youth considered the contract broken as their opportunities dried up while living standards improved or were maintained for the elderly. This betrayal of youth expectations under a broken demand-led growth model possibly drove greater involvement in anti-system political parties by the young to upend the austerity packages that destroyed their economic opportunities. In the North, the full-throated defense of the export-led growth model coincided with strategies that protected employment prospects for youth that strengthened the traditional intergenerational social contract. However, too narrow a focus on employment opportunities strained the social contract as youth observed a reticence to spend towards the future, likely driving them to increasingly abandon establishment parties for more visionary radical-centrist parties.

A better understanding of generational dynamics in diverging growth models across the Eurozone offers several important avenues for future research. The break in intergenerational

social contracts embedded in growth models in the South offer a critical point of frustration for younger Europeans, as is reflected in public opinion surveys. Lauterbach and De Vries 2021, using ESS survey data, find evidence that support for European institutions is lower post-crisis for youth in the South compared to the North, while the opposite is true for older cohorts. Given that Southern Europe has largely been the impetus of popular support for future European integration over the past few decades, this relative shift in support towards the EU from upcoming generations carries implications for how integration will evolve.

Youth experiences within their country-specific generational social contracts also carry implications for domestic politics, namely the trend of hollowing support for traditional centrist parties in European politics. Youth have become an increasingly important and active voting bloc in the latest European elections, and their move from traditional parties towards more unconventional and sometimes fringe elements within domestic political systems has raised concern among politicians. As mentioned earlier in this paper, nearly 39 percent of the 18-24 age group voted for Marine Le Pen in 2022, while Green and FDP in Germany ran away with the youth vote, and the PSOE in Spain was required to coalition for the first time in its history with Podemos, largely backed by the young Indignados (Rodon 2020; Tower and Gelix 2022; Pancevski 2021), Movements towards radical centrist parties and anti-system parties in Europe need to be embedded into the context of generational differences in orientations towards establishment parties (Hopkin 2020).

More analysis also needs to occur surrounding generational solidarity dynamics to better understand how to achieve generationally sustainable political and economic policies. To the extent that youth are directing their frustration at crisis-era policies towards more radical political stances, it is important to know whether that frustration is sourced from attitudes of older

generations as pursuing intra-generational interests at the expense of younger generations, or from the state as failing to provide along the lines of the implicit generational contract underlying a given growth model.

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Appendix A: EBiSS Calculations

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Austria																					
Old-Age	20,920.4	22,176.1	23,118.7	23,952.5	24,951.5	25,847.5	26,811.2	28,225.7	29,474.9	31,230.8	33,085.2	34,486.9	35,667.7	37,516.2	38,995.7	40,721.0	41,858.9	42,973.1	44,063.0	46,058.7	48,265.0
Survivors	4,738.4	4,757.6	4,838.8	4,880.6	4,958.3	5,020.5	5,077.4	5,199.5	5,318.9	5,469.2	5,565.1	5,598.7	5,618.2	5,787.8	5,876.9	5,914.0	6,012.2	6,083.6	6,089.2	6,165.1	6,297.9
Disability	2,078.6	2,102.4	2,243.6	2,406.2	2,596.0	2,915.8	3,153.9	3,332.2	3,483.5	3,603.2	3,697.2	3,815.4	3,999.1	4,058.0	4,091.5	3,982.6	3,749.9	3,618.9	3,531.6	3,455.6	3,388.9
Occupational Injury/Disease	303.0	288.3	294.2	295.1	307.5	317.7	329.3	337.6	343.8	357.9	371.1	375.8	382.6	389.6	400.1	407.3	413.8	414.7	413.0	417.0	418.9
Early Retirement for LM Reasons	243.5	222.6	205.1	198.7	183.0	157.8	148.4	129.0	112.1	109.0	111.8	126.5	120.9	97.9	82.9	72.3	66.8	67.1	52.5	39.2	28.5
Family Spending	5,729.6	6,257.8	6,299.4	6,565.1	6,985.1	7,182.2	7,338.2	7,433.9	7,517.6	7,970.9	8,415.2	8,737.2	8,362.2	8,435.4	8,617.6	8,733.2	9,162.4	9,478.7	9,631.1	9,818.7	9,989.4
ALMP	1,084.7	1,077.5	1,222.6	1,218.6	1,393.9	1,417.7	1,529.7	1,834.6	1,834.8	1,900.5	2,328.1	2,408.0	2,249.6	2,296.9	2,446.5	2,624.9	2,553.6	2,716.7	2,876.9	2,904.2	2,785.4
Income Maintenance	160.4	194.2	200.0	212.5	245.1	314.1	386.9	422.5	448.0	466.2	474.4	574.1	643.6	734.5	818.1	902.6	1,124.9	1,682.7	1,668.9	1,406.5	1,253.2
Unemployment/Severends Pay	1,837.2	1,747.4	1,799.5	2,224.6	2,565.3	2,699.6	2,661.2	2,580.0	2,405.0	2,317.9	2,921.0	2,818.5	2,667.5	2,773.5	3,103.8	3,262.3	3,578.5	3,803.8	3,762.2	3,737.6	3,788.3
Education Spending	10953.4	11118.6	11426.4	11732.2	12181.6	11894.8	12198.7	12849.2	13304	14232.2	14709.3	15132.1	15455.1	15931.4	16269.2	16438.2	16962	17488.9	17862.7	18410.2	19084.8
Dependency Ratio	3.984064	4.016064	3.952569	3.937008	3.937008	3.90625	3.861004	3.787879	3.690037	3.597122	3.508772	3.448276	3.401361	3.367003	3.344482	3.322259	3.278689	3.257467	3.236246	3.19045	3.144654
EBiSS	5.701125	5.818074	5.79275	5.690956	5.55846	5.692669	5.687115	5.613007	5.602924	5.454336	5.209433	5.160616	5.301357	5.339756	5.291106	5.311363	5.117374	4.923363	4.894738	4.936935	4.976686

