

Lindh, Thomas & Urban Lundberg

Predicaments in the futures of aging democracies

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Abstract

Ageing societies need to supply support to an ever growing segment of elderly dependent population without compromising the future sustainability for the currently young or unborn population. Current tendencies to focus on policy solutions like automatic stabilisers and norm based pre-commitment strategies with decisions delegated to experts carry a high risk of political breakdown when future populations re-evaluates this with new information. Using the Swedish pension reform as a concrete example we show how the futurity problem associated with the current non-existence of the future population makes the political process prone to avoid bringing issues with very long horizons into the public debate. Alternative demographic scenarios for Sweden are used to illustrate how even very small variations in the assumptions of demographic projections lead to radically different future population structures. Hence, the majority preferences in a distant future cannot be foreseen. Adding to this the complex interactions with a changing environment of technology and nature time-consistent decision making at the far future horizon must be virtually impossible. Thus the sustainability of long-term social security systems require constitutional balances that provide for orderly and continual adaptation rather than once-for-all fixes that are likely to be rejected by future electorates.

Keywords: ageing, democracy, pensions

Sammanfattning

Åldrande samhällen måste understödja en alltmer växande andel av äldre i befolkningen utan att därför offra den framtida hållbarheten för den unga eller ofödda befolkningen. De nuvarande tendenserna att fokusera på policylösningar som automatiska stabilisatorer och normbaserade uppbindningsstrategier med besluten delegerade till experter medför en hög risk för plötsliga politiksvängningar när framtida väljare omvärderar tidigare policy med hjälp av ny information. Vi använder den svenska pensionsreformen som ett konkret exempel på hur problemet med icke-existensen av den framtida befolkningen gör den politiska processen benägen att undvika att föra frågeställningar med väldigt långa tidshorisonter ut i den offentliga debatten. Alternativa demografiska scenarion för Sverige används för att illustrera hur även små variationer i antagandena bakom befolkningsframskrivningarna leder till radikalt annorlunda framtida befolkningsstrukturer. Därför kan inte majoritetens preferenser i framtiden förutses. När vi till detta lägger komplexa interaktioner med en föränderlig miljö och teknologi blir tidskonsistent beslutsfattande för den långa framtiden bokstavligen omöjligt. Hållbarheten i långsiktiga socialförsäkringssystem kräver därför konstitutionella ramverk som reglerar en kontinuerlig anpassning snarare än engångslösningar som sannolikt kommer att rivas upp av en framtida väljarkår.

1. Introduction

A democratic dilemma hides in the continuation of the ageing of industrialised economies as quick fixes are sought to prevent undue burdens on future generations. The dilemma has its roots in two fundamental facts of individual and social existence. On the one hand that people have a finite life span, and on the other hand that social institutions tend to be inertial and thereby introduce path dependence in social development. Decisions taken in the past impinge on and constrain the choices open to another population in the future.¹

If life would be infinite or there would be no such thing as path dependence, then our dilemma would vanish. The individual would suffer the consequences of his or her own decisions in the former case, and in the latter case every new generation would be able to make decisions of their own without being constrained by decisions made by the previous generation. The constituency of a democracy is, of course, a bit more complex than an individual but essentially the same reasoning could be applied in this case.²

Most theories about social and economic development tend to adopt one or the other of these two abstractions, either implicitly or explicitly. However, two interconnected trends in today's world precipitate a need to re-evaluate the usefulness of such abstractions. Globalisation makes us more dependent on decisions taken elsewhere in the world, and the ageing population makes larger demands on the resources of future generations in order to maintain intergenerational transfer systems. It is the latter temporal process that we will focus on but most of our arguments would only further be underscored by the spatial process of globalisation.³

1.1 The democratic dilemma

Most people would agree that social policy needs to ensure some measure of predictability and stability in order for the individuals concerned to plan their lives and achieve some measure of social security. Political upheaval cannot suddenly change the rules of the game –

¹ This is sometimes referred to as the 'futurity' problem (e.g. Kavka [1]). The future population does not exist when the decisions are made and more importantly its future composition and existence will be dependent on the decisions made.

² Karlsson [2] touch on a similar democratic problem arising due to the short effective forecasting horizon regarding technological solutions.

³ Not least has the futurity problem been underscored in discussions concerning environmental issues, especially the global scope has been brought to the fore by climate warming.

unless, of course, such change is necessary to achieve some greater good. Thus our issue is how and when this condition applies and how the political process is designed to handle it. This leads to the predicament we perceive: on the one hand decisions impinging on future generations must be made, on the other hand the ageing population implies that such decisions must with a high probability be changed sooner or later without any possibility to foresee when and how at the current point in time.

While the basic problems of democratic decision making we perceive have been recognised in economic and political discourse,⁴ the particular source of such problems in demographic aging has been treated either as an unfortunate accident or simply abstracted from. But an aging demography is also a result of political and economic choices that affect the flows shaping our demography: fertility, migration and mortality. To speak with German sociologist Niklas Luhmann this highlights the need for a broader perspective on policy reform which recognizes that ‘political action in the welfare state has to begin from the fact that the circumstances toward which it directs its efforts are changed in unexpected ways by the effort itself [4].’ As argued below, there is no way in which experts of today can account for the wishes of future generations, simply because there is no way in which they can describe the complex reality in which these wishes are bound to emerge, nor even know the identity or number of the people entertaining these wishes.⁵ The approach of futures studies acknowledges this already by referring to the plural ‘futures’ and not to any one determinate ‘future’.

1.2 Pension systems

The predicament we focus on concerns economic and social policy as a whole but to make the discussion tangible we illustrate our argument with a concrete example. The 1994 Swedish pension reform will serve our purpose here. Apart from us being familiar with it, it is also seen by many experts and policy makers as a ‘policy model’ for other countries to emulate. But as we argue it also demonstrates the democratic problems by its deliberate attempt to isolate the system from future political intervention in different ways. The functionality of a pension system will depend on the development of the overall economy, either in terms of the tax base (as is mainly the case in Sweden) or in terms of the financial markets.

