

# The Impact of the Great Recession on Values, Attitudes and Well-Being: An Analysis across Different Cohorts in Europe

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## 1. Introduction

Taken place more than ten years ago, studies on the social impact of the Great Recession, initiated by the collapse of Lehman Brothers in 2008, are accumulating. In an overview article, Redburn and Grusky (2016) for instance review its socioeconomic impact on social inequality, employment, health, well-being, demographic behaviour... (Dooley et al., 1996; Stuckler et al., 2015). More importantly, however, they pinpoint the lack of research into the potential of recessions to drive larger social change, manifesting itself in changes in social and political attitudes. In terms of attitudinal outcomes, economics shocks have shown to alter political attitudes (for a review, see Margalit, 2019), with demonstrated peaks in demands for welfare state intervention when encountering hardship (see also Margalit, 2013). Even though these findings show how difficult the Great Recession has been to cope with, evidence about the extent that it has affected distinct values, attitudes and well-being differently are scarce and rather scattered. This is surprising, precisely because of the unique context that the Great Recession has shaped for testing the assumptions of one of the most influential theories on social change.

Indeed, modernization theory (Inglehart, 1977, 1997) predicts that economic downturns has social consequences, in the sense that particularly young people in their formative years will prioritize material over postmaterial values when experiencing harsh economic circumstances. In more general terms, Inglehart (1977, 1997) argued that, as economic development progressed, industrial societies gradually moved towards self-expression values like tolerance and autonomy with generational change: younger cohorts, exposed to optimal economic life-conditions in their formative years, replace older cohorts that were more exposed to severe economic conditions. Because of the slow replacement of older more 'traditional' or 'conservative' cohorts by younger more 'progressive' cohorts, this shift is referred to as the 'Silent Revolution' (Inglehart, 1977). In this context, it is important to note that youth and early

adulthood are formative life stages wherein the influence of the societal context on a generation is expected to be greater. Put differently, the influence of material prosperity on value properties, or alternatively a major event like the economic crisis in which scarcity dominates, differs across cohorts depending on what life stage they are in (Elder, 1974).

Research on the influence of the Great Recession on the social outcomes of young people exist, demonstrating that while human values dispositions are unaffected, yet more sociotropic social and political attitudes have shifted (Reeskens & Vandecasteele, 2018). However, a formal test whether different cohorts react differently to the economic crisis in terms of social and political attitudes and preferences, as well as value priorities, is to our knowledge not undertaken yet. In this chapter, we will empirically examine to what extent human values, social attitudes and well-being are affected by the recent economic crisis, making use of longitudinal data for 24 European countries that have been hit in varying extent by the Great Recession. Our main expectation is that the social attitudes of younger age groups are more strongly affected by the recent economic crisis, because economic shocks earlier in the life course have worse scarring effects (scarcity and socialization), while we expect less or no impact among the older cohorts. Human values, on the other hand are more stable personality traits that have been socialized in childhood and are not expected to change drastically in response to an economic crisis or across cohorts.

We employ a fixed effects pseudo-panel analysis of the 2008-2016 waves of the European Social Survey to detect whether changes over time in the socio-demographic group's exposure to poverty and changes in national-level prosperity – both good indicators for the exposure to the Great Recession in a pseudo-panel design – affect individual dispositions to varying degrees according to the cohort they belong to. Unique for this set-up is that we can test whether the findings hold for over-time changes in the country-level economic situation (GDP/capita), as well as changes in the economic situation of the person's socio-demographic group.

## 2. Theory and Hypotheses

In modernization theory (Inglehart, 1997), one crucial mechanism is the *scarcity hypothesis*, positing that periods of economic downturns reflect in an emphasis of materialistic values; embracing materialism in times of scarcity would particularly hold for those in their most formative years, also known as the *socialization hypothesis*. The aim of our contribution is to subject these two hypotheses to an empirical test by studying how the Great Recession, initiated by the collapse of Lehman Brothers in 2008, impacts people differently depending on their life stage. While economic downturns have been shown to have adverse effects on people's life chances, it has often been argued that big societal events such as an economic recession have differential effects on people's futures depending on their life stage (Elder, 1974). This in turn, can lead to generational clashes, not only in labour market chances and well-being but also in attitudes and values.

