CHAPTER FOUR

Welfare Regimes, Cohorts, and the Middle Classes

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Middle class is a term that has been used in several different ways in social science. In the British tradition, the middle class generally refers to professionals such as lawyers and upper-level white-collar workers in the financial sector—that is, to various categories that also had been playing a central role in the gentrification of London for the last 30 years (Butler and Robson 2003). In the U.S. tradition, the term usually pertains to associate professionals or managers, and even basic engineers—in other words, various categories of wage earners who live comfortably (Mills 1951). In the standard French or German vision, the middle class could often include even lower technicians and forepersons—a kind of "median" class, rather than a middle one. This ambiguity could result from the fuzzy idea of the "middle": in the continental European tradition, "middle" is "average," whereas in the British and Marxist traditions, "middle" means between the power elite and the "real people." In this chapter, we accept the idea that the middle classes are diverse because we can distinguish with Gustav Schmoller (1897) a lower middle class (close to the median) and an upper middle class (at a level equal to twice the median). Thus, the middle classes are plural, with lower and upper strata, which we must understand for their specificities (Chauvel 2006b).

This chapter offers a comparative analysis of the transformations of the middle classes from the 1980s to the mid-2000s, with a focus on the life chances of birth cohorts. The aim of this contribution is to demonstrate the importance of the year of birth in social dynamics, particularly in terms of opportunities to reach middle-class positions. The main idea here is that in some specific "welfare regimes" (Esping-Andersen 1990), the transformation

of the set of social opportunities over the last three decades has had a profound impact on some birth cohorts and not on others. In this respect, in this chapter "social generations" (Mannheim 1928) refer to sets of birth cohorts facing certain social situations and constraints that other social generations did not experience.

Indeed, in most rich countries, the transition from a phase of fast growth—or of "affluent society" (Galbraith 1958)—to slow growth (Krugman 1992) is particularly visible at the median level of post-industrial societies.[1] The transition from a "wage-based society"[2] in the 1960s to a period of increasing inequalities[3] is also of particular interest from a cross-national perspective because national dynamics are diverse. As a consequence, the comparative dynamics of middle-class transformations since the 1980s (Pressman 2007) show a general trend of decline at the median level of the economic scale. However, birth/cohort dynamics have not received sufficient attention, despite their importance in these changes. In the tradition of Age-Period-Cohort analysis (Ryder 1965; Mason et al. 1973; Yang, Fu, and Land 2004), the hypothesis of a long-lasting impact of the period of socialization of young adults on their whole life course and on their long-run life chances could be meaningful. In this respect, cohorts that entered the labor force in a period with a growing, homogeneous middle class will benefit from that context over their entire life span, while the cohorts that experienced a shrinking middle class when they were young adults will suffer in the long run from this adverse context of socialization. In cases of welfare-regime retrenchments, we can expect that younger cohorts are more affected and that older ones avoid adverse consequences. This general idea must, however, be tested in the context of different welfare regimes: different social institutions could generate stronger or weaker cohort effects.

Specifically, in welfare regimes where the first years on the labor market are strategic for future opportunities over the life course (in countries with poor capacities of social "resilience"), the cohorts of young adults who fail at entry into the labor market could become the serial victims of social change. Conversely, in countries where "second chance" policies exist (particularly vocational and continuous education of adults, training, and so-called "flexicurity," including active labor policies of re-inclusion of workers and re-training to maintain skill levels) in particular for adults in difficult or modest socio-economic conditions (as in the Nordic countries), cohort effects could be weaker (Chauvel 2006a, 2010a).

This chapter begins with an analysis of the theoretical linkage between middle-class development, welfare-regime dynamics, and birth-cohort transformation. It then examines the use of an analysis based on the Age-Period-Cohort methodology. Finally, it discusses a comparative analysis of middle-class development by birth cohort, the results of which underscore cross-country differences in the importance of cohort fluctuations.

DEFINITIONS OF MIDDLE CLASSES

The definition of *middle class* varies in the social science literature. While some authors identify the middle class in relation to median income (Pressman 2007), others focus on occupation-based definitions of, for example, an upper middle class of professionals, experts, and upper-level managers. This variation could be explained when we recall the origins of the middle-class debate in social science, with Gustav Schmoller (1897) and his assessment of the Marxist theory of absolute pauperization of the middle class.[4] Schmoller detects the double source of diversity of the middle classes. On the one hand, you have the polarization between a wealth-based old middle class and a wage-based new middle class, with "new" used in the context of the nineteenth century. On the other hand, you have the hierarchic distinction between lower and upper middle classes that identifies the median middle class and the upper middle class, respectively.

I do not focus on the distinction between the "new" versus the "old" middle class, but rather, to distinguish the two hierarchic levels of middle classes ("lower" versus "upper"), I consider first the density of the population around median income and then at the level of twice the median. In this sense, a "lower middle class" is different from an "upper middle class." In a general analysis of the shape of the income distribution, it is possible to relate the density of the "lower" and "upper" middle classes to general inequality. These definitions need discussion because Pressman refers to the individuals who in this study are "upper middle class" as "upper-class" (Pressman 2007, 187). In Chapter 2, Atkinson and Brandolini define the "lower middle class" as persons "whose income is in the range of 60 to 75 percent of the median," even if others would define this latter group as "working class" or even "near poor" (Newman 1999; Newman and Chen 2007). To make sense of our choices, we should analyze the shapes of income distributions.

From a descriptive point of view, inequality can be understood as the stretching of the distribution of income (or other resource) between the extremes; thus, the greater the inequality, the wider the stretching of the middle class between the extremes. But a more accurate observation shows that the middle class is not unique but diverse. This can be illustrated by a theoretical example based on Champernowne/Fisk distributions (Fisk 1961), a family that often provides reasonable models for income distributions. Champernowne showed that the distributions result from quite realistic stochastic models of income dynamics and that they correctly represent the Pareto shape of the upper and lower tails of the distributions, as well as the segments closer to the median. When we simulate these Champernowne/Fisk distributions, the lower middle class is denser when inequality is smaller (measured by the Pareto-Champernowne's alpha), and the upper middle class is larger when inequality is greater, as if the two middle classes were communicating vessels. However, the Champernowne/Fisk distribution is a rough approximation of the empirical distribution of incomes, because inequality could be diverse at the different levels of the curve (Chauvel 1995), and then the transformations of the two middle classes could be less correlated than expected (Figure 4.1). Moreover, at the level of birth cohorts, some cohorts can benefit from economic expansion and have access to the lower and even upper middle classes at the expense of other cohorts that are relatively marginalized. This is why it is crucial to analyze separately the two levels of the middle classes. This distinction could explain why this issue is discussed across different social contexts in countries such as Sweden, Brazil, and China (Li 2009), although the debate does not focus on the same income brackets and social groups.