⁴ Many of the basic arguments go back to the very beginnings of futures studies and Popper’s [3] 1957 discussion about the dangers of historicism.

⁵ On the issue of complexity and what can be known we recommend the special issue of Futures [5].

Pension systems are therefore very relevant as examples of decisions made for very long horizons, difficult to change and where changes can foil the whole life plan of the individuals concerned. Individuals at the end of their life course have small or negligible opportunities to remake their life plan. Further on pension systems also illustrate how our view of the future rests on a large number of assumptions about how the world works. For example, almost all discussion of future ageing and pension reform is framed within the nation state which we already see crumbling under the process of globalisation and ever increasing migration. Implicitly the future ethnic composition of the population is taken for granted in designing pension systems, but even rather conservative estimates would indicate that migration at today's levels and continuing low fertility trends will within the life of current young generations shape a whole different population that is much more fluid across nation borders. The notion of an intergenerational contract between young and old *within* the national framework then comes under serious strain.

1.3 Existing responses

One can already in current political change and debate discern a number of rather diverse initiatives in response to the challenge to sustainability that ageing, globalisation and climate change represents. Finland has installed a permanent parliamentary Committee for the Future, the UK has involved foresight organisations in the government, and the Knesset in Israel has installed a parliamentary official acting as an ombudsman for the future generations. Young politicians in Germany have formed a cross-party alliance for introducing constitutional constraints on government decisions, etc. In our own country Sweden futures studies have been an integrated part of policy formation since the early 1970s (see [6])

Although the very commendable intentions to increase consideration of the interests of future generations in political decision making, in our view many of the attempts to place restrictions on democracy by constitutional constraints or by bereaving elected representatives their discretionary decision power are misguided. A very strong tendency, not least in the current processes of pension reform, is to introduce norms, expert judgment or automatic stabilisers that reduce the need for governments to intervene regularly to adjust various parameters. Similar trends can be discerned within most policy areas as diverse as monetary policy and social security at large. Whereas these attempts to 'auto-pilot' policy adaptation by pre-

commitment strategies may make life easier for politicians it is actually a recipe for deterioration of the democratic process in the long run as politicians abdicate from their essential role of adapting policies through public debate and electoral competition.

In the following we first set the stage by discussing why ageing occurs and its consequences in particular by triggering wide spread pension reforms. A brief overview of the Swedish pension reform and how it exposes the democratic dangers we perceive follows. Using this example we analyse why it is unacceptable and unsustainable to fossilise institutional systems by putting them on autopilot for the far future. We conclude by illustrating how even very moderate changes in assumed fertility rates in Sweden will generate vastly different future populations with very different implications for the future sustainability of the pension system, both fiscally and more importantly politically.

2. Ageing sets the scene

The general ageing of the population in the industrialised world reinforces the impact of two recognised problems of long-term policies, the problem of uncertainty and the problem of time consistency. In a world with a balanced demography it is much easier to find sustainable stationary solutions to intergenerational relation problems. When the proportions of cohorts in the population remain approximately constant, generations will go through their life cycles meeting fairly similar relative economic and social conditions as preceding and succeeding generations, and equitable and stable solutions can be thought of in terms of social contracts between the generations. However, the demographic transition and its aftermath, with recurrent baby booms and busts, mean that we are nowhere near such a desirable situation of stability. It is therefore important to appreciate exactly why status quo in the population have been, and will remain for a long time, impossible to achieve.

It is hard to imagine a mature welfare system of any kind that does not in some way or the other place some burden on coming generations. Some may argue that completely prefunded systems would not do so. But, alas, assets can only pay for care if somebody is willing to buy these assets at a high enough price, and if care personnel become scarce and thus expensive that may well not be the case. The fact is that in any economy those who produce must abstain from consuming some of their surplus if those unable to produce their own consumption are

to survive.⁶ Intergenerational transfer systems are therefore necessary ingredients in any functional society and which will need to adapt changes in the age distribution. Ageing therefore requires an adaptation of this redistribution system. The willingness of active producers to do so is in no way ensured, no matter whether the mechanism is through the public sector, within the family or works through the capital markets. No matter what promises are made today, in the future the young will be in the position that they can with impunity renegotiate or even renege the claims of the old later on if they find the burden too high.

2.1 The demographic transition

The popular idea that people in poor countries have a lot of children in order to support them in their old age is almost certainly completely wrong. Very few people in those countries survive up to an age where they may become dependent on their children and the burden is then often shared by other relatives. The mortality risk is so high that there is no way that the distant economic benefit of retirement consumption would motivate the immediate high investment cost in children in order to get old age insurance. Economically the benefit of access to child labour within the much closer future totally swamps any potential retirement benefits. Anyway the most likely explanation for many children is that people simply like to have children provided they can afford the cost of raising them.

In our modern society with its high life expectancy the retirement benefit of children gain weight as an argument for taking on the costs, since it is much more likely that you will actually live to enjoy it. Nevertheless it is indisputable that the trend of fertility over the last centuries has been to fall with both income level and life expectancy falsifying the old Malthusian prediction. Historically the rise in longevity is also associated with the appearance of comprehensive public pension systems. There seems to be little consensus as to why this demographic transition occurs; going from high mortality and fertility rates to much lower mortality and fertility rates, but it is by now a clearly established empirical regularity although the previous assumption that fertility would stabilise at replacement level seems ever more questionable (the low fertility trap hypothesis [9]). In Western Europe the process of decreasing mortality rates followed by decreasing fertility rates started already in the 18th century in for example England and had reached most of Western Europe in the late 19th

⁶ MacKellar [7] discusses this point extensively in a review of Petersen's [8] book *Gray Dawn: Age Bomb?*

century. National and cultural idiosyncrasies in the timing and speed of the process are legion but the main features of the process have been repeated again and again, in country after country and by today only a few countries in sub-Saharan Africa has not yet started the phase of falling fertility.