The empirical test into the differential impact of economic hardship caused by the Great Recession on different age cohorts requires distinguishing between the outcomes studied. First, we consider whether *human values* are affected by economic hardship. Here, we follow Schwartz (1992, p. 4), relying on earlier insights (Schwartz & Bilsky 1987), who defines values as “concepts or beliefs [that] pertain to desirable

end states or behaviors [and that] transcend specific situations, guide selection or evaluation of behaviour and events, and are ordered by relative importance”. Emphasizing that values transcend specific situations implies that they are relatively stable over the lifespan (Rokeach & Ball-Rokeach, 1989), while they result from socialization at a young age (Hooghe & Wilkenfeld, 2008). In a more strict test, Inglehart (1985, p. 110) showed the stability of value priorities at the aggregate, yet at the individual level more variation is present. In a recent study on the question whether the Great Recession has influenced value priorities of young people, Reeskens and Vandecasteele (2018) have shown that exposure to economic hardship did not change the value priorities of young adults. In line with these outcomes, we can expect that across all cohorts of our study, the Great Recession will not affect human values.

By contrast, an attitude is defined as “a disposition to respond favourably or unfavourably to an object, person, institution or event” (Ajzen, 2005, p. 3). Attitudes are more situational (Converse, 1964) and therefore open to be influenced by everyday experiences. Research on attitude stability fuels this idea, as stability is particularly low among young adults (Alwin & Krosnick, 1991). Nevertheless, we do not expect that all attitudes are equally affected by the economic crisis. Particularly for the more sociotropic evaluations, or attitude objects which are closely linked to the Great Recession (e.g. evaluations of politics and the economy), we can expect that they are affected by exposure to economic hardship. Hobolt (2014, p. 56) recently combined Eurobarometer data showing that across Europe, trust in national political institutions declined from 40% in 2007 to 30% in 2013, which is supplemented with national findings of some European countries (e.g. O’Sullivan, Healy & Breen, 2014). Further, because of relatively low value stability among younger cohorts, we expect that particularly young people see their sociotropic attitudes shift, something that was also diagnosed in a study on the influence of the Great Recession on political and social attitudes across Europe (Reeskens & Vandecasteele, 2018).

However, in light of Inglehart’s theory of value change (1997), we are interested in attitudes that are more distal and not necessarily a direct reflection of the economic conditions of the country. From the idea that exposed to material prosperity, people in their formative years are more likely to express self-expression values, it has been explained why advanced industrialized societies have grown increasingly tolerant towards LGBTQ and more tolerant towards immigrants (Inglehart & Baker, 2000). The experience of the Great Recession would, if modernization theory holds, therefore hinder the shift towards societal tolerance that was witnessed during the last few decades. Recent research is lukewarm about this idea. On the one hand, Inglehart (2018) has updated his own theory by arguing that not necessarily objective economic conditions but also economic insecurity, which rather is a subjective perception, influences self-expression values like tolerance and autonomy. Second, reflecting on the success of the populist surge across industrialized societies, Norris and Inglehart (2019) also discuss the Silent Revolution in reverse. Exposed to the increasing progressive values of the younger cohorts, the elderly have taken a more conservative turn. Even though our study focuses on the influence of economic conditions and therefore will put these updates not to a formal test, our longitudinal test is nevertheless able to detect over-time stability or change in the elderly cohorts. Yet, given the focus of the economic crisis and derived from modernization theory, we expect that particularly young age cohorts will express less progressive attitudes when exposed to economic downturns, while older age cohorts see their attitudes not affected. Further, we expect this impact to be weaker compared to attitudes that are proximal to the economic crisis.