ECONOMIC TRANSFORMATIONS, STRATIFICATION, AND BIRTH COHORTS

In rich countries, the lower middle class is challenged in many respects, in both social and national contexts (Pressman 2007). The stagnation of wage incomes—especially around the median—and the general trend of increasing disposable income inequality put stress on this social group. The upper middle class—notably of mid-level new entrepreneurs, self-employed professionals—might benefit from the trend of polarization. An important issue here is the problem of birth cohort. In some national contexts (Chauvel

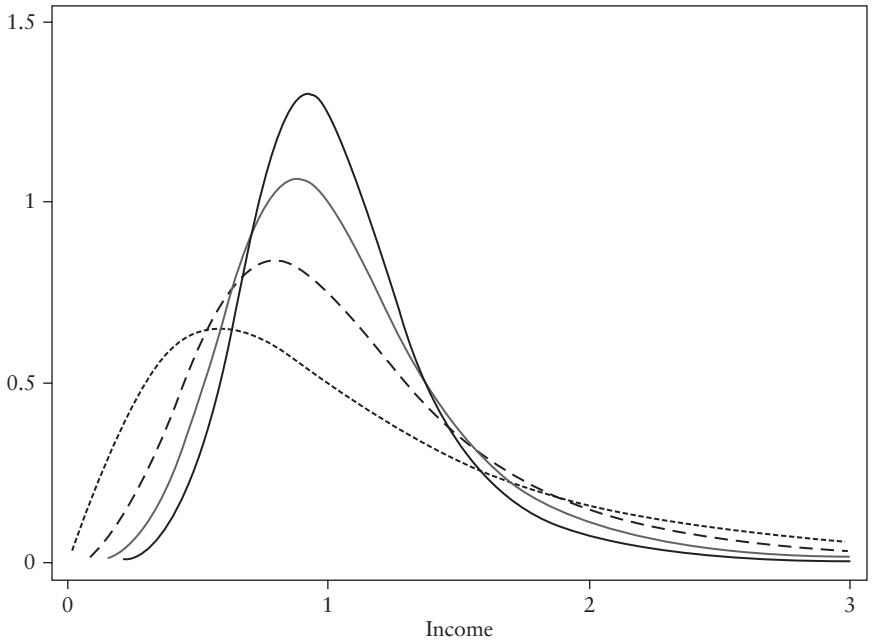

Figure 4.1. Champernowne/Fisk density of income distribution with alpha = 2 (dotted line), 3 (dashed line), 4 (solid line), and 5 (bold solid line)

SOURCE: Author's demonstration.

NOTE: The horizontal axis shows the median-standardized income (1 = median), and the vertical axis shows the density (in percentage points).

2009), we observe a "scarring effect" that characterizes the long-term negative consequences of transitional problems of socialization of some birth cohorts when entering the labor market.[5]

The first hypothesis considered in this chapter is that some periods of time are more open and efficient for the socialization of larger parts of the population into certain subgroups of the middle classes. Lack of opportunities at entry into adulthood can generate long-term scarring effects. These unequal dynamics could generate "social generations" (Mannheim 1928) that benefit from lucky context or, conversely, could generate long-lasting hardship. The more empirically based tradition of Norman Ryder (1965) developed an interest for the analysis of birth cohort as a vehicle of social change, which first impacts the younger generations and then generalizes

to the whole society by demographic replacement. If this dynamic is well ascertained in France and in various southern European societies, a more general view is required. Specifically, I assess whether or not cohort is a neutral dimension of the development of the middle classes.

WELFARE REGIMES AND BIRTH COHORT DYNAMICS

A second hypothesis considered in this chapter is that different welfare regimes could have different outcomes in terms of middle-class dynamics, particularly for the opportunities opened to the cohorts of young adults in a context of crisis. The general theory of welfare regimes (Esping-Andersen 1990) proposes a typology of systems of social protection and solidarity underlining differences across clusters of countries. It addresses the diversity of social models of inequality and stratification (Korpi and Palme 1998), solidarity, and systems of protection in many different dimensions of social life: retirement (Myles 1990), health (Bambra 2005), gender inequality (Gornick, Meyers, and Ross 1997), work history (DiPrete 2002), and so on. It is also well known that the life course is deeply influenced by specific welfare regime models (Mayer 2005; Van De Velde 2008). Here I use a later version (Esping-Andersen 1999) that distinguishes among four contrasted regimes, including the familialistic one.[6]

The central idea in this chapter is that status societies, such as those of the conservative and familialistic welfare regimes, as well as the Japanese one (Brinton 2008), provide an institutional context that favors the emergence of deeply contrasted cohorts having diverging social paths and life chances. More resilient societies, where second chances exist (in terms of education or work opportunities), have less cohort-based inequality, notably the social democratic countries and English-speaking liberal countries. In both of these cases, new social or market opportunities over the life course could lessen, at least partially, difficulties in early adulthood. For instance, flexicurity and redistribution of life chances over the life course are social tools in the social democratic countries that can compensate for early difficulties. Somewhat paradoxically, the diversity of market opportunities can produce compensatory effects as well, at least because they have a random component that can reduce early gaps. For this reason, I anticipate stronger cohort fluctuations in France or Italy, which are status-based societies where early adulthood is strategic for the status achievement

process, than in Norway or the United States, where resilience is stronger, all else equal. By this latter expression, we mean that the structure of birth cohorts could differ in terms of size, family structure, and level of education, but individuals with the same background will face divergent and fluctuating outcomes because of their specific period of socialization. Both gross and net aspects—that is, both before and after controlling for socio-demographic covariates—could be important—the first one in terms of descriptive differences and the second one for an analysis of relative opportunities or difficulties (relative to individuals of similar social contexts but of different age, period, or cohort).

More precisely, to analyze the probable responses of different welfare regimes to the social transformations of post-industrial societies, I use the standard welfare state typology (Esping-Andersen 1999) and focuses on four regimes: the corporatist (or conservative), the liberal, the social democratic, and the familialistic. Examples are provided using France, the United States, Norway, and Italy, respectively. These countries are chosen for their typical behavior in terms of welfare regimes. France is a rigid, status-based society where individuals' trajectories are fixed for life in the process of transition into early adulthood and where young adults face the worst consequences of mass unemployment. The United States is a rich country where the welfare state is obviously undersized. Norway, in turn, is interesting for its capacity (due to its natural resources) to maintain a massive welfare regime even in a period of global crisis. Italy is a case of extreme family solidarity.