The demographic consequences of this demographic transition show up clearly in the rectangularisation of the age pyramid when the population structure is transformed. From being totally dominated by a large proportion of children and young we have moved to a stage where the population is fairly evenly distributed across age groups up to age 70 or 80 when mortality rates increase and start to take a substantially larger toll. In some of the industrialised countries a new turn has been taken (sometimes referred to as the second demographic transition [10] as birth rates fall below death rates creating a more rhomboid shape of the age structure that may threaten to assume an unsustainable mushroom shape where ever fewer active people must assume the burden of caring for the old dependents.

The initial stages of the demographic transition are characterised by increasing numbers of children as survival rates increase but as fertility rates start to follow mortality downwards the share of dependent children start to decrease while the share of dependent elderly remains low making dependency rates fall. It is in this phase rapid economic development takes place as the so called demographic dividend (see [11]) sets in. However, sooner or later the population will start increasing its share of dependent elderly and dependency rates start increasing again. In Sweden the dependency rates were historically low in the 1950s but has since then been slowly rising again and soon the rate of increase in the dependency rate will pick up its pace.

In the beginning of the new century industrially developed countries will stand before a previously never experienced ageing of the population that will increase the relative burden of dependent elderly people on the welfare systems. There is no real historic precedent that allows us to use previous experience to judge how this process will transform economic and social structure, although there are a good many reasons to expect that the pressure on the welfare systems that redistribute between young and old will rise quite dramatically no matter whether these systems are private, collective or public. Long-term sustainability will require change and adaptation in the institutional structure of society. This is a process that has already started and incited a large interdisciplinary research literature on welfare retrenchment and restructuring (see [12]). The common denominator for this literature is the attempt to

grasp the institutional prerequisites which either facilitate or inhibit changes in social policy programs.

2.2 Politics and policy making in the era of welfare retrenchment

The demographic transition is the ultimate cause and forms an important background to the current ageing trend. With rising dependency rates follow slower economic growth and a need for increasing redistribution of resources across generations. Thus societal institutions will not and cannot remain stable and reforms of social institutions through democratic processes will become necessary. Consequently, during the last decade or so one of the most important themes in comparative welfare research has been the attempts of industrialized democracies to handle the effects of the so-called ‘twin pressures of global and demographic change’ [13].

In many respects this literature offer rather depressing reading. The welfare state has proved itself to be far more difficult to retrench and reform than to build and refine. Where politicians of the post-war era in general could seek credit for popular social reforms, politicians of today are mainly engaged in an exercise of blame avoidance. The reason for this shift in policy outlook is that social policies tend to generate their own defence. As evident from an abundance of electoral research, voters have a strong tendency to react more strongly to losses (social provisions) than to equivalent gains (tax reductions). Independent of their persuasions, incumbent governments have strong incentives to either shirk their responsibilities, remain passive, or develop strategies which help to divert the mind of voters and social interests.

Part and parcel of the problem is uncertainty since you know what you have but not what you get. At least that is what most people think. In practice the reasons for seeking retrenchment and structural reform comes with the realization among policy makers that previous reforms actually were not time-consistent and will be unsustainable in the long run.

The opportunities open for governments seeking to change the form and function of social policy systems are dependent on different factors. Many studies in the so-called ‘New Politics’ literature share the idea that social institutions have strong feed-back loops which condition subsequent policy-making [14]. Decisions at one point in time constrain the subsequent policy making by putting policy on to a particular track. Another tendency is to underline the importance of law making frameworks and the number of veto points in the

decision making process, that is instances in the decision making process at which various actors can prevent the executive to adopt a given piece of legislation [15].

The focus on institutional resistance and lawmaking frameworks has been fruitful in analysing the reform process that is sweeping the world. In country after country, governments of various stripes are developing policies in order to overcome suspicious voters and organised interests. That is not to say that this pattern is unambiguous. Much research indicates that conservative or Continental welfare states, which involves labour and business in the administration of social security schemes, are more difficult to change than the universal and targeted welfare models associated with the Scandinavian and Anglo-Saxon countries [16]. And high concentration of power is not necessarily an advantage for a reform inclined government. Absence of veto points in the policy process concentrates the authority in the hands of the government, but it also increases its responsibility for unpopular decisions [17]. The higher the concentration of power, the greater the risk is of being punished by the electorate.

3. The Swedish pension reform

Sweden being a pioneer in ageing ('oldest country in the world' with 18 percent of the population 65 and above in the 1980s) and a pioneer in pension reform therefore provides an illustration to future problems of implementing social reforms, but also to the way in which policy makers that are addressing similar problems are bound to be mixed up in the democratic dilemma referred to in the introduction. The attempt to isolate the pension system from future political intervention carries a danger of undermining its future democratic legitimacy and complicates any attempts to adapt to unforeseen future events.

But first the political peculiarities of Sweden need to be set into perspective. Formally the Swedish constitution is characterized by few veto points and a high concentration of power. This is due to the fact that parliamentary systems with only one chamber are associated with strong governments. From a constitutional point of view there is nothing that prevents a government supported by a majority in Parliament from adopting radical reform measures. There is no other arena where reform initiatives can be blocked. Further, Swedish governments can rely on a high degree of party loyalty. In Sweden, compared to for example France, Members of Parliament seldom turn against their own party leadership (see [15]).

But there are also aspects of the Swedish constitution that points in a different direction. The high concentration of power is partly undermined by a proportional electoral system that tends to produce weak minority or coalition governments. During its more than 60 years in power since the early 1930s, the Social Democrats Party has only been able to gather its own majority in Parliament at two single occasions. Text books usually stress that the Swedish system has led to the emergence of a class based political culture where the political parties, understood as legitimate social interests, checks and balances each others actions in Parliament.