Last but not least, in line with recent findings of health downturns in response to the economic crisis, we also consider subjective well-being (cf. Tausig & Fenwick, 1999). Previous research on the expectation between economic resources and well-being has shown a positive albeit non-linear relationship, because particularly the lower income groups see stronger increases in their well-being influenced by economic prosperity (see Diener & Oishi 2000; Clark et al. 2008). Important for our study is that income losses have stronger scarring effects than income gains (Wolbring et al. 2013). Summarized, this allows us to hypothesize that the experience of economic hardship lowers well-being, with two underlying mechanisms (see Diener & Biswas-Diener 2002). On the one hand, material resources allow for covering basic needs; as these needs are covered, individuals see their happiness increase and devote resources to other ways to increase happiness (Ferrer-i-Carbonell 2005). On the other hand, well-being has been shown to depend upon relative positions and comparison either with other people or with the past (Easterlin 1995; Ferrer-i-Carbonell 2005; Clark et al. 2008). Because the change in economic hardship following a recession reminds people of their better times in the past, happiness is expected to thwart. Combined, we propose that exposure to the economic crisis lower well-being; we do not expect that different cohorts are affected differently.

### **3. Data and Methods**

We use bi-annual data for 24 OECD countries from the 2008-2016 releases of the European Social Survey (ESS Rounds 4-8). The 2008 wave was specifically selected as baseline as the fall of Lehman Brothers in September 2008 is considered to have initiated the Great Recession. Since economic growth figures in most European countries were still positive in 2008 (see Eurostat, 2015), the consequences of the economic crisis were not visible until after 2008. We focus on the labour active population in 2008, as these are arguably more affected by the economic recession. Although they youngest cohort is not anymore in their formative years, we still expect that the youngest cohort is more vulnerable for scarring effects of the Great Recession. The selected sample includes people aged 25-64 in 2008 and were followed until 2016 where they were aged 33-72. The countries included are: Belgium, Bulgaria, Switzerland, Cyprus, Czech Republic, Germany, Denmark, Estonia, Spain, Finland, France, UK, Greece, Croatia, Hungary, Ireland, Lithuania, Netherlands, Norway, Poland, Portugal, Sweden, Slovenia, Slovakia.

#### **3.1. Research Design and Sample Selection**

This study uses a pseudo-panel design investigate over-time changes in human values, well-being indicators and social attitudes. In the absence of individual-level longitudinal data, a pseudo-panel design allows for an assessment of changes in socio-demographic groups on the basis of repeated cross-sectional data (Deaton, 1985; Meier Jaeger, 2013). This method is useful for the questions of interest in this study as no comprehensive cross-national panel data at the individual level covers the social attitude questions. Initially groups are defined on the basis of a number of non-time-varying characteristics – in this case country, gender and educational level. These groups are then matched over the cross-sectional releases of the ESS survey. All respondents aged 25-64 (in 2008) were divided in groups according to country (24 countries), birth cohort (born 1974-1983 / 1964-1973 / 1954-1963 / 1944-1953), gender (Male/Female) and educational level (Lower secondary and below / Upper secondary & Post-secondary non tertiary /

Tertiary). For instance, one group could be “female, cohort 1974-1983, tertiary educated in Belgium”, while another group would be “male, cohort 1954-1963, upper secondary education in France”. These groups were constructed in 5 ESS waves (2008, 2010, 2012, 2014 & 2016). Not all countries participated in all ESS waves, and we also exclude groups in years wherein they comprised less than 30 respondents. We end up with 1,723 group observations and Table A1 in Appendix shows the number of groups per country and wave.

### 3.2. Dependent Variables

The dependent variables are time-varying socio-demographic group averages (mean) of the Schwartz’ human values inventory (self-transcendence, conservation, self-enhancement, hedonism, openness-to-change), a well-selected set of political and social attitudes that either reflect sociotropic orientations towards society (social trust, political trust, satisfaction with the economy), or are good proxies for postmaterialism (attitudes towards migrants and attitudes towards gay people); last but not least, we also consider subjective well-being.