Because the *conservative regime* (France) is based on status recognition, its probable response to economic downturn, competition, and economic shortage will be a stronger protection of insiders at the expense of young adults leaving education, of women, and of immigrants, all groups that have fewer opportunities to defend their interests. Youth unemployment is a result of the increasing polarization between protected senior insiders in the labor market and junior outsiders who face an accelerated decline of good jobs; stronger competition among the young generates a decline in wages and retrenchment of social rights. If seniors are victims of early retirement, they enjoy better income protection, and they have opportunities to access comfortable pension schemes and/or acceptable conditions of pre-retirement (generally better than the usual unemployment schemes of younger adults). The cohorts of seniors are more equal because they are the homogeneous cohorts of the "wage-earner society" (Castel 1995) of

the "golden period" of the 1960s to the 1980s. This could go with their structuration in a specific "social generation" (Mannheim 1928), having specific objective and subjective traits. We observe a decline in the intra-cohort inequality of French seniors, with better pension schemes available for all, so seniors' relative incomes increase. Conversely, the new cohorts of adults face stronger polarization between winners and losers (Brzinsky-Fay 2007). One aspect I do not discuss here is the declining value of education. A probable collective answer to the difficulties of the young is a massive increase in the post-secondary education of young cohorts (Van De Velde 2008) working in tandem with a lack of improvement in labor market entry. A trend of strong educational inflation—a decline in the nominal value of grades, particularly for the less selective ones—can be observed (Duru-Bellat 2006).

The *liberal regime* (the United States) is characterized by another probable answer to the same challenges. The centrality of the market in this regime prompts specific reactions to economic shortages. The main solutions are welfare-state retrenchments, need-based redistribution schemes, stronger market competition, and the denunciation of former social rights. Increasing competition between juniors and seniors implies a renegotiation of seniors' better positions, previously obtained in the context of affluence. The consequence is smoother inter-cohort inequality (the new cohorts benefit relative to the seniors). However, increasing competition means stronger intra-cohort inequalities, notably within senior age groups, because there are cumulative effects of inequality (DiPrete 2002). In terms of educational value, because there is a stronger link between the individual cost of education and the expected returns to education (compared to the conservative regime of educational expansion), the market regulation of educational expansion promotes a more stable social and economic value of diploma, with no clear signs of over-education (Chauvel 2010b).

The *social democratic regime* (Norway) is defined by collective goals of long-term stability, progress, and development for all, with a strong sense of collective responsibility. Integrating younger cohorts is considered a priority because failure in the early socialization of young adults is seen as a massive problem for future development of society. High rates of youth unemployment and economic de-valorization of young adults could come with long-term risks of anxiety, self-devaluation of the young, increasing suicide rates, or declines in fertility. To avoid these social risks over the entire life

course, the social democratic welfare-state model (notably "second chance" policies) promotes inter-cohort balance (Gooderham and Dale 1995). The consequence is stronger control, relative to the two previous models, of both intra- and inter-cohort inequalities. The increase in the level of education for all could generate a slight process of over-education, defined as an excess level of education in the workforce relative to the prestige of the position and/or the level of wages. Nevertheless, it is shared by all age groups; its specific cohort dimension is not obvious.

The *familialistic regime* (Italy) shares many aspects of the conservative one, but families in this regime are a legitimate institution in the process of the redistribution of resources, both culturally and for the regulatory activities of the state. More precisely, in this regime, some sectors of the economy are heavily protected—mainly the core sectors of the public economy and large companies such as banks, insurance, and so on—and most labor regulations are based on strong seniority rights. In most small and medium-sized companies, regulation is based on family interconnections, where familialism, localism, and long-term fidelity of workers are fundamental institutions that foster stronger social reproduction (Barone and Schizzerotto 2011). In the context of post-affluent societies—and scarce jobs, housing, and other resources—parents of young adults are supposed to offer help and protection, and most families act in conformity with these social pressures. The consequence is a trend of increasing dependence of young adults on their parents until the age of 35 (or even older) in the context of declining wage levels and living standards for the cohorts of new entrants into the labor market.

Consequently, seniors exert political pressure to obtain better pensions to better support their own children. The context of dependency generates stronger constraints for young families, increases the social pressures on women to choose between work and children, and is accompanied by a strong decline in fertility rates, which creates the paradoxical context of "familialism without families" and becomes a major problem in the long-term sustainability of the welfare state. On the other hand, the decline of incomes for young families is offset by the reduction in family size. In this regime, national homogeneity may be weaker compared to other regimes because the inter-provincial imbalances—high unemployment rates in some localities could go with a lack of an adequate workforce in others—are structural traits of a labor market where localism and strong ties are

important aspects of social regulations, implying less geographic mobility. Thus, national heterogeneity is greater than in other regimes. Another recent dimension is a strong development of mass tertiary education, which generates a marked trend toward over-education: a large increase in the number of university graduates who cannot find positions in South European countries' labor markets, where small and medium-sized companies seek more specialists and experts than intermediate technical and managing clerks.

AGE-PERIOD-COHORT–DETRENDED COEFFICIENTS METHODOLOGY

I compare the intensity of cohort fluctuations that show the degree to which different birth cohorts faced divergent life chances. The comparative welfare-regime theory of these inter-cohort inequalities would assert that in France and Italy the middle classes increased more intensely for the early baby-boom generations (the young adults of the late 1960s) and that the cohorts born in the 1960s and 1970s are the victims of a backlash in the development of the middle classes. To test the importance of cohorts in the analysis of middle-class dynamics, I consider new aspects of the Age-Period-Cohort (APC) methodology that improved considerably, notably with Yang's recent strategy of analysis (Yang et al. 2004). After an early period of development of APC models (Mason et al. 1973), Yang and her colleagues developed new tools for the identification of APC effects, with the control of individual-level covariates, including the APC-Intrinsic Estimator (APC-IE), which is based on the reduction and identification of age, period, and cohort parameters, with the support of a principal component analysis (PCA) of the APC parameters to tackle the traditional identifying problem. The "intrinsic" character of the parameters in the APC-IE method is still debated (O'Brien 2011). Thus, I developed another tool that is similar in principle and in its capacity to include control variables, such as gender, education, and so on, and based on a generalized linear model with specific constraints that make it possible to disentangle age, period, and cohort fluctuations, called the Age-Period-Cohort–Detrended coefficients model (APCD).