The 1994 Swedish pension reform fits quite nicely into this pattern. It was the result of a broad bipartisan agreement between five different parties in the Swedish Parliament, which after a decade of destructive conflicts decided to adopt a common cause. After its electoral victory in 1991, the non-socialist minority government enacted a governmental committee with representatives from all parties represented in Parliament. Shortly thereafter, and only a couple of months before the election in autumn of 1994, the so-called Working Group on Pensions presented its final report on principle guidelines for a new public pension system that was adopted by an almost unanimous Parliament.

The prospects for a bipartisan compromise in Parliament meant that the chances were good for the government to overcome the institutional path-dependency inherent in the old defined benefit pay-as-you go public pension system. Therefore the Working Group on Pensions could take the opportunity to develop a fairly radical solution to the financial problems in the old system as they were presented in various expert reports [18].

Among other things, the reform implied a transformation to a system of defined contributions and the introduction of a new benefit formula. The former best years' principle was switched to a so-called life time earnings principle. Thirdly a shift was made toward flexible and delayed retirement. Aside from these principal changes in the public pay-as-you-go system, toward a so-called 'notional defined contributions model,' it was decided that a small part of the pension fee should be transferred to a fully funded system based on individual accounts. Compared to the old so-called ATP system enacted in the late 1950s, the 1994 Swedish pension reform is designed in order to increase labour supply, and to benefit those wage earners that manage to remain in the labour force as long as possible [19].

Both the social democrats and non-socialist parties had to make considerable concessions. The social democrats lined up behind a far-reaching reformation of their so-called crown jewel, the ATP system. The non-socialists had to accept the continuation of a universal and mandatory public system that according to the chief architect of the system, the liberal Bo Könberg, will last until ‘the next ice age [20].’ From the perspective of social planning, the pension reform is often described as a major achievement. Unlike many western countries Sweden has created a pension system that is flexible and rational in relation to social developments, and considers both the dependency ratio and more general economic conditions. The guiding thought underpinning the system is that it should be both internally self-regulated and externally compliant. However, this means that the system’s financial stability has gained priority and substantial parts of the risk burden have been moved to the individual.

While this can be understood as increasing efficiency in the sense that individual incentives will promote a more responsible behaviour in planning for the future there are, of course, important issues concerning equity and societal responsibility in the future for those who have had bad draws in the big lottery of life. If certain information about the future (at least about the probability distribution of its possible states) could be made available these factors could conceivably be balanced against each other in a contract (although it would have to be a very complex contract).

There is, however, a number of reasons, only some of which we will discuss below, why this is not the case. The population in charge at a future point in time is not the same as today. Some will have died and some will have been born and even those that are still alive may well have changed their mind, either because their mind is not time consistent or because they have new information about the world. It is a popular misconception that the young ought to be more interested in their distant old age. In fact rational young people should not attach much weight to their pension conditions because it is far in the future and even with the life expectancies of today it is a sizable chance of ten to fifteen percent that they will not live to enjoy it. Thus they ought to discount retirement income rather heavily with the consequence that we can expect a sizable proportion of the population that due to either bad luck or time inconsistent behaviour will end up in poverty at old age. Should the social planner just accept this eventuality and fix it as it pops up?

4. Time-consistency and the futurity

Already in 1928, Frank Ramsey [21] argued that social planners should not be allowed to discount the future since the welfare of future generations should count as high as for the current one. In more recent work Auerbach and Kotlikoff [22] have suggested the construction of generational accounts based on the same basic idea that the current generation should not be allowed to implicitly place burdens on the coming generations. Kotlikoff and the two Swedish economists Torsten Persson and Lars E.O. Svensson [23] suggest that time consistency problems could be solved by negotiating social contracts that are sold from one generation to the other. While the model in question certainly is overly simplistic the basic idea is in fact legitimate, namely that there is a need for social institutions that can regulate the balance between generations, and also renegotiate the contract as new information on constraints and needs arrives. The crucial flaw is how to create an efficient market pricing of such contracts that is actually implementable. The Swedish pension reform constitutes an attempt in this direction but is designed from a static understanding of the future.

This static understanding of the future is mirrored in the political parties' ambition to establish an autonomous and self-regulating system that will survive without continuous law making interventions. The most striking expression of this objective is the so-called 'special reduction mechanism' (the brake) that in times of rising expenditures regulates the system's expenditures, without exposing the politicians for the political risk that in the old system was associated with the duty to adjust the citizens' pension to new and problematic economic circumstances.⁷ Also in other respects, the new Swedish system contains many examples of pre-commitment mechanisms, or what welfare researchers refer to as 'automatic politics' (see [12]), that is that the responsibility for unpopular measures is either regulated in law or transferred to autonomous institutions (not dependent on arbitrary voters).

The Swedish case illustrates how the ambition to develop viable solutions to the challenges of globalization and demographic development, easily end up in a democratic cul-de-sac. The public legitimacy of the reform was not founded on democratic procedure. Rather on ideas of what is just for the individual and rational for society – not only today but also in an unknown future with an unknown population with unknown preferences. All in all this circumstance raises a severe question. If major social systems are not codified and sustained by the people

⁷ But it should also be noted that this was not part of the original construction but was introduced as an afterthought when public debate had started to reveal certain flaws in the 'ice age' scenario.

(the source of all public power in most western constitutions) who or what stand as a guarantor for their creation and continued existence? This question becomes important exactly because the ‘ice age’ idea in designing a system to be autonomous with regard to political decision making is untenable from a democratic viewpoint. Often it is also likely to be practically untenable but that is another problem than what we focus on here.