The construction of the human values is based on the ESS Human Values Scale (see Davidov et al., 2008). The 21 items on which basis the human values are created, can be found in Appendix Table A2. The response scales – ranging from “not like me at all” (code ‘1’) to “very much like me” (6) – are reversed if necessary to ensure the same direction of interpretation. In line with recommendations (Schwartz, 2003), we controlled for acquiescence in response behaviour by subtracting the average across all 21 items from the specific item, making that each item measures the relative value priority. The five second-order values are distinguished, namely self-transcendence (mean of ‘universalism’ and ‘benevolence’), conservation (mean of ‘security’, ‘conformity’, and ‘tradition’), self-enhancement (mean of ‘power’ and ‘achievement’), hedonism, and openness-to-change (mean of ‘self-direction’ and ‘stimulation’). For more information on how to handle the human values based on the ESS, see Schwartz (2003).

Second, we examine social attitudes with respect to social trust, political institutions, the economy, migrants and gay people. Social trust is measured using three items measuring whether (a) most people can be trusted or whether you cannot be too careful at all, (b) most people try to be fair or try to take advantage of you, and (c) most people are helpful or are mostly looking out for themselves. The response scales range from 0 to 10, with a higher score indicating more trusting opinions. For political trust, we measure trust in representational institutions, i.e. (a) trust in the country’s parliament, (b) politicians and (c) political parties. Responses range from “no trust at all” (0) to “complete trust” (10). Furthermore, satisfaction with the economy is investigated, which in the ESS is questioned by “On the whole how satisfied are you with the present state of the economy in [country]?”, with responses from “extremely dissatisfied” (0) to “extremely satisfied” (10). Attitudes towards migrants are measured on the basis of three items: “Immigrants make country worse or better place to live”, “Immigration is bad or good for the country's economy” and “Country's cultural life undermined or enriched by immigrants” with a response scale ranging from 0 to 10 with higher values denoting more positive attitudes towards migrants. Attitudes towards gay people are measured on the basis of the question whether people agree or disagree with the statement “gays and lesbians free to live life as they wish” on a 5-item response scale.

Finally, we examine ‘subjective well-being’, which is the average of life satisfaction and happiness. Life satisfaction is measured by the item “All things considered, how satisfied are you with your life as a whole nowadays?” ranging from “extremely dissatisfied” (0) to “extremely satisfied” (10) while ‘happiness’ is measuring by “Taking all things together, how happy would you say you are?” ranging from “extremely unhappy” (0) to “extremely happy” (10). Descriptive details of the dependent variables are given in Appendix Table A3.

### 3.3. Explanatory Variables

The fixed-effects models will show the effect of over-time changes in variables related to the socio-demographic group and the effects these changes have on the dependent variables. In this study, we examine the effect of changes in one variable of the socio-demographic group: changes in the group-specific percentage of group members belonging to the lowest income quintile. Additionally, the effect of one country level variable is assessed, changes in GDP/capita. We use the Eurostat indicator for real GDP/capita, which measures real expenditure per capita adjusted for price-level differences across the countries. The explanatory variables are measured bi-annually between 2008-2016. The largest concern for the validity of a pseudo-panel analysis is when the composition of the socio-demographic groups varies over time on characteristics that are relevant for the dependent variables but which are not used for composing the groups. To control for the possibility that the socio-demographic groups differ in age composition over the different waves, the analysis controls for the mean age in the socio-demographic group at any particular wave. Table A2 shows descriptive statistics for all variables used in the analysis.