Belgium	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Old-Age	16,652.3	17,476.6	18,238.5	18,986.1	19,783.3	20,727.9	21,763.7	23,065.3	24,215.5	26,482.7	28,092.2	29,247.1	31,304.1	32,469.2	34,258.0	35,367.7	40,381.4	41,364.6	43,811.7	45,721.6	48,581.4
Survivors	5,314.1	5,356.6	5,548.9	5,712.9	5,849.5	5,954.5	6,119.9	6,260.7	6,407.7	6,960.5	7,186.3	7,271.7	7,465.4	7,477.3	7,566.3	7,524.4	7,557.5	7,515.9	7,580.8	7,617.2	7,672.0
Disability	2,918.4	2,834.4	2,910.1	3,322.4	3,497.2	3,605.4	3,871.6	3,972.7	4,161.1	4,549.5	4,863.0	5,203.5	5,504.5	5,852.9	6,221.3	6,526.9	6,868.8	7,338.8	7,787.1	8,451.9	8,973.0
Occupational Injury/Disease																					
Early Retirement for LM Reasons	1,237.4	1,183.9	1,174.7	1,168.8	1,207.2	1,258.2	1,274.8	1,311.4	1,385.3	1,445.2	1,520.2	1,574.9	1,660.5	1,633.5	1,618.7	1,555.7	1,484.4	1,411.8	1,274.2	1,150.2	894.3
Family Spending	6,491.8	6,327.3	6,791.1	7,120.0	7,482.2	7,749.2	8,018.7	8,408.0	9,078.3	9,410.9	9,862.0	10,281.4	10,769.4	10,834.8	11,173.7	11,525.3	11,572.2	11,895.8	12,211.0	12,538.3	13,250.9
ALMP	2,030.5	2,132.8	2,199.6	2,018.7	2,149.3	1,879.1	2,023.6	2,071.6	2,233.0	2,442.9	2,563.0	2,630.7	2,730.7	2,771.3	2,839.4	2,985.1	2,963.1	3,096.5	3,902.6	4,174.8	4,388.6
Income Maintenance	677.0	1,163.9	1,258.6	1,441.2	1,487.3	1,530.7	1,564.5	1,536.2	1,487.4	1,592.8	1,620.3	1,809.5	1,887.4	1,621.2	1,662.2	1,471.8	1,444.8	1,659.8	1,631.8	1,721.4	1,781.0
Unemployment/Severends Pay	5,882.3	5,878.8	6,155.5	7,049.0	7,887.8	8,380.8	8,718.1	8,999.6	8,973.1	9,408.3	10,878.2	11,233.9	11,507.7	10,928.1	11,079.5	11,397.4	10,610.7	8,832.0	6,848.8	6,720.3	6,080.7
Education Spending	13967.7	14184.6	15003.8	15820.6	16566.4	16709	17646	18294.9	18961.7	20132.8	21070.5	21936.3	23355.9	24158.2	25044.7	25428.9	26282.2	26728.2	27742.7	28570.7	29338.6
Dependency Ratio	3.558719	3.533569	3.496503	3.472222	3.460208	3.448276	3.460208	3.472222	3.496503	3.508772	3.521127	3.496503	3.448276	3.378378	3.30033	3.225806	3.267974	3.158377	3.04878	2.999316	2.949853
EBiSS	3.200136	3.196014	3.102831	3.030087	2.950906	3.000913	3.009961	3.057054	3.104749	3.219024	3.189451	3.161063	3.152058	3.184942	3.164283	3.113783	3.479303	3.48617	3.521604	3.513782	3.556653

Finland	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Old-Age	9,478.2	9,937.0	10,720.6	11,471.9	12,115.7	12,728.7	13,369.2	14,187.6	15,088.6	15,919.8	17,595.2	18,811.6	19,966.7	21,663.4	23,239.5	24,434.7	25,906.8	27,152.9	28,413.4	29,356.2	30,503.4
Survivors	1,194.3	1,223.4	1,285.6	1,333.3	1,359.2	1,390.2	1,414.1	1,450.6	1,491.7	1,533.6	1,605.9	1,667.2	1,640.6	1,688.0	1,748.2	1,747.6	1,737.8	1,735.4	1,779.1	1,778.9	1,792.7
Disability	2,417.5	2,454.0	2,556.1	2,670.3	2,771.3	2,882.9	2,954.7	3,044.9	3,174.2	3,428.3	3,581.7	3,670.8	3,611.9	3,606.1	3,609.7	3,518.6	3,380.9	3,255.1	3,125.8	3,055.9	3,019.3
Occupational Injury/Disease	183.3	173.2	192.0	205.3	220.6	259.7	234.8	235.2	247.5	254.2	274.1	284.7	282.6	299.9	308.2	307.2	307.4	303.2	305.0	320.7	306.5
Early Retirement for LM Reasons	561.9	616.6	676.2	731.7	732.0	722.8	685.1	667.6	674.7	714.0	688.3	527.0	310.5	134.3	19.3	7.2	0.0	0.0	0.0	0.0	0.0
Family Spending	3,971.5	3,997.5	4,076.1	4,156.2	4,266.2	4,478.3	4,668.0	4,848.2	5,082.3	5,403.0	5,676.5	5,836.7	6,086.3	6,379.7	6,534.6	6,545.8	6,523.0	6,532.7	6,482.1	6,700.3	6,931.7
ALMP	1,298.9	1,173.6	1,155.4	1,178.6	1,320.8	1,474.7	1,425.3	1,497.8	1,554.9	1,516.5	1,581.4	1,872.4	1,929.2	1,980.2	2,044.2	2,175.9	2,100.5	2,123.4	2,215.7	2,195.9	2,198.8
Income Maintenance	400.6	395.2	428.5	446.1	451.4	424.0	406.2	419.1	448.1	497.9	579.0	600.3	737.5	817.5	854.2	860.9	862.9	890.3	986.2	992.7	985.4
Unemployment/Severends Pay	2,451.8	2,269.4	2,178.4	2,289.9	2,426.6	2,531.4	2,479.2	2,338.5	2,102.9	1,981.8	2,722.3	3,099.3	2,922.5	3,309.9	3,919.5	4,522.9	4,965.6	4,974.1	4,373.8	3,917.9	3,613.7
Education Spending	7564	7987	8525	9068	9546	9873	10050	10321	10790	11309	11779	12303	12720	12869	13004	13118	13095	13158	12785	12954	13458
Dependency Ratio	4.098361	4.032258	4.016064	3.952569	3.90625	3.846154	3.802281	3.759398	3.717472	3.676471	3.610108	3.508772	3.378378	3.236246	3.076923	2.941176	2.857143	2.754831	2.65252	2.573143	2.493766
EBiSS	3.614605	3.670767	3.787128	3.785094	3.730093	3.682911	3.72818	3.790611	3.847455	3.879166	3.837494	3.693664	3.574582	3.496031	3.376769	3.242798	3.249826	3.229403	3.322546	3.318421	3.2674