Our view of the future is necessarily based on assumptions about the world which are unwarranted in view of the challenges of this century. For example national integrity and composition of the population as a stable framework excludes the obvious uncertainty inherent in globalisation and migration as well as the quite substantial uncertainty in demographic future development. We propose that with a very high probability automatic stabilisers and expert decision making based on such assumptions will sooner or later come into conflict with democratic opinion in the ageing society. Below we discuss some of the more important reasons behind this proposition.

4.1 Time consistency

Time consistency is a term most often used in connection to the lack of it. It refers to the problem that we often regret decisions and cautions taken at a previous point in time. Within the realm of economic policy making pre-commitments has been recommended as a solution of the time consistency problems that influence discretionary decision making because of incentives for policy makers today to take decisions that will be regretted at a later time because they have proved to be sub-optimal.

The problem of time consistency is pervasive in all areas of decision making concerning the future and has no single cause. As already indicated social contracts involving unborn generations may be convenient analytical devices but at the end of the day actual implementation of such contracts will not be feasible.⁸ In part this is due to the strategic nature of a contract where cheating may be tempting to one party, which in the intergenerational context is very hard to sanction in any efficient way. Another quite different reason is that we do not have the knowledge necessary to actually specify all possible future states of the world or the probability with which they will occur. But these are practical limits

⁸ That is not to say that the analysis therefore is futile because understanding the situation will make more adaptive and flexible solutions easier to evaluate even if numerous difficulties prevent the actual implementation.

and we wish to discuss more fundamental reasons why social contracts extending to the unborn are not only futile but democratically unacceptable.

Information and aspiration asymmetries in a heterogeneous population that changes its composition entails the potential that the minority view becomes the majority view and changes previous decisions, both because the composition and preferences in the population has changed and because new information may have different implications to different groups, interests and social classes if you will. *In a very fundamental sense the electorate's prerogative to change its mind is really the essence of democracy.* But heterogeneity stems also from inequality in terms of resources that people command as well as in terms of information about the consequences of decisions and the diverse goals that they wish to achieve.

Some of these problems consist in individually asymmetric information that has been extensively analysed. In the insurance literature information asymmetries are often classified as either 'moral hazard,' when the insurance itself makes people behave more carelessly, or 'adverse selection' when those with higher than average risks are more likely to want a certain insurance. Many of these insurance problems carry over to more general welfare institutions and contractual situations. There is a large literature discussing how to deal with them in different ways in order to use incentive mechanisms for achieving more efficient solutions. But the passage of time and with it the identity of the population and its valuation of different states of the world make long-term sustainable solutions impossible to achieve, unless we are prepared to resort to measures such as ethnical cleansing, racial hygiene, forced integration, ostracising of dissenters or any other variants of the urge to get rid of those that do not agree with us.

One of the reasons for this lies in the fundamental existential predicament that human life is finite with uncertain duration. Information and aspiration asymmetries will necessarily vary over the human life cycle. The way in which this process of variation takes place is influenced by the individual position in society, ethnical and cultural heritage as well as individual abilities and idiosyncrasies. In this context, it is nevertheless easily realised that one dimension of such asymmetry is between generations. The young are naturally handicapped in terms of available information about their future in comparison to the middle aged and elderly

who have shorter time horizons, and also have adapted their aspirations to the path already trodden.

But then again ageing, sometimes compounded by sickness, will tend to handicap the old in terms of the information available to them. Handicapped not only by dementia but more generally through decreased capacity for learning and loss of memory functions and, even more important, in terms of the diminishing options to change their plans. Moreover, demographic ageing systematically tends to increase the population weights for the older part of the population at the expense of the young. Thus the democratic constituency differs, not only in dimensions like class, gender, and ethnicity and so on, but in systematic ways related to their age and the age dimension has a peculiar relation to long-term decisions. The promises the current electorate make to future pensioners (largely themselves) will have to be honoured mainly by those who have had no part in the decision making because they were too young or not even born when the promises in question were made.

It is fairly easy for politicians to mobilise support for decisions that favour the current adult generation and move the costs on to the next generation. Not because the current generation is inimical to the coming generation. Generational warfare may be a popular image in journalistic interpretations but is hardly a likely perspective in reality since family ties across generations can be expected to prevent that. Nevertheless information concerning the current generation is much less uncertain than information concerning the next generation. The young are neither very well informed nor very interested in the current design of retirement systems, while the elderly for natural reasons are both more informed and directly concerned.

4.2 Preferences

The valuation of different states of the world is unlikely to be stable over time. There are different reasons for that. Obviously, as every parent knows all too well, it is very hard to foresee the preferences of even your own children when they become adults, let alone the tastes of the whole unborn generation. But even for the individual the valuation of her life course may be very different at different points in time. It has been shown that for example smoking and other myopic and risky behaviour may be perfectly rational as a consequence of hyperbolic discounting of the future such that we always end up regretting our previous decisions even if we were able to foresee their consequences (Ainslie [24]). That is so because

at the current time your valuation of consumption in the near future relative to current consumption will underestimate the relative value that you in the future place on that consumption. As a remedy for this, for example, public interventions to promote savings and prevent addiction have been suggested, prescriptions that, of course, assume that the ‘correct’ valuation is known to the politicians that intervene.

But we will in the future uncover information both about foreseen states of the world and states we did not even know existed that will make us change our valuation because we discover that the choice set was actually different from what we believed. There is therefore little reason to believe that any decisions that we take at one point in time will be evaluated consistently over time. We will always ‘know better’ in the future implying that it will never be possible to fix any ‘eternal’ valuation for future choices. This is an inconvenient conclusion that philosophers and other wise men have spent a lot of energy and arguments to avoid. It is in the absence of proof to the contrary the most likely conclusion though. Thus we are forced to re-evaluate our welfare systems rather continuously but it is in the nature of the problem that we cannot a priori know when and how that becomes necessary.