### 3.4. Analytical Technique

We use fixed effects regression estimation to examine within-group change in both explanatory and dependent variables (Wooldridge, 2002). The Model looks as follows:

$$Y_{gct} = a + x_{gct} \beta 1 + z_{ct} \beta 2 + q_{gc} + \varepsilon_{gct}$$

The dependent variable  $Y_{gct}$  is the group-average on our dependent variables in the socio-demographic group  $g$  ( $i= 1, \dots, N$ ) in country  $c$  ( $c=1, \dots, 24$ ) at time  $t$  ( $t=2008, 2010, 2012, 2014, 2016$ ).  $x_{gct}$  is the explanatory group variable, percentage in lowest income quintile, which varies across the groups and time-points.  $z_{ct}$  refers to the country characteristic (GDP/capita) that varies across countries and over time.  $q_{gc}$  stands for time-constant individual characteristics and  $\varepsilon_{gct}$  indicates the residual error term. The fixed-effects estimation examines within-group change in the explanatory group-variables  $x_{gct}$  and country variables  $z_{ct}$  on group changes in the  $Y_{gct}$ , i.e. the human values, social attitudes and well-being. By examining strictly cross-time variation, a main advantage of this design is that it controls for omitted time-constant characteristics of groups that affect both the explanatory variables as well as the human values, social attitudes or well-being indicators. This could for instance be norms in the socio-

demographic group affecting both people's value orientation as well as the group's socio-economic position, or the cultural and institutional characteristics of the welfare regime the country belongs to.

#### **4. Results**

Table 1 presents the results of the fixed effects analysis of the pseudo-panel displaying the outcomes of the Schwartz human values. The analysis shows the effect of over-time changes in the percentage of the socio-demographic group belonging to the lowest income quintile and changes in GDP/capita on over-time changes in the pseudo-group means of the dependent variables. This analysis is presented over the cohort categories in order to assess whether the change in economic circumstances has a stronger effect on younger cohorts.

The results for human values show that significant effects remain limited to a few of the human values. An increase in the group's share belonging to the lowest income quintile decreases conservation and increases the openness to change. This is surprising, because it could be expected that when confronted with sudden economic shocks, people fall back to more traditional value priorities, including conservation values and hence opposing openness to change. This finding is further evidenced by the GDP/capita effect, as a decrease in GDP/capita reduces the conservation score, while it also increases the hedonism score. Overall, these effects do not change across cohorts, except for the effect of GDP/capita change on conservation that is cancelled in the oldest cohort. In spite of these little findings, it is important to mention that overall, for the human values there is no consistent picture in the effects and the effect sizes are small. However, if effects are present, it is particularly among the younger age cohorts.

**Table 1. Fixed Effects Pseudo-Panel-Regression of Human Values Regressed on Time-Varying Percentage in Lowest Income Quintile in Socio-Demographic Group and GDP/capita in Country (2008 - 2016)**

	Self-transcendence	Conservation	Self-enhancement	Hedonism	Openness to change
% in lowest income quintile in socio-demographic group	0.0002 (0.0007)	-0.0019** (0.0006)	0.0001 (0.0009)	0.0006 (0.0011)	0.0020** (0.0007)
x cohort 1964-1973	-0.0004 (0.0010)	0.0009 (0.0010)	0.0002 (0.0014)	-0.0003 (0.0017)	-0.0007 (0.0011)
x cohort 1954-1963	-0.0005 (0.0009)	0.0016 (0.0009)	0.0002 (0.0013)	0.0002 (0.0016)	-0.0020 (0.0011)
x cohort 1944-1953	-0.0022* (0.0009)	0.0014 (0.0008)	0.0015 (0.0012)	0.0018 (0.0015)	-0.0014 0.0010
GDP/capita	-0.000005+ (0.000002)	0.000005* (0.000002)	-0.000006+ (0.000003)	0.000010* (0.000004)	-0.000001 (0.000003)
x cohort 1964-1973	0.000003 (0.000003)	-0.000004 (0.000003)	0.000002 (0.000005)	-0.000007 (0.000005)	0.000004 (0.000004)
x cohort 1954-1963	0.000003 (0.000003)	-0.000004 (0.000003)	0.000002 (0.000005)	-0.000008 (0.000006)	0.000005 (0.000004)
x cohort 1944-1953	-0.000002 (0.000003)	-0.000007* (0.000003)	0.000006 (0.000005)	-0.000002 (0.000006)	0.000007+ (0.000004)

+ p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001.