The aim of the APCD is to absorb the linear age, period, and cohort trends (that one cannot disentangle in the general case) and then extract

zero-sum and zero-trend coefficients for the three variables to determine specific age, period, and cohort fluctuations. Under these specifications, a cohort effect is defined as null if the coefficients are not statistically significantly different from zero; in that case, no cohort diverges from the linear trend. Conversely, a significant cohort effect refers to fluctuations pertaining to cohorts that diverge from the others. Like the APC-IE model provided in Stata,[7] the APCD accepts various specifications (ordinary least squares, logit, Poisson models, etc.); estimates the sets of age, period, and cohort coefficients after the control of covariates; provides their confidence intervals (here, at the 95 percent level); and offers standard statistical diagnostics. It is likely that some countries, such as France and Italy, will show stronger fluctuations, and others will have flat trends in the cohort coefficients.

DATA AND EMPIRICAL STRATEGY

My definition of the middle class is based on the equivalent disposable income of the household—that is, household income from all private sources, plus public transfers, minus direct taxes and transfers, divided by the square root of household size, rather than on earnings only. This means that the definition of the middle class is based on the level of living and capacity to consume, not on economic rewards based on occupation. Four countries that reflect the different welfare regimes are used. Using the *LIS Database*, I selected countries with datasets from the mid-1980s to the mid-2000s. These datasets provide family structure and educational attainment—household size, gender of the household head, education—that are used as covariates. The samples consist of individuals who are either the head of the household or a partner of the head. Equivalized relative disposable incomes (*erdi*) are standardized around the median of the country/period. The value 1 signifies no divergence to the average, and 1.1 is an increase of approximately 10 percent relative to the median. *Lerdi* is the natural logarithm of equivalized relative disposable income (relative to the country/period median).

The "lower middle class" consists of those whose erdi is between 0.75 and 1.25 (as in Pressman 2007), and the "upper middle class" includes those whose erdi is between 1.5 and 2.5. This is similar to the definitions used by Pressman (2007) and Atkinson and Brandolini (see Chapter 2). Using this

approach reveals the differences in the cohort dynamics of the lower and upper middle classes. To assess cohort dynamics in the four welfare regimes discussed above, we look at France, Italy, Norway,[8] and the United States.

DESCRIPTIVE ANALYSIS

The expected results are that cohorts that get richer on average and that get more unequal are more likely to develop a large upper middle class, while those having a stable economic dynamics and knowing a decline in their intra-cohort inequality compared to the other ones are more likely to have an expanding lower middle class.

The first element of this analysis is descriptive and pertains to the changes in equivalized relative disposable income by age group. These results are similar to those in Chauvel (2009). In the context of contemporary economic transformations, the different welfare regimes analyzed had diverse age distributions with respect to income and different inequalities among age groups. Large differences appear in terms of the structure of the income distribution (Figure 4.2). The curves in Figure 4.2 show changes in the differences between age groups over time: the higher the curve, the better the relative income (0 denotes the average of the year, and +0.1 means 10 percent higher than the average). For instance, the relative income of the 40-year-old French population declined by more than 10 percent.

Italy and France have rather flat between-age-group distribution of resources, while Norway and the United States are characterized by increasing income from age 25 to age 50—the age at which economic resources are highest—followed by a decline. The French and Italian curves fit with the idea of an economic life cycle involving implicit between-age-group redistributions. One could posit, with Lazear (1979), that a more steady linearly increasing shape of career is the result of redistribution from the middle-aged population to the young adults and the seniors, while the Norwegian and U.S. models are closer to a marginal-productivity-based career where midlife is supposed to be more affluent.

If the long-run national structures differ in terms of the age profile of income, we also observe specific dynamics. In general, across all the countries (with the exception of the United States), the seniors who are in their sixties in 2005 are more affluent than those who are in their sixties in 1985, due to the maturing of their retirement systems. Conversely, the birth

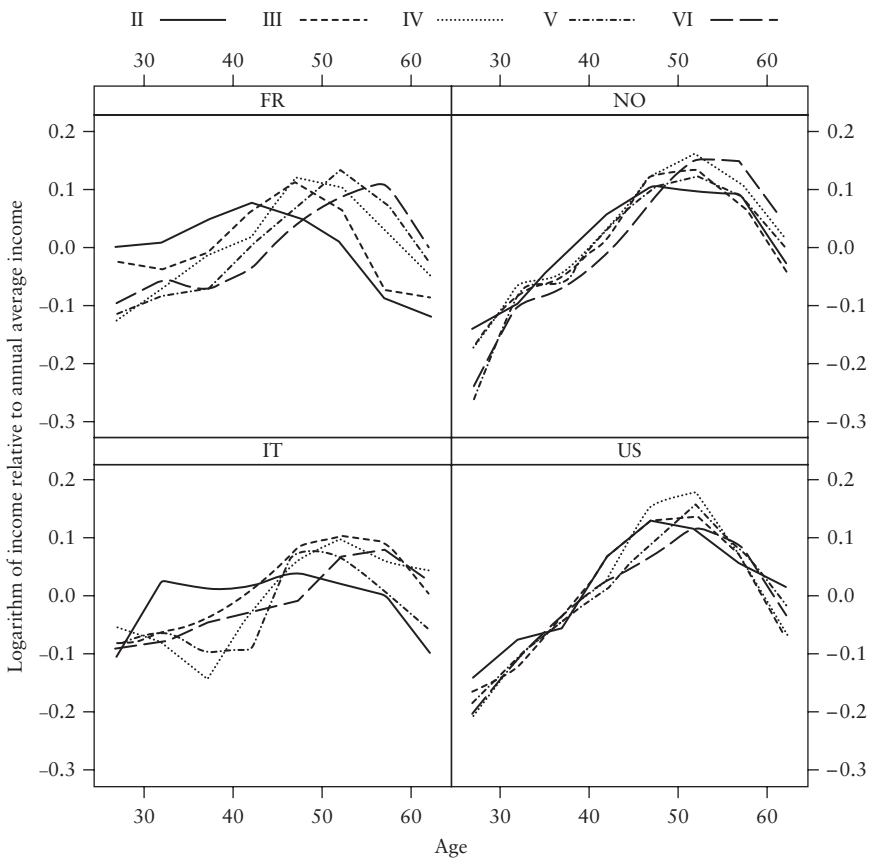

Figure 4.2. Logarithm of equivalized relative disposable income (0 = national median of the period) by age group for Waves II (around 1985: solid lines) to VI (around 2005: long dashed lines)

SOURCE: Author's calculations from the *LIS Database*, Waves II to VI of France, Italy, Norway, and the United States.