France	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Old-Age	146,151.7	151,285.0	157,888.8	161,388.9	168,606.0	178,022.2	187,373.2	194,641.7	207,303.2	218,860.5	229,378.4	238,035.5	248,181.9	257,190.0	265,441.9	271,354.8	276,460.9	281,553.0	286,680.6	294,497.3	301,095.2
Survivors	21,189.0	21,648.4	22,174.9	27,256.8	27,925.2	28,977.2	30,514.6	30,569.0	31,167.3	31,921.1	32,572.8	33,548.1	34,364.5	35,245.8	35,760.3	36,023.1	36,141.7	36,261.4	36,381.3	36,650.9	36,962.3
Disability	10,400.8	10,643.6	11,085.8	11,595.7	12,108.5	12,694.6	13,280.6	16,894.5	17,279.3	17,537.7	17,615.4	18,214.5	19,113.8	20,434.7	20,953.2	21,473.0	21,993.6	22,430.0	23,151.6	23,676.7	24,495.3
Occupational Injury/Disease	691.1	625.8	414.2	648.9	561.2	549.8	562.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Early Retirement for LM Reasons	4,064.4	3,268.7	3,058.1	2,789.0	2,495.2	2,228.5	1,531.0	686.9	632.6	450.3	421.7	365.9	380.5	368.9	332.1	325.9	303.7	283.5	258.6	253.0	263.6
Family Spending	45,802.4	44,443.7	45,055.6	46,301.6	48,476.9	51,174.8	51,816.4	52,646.4	54,777.4	55,917.9	58,113.1	58,315.7	59,025.1	60,789.3	63,060.0	64,156.9	64,368.8	64,524.6	65,647.2	65,888.7	66,119.9
ALMP	16,837.1	17,490.5	17,716.5	17,533.1	17,151.8	16,425.7	15,946.3	16,923.8	17,631.0	16,149.9	18,539.7	21,277.3	18,388.1	17,981.4	18,532.7	20,172.0	20,719.7	23,869.6	20,933.6	18,034.9	17,478.1
Income Maintenance	4,584.6	4,600.3	4,589.9	4,892.3	5,368.0	5,715.4	6,118.7	6,118.2	6,103.1	6,041.9	7,821.0	9,141.7	9,779.5	10,235.3	11,034.4	12,050.8	12,779.4	15,707.0	16,597.1	17,194.9	21,358.2
Unemployment/Severends Pay	17,720.5	17,731.7	18,776.5	23,286.4	27,136.4	28,306.0	28,054.5	25,655.3	24,500.8	24,302.4	29,604.1	31,457.2	30,469.3	32,320.3	33,944.9	34,487.5	35,126.9	35,218.3	35,435.3	35,667.3	36,143.3
Education Spending	79484	82804	86413	91792	93960	94560	97429	101192	102980	107335	109780	112590	112801	114641	116295	118005	119736	120823	123906	125777	127926
Dependency Ratio	3.676471	3.663004	3.610108	3.584229	3.571429	3.558719	3.558719	3.558719	3.558719	3.558719	3.546099	3.496503	3.424658	3.333333	3.236246	3.134796	3.003003	2.95499	2.906977	2.850136	2.793296
EBiSS	4.080461	4.110299	4.071863	3.971773	3.935889	4.035622	4.163791	4.266057	4.429256	4.560138	4.435251	4.358411	4.488293	4.424899	4.297203	4.146313	3.979354	3.868099	3.836619	3.854394	3.767128

Germany	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Old-Age	170,386.4	177,719.1	185,333.1	192,382.4	198,192.7	201,792.0	204,756.3	206,532.0	209,250.5	213,529.7	219,545.6	223,815.4	225,829.7	230,457.7	234,531.5	242,960.6	255,174.6	265,553.5	275,976.8	285,630.7	301,388.4
Survivors	52,113.2	52,215.1	52,555.1	53,406.7	53,405.4	52,524.6	52,043.5	51,947.7	51,443.6	51,512.1	52,206.2	52,594.5	52,561.0	53,094.7	53,417.6	54,081.6	54,644.5	55,889.5	57,307.3	58,410.3	60,020.8
Disability	1,255.6	1,165.7	1,104.5	1,087.4	1,037.1	972.5	915.8	892.9	866.4	845.5	812.1	771.9	737.8	737.3	745.5	749.2	736.5	732.1	729.8	753.7	765.3
Occupational Injury/Disease	1,620.7	1,651.5	1,668.0	1,698.7	1,709.3	1,697.4	1,688.5	1,669.3	1,647.1	1,620.6	1,654.0	1,659.8	1,637.1	1,648.5	1,650.0	1,656.5	1,676.5	1,724.0	1,758.5	1,792.9	1,831.4
Early Retirement for LM Reasons	176.0	149.9	139.0	141.8	139.6	129.7	132.2	139.6	140.4	137.9	138.1	140.6	151.3	169.3	187.2	207.3	227.1	243.2	252.8	258.1	258.1
Family Spending	42,745.9	43,395.8	43,730.0	45,819.6	46,285.6	46,453.2	46,970.2	41,585.8	45,521.6	48,540.1	53,266.5	56,134.9	57,712.9	59,509.9	62,264.3	65,192.7	68,514.8	72,622.6	76,294.2	79,761.0	84,044.3
ALMP	26,791.8	26,297.1	26,928.0	27,889.0	26,884.9	25,531.5	25,581.8	22,426.8	21,312.7	22,428.6	24,504.6	23,092.8	20,862.1	18,580.5	18,132.3	19,128.4	19,394.8	19,665.2	21,538.9	22,930.6	20,606.1
Income Maintenance	1,684.2	1,619.3	1,516.4	1,443.3	1,826.3	2,120.3	1,639.1	1,704.8	1,786.8	1,674.2	1,701.1	1,731.7	1,810.3	1,959.7	2,327.6	2,678.4	3,872.8	5,463.8	4,207.6	3,935.1	3,890.1
Unemployment/Severends Pay	27,915.7	27,393.6	28,875.8	32,609.3	36,617.9	38,961.3	41,824.4	38,656.5	33,569.9	31,291.1	39,529.1	37,488.5	30,374.5	28,210.5	28,892.8	28,256.7	27,586.6	27,125.0	27,589.7	26,315.4	27,262.1
Education Spending	85081	85801	90097	91509	92245	92778	93988	96006	98044	100453	106146	112330	115689	117102	122448	126197	128515	131561	136649	143596	151729
Dependency Ratio	3.90625	3.773585	3.703704	3.571429	3.436426	3.322259	3.215434	3.125	3.058104	2.994012	2.949853	2.906977	2.890173	2.873563	2.86533	2.857143	2.873563	2.810408	2.747253	2.689416	2.631579
EBiSS	4.782701	4.763362	4.665782	4.457644	4.289792	4.149769	3.973848	4.073222	4.022005	3.920672	3.594577	3.514179	3.58535	3.648109	3.556573	3.545852	3.622141	3.552413	3.466833	3.373178	3.333859