Controlled for age composition in group. Standard errors in parenthesis

In Table 2, the results for the social attitude and well-being variables are presented. It shows that an increase in the percentage of group-members belonging to the lowest income quintile reduces social trust, political trust, satisfaction with the economy and subjective well-being. Only the attitudes towards migrants and gay people remain unaffected. Similarly, a decrease in GDP/capita results in a reduction of social trust, political trust, satisfaction with the economy and subjective well-being, while it renders more negative attitudes towards migrants and gay people. Important are also the cohort differences which can be observed for the effect of a change in % of the group belonging to the lowest income quintile. The effects on political trust, satisfaction with the economy and subjective well-being vary by cohort as the interactions with cohort demonstrate. That means that changes in the economic position of the group during the recession years had a clear effect on the younger cohort while the effect on the older cohort is absent.



**Table 2. Fixed Effects Pseudo-Panel-Regression of Social Attitudes & Well-being Regressed on Time-Varying Percentage in Lowest Income Quintile in Socio-Demographic Group and GDP/capita in Country (2008 - 2016)**

	<b>Social Trust</b>	<b>Political Trust</b>	<b>Satisfaction with the Economy</b>	<b>Attitudes towards Migrants</b>	<b>Attitudes towards Gay</b>	<b>Subjective well-being</b>
% in lowest income quintile in socio-demographic group	-0.0039+ (0.0022)	-0.0189*** (0.0037)	-0.0262*** (0.0055)	-0.0044 (0.0029)	-0.0007 (0.0013)	-0.0146*** (0.0023)
x cohort 1964-1973	-0.0013 (0.0033)	0.0032 (0.0056)	-0.0033 (0.0083)	-0.0013 (0.0044)	0.0028 (0.0020)	-0.0053 (0.0035)
x cohort 1954-1963	-0.0010 (0.0031)	0.0049 (0.0052)	0.0090 (0.0078)	-0.0030 (0.0041)	0.0000 (0.0019)	0.0031 (0.0033)
x cohort 1944-1953	-0.0011 (0.0029)	0.0178*** (0.0049)	0.0256*** (0.0073)	-0.0057 (0.0038)	0.0022 (0.0018)	0.0094** (0.0030)
GDP/capita	0.000017* (0.000008)	0.000090*** (0.000013)	0.00014*** (0.000014)	0.000028** (0.000010)	0.000010* (0.000005)	0.000028*** (0.000006)
x cohort 1964-1973	-0.000003 (0.000011)	-0.000014 (0.000018)	0.000002 (0.000018)	0.000010 (0.000014)	-0.000008 (0.000007)	0.000003 (0.000008)
x cohort 1954-1963	-0.000012 (0.000011)	-0.000011 (0.000018)	-0.000003 (0.000018)	0.000009 (0.000014)	0.0000001 (0.000007)	0.000015+ (0.000008)
x cohort 1944-1953	-0.000005 (0.000011)	-0.000014 (0.000019)	0.000015 (0.000019)	0.000013 (0.000015)	-0.000003 (0.000007)	-0.000005 (0.000009)

\* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001.

Controlled for age composition in group. Standard errors in parenthesis

## 5. Conclusion

From different angles, research findings indicate that the Great Recession has shown adverse socioeconomic outcomes and affected those experiencing hardship in various ways. However, a systematic test on an extensive set of value properties has not taken place. Because countries have been hit by the recession in varying degrees, describing the aftermath of the recession requires a cross-national panel design. In the absence of such design, we have constructed a cross-national pseudo-panel where we model socio-demographic groups composed on the basis of the time-invariant characteristics country, cohort, gender and educational level. Focusing on the labor active population - 25 to 64 years old - from the onset of the Great Recession until 2016, when this group was 33 to 72, we have tested whether the changing economic context - GDP per capita - as well as the changing economic composition of the socio-demographic group - percentage of respondents in the lowest income decile - relates to changes in group averages in human values, relevant political and social attitudes, as well as subjective well-being.