The tendency to evade public debate and delegate important parts of the decision making to experts and ‘bipartisan’ working committees, and to design automatic stabilisers and norm rules to avoid discretionary decision are not in any way features unique to the 1994 Swedish pension reform. Rather it has become an often used method to handle economic policy and comprehensive economic reforms, as well as general cuts in public spending. Instead of taking explicit responsibility for monetary policy governments have delegated to Central Banks to pursue a fixed inflation target or some other monetary goal. Instead of making explicit decisions on which spending programs to cut in a budgetary crisis, budgetary ceilings and general savings have been preferred tools to achieve the desired balance in the public budget.

One should not make the mistake to explain this trend with reference to weakness, ill will or cowardice among politicians. The strategy of pre-commitment has grown out of real problems to handle discretionary decision making and the public debate surrounding it. In the case of the Swedish pension reform it had started to become quite obvious that the old solution would not be financially sustainable given the foreseeable demographic trends. At the same time considerable political prestige had been invested by both proponents and opponents to the old

ATP-system that made it difficult to back down from given promises to either uphold the old benefit formula or totally overthrow it, respectively.

Coincident with this political dilemma there was considerable asymmetry in the electorate, both regarding the actual knowledge about how the system worked and the incentives to engage in public debate. This asymmetry was closely related to age and thus crossed party lines making it risky for all parties involved to turn the pension reform into an election issue. Nor was this asymmetry amenable to a simple solution in terms of better information on the options available, their drawbacks and advantages. The young could not compute the consequences for themselves of the Working Group's proposal with a precision anyway near what the middle aged and elderly could, simply because they were individually uncertain about their likely work life incomes. The benefits moreover were delayed into a much more distant future with even more uncertainty about the overall economic situation at that point in time. The information disadvantage of the young compared to people in their 50s with a more or less definite idea about what their retirement benefits were to be was immense.

If the young could have used the outcomes or likely outcomes for their parents and grandparents as a valid predictor of their own outcomes, the situation would have been different. But the reason that the old ATP system had to be reformed was exactly that the changing demography made it financially unsustainable. The changing demography in turn made it virtually impossible to use parental experience for prediction and thus prevented rational expectations of the future to be based on parental experience. Many individuals undoubtedly based their expectation on parental experience anyway, even though it was clear for the experts and some politicians that these individual expectations would not add up at an aggregate level.

The democratic dilemma created by this information asymmetry between young and old, and the political consensus strategy to avoid bringing the debate into the election process, is likely to be a phenomenon that will be recurring time after another as the ageing process accelerates and major reforms become necessary in several other dimensions of the welfare state, for example regional redistribution, sickness- and unemployment insurances, health care, home services etc. However, the democratic legitimacy of the reform process will suffer from a continuation of this strategy to relegate controversial or unpopular decision to wise men and

consensus committees in order to defuse their political importance in the elections. This is the core of our argument.

The point argued for putting the system on autopilot was precisely to avoid such controversy resulting in time inconsistent decisions. Democratic legitimacy will suffer from frequent retreats from impossible decisions as well, so is this solution not the lesser evil? If it really was the case that the autopilot could keep the course steady over the foreseeable future that may very well be the case. There are issues on which we cannot keep changing policies every fourth year (or whatever the election intervals may be), both practical issues like what side of the road to drive on and issues of principle like freedom of the press and other things regulated in the constitution. So why not constitutionalise the pension system? It is certainly important that people can plan for their pensions without fearing frequent changes of the rules.

The problem is that autopilots are quite liable to fly into hard obstacles when the flight route is not part of chartered territory. And that the future cannot be considered chartered territory is exactly what we argue in this paper. Against this background it appears very unreasonable not to allow a new and different electorate to make adjustments to previous commitments.

Below we provide a tangible illustration of the widening event cone that lies ahead. Among our most secure information about the future are the demographic projections. Very reasonable small changes in the assumptions of these projections lead to entirely different future conditions for our welfare systems well within the reach of our decision horizons. In fact faulty projections were fundamental reasons why the ATP system was thought to be sustainable at the time of implementation in Sweden.