Greece	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Old-Age	12,949.6	11,937.4	13,427.3	14,249.3	15,406.6	17,123.7	18,964.4	20,887.5	22,476.1	25,177.6	26,699.1	26,786.5	27,682.9	27,723.5	24,447.4	24,872.1	25,991.3	25,484.2	24,361.1	24,283.9	24,449.6
Survivors	949.9	2,449.7	2,693.6	2,895.6	3,079.7	3,396.2	3,730.1	3,885.5	4,694.1	5,083.3	5,521.9	5,383.4	5,196.8	5,021.9	4,536.1	4,536.0	4,871.8	4,796.1	4,465.9	4,302.3	4,309.1
Disability	896.7	1,443.1	1,503.2	1,592.7	1,698.9	1,820.0	1,974.3	2,066.3	2,468.0	2,707.2	2,840.3	2,853.2	2,815.0	2,549.5	2,255.2	2,171.8	1,172.4	1,184.0	1,115.9	999.6	967.0
Early Retirement for LM Reasons	..	118.7	125.4	141.6	170.6	180.8	186.4	195.5	183.5	155.8	145.6	126.9	107.5	94.5	85.0	80.3	72.8	65.7	52.4	36.4	24.3
																					0.429181
Family Spending	1,218.6	1,155.5	1,153.0	1,187.2	1,355.0	1,505.9	1,551.8	1,611.9	1,955.4	2,031.5	2,265.8	2,192.5	2,076.7	2,218.1	2,390.0	2,440.5	2,266.6	2,217.7	2,928.5	3,382.0	3,239.3
ALMP	308.6	330.7	364.4	284.2	157.7	295.6	132.7	328.7	382.3	362.6	522.2	521.9	226.8	201.7	370.0	549.4	397.2	317.9	339.9	395.2	667.0
Unemployment/Severends Pay	517.5	713.1	759.3	830.1	848.7	1,030.1	1,078.5	1,038.3	1,080.3	1,435.6	2,102.1	1,974.0	2,062.5	1,511.2	1,164.5	841.1	786.3	864.5	861.3	909.2	1,019.1
Education Spending	5234.3	5507.6	5643	6395	7612	7954	8389	7947	8357	9130	9810	9280	9182	8632	8086	7659	7313	7007	6884	7354	7314
Dependency Ratio	3.703704	3.745318	3.558719	3.484321	3.424658	3.355705	3.322259	3.289474	3.278689	3.278689	3.267974	3.236246	3.205128	3.154574	3.095975	3.039514	3.030303	2.956074	2.881844	2.83757	2.793296
EBiSS	7.528542	7.750739	7.97573	7.564013	6.989802	7.006843	7.404464	8.139468	8.303664	8.380099	7.826845	8.143684	8.469964	8.886297	8.074355	8.375186	9.040047	8.95585	7.848599	6.981115	6.789581

Ireland	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Old-Age	2,414.0	2,592.8	3,007.2	3,455.0	3,841.1	4,323.7	4,670.6	5,048.0	5,824.0	6,611.4	6,984.7	8,217.1	8,735.3	9,131.3	8,912.4	9,215.7	9,434.4	9,725.5	10,138.4	10,673.1	11,121.3
Survivors	744.0	916.8	1,024.1	1,140.4	1,238.4	1,352.3	1,374.6	1,559.7	1,654.6	1,801.2	2,006.5	937.1	981.8	1,027.3	958.7	985.6	974.8	1,004.4	1,037.3	1,080.7	1,092.3
Disability	518.0	643.8	746.4	875.9	972.5	1,106.3	1,261.8	1,430.9	1,620.4	1,831.2	1,914.0	1,844.4	1,788.8	1,783.4	1,939.6	1,981.2	2,021.9	2,091.4	2,232.5	2,370.5	2,519.7
Early Retirement for LM Reasons	..	77.1	81.1	85.5	87.8	93.2	100.5	110.9	124.6	117.7	96.7	100.1	182.3	162.5	148.6	134.5	124.8	114.8	109.6	68.3	69.2
Family Spending	1,903.7	2,115.8	2,676.1	3,461.6	3,871.7	4,120.5	4,351.6	4,794.3	5,327.7	5,959.2	6,248.1	5,739.3	5,549.0	5,549.5	5,259.3	5,188.2	5,243.9	5,305.2	5,504.9	5,687.3	5,833.8
ALMP	901.9	850.0	1,035.3	1,051.7	997.8	996.9	1,042.8	1,098.3	1,209.1	1,295.3	1,390.6	1,503.7	1,536.5	1,554.0	1,546.3	1,527.2	1,483.1	1,384.4	1,234.6	1,177.9	1,104.2
Income Maintenance	193.0	237.4	273.5	364.8	442.2	452.6	469.5	477.7	513.6	604.7	729.5	422.5	383.7	379.4	294.6	264.4	267.5	247.9	255.0	266.3	272.8
Unemployment/Severends Pay	959.0	824.2	831.3	1,099.3	1,265.6	1,416.7	1,447.3	1,623.4	1,846.2	2,483.7	4,204.3	4,585.1	4,228.1	4,115.0	3,810.6	3,422.6	3,172.6	2,846.3	2,473.3	2,204.1	2,006.7
Education Spending	3765.3	4291.1	5000.7	5430.3	5977.4	6414.4	6993.3	7418.6	8525.5	8815.1	8099.2	7739.1	9074.9	8909	8657	8885.6	9107.4	9313.8	9823	10328.5	11430.1
Dependency Ratio	5.128205	5.555556	5.291005	5.376344	5.434783	5.494505	5.555556	5.555556	5.555556	5.555556	5.494505	5.405405	5.291005	5.154639	5	4.854369	4.484305	4.474295	4.464286	4.232143	4
EBiSS	2.440973	2.825288	2.618722	2.6189	2.65778	2.819004	2.876939	2.9376	2.941193	3.004698	2.924265	3.001171	2.977157	3.042594	3.055886	3.099935	2.921179	3.030737	3.128304	3.054581	2.867653