The results of our study mostly confirm our initial expectations. First and foremost, we can confirm that economic conditions have an influence on social and political attitudes, while on the opposite, the influence on the Schwartz human values is inconsistent and rather small in terms of effect size. Second, the effects are particularly pronounced among the youngest age cohorts. Our results show that over the course of eight years, the youngest cohort is more negative about politics, the state of the economy, their political representatives, and their subjective well-being. Interestingly, attitudes towards gays and towards immigrants, which are proxies for evaluating modernization theory, are unaffected by the composition of the poorest quintile; yet, in a poorer economy (expressed in lower levels of GDP per capita), younger groups become more negative towards immigrants and towards gays and lesbians.

The findings pose us with two interpretations, namely one optimistic and one pessimistic interpretation. The optimistic one indicates that if young people's attitudes most proximal towards the economy are affected, these opinions can bounce back as soon as the economy veers up. In the end, young people are quite resilient towards adverse experiences (Schoon & Mortimer, 2017), meaning that the Great Recession might be a little wrinkle in the course of the Fourth Industrial Revolution.

The more negative interpretation is that in the absence of more data points, our findings provide tentative confirmation for modernization theory in the presence of the Great Recession, in the sense that young people, confronted with economic hardship, will take a more conservative turn. Such interpretation would align to some initial findings of the European Values Study (Muis et al., forthcoming), where it is shown that the youngest age cohorts are becoming sexually less permissive. However, more research needs to be conducted about the long-run implications, and particular in terms of social change, our initial findings might indicate that economic downturns might influence the social course of societies.

One liability in that respect is that we have focused on objective economic conditions. As Inglehart (2018) has recently underscored, economic insecurities will take a more prominent position with the turn towards the 'Artificial Intelligence Society'. Subjective perceptions of the economy, and their influence on various political and social outcomes, which would form a good test for the Thomas theorem (see Merton, 1995), has not been part of our study. Yet, it is without any doubt that it will matter a lot. Also, to compensate for the experiences of deprivation, across Europe there is variation in welfare traditions. Although welfare states not only redistribute material resources but also immaterial properties (see

Paskov, 2016; van Ingen & van der Meer, 2011), it is expected that they cushion the impact of the Great Recession on values, attitudes and well-being, too. We have refrained from testing this given the complex empirical set-up of such design. Last but not least, a pseudo-panel data study is not undisputed; however, it is the best available option given the fact that real longitudinal data on social attitudes do, at this point, not exist yet for a comparative sample of countries.

Finally, looking at the other end of the age distribution, our findings also question the dominant turn that the Silent Revolution has taken in recent years, with an emphasis to the ‘Silent Revolution in Reverse’ (Norris & Inglehart, 2019). While the argument goes that older age cohorts, confronted with the social change towards increasing self-expression values, have become also quite persistent in articulating more traditional values. Although our study has not tested this assumption, our study finds that the conditions that have characterized the first decade of the 21<sup>st</sup> century has been particularly relevant for the younger age cohorts.

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**Appendix Table A1. Number of Groups per Country and ESS Wave**