NOTE: The horizontal axis shows age, and the vertical axis shows the logarithm of income relative to annual average income. Five periods are represented from 1985 (dashed lines) to 2005 (bold lines), and the intermediate years are in dotted lines.

cohorts who are in their forties in 2005 are less affluent than the cohorts who are in their forties in 1985. What stands out among the four countries is the visible age transformation in France—a systematic decline in relative terms below age 45 and an increase above—and the more obviously stable configuration seen in the United States, where the 1985 and 2005 outcomes

are quite close to each other. The two remaining countries are more moderate with respect to their dynamics: Norway shows almost perfect stability after 1990, and in Italy the steep collapse of the first third of the life course seen between 1985 and 2000 is smaller in 2005.

The most interesting country in terms of cohort dynamics is France, where we observe a wave of affluence at age 40 in 1985, 50 in 1995, and 55 in 2005, which is 14 points higher than the same age group in 1985; conversely, the population at age 40 in 2005 has a relative income 13 points lower than those in the 1985 period. This translates to a 27-point implicit redistribution among age groups, which suggests an extreme transformation of age statuses in France; if juniors were more affluent than seniors in the 1980s, the situation is reversed in 2005.

This relative average situation of age groups has a complementary aspect: the transformation of within-age-group inequality, which is measured with the inter-decile ratio in Figure 4.3. In this graph, the higher the curve, the greater the within-cohort inequality. Here also, inequality varies across time, age groups, and countries. As expected, inequality is generally higher in the United States and lower in Norway. In general, we notice no strong, steady changes in age-specific inequality. At any rate, since the 1980s, inequality in France has declined massively for the seniors and increased slightly for the juniors. The trends in Italy are similar, with a larger increase of inequality for the juniors. This means that the new "fifty-somethings" benefit from more homogeneity, while the younger cohorts face more severe gaps between the top and the bottom. In the United States, the transformation is in the opposite direction, since the new seniors are much more unequal around 2005 than in 1985, and the young are slightly less so. How can we interpret these results? On the one side, the countries in the conservative and familialistic regimes offer stronger and more egalitarian protection to their seniors (Ferrera and Gualmini 2004; Tepe and Vanhuysse 2010), while liberal countries chose the opposite strategy, in which seniors are more dependent on non-public and non-egalitarian protection schemes. In this respect, Norway is more stable.

ESTIMATION RESULTS FROM APCD MODELS

With the help of APCD models, we can examine the importance of cohort fluctuations in terms of relative incomes. I thus investigate whether

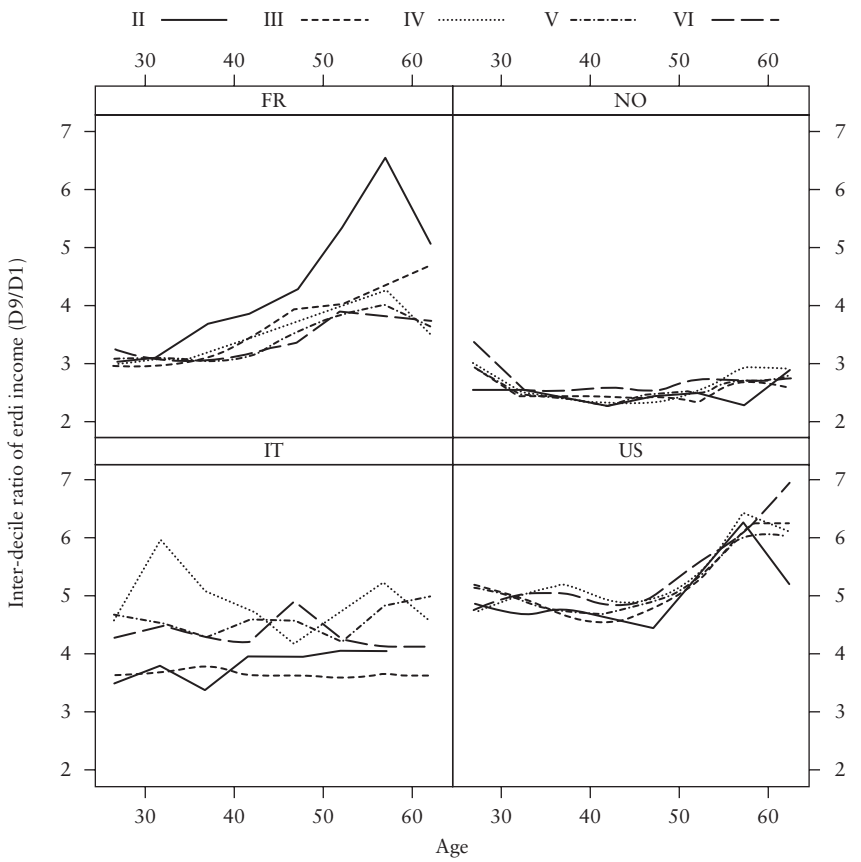

Figure 4.3. Inter-decile ratios of equivalized relative disposable income by age group for Waves II (around 1985: solid lines) to VI (around 2005: long dashed lines)

SOURCE: Author's calculations from the *LIS Database*, Waves II to VI of France, Italy, Norway, and the United States.

NOTE: The horizontal axis shows age, and the vertical axis shows the ratio of the inter-decile ratio D9/D1 of erdi income. Five periods are represented from 1985 (dashed lines) to 2005 (bold lines), and the intermediate years are in dotted lines.

some cohorts have benefited from exceptional income growth, while others—younger cohorts, in particular—have faced stagnation or backlashes. The models allow us to determine if this is the case even after controlling for education level, household structure (measured by the number of children and partnership status), and the gender of the household head. These

controls are important because in many countries different birth cohorts experienced large changes in educational assets and household demographics. The first step is then to estimate between-cohort inequality—that is, the degree to which some cohorts did much better or much worse than others.

The first model in Figure 4.4 accounts for the logarithm of equivalized relative disposable income (erdi) as a continuous variable and graphs its cohort fluctuations after controlling for period and age effects as well as the demographic and educational covariates.[9] The main comparative result is that the cohort differences in economic well-being vary across countries. In France, the cohorts born in the 1940s, including the first cohorts of the baby boom, had higher mean income than later cohorts, resulting in an inverted V–shaped dynamic. After controlling for education and household structure, Figure 4.4 shows an income gap of more than 17 percentage points, with the curve reaching a high of +0.08 and a low of −0.09. Italy has a similar cohort dynamic but with a smoother U-turn, a gap of 14 percentage points between the top and the bottom, and a sharp negative slope concentrated on the cohort born in the 1960s. These cohorts were the first to experience the sharp economic slowdown and expansion of youth unemployment in the 1980s, with deep long-term consequences for those affected. In the United States and Norway, the cohort effects are quite flat. With more detail, significantly negative coefficients pertain to the U.S. cohorts born in the mid-1950s—that is, those who entered adulthood in the long post-Vietnam economic slowdown that appears to be an "age of diminished expectations" (Krugman 1992).