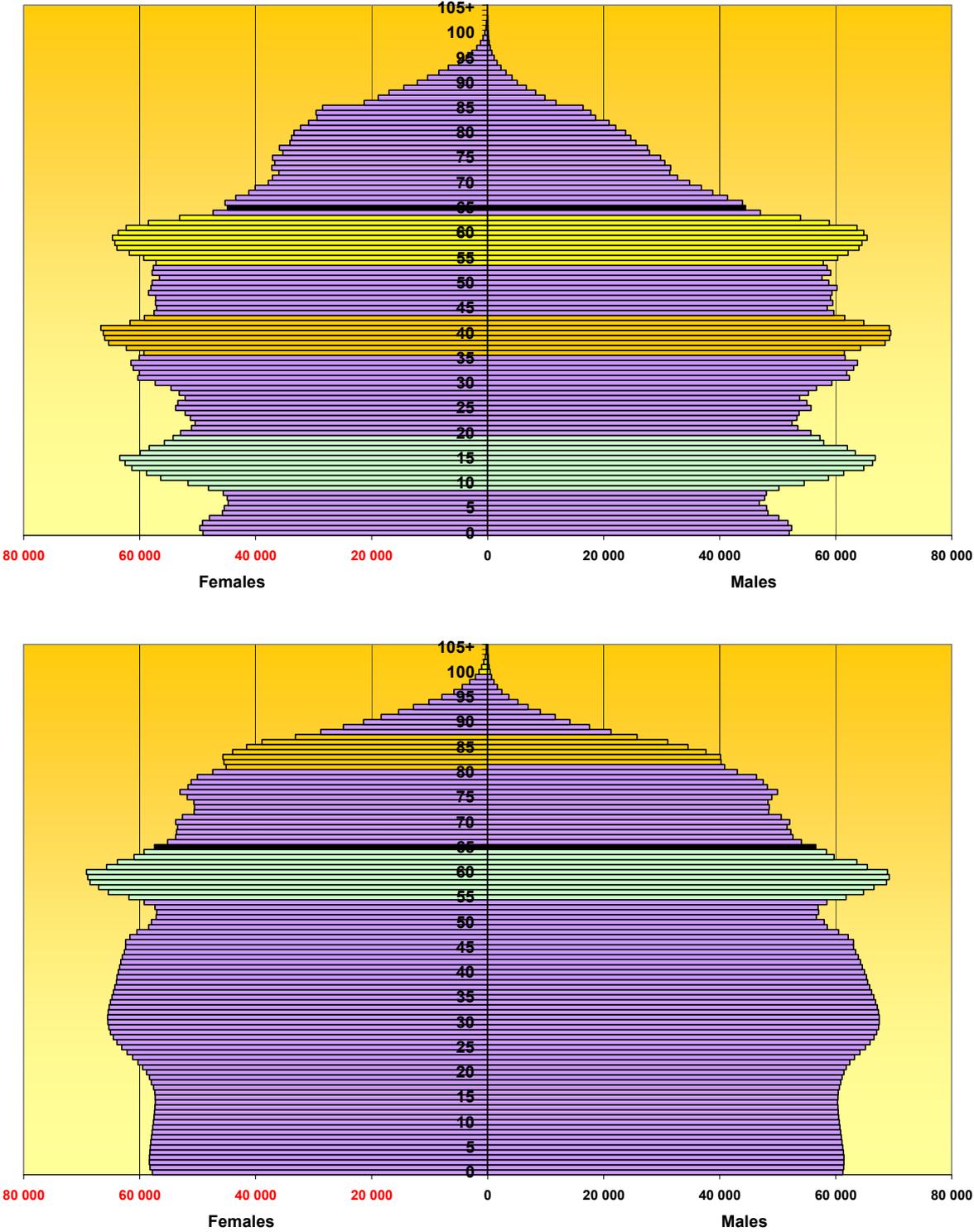
5. Demographic projections of the age structure

Compare the age pyramids in Figure 1 and it is immediately apparent how much more elderly Sweden is expected to become. The much higher proportion above 65 indicates that the young people entering the labour force now and retiring around 2050 will have to deal with a rather different economic reality at that time and their expectations will have to adapt to that reality. The median age of voters has increased and lies above 50 but not that much above although nearly 30 percent of the electorate is now above 65. The elderly support ratio (population 20-

64 divided by those 65 and above) falls from 3.4 to 2.34 indicating a quite substantial decrease in the contribution base of the working population. If the average person in the working population contributes a fixed proportion of income, we need on average to raise incomes by 45 percent to preserve the benefit level for those above 65. This is definitely possible, even likely to be achieved with a fair margin although perhaps not ensured (it corresponds to less than one percent annual growth on average). However, preserved benefit levels at that rate of income growth actually means that the *relative* benefit level of pensioners in comparison to real average earnings would fall by 30 percent. And that holds no matter what the rate of income growth may be. So even if it is quite feasible to preserve and even improve the standard of living for the elderly by increased income growth, their *relative* standard will fall unless contribution rates are increased to compensate for the decrease in the support rate.

Or maybe not? We tend to be fooled by the apparent precision in these projections. Looking at the base of the projected pyramid it looks much smoother than the actual current age structure in Sweden is. The reason is that the projections are based on assumptions of very smooth future birth rates as well as migration flows. In constructing demographic projections Statistics Sweden like most other agencies doing this use rather rough guesses about future development of the inflows and outflows in the population, i.e. migration, birth rates and death rates. The reason why demographic projections of the age structure still are providing the most secure information we have about the future is not our ability to predict these in- and outflows but the demographic inertia, i.e. the simple fact that it takes a long time before migration, births and deaths have any substantial impact on the living population which just gets one year older each year. But in 45 years uncertainty about the future shape has increased quite substantially and with this increase the reality that young people will have to deal with at that time.

Fig 1. The Swedish age pyramid in 2005 (upper panel) and 45 years later in 2050 (lower panel) according to estimates and projections by Statistics Sweden. Baby boomers marked by alternate colours and previous mandatory retirement age at 65 by black.