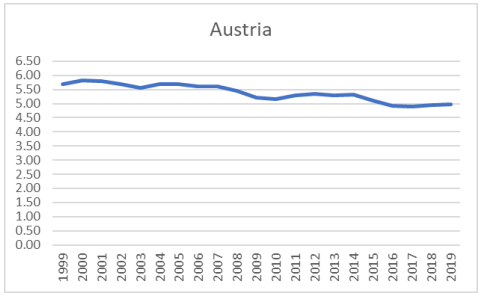
Italy	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Old-Age	133,224.0	138,915.0	143,936.0	150,472.0	157,268.0	164,559.0	170,514.0	177,729.0	187,344.0	196,430.0	202,602.0	210,079.0	214,814.0	216,976.0	220,946.0	221,477.0	225,394.0	225,506.0	229,557.0	234,624.0	241,613.0
Survivors	29,929.0	29,837.0	31,259.0	32,625.0	33,578.0	34,731.0	35,914.0	36,541.0	37,561.0	38,640.0	40,193.0	40,610.0	41,419.0	42,417.0	43,493.0	43,742.0	44,246.0	44,082.0	44,262.0	44,645.0	45,660.0
Disability	8,240.0	7,677.0	7,619.0	9,167.0	8,751.0	8,425.0	8,201.0	8,202.0	8,333.0	8,627.0	9,096.0	8,807.0	8,397.0	10,469.0	10,685.0	10,817.0	10,927.0	11,000.0	10,861.0	11,015.0	11,323.0
Early Retirement for LM Reasons	1,241.0	918.0	856.0	1,192.0	1,300.0	1,338.0	1,378.0	1,576.0	1,351.0	1,439.0	1,504.0	1,569.0	1,328.0	1,240.0	1,079.0	1,203.0	1,478.0	1,589.0	1,692.0	1,952.0	2,098.0
Family Spending	13,695.1	14,508.8	15,866.5	15,084.6	16,740.2	17,683.6	17,981.5	19,964.2	20,550.9	21,629.3	23,255.1	21,272.3	21,766.7	22,368.1	22,776.2	22,832.4	23,060.6	23,353.6	24,455.3	24,976.9	25,489.2
ALMP	6,228.5	6,797.3	8,105.3	9,306.5	10,317.2	8,741.5	7,974.5	7,421.3	7,005.7	7,301.7	7,127.6	6,715.9	6,653.0	7,388.3	6,820.6	6,056.9	8,186.1	10,731.7	10,338.8	7,427.6	4,904.7
Income Maintenance	118.0	159.0	175.0	192.0	190.0	190.0	186.0	209.0	868.0	677.0	531.0	464.0	455.0	382.0	332.0	6,327.0	9,746.0	9,982.0	10,251.0	11,291.0	14,591.0
Unemployment/Severends Pay	4,271.0	3,961.0	4,015.0	4,222.0	4,543.0	5,078.0	5,628.0	5,800.0	5,460.0	6,559.0	10,649.0	11,614.0	11,708.0	13,443.0	15,702.0	15,310.0	14,985.0	14,823.0	14,007.0	13,837.0	14,184.0
Education Spending	52076.2	53835	57607.4	59934.7	63384.2	62747	66373.6	67897.8	71383.4	70194.5	71440.2	70035.8	66950	65888.4	65912	65733.6	66178.9	65431.3	67042.1	69533.8	70073.7
Dependency Ratio	3.460208	3.424658	3.333333	3.278689	3.215434	3.164557	3.125	3.095975	3.076923	3.058104	3.030303	2.994012	2.949853	2.898551	2.840909	2.785515	2.645503	2.652539	2.659574	2.628489	2.597403
EBiSS	7.819855	7.662685	7.138151	7.147664	6.78722	7.005082	6.877903	6.847978	6.856904	7.048148	6.795081	7.099156	7.295793	7.178263	7.034676	6.642474	6.108148	6.020556	6.040146	6.045181	6.043079

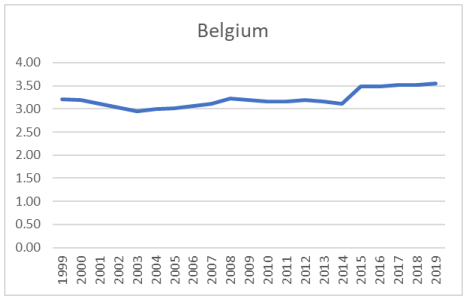
Netherlands	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Old-Age	20,921.0	22,016.0	23,117.0	24,581.0	25,754.0	27,295.0	28,388.0	29,298.0	31,471.0	32,353.0	34,597.0	36,093.0	37,366.0	39,197.0	40,662.0	41,881.0	41,992.0	43,240.0	43,866.0	45,215.0	47,314.0
Survivors	1,731.0	1,693.0	1,720.0	1,749.0	1,727.0	1,662.0	1,575.0	1,524.0	1,471.0	1,409.0	1,354.0	1,271.0	1,166.0	1,042.0	907.0	774.0	618.0	593.0	563.0	550.0	525.0
Disability	10,161.0	10,487.0	11,062.0	11,339.0	11,756.0	11,506.0	10,929.0	10,440.0	10,849.0	11,334.0	11,793.0	11,902.0	11,889.0	11,797.0	12,155.0	12,094.0	12,166.0	12,375.0	12,203.0	12,547.0	12,988.0
Family Spending	5,791.8	6,452.7	6,839.6	7,546.7	8,165.9	8,319.5	8,463.3	10,235.5	7,648.3	9,367.6	9,824.1	9,761.5	9,763.6	9,075.6	8,732.9	8,470.3	9,943.6	10,465.2	11,009.0	11,546.5	12,803.1
ALMP	5,681.2	5,839.7	6,271.0	7,011.6	6,848.4	6,546.7	6,397.8	6,273.8	6,068.4	6,081.7	6,807.8	6,995.0	6,580.0	5,655.9	5,415.0	5,495.7	5,218.0	5,023.0	4,711.6	4,551.2	4,589.8
Income Maintenance	1,871.0	1,987.0	1,959.0	1,919.0	1,939.0	1,725.0	1,651.0	4,089.0	4,534.0	5,346.0	5,580.0	5,612.0	6,434.0	6,602.0	7,433.0	7,294.0	6,992.0	7,711.0	9,094.0	9,285.0	9,517.0
Unemployment/Severends Pay	6,709.0	6,196.0	6,493.0	5,590.0	6,842.0	7,819.0	7,912.0	7,133.0	5,957.0	5,248.0	6,593.0	7,961.0	8,173.0	8,679.0	10,524.0	10,488.0	9,954.0	9,221.0	7,994.0	7,172.0	6,605.0
Education Spending	20156	20989	22242	24110	26107	27082	28467	30380	31831	33898	35252	36026	35815	36039	35768	36510	36579	37378	37846	39138	40539
Dependency Ratio	4.608295	4.56621	4.545455	4.504505	4.484305	4.444444	4.385965	4.310345	4.255319	4.166667	4.065041	3.952569	3.816794	3.663004	3.521127	3.389831	3.311258	3.203617	3.095975	3.022914	2.949853
EBiSS	3.760646	3.765795	3.725111	3.674538	3.525901	3.492483	3.390946	3.060564	3.325282	3.134736	3.029826	2.934608	2.882419	2.885747	2.787104	2.718943	2.640655	2.579849	2.481526	2.458717	2.422974