Are there consequences in terms of middle-class dynamics? Figure 4.5 shows the second model that focuses on upper-middle-class positions. The figure estimates an APCD model that accounts for membership in the upper middle class (0/1) using a logit specification. The same cohort coefficients of the APCD-logit model are used that represent the fluctuations of the probabilities of access to the upper middle class after controlling for age and period effects, as well as gender, education, and household structure. Some cohorts have had more opportunities to reach the upper middle class than others. To measure differences in terms of percentage points (relative marginal effects), the coefficient estimates should be divided by a factor of 4.

The cohort coefficients result in rather contrasting transformations. In France, where the cohort variation is largest, the maximum of +0.33 for the cohort born in 1945 falls to −0.22 for the cohort born in 1975, which

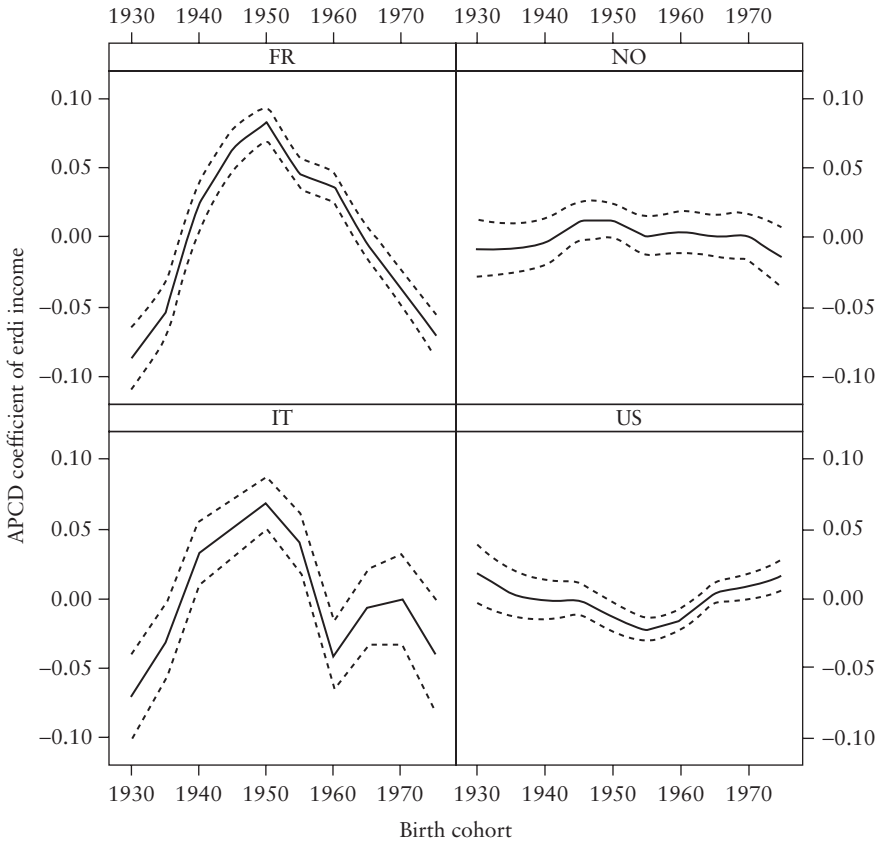

Figure 4.4. Cohort coefficients (bold lines) of the APCD OLS model of the log-equivalized relative disposable income controlled by education, size of household, and gender of the reference person (dotted lines represent the 95 percent confidence intervals)

SOURCE: Author's calculations from the *LIS Database*. Waves II to VI of France, Italy, Norway, and the United States.

NOTE: The horizontal axis shows the birth cohort, and the vertical axis shows the APCD coefficient of the erdi income.

translates to a 12.5 percentage point decrease in the probability of reaching the upper middle class. These differences are both highly statistically significant and substantively important. The curve for the Norway cohorts is similar to the French one but smoother and with a flatter slope. In Italy, the cohort of 1960 had far less access to the upper middle class, but the

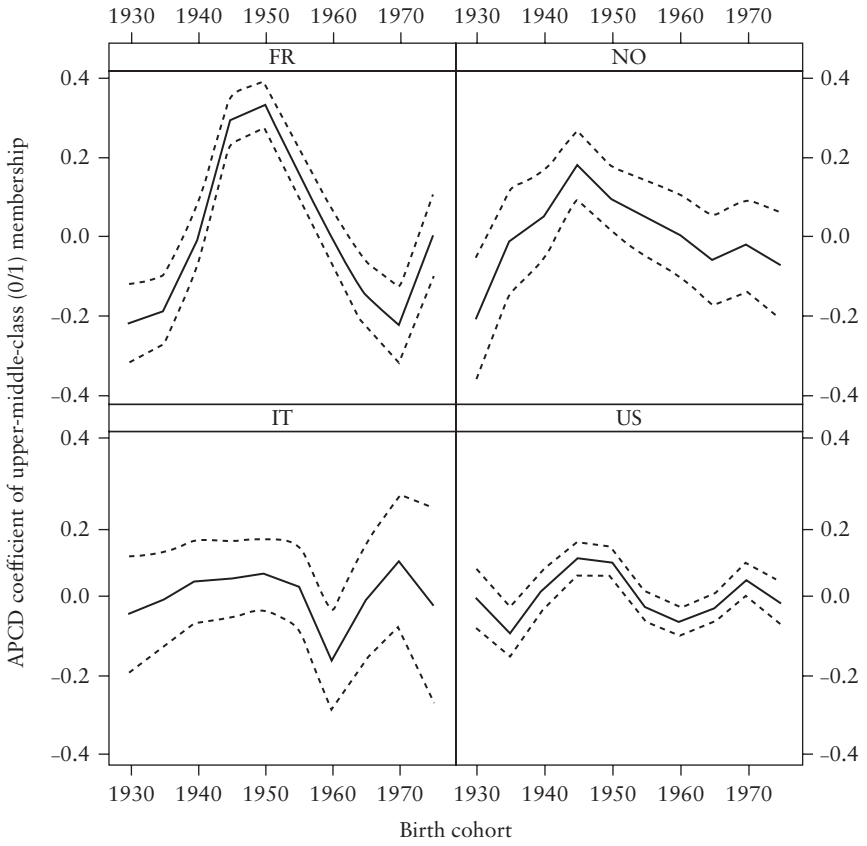

Figure 4.5. Cohort coefficients (bold lines) of the APCD logit model of upper-middle-class (0/1) membership controlled by education, size of household, and gender of the reference person (dotted lines represent the 95 percent confidence intervals)

SOURCE: Author's calculations from the *LIS Database*, Waves II to VI of France, Italy, Norway, and the United States.