<b>Country</b>	<b>2008</b>	<b>2010</b>	<b>2012</b>	<b>2014</b>	<b>2016</b>	<b>Total</b>
Belgium (BE)	0	20	21	20	21	102
Bulgaria (BG)	17	21	20	0	0	58
Switzerland (CH)	17	11	13	14	13	68
Cyprus (CY)	14	10	12	0	0	36
Czech Republic (CZ)	9	9	10	11	14	53
Germany (DE)	17	17	17	16	16	83
Denmark (DK)	16	19	18	15	0	68
Estonia (EE)	17	14	16	15	16	78
Spain (ES)	20	19	18	20	19	96
Finland (FI)	19	18	19	18	19	93
France (FR)	21	15	16	17	15	84
United Kingdom (GB)	17	23	24	23	23	110
Greece (GR)	19	22	0	0	0	41
Croatia (HR)	13	11	0	0	0	24
Hungary (HU)	13	11	13	11	10	58
Ireland (IE)	18	21	21	20	22	102
Lithuania (LT)	0	13	15	15	15	58
Netherlands (NL)	22	23	22	23	20	110
Norway (NO)	16	17	16	17	16	82
Poland (PL)	12	18	19	19	18	86
Portugal (PT)	15	13	14	11	10	63
Sweden (SE)	18	15	16	15	15	79
Slovenia (SI)	12	12	10	10	11	55
Slovakia (SK)	12	13	11	0	0	36
<b>Total</b>	<b>374</b>	<b>385</b>	<b>361</b>	<b>310</b>	<b>293</b>	<b>1723</b>

**Appendix Table A2. ESS Human Values Scale to Measure Schwartz Human Values**

<b>Second Order Value</b>	<b>Human Value</b>	<b>Item in ESS (variable name)</b>
Self-transcendence	Benevolence	Important to help people and care for others well-being (iphlppl)
		Important to be loyal to friends and devote to people close (iplylfr)
	Universalism	Important that people are treated equally and have equal opportunities (ipeqopt)
		Important to understand different people (ipudrst)
		Important to care for nature and environment (impenv)
Conservation	Security	Important to live in secure and safe surroundings (impsafe)
		Important that government is strong and ensures safety (ipstrgv)
	Conformity	Important to do what is told and follow rules (ipfrule)
		Important to behave properly (ipbhprp)
	Tradition	Important to be humble and modest, not draw attention (ipmodst)
		Important to follow traditions and customs (imptrad)
	Self-enhancement	Achievement
Important to be successful and that people recognize achievements (ipsuces)		
Power		Important to be rich, have money and expensive things (imprich)
		Important to get respect from others (iprspot)
Hedonism	Hedonism	Important to have a good time (ipgdtim)
		Important to seek fun and things that give pleasure (impfun)
Openness-to-change	Self-direction	Important to think new ideas and being creative (ipcrtiv)
		Important to make own decisions and be free (impfree)
	Stimulation	Important to try new and different things in life (impdiff)
		Important to seek adventures and have an exciting life (ipadvnt)



**Appendix Table A3. Descriptives of the Socio-Demographic Group Variables of Interest (2008-2016)**

<b>Variable</b>	<b>N</b>	<b>Scale Range</b>	<b>Mean/Prop</b>	<b>Std Dev</b>
Cohort born 1974-1983	440		25.54	
Cohort born 1964-1973	433		25.13	
Cohort born 1954-1963	431		25.01	
Cohort born 1944-1953	419		24.32	
Female	911		52.87	
Low educated	370		21.47	
Mid educated	794		46.08	
High educated	559		32.44	
Percentage in Lowest Income Quintile	1,652	0 - 88	15.91	14.3
Self-transcendence	1,723	-0.14 - 1.24	0.67	0.22
Conservation	1,723	-0.65 - 1.1	0.08	0.27
Self-enhancement	1,723	-1.7 - 0.35	-0.68	0.32
Hedonism	1,723	-1.68 - 0.6	-0.25	0.39
Openness-to-change	1,723	-1.29 - 0.49	-0.13	0.23
Social trust	1,723	2.67 - 7.69	5.32	0.99
Political trust	1,723	1.1 - 6.69	3.82	1.24
Satisfaction with economy	1,723	0.87 - 8.66	4.39	1.59
Attitude towards migrants	1,723	2.2 - 7.97	5.31	0.99
Attitude towards gay people	1,723	1.05 - 4.11	2.05	0.59
Subjective well-being	1,723	3.02 - 8.94	7.14	0.89