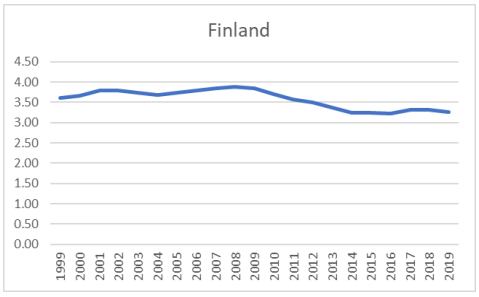
Portugal	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Old-Age	7,590.5	8,447.5	9,393.3	10,614.8	11,548.4	12,555.0	13,654.9	14,673.0	15,576.8	16,753.9	17,942.0	18,614.4	19,374.5	18,905.4	20,683.6	20,997.4	20,801.1	21,179.6	21,601.9	22,289.7	22,975.2
Survivors	1,533.3	1,665.3	1,821.2	1,990.6	2,109.9	2,298.0	2,340.6	2,556.7	2,697.9	2,870.7	3,063.2	3,167.1	3,128.4	3,132.7	3,227.5	3,274.0	3,340.7	3,386.1	3,482.1	3,622.0	3,793.4
Disability	1,987.7	2,202.6	2,268.4	2,373.1	2,482.7	2,614.0	2,603.9	2,722.3	2,866.4	2,766.3	2,811.0	2,798.1	2,792.4	2,439.3	2,678.9	2,536.8	2,535.8	2,496.1	2,529.7	2,335.0	2,443.7
Family Spending	1,101.8	1,250.2	1,369.5	1,863.2	2,059.0	1,772.0	1,873.5	1,933.9	2,022.7	2,209.4	2,537.3	2,492.9	2,126.8	2,082.1	2,111.2	2,126.1	2,150.1	2,254.4	2,352.7	2,433.5	2,592.2
ALMP	697.6	783.6	884.0	869.4	920.2	984.5	1,031.5	946.5	869.6	959.9	1,307.8	1,206.5	1,020.0	834.6	994.4	1,145.6	1,091.1	1,033.5	925.2	842.9	830.9
Income Maintenance	261.8	250.9	227.5	232.4	243.7	242.0	285.3	334.8	372.6	425.7	507.7	519.9	414.4	387.9	315.1	294.5	287.4	334.7	344.1	360.4	347.9
Unemployment/Severends Pay	731.6	804.6	870.6	1,093.6	1,493.5	1,667.0	2,113.5	2,139.0	1,998.3	1,567.1	2,045.7	2,221.4	2,103.9	2,593.0	2,737.8	2,239.0	1,761.0	1,510.0	1,312.6	1,234.3	1,188.4
Education Spending	7615	8075.9	8679.7	9339.6	9464.3	10051.2	10535.8	10581.1	10309.7	10684.6	11408.7	12086	10794.8	9055.2	9329.3	9188.3	9134.4	8897.3	8980.6	9102.8	9580.4
Dependency Ratio	3.787879	3.731343	3.717472	3.690037	3.649635	3.623188	3.597122	3.571429	3.533569	3.496503	3.460208	3.424658	3.367003	3.322259	3.267974	3.215434	2.890173	2.964844	3.039514	2.981745	2.923977
EBiSS	4.043977	4.115753	4.165981	4.12527	4.154134	4.300302	4.223882	4.471639	4.79702	4.940433	4.627892	4.543544	5.174367	5.438472	5.610504	5.749181	5.345492	5.718821	6.0317	6.027254	5.8746

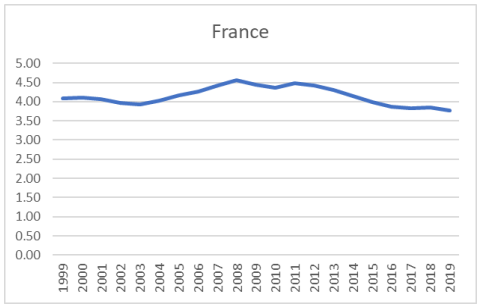
Spain	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Old-Age	47,174.2	42,894.1	45,035.5	48,409.5	51,343.1	54,625.3	59,033.3	63,702.9	71,169.3	77,417.2	84,341.4	82,608.9	86,338.5	89,218.7	93,463.7	97,151.3	99,909.7	103,259.1	107,218.2	112,980.6	119,211.6
Survivors	3,564.5	12,971.8	13,430.0	14,418.2	15,484.3	16,984.6	18,309.5	19,256.9	20,440.0	21,560.9	22,438.9	22,904.3	23,460.8	23,943.7	24,633.9	25,081.0	25,238.8	25,529.9	25,834.3	26,686.7	28,255.3
Disability	7,038.0	7,562.6	7,871.5	8,360.8	8,917.8	9,733.4	10,502.1	11,254.0	12,123.6	12,871.1	13,326.3	13,266.2	13,546.0	13,824.6	14,257.3	14,186.8	14,324.9	14,506.1	14,702.3	15,023.2	15,460.9
Occupational Injury/Disease																					
Early Retirement for LM Reasons	233.8	237.7	252.0	170.7	168.4	166.2	181.4	180.9	197.0	213.9	219.9	212.8	208.8	188.7	156.2	118.6	85.1	60.0	30.1	13.1	7.9
Family Spending	4,706.1	6,105.2	6,252.1	6,781.9	8,446.3	9,298.7	10,747.1	11,856.7	13,205.7	14,783.0	15,901.3	15,290.7	14,262.2	13,459.1	13,390.7	13,175.3	13,340.7	13,447.8	14,003.3	14,723.6	15,858.7
ALMP	5,134.9	5,214.7	5,217.1	5,422.0	5,785.2	6,598.9	7,043.9	7,822.8	8,368.4	8,810.7	9,041.7	9,835.8	9,349.0	6,745.5	5,260.7	5,794.6	6,387.3	6,310.5	8,016.6	8,512.3	8,636.8
Income Maintenance	194.2	204.9	224.7	250.8	296.3	328.5	340.6	368.5	417.5	440.6	619.3	766.7	843.1	854.7	1,040.6	1,163.9	1,359.6	1,216.5	1,261.7	1,323.1	1,388.5
Unemployment/Severends Pay	11,766.2	10,344.1	12,009.4	13,646.7	14,562.9	15,506.8	16,627.1	17,746.3	18,612.6	24,164.7	35,950.5	32,245.1	35,547.4	33,419.2	31,800.8	26,182.2	21,787.0	19,863.2	18,069.7	18,092.1	19,006.6
Education Spending	24725	26389	27967	30285	32276	35089	36726	39813	43316	47026	49671	48489	47118	43286	42106	42552	44390	45333	46449	47766	50054
Dependency Ratio	3.690037	3.717472	3.676471	3.703704	3.731343	3.773585	3.787879	3.787879	3.787879	3.759398	3.731343	3.690037	3.636364	3.584229	3.508772	3.448276	3.267974	3.267974	3.267974	3.211274	3.154574
EBiSS	4.600835	4.904428	4.737968	4.687186	4.615858	4.60303	4.664398	4.607235	4.691054	4.42415	4.038175	4.117943	4.194258	4.662492	4.967489	5.297962	5.226333	5.436643	5.500637	5.494488	5.413606