NOTE: The horizontal axis shows the birth cohort, and the vertical axis shows the APCD coefficients of upper-middle-class (0/1) membership.

confidence intervals are wider, making it hard to draw firm conclusions. The U.S. inter-cohort differences are smaller, but the cohorts born around 960 (the baby-boom generation) show a significant decline in their probability of access to the upper middle class, a result consistent with those of Easterlin (1987). A comparison of these figures regarding upper-middle-class

access and the figures pertaining to log income shows that the main determinant of upper-middle-class dynamics is affluence. In this respect, much is given to some birth cohorts, and much is expected of other generations.

The cohort differences in access to the upper middle class are large. Figure 4.6 shows smaller but statistically significant differences that form

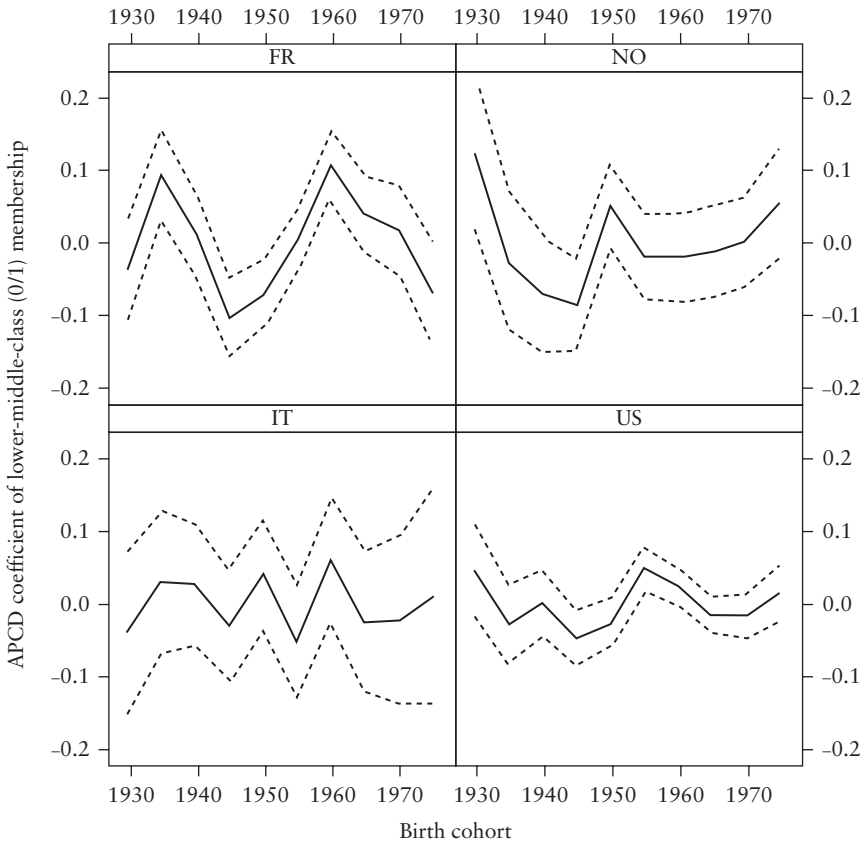

Figure 4.6. Cohort coefficients (bold lines) of the APCD logit model of lower-middle-class (0/1) membership controlled by education, size of household, and gender of the reference person (dotted lines represent the 95 percent confidence intervals)

SOURCE: Author's calculations from the *LIS Database*, Waves II to VI of France, Italy, Norway, and the United States.

NOTE: The horizontal axis shows the birth cohort and the vertical axis shows the APCD coefficient of lower-middle-class (0/1) membership.

a complicated pattern for access to the lower middle class. In the French case, the strong development of upper middle class for the cohorts born in the 1940s was at the expense of the lower middle class. The French cohorts born in the 1960s, whose access to the upper middle class had been barred more frequently, went more often to the lower middle class. We find similar dynamics for the Italian cohorts born in the first half of the 1960s and the 1930s birth cohorts in the United States. However, differences in access to the lower middle class are much more limited and are less significant both in the substantive and statistical sense.

CONCLUSION

The main conclusion is that the responses of middle-class dynamics to the economic slowdown of the post-1970 period vary across welfare regimes. The social democratic welfare regime, exemplified by Norway, seems rather stable in terms of how economic difficulties are distributed across cohorts and that the transformations of both the upper and lower middle classes are not strong. At the opposite end of the inequality spectrum, the United States shows less between-cohort inequality. The parameters for the cohorts born in the 1950s are negative, but their sizes are modest compared to the French ones.

There are more changes in Latin European countries such as France and Italy. The economic slowdown experienced by young Italians in the 1980s (those born in the 1960s) still has consequences for the contemporary middle-aged population. In France, the cohort scars in terms of lower incomes and greater difficulties in reaching upper-middle-class positions are visible over the long run: those born too late, in the 1960s or later, do not equally share the economic position and affluence of earlier cohorts. The French and Italian responses to new challenges are a mix of affluent seniors and deepening difficulties for the younger cohorts (lower relative income, economic dependence, unemployment, plus stronger inequality). This creates a paradoxical situation. The seniors have been living for the last 20 years as if they were in a social democratic country, since they benefit from a more generous system of solidarity, improve their income position, and are more equal (they have more intermediate and upper-middle-class positions). At the same time, the young of the 1980s (today's middle-aged adults) have been durably destabilized, with lower opportunities to climb

into the upper classes, higher risks of lower incomes, and stronger inequality, as if they were living in a liberal country. Inside the same country, different cohorts could experience different regimes of welfare, where the generosity for some is based on scarcity for others. Indeed, the problem is thus in terms of welfare regime sustainability, since apparent improvements are at the expense of the newer generations who face the consequences of an increasing public debt that is not devoted to a project of sustainable development over cohorts.