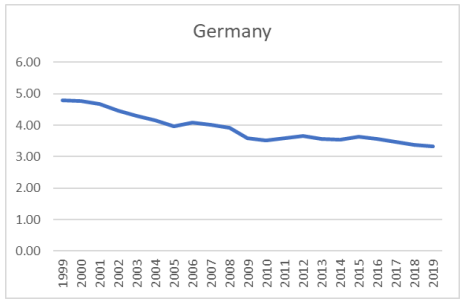
Appendix B: Individual Country EBiSS Charts

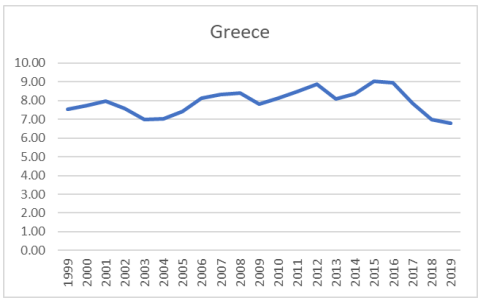


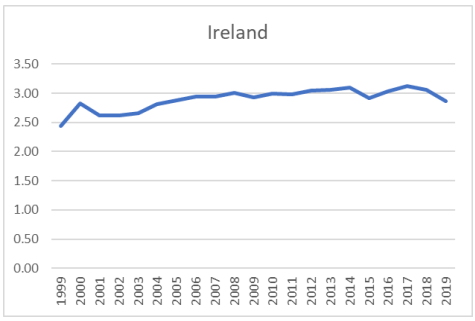


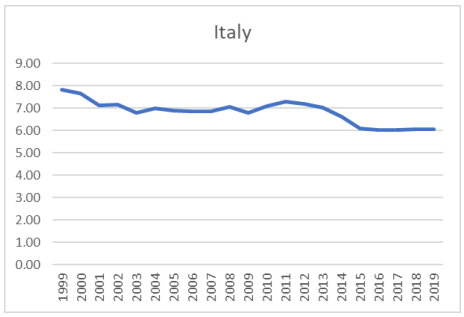


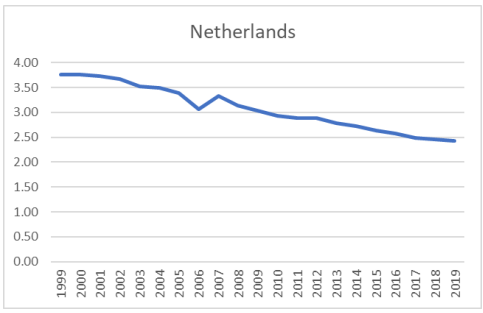


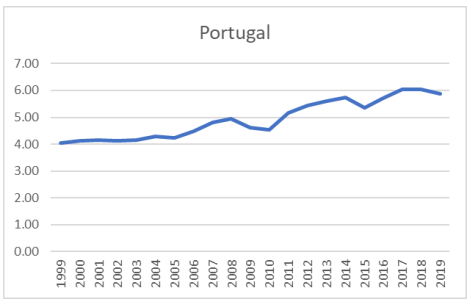


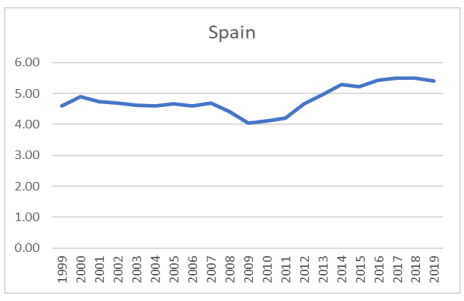






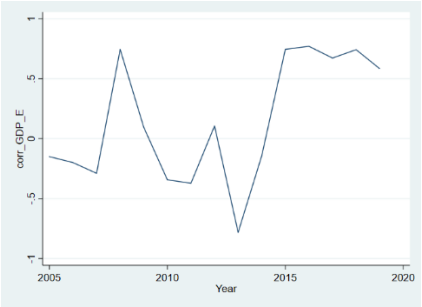






Appendix C1: 5-Year Rolling Window Charts (Education)

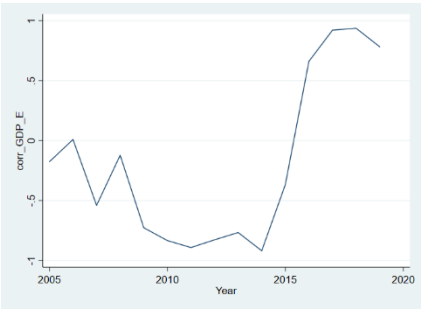
Austria



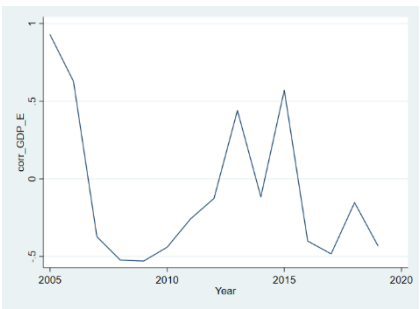
Belgium

Finland

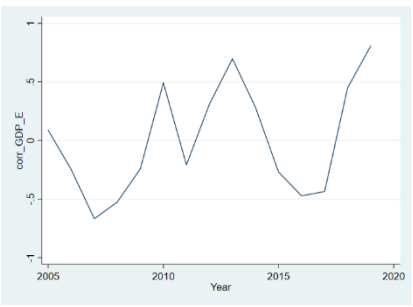
France



Germany

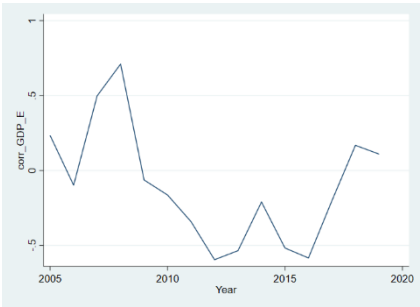


Greece



Ireland

Italy



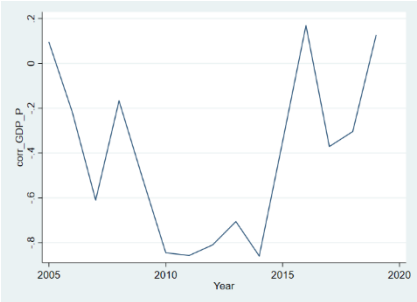
Netherlands

Portugal

Spain

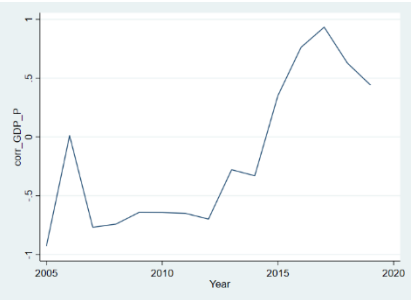
Appendix C2: 5-Year Rolling Window Charts (Pensions)

Austria



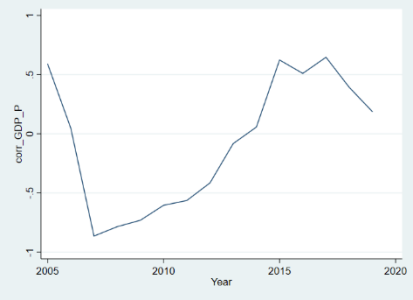
Belgium

Finland

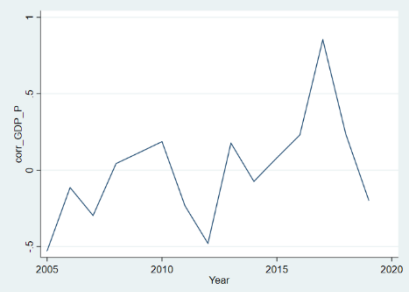


France

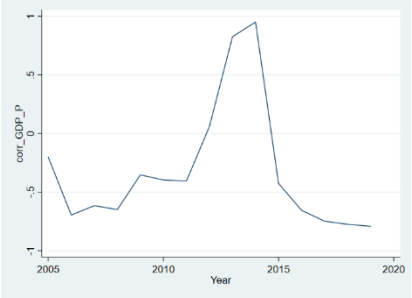
Germany



Greece



Ireland



Italy

Netherlands

Appendix C3: Cyclicality of Generational Spending

To complement the narrative painted by general trends in spending from EBiSS and its components, we assess the cyclicality of these generational fiscal spending components, using the onset of the Euro crisis in 2010 as a cutoff point. Fiscal cyclicality refers to the way spending categories change with regards to business cycle fluctuations. Procyclicality indicates that government spending reinforces the business cycle, where periods of growth see spending increases, while recessions bring about spending cuts. Counter-cyclicality, in contrast, represents a classical Keynesian response to recessionary periods by increasing spending during contractions to bolster demand, while periods of growth should then experience a winding down of government spending. We take education and pension spending as proxies of young and elderly-centric spending and assess their relationship to changes in real GDP to explicitly test the crisis dynamics of generational spending. We adjust education and pension spending with country-specific deflators to calculate real spending and use natural logs for real GDP and both spending categories, allowing us to identify inflation-adjusted dynamics of generational spending patterns.

Because data on education and pension spending is annual, we are limited to understanding cyclicality through a correlative process, where negative correlations indicate countercyclical policy, while positive correlations in movements between real GDP and spending categories represents procyclical policy. We use the HP filter to parse out the cyclical components of real GDP and generation-specific spending categories and assess the correlations to understand how spending dynamics relate to the general macroeconomic environment.

The results below largely confirm our expectations regarding Southern European economies. In our primary cases of Spain and Portugal, we see the correlation representing a

more procyclical fiscal policy during the period represented by the euro-crisis, whereas the pre-crisis period had exhibited slightly countercyclical trends. In contrast, pension spending in both countries remained slightly countercyclical, and in the case of Spain became more countercyclical. Given what we know about the recessionary period during the euro crisis, this information offers complementary evidence of the general trends exhibited in the EBiSS data, where elderly spending was increasing during the recessionary period. Italy and Greece, while starting from a procyclical position, see pensions move towards acyclical tendencies in the crisis period, indicating a decoupling of the correlation between GDP and elderly spending during the period. Given the small number of observations, the results here should be taken with caution; nevertheless, they offer some evidence as to the divergence of generational spending categories, particularly in Southern European economies hit by the euro crisis.

Cyclicality Coefficients on Education and Pension Spending

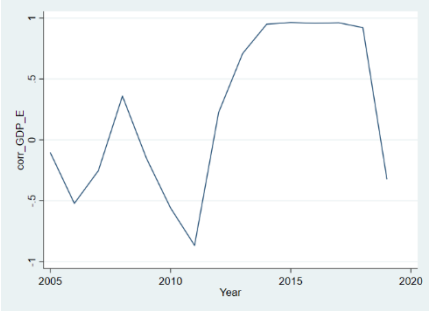
Country	**Education**			**Pensions**		
	1999-2019	1999-2009	2010-2019	1999-2019	1999-2009	2010-2019
Austria	-0.08	-0.11	0.04	-0.31	-0.32	-0.31
Belgium	-0.61	-0.65	-0.11	-0.13	-0.49	0.57
Finland	-0.25	-0.28	-0.25	-0.52	-0.68	0.50
France	-0.38	-0.39	-0.28	-0.13	-0.23	0.41
Germany	-0.05	-0.02	-0.18	-0.07	-0.13	0.08
Greece	0.00	-0.06	0.08	0.17	0.26	0.08
Ireland	-0.06	0.55	-0.34	-0.42	-0.53	-0.34
Italy	0.02	0.06	-0.08	0.27	0.47	0.19
Netherlands	-0.3	-0.56	0.45	-0.56	-0.57	-0.47
Portugal	0.31	-0.51	0.79	-0.11	-0.45	0.06
Spain	0.39	-0.11	0.86	-0.19	-0.22	-0.45

To better understand the evolution of these cyclicality coefficients, we also calculate 5-year rolling windows, graphs of which can be found in Appendix C. The year indicated is the last year

in the rolling window. The three examples below (Germany, Spain, and Portugal) demonstrate the exercise. Education and pension spending should roll above zero in periods of procyclicality and below zero in periods of countercyclicality. In recessionary periods, we therefore expect to see pension spending largely below zero, indicating that it continues to increase despite real declines in GDP, while in expansions, pension spending would be above zero showing that it increases with real GDP. The large, pronounced humps in education spending for Spain and Portugal around 2010-2015, which represent periods of stagnation and recession, confirm how real education spending was dramatically cut. In contrast, real pension spending in Spain (and to a lesser extent Portugal) increased during this recessionary period as given by periods of the trendline below zero.

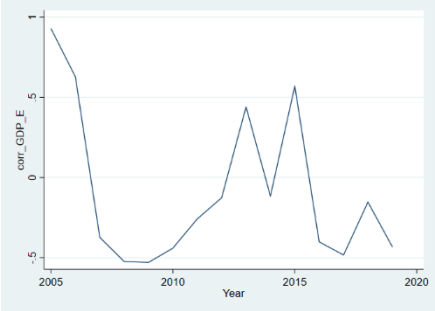
Germany Education Spending

Spain Education Spending

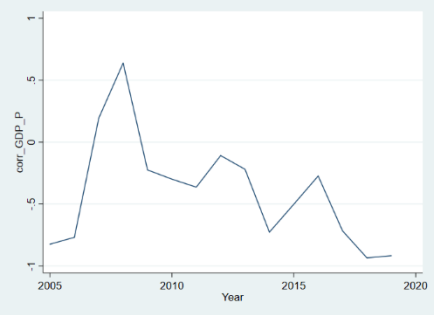


Portugal Education Spending

Germany Pension Spending



Spain Pension Spending



Portugal Pension Spending