To further investigate how cohort dynamics fare across welfare regimes, more countries should be included. I assessed four countries, but including at least two or three countries from each welfare regime would allow more conclusive findings on the specificities of welfare regimes and not of particular countries. A more exhaustive analysis would also include an assessment of the density at different levels of the income distribution, including the working class and the poor. Also, an APC analysis of the transformation of inequality measures, which is methodologically more complicated, would be useful. One possibility would be to use the Age-Period-Cohort approach to estimate the inter-quantile inequality difference, an unusual statistical approach.

The central point of this conclusion pertains to the long-term sustainability of welfare regimes. To be stable in the long term, a social system must arrange its own reproduction from one generation to the next. In France and Italy, today's seniors benefit from a large welfare state, but the extensive social rights they accumulated were the consequence of their relatively advantaged careers, gained in relative terms at the expense of the young adults of today. The younger cohorts, when they become seniors, are unlikely to have access to rights that are as broad. The large size of the present welfare state will mechanically erode with cohort replacement, since the reproduction of the welfare regime is not ascertained.

In France, where the generational dynamics of the different social strata are parallel, if not similar, the major problem is not so much the generational inequalities as the fact that younger generations heavily support a welfare system that could collapse before they benefit from it. The problem is not stagnation only but a lack of preparation for the long term, at the expense of the most vulnerable groups: the young and recently socialized generations. Here lies the problem of sustainability for the current welfare regime: it appears large, strong, and durable, but its decline is almost

certain, and the security it offers to seniors is often at the expense of young cohorts facing radical uncertainty.

In the United States, the case is more complicated. The upper classes enjoy exceptionally good economic positions compared to the rest, while the middle classes see their fortunes stagnate, and the poor are subjected to relative, if not absolute, deprivation. For the moment, this regime is stable and seems durable in the sense that these extreme inequalities continue to develop (Atkinson and Piketty 2010) and reproduce over generations (Ermisch et al. 2012) even in a period of Democratic Party leadership, without deep political backlash. What from a European point of view is unacceptable seems to be largely accepted in the United States, at least for now. By contrast, the social democratic regime suggests that the high levels of social protection, equality, and solidarity could be stable over the generations. That is because newer cohorts benefit from similar conditions and rights as the older cohorts, in a system where seniors and juniors benefit from rather convergent improvement and participate in parallel to the cost of the system. This dynamic is different from those of France and Italy, where the seniors' improvements seem to go along with the juniors' permanent and increasing difficulties. In this respect, in Scandinavian countries, the tradition of negotiations based on long-term visibility and responsibility seems to be an important aspect of their outcomes in terms of shared improvement of human development over generations.

Conversely, the key question is whether younger generations in France or Italy will continue to sustain a system in which their social condition is devalued compared to the older generations, with no clear prospects of improvement. For the moment, these inter-cohort inequalities are accepted because they are generally unknown, their social visibility is low, and their political recognition null, taboo, or perverted. In France and Italy, the trade unions demand a lower retirement age to be able to open more job opportunities to the young; employers' associations support demands for less debt and declining public expenditures to protect "future generations." In neither case is there talk of productive investments, which could diminish the high rates of unemployment among the young. These examples from the conservative and familialistic regimes show that if we want solidarity, there is no other way than to choose a universalistic model (similar to the social democratic one) that equally supports the young, the middle aged, and the elderly in a long-term perspective of socialization.

In terms of consumption, these results provide a better understanding of cross-national variation in living standards over the life course. In France, compared to the United States, the younger generation faces real difficulties, and the current cohort of seniors has benefited from high income and economic homogenization (more equality within the cohort). In France, seniors appear attractive targets for marketing, while the young are often framed in terms of social problems. The Italian situation is similar, but the demographic collapse of the young adult generation (less numerous with fewer children) and their increased dependence on the family reduce the immediate visibility of the social problem. But this problem will persist, raising questions about who will care for the elderly. In contrast, the social democratic system seems to be a stable model of development of a universal solidaristic regime of collective improvement based on a large and homogeneous middle class. The general atmosphere in Scandinavia is more favorable to a socially homogeneous outcome and the development of a "wage-earner middle class" in a knowledge-based society. While recognizing there are limitations to the welfare-regime approach, this analysis suggests that the universalistic welfare regime is sustainable and maintains its own capacity for the long-term development of a large middle class.

NOTES

1. Median family income has regularly increased by 3 percent per year before 1970 and by 0.5 percent since the 1970s. (See Table 696: Money Income of Families—Median Income by Race and Hispanic Origin in Current and Constant (2008) Dollars at http://www.census.gov/compendia/statab/cats/income_expenditures_poverty_wealth.html.)

2. Based on an ever-stronger intermediate-middle class of wage earners; see, for example, Castel (1995).

3. See, for example, Atkinson and Piketty (2007, 2010) and Piketty (2001a, 2001b).

4. These ideas have been developed by the social democratic revisionism of Bernstein (1899).

5. The expression "scarring effect" has been developed in the context of mass youth unemployment (Ellwood 1982) and more recently by Markus Gangl (2004), who demonstrated the long-lasting scars of social failure at the entry in adulthood. In contrast, "lucky" cohorts benefit from the relative advantage of entry into adulthood during a positive economic context.

6. In the literature on welfare typologies, ideas are more stabilized than words. The comparison of the previous authors shows the diversity of terms used to characterize the welfare regimes. In this respect, the "Nordic" or "Scandinavian" regime is often defined as "social democratic" or even "universalistic." The "liberal" one is often described as "residual" or even "English-speaking family of countries." The "Bismarck," "corporatist," or "continental" type is generally "conservative." Last but not least, the "familialistic" model is "South European" and sometimes "clientelistic," or also "Latin" when it excludes Greece or "Mediterranean" when it excludes Portugal. Thus, references to political theory, geography, linguistic area, or even "civilizations" depend on the authors, and I see no definitive stabilization in this field. I prefer a reference to socio-political theory with "liberal," "social democrat," "conservative," "familialistic" types, but a softer system of appellations could help to understand subtle complexities, since France is close to Germany for its historical Bismarck influence but is also deeply "Latin" and partly "Mediterranean" for some of its secular balance between ("Nordic") rationality and ("southern") clientelism.

7. On the APCD methodology, http://www.louischauvel.org/apcdex.htm gives more information and examples. The APCD is implemented in a Stata ado file that can be downloaded via the command "ssc install apcd" that uses the Stata-constrained general linear model.

8. I selected Norway over the other Nordic countries because the coding of education seems more reliable.

9. The specification of this model is in terms of OLS, and the coefficient must be analyzed as a variation of the log; a coefficient of +0.11 means the erdi increases by 11 percent.

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