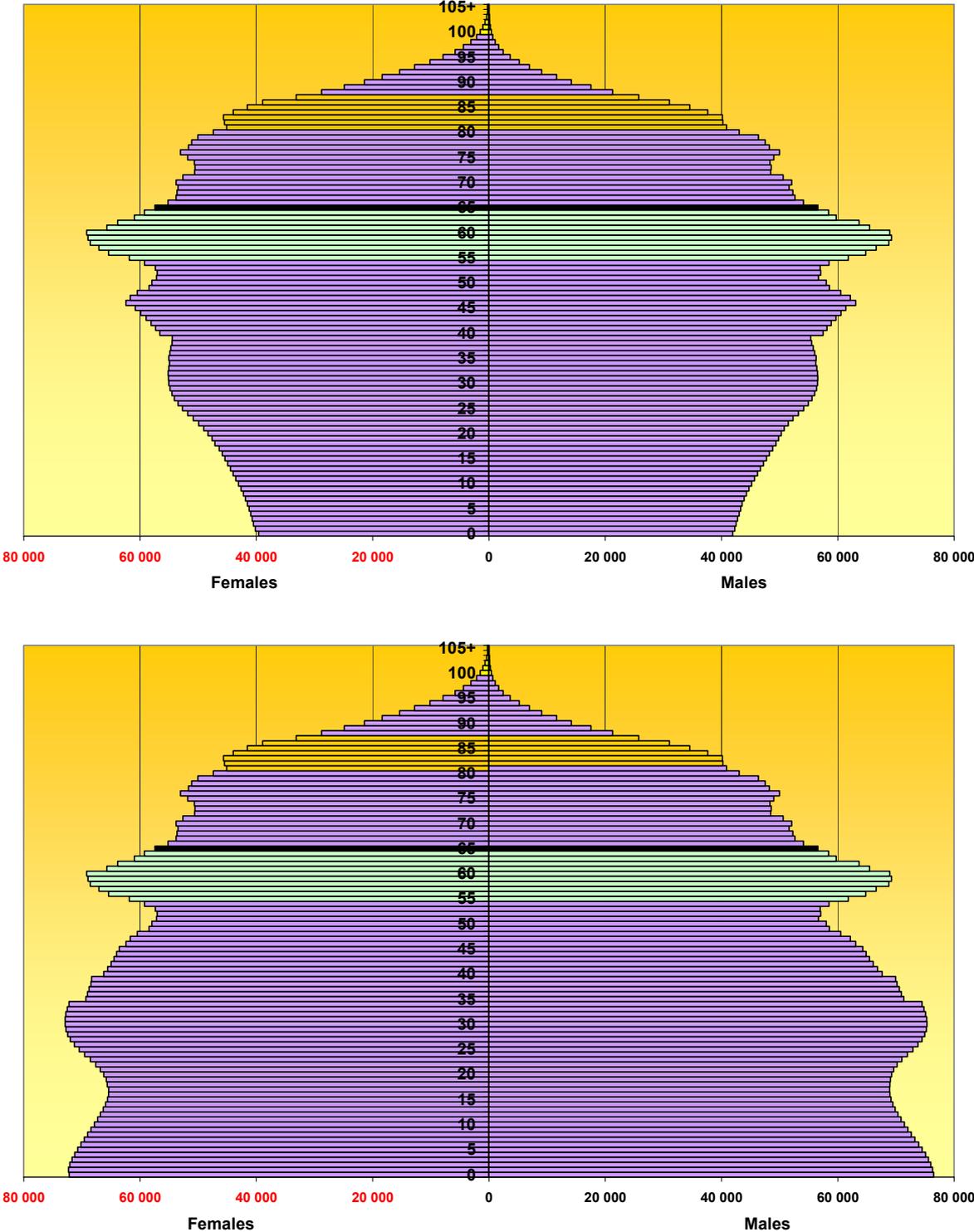


To make that point even more tangible we display in Figure 2 two quite reasonable and moderate alternative demographic projections. In the first one we have adopted a long-run total fertility rate projection of only 1.5 children per woman instead of the 1.85 that Statistics Sweden use in Figure 1. In the second one we raise the total fertility rate to 2.1 instead, i.e. close to the level required for natural replacement of the population. These variations are in no way extreme. In Sweden we have been touching on both these values within the last 15 years (close to replacement level around 1990 and close to 1.5 in the end of the 1990s). It is also well within the bounds of variation we can observe within the EU, with Ireland close to replacement and several countries as Italy and Germany well below 1.5. No other assumptions used about mortality or migration have been changed but the cumulative effect of the different fertility rates is quite dramatic. We are clearly depicting the population of two very different societies.

The Statistics Sweden projection for the age pyramid of 2050 in Figure 1 supposes that baby boomers from the 1940s have mostly died off and the boomers born around 1990 are in turn for retirement (if retirement still takes place at 65), but otherwise a fairly even distribution is foreseen due to an assumed rebound in fertility (to TFR 1.85) and filling out by a fairly substantial net migration at a yearly rate of 25 000 persons that in 45 years would add up to well above a million net migrants or more than ten percent of the current 9 million population. The gross migration flows are three to four times higher and fairly equally composed by native Swedes and foreigners. A quite substantial mixing of the population with neighbours near and far is thus foreseen in that picture.

If like in the upper panel of Figure 2 we let TFR fall to 1.5 it substantially narrows the base of the population pyramid and ensure that 50+ has a solid 55% majority in the electorate with 31 percent above 65. The support rate goes down to 2.15 meaning that at fixed contribution rates the relative benefit level need decrease by 37 percent. It seems very unlikely that this would be politically stable as the gaps between the working population and the retired starts growing. In the high fertility case with TFR around 2.1 we get a substantial widening of the base. This will keep the median age below 50 but only just and the electorate above 65 would still constitute 28 percent. The support rate lands at 2.46 slightly better than the base scenario of Statistics Sweden but not by much, so relative benefit levels at fixed contribution rates will be fairly similar. Thus, even if fertility increases to replacement level increasing longevity and

Fig 2. Alternative projections with low (TFR 1.5 in upper panel) and high (TFR 2.1 in lower panel) fertility instead of Statistics Sweden’s assumption of TFR 1.85. Baby boomers marked by alternate colours and previous mandatory retirement age at 65 by black.



previous fertility declines still cause a substantial decrease in the support rate while at the same time introducing competition for resources from young dependents.

In the Swedish pension system the annuities have been indexed by real wage growth exactly because it aims to preserve the relative standard. With a decreasing support ratio this will not be feasible unless contribution rates are increased or benefits reduced in some way or another. Thus the system contains a number of checks and balances. First of all there is a guarantee pension indexed by consumer prices that prevent groups with very low pension benefits to fall below what social norms consider to be a minimum standard of living. Since that will be tied to the relative standard of living in the working population, the consequence of a fall in relative pension levels is that larger strata of the elderly will get a guarantee pension. This is paid out of the ordinary public budget, i.e. it constitutes a quite substantial leak of obligations from the ‘autopiloted’ income replacement system into the budgetary system. In addition to this annuities are also reduced if there is a discrepancy between forecasted claims on the system and its forecasted assets in terms of future contribution and buffer funds. Such reductions could further increase the leakage into the tax financed guarantee pension.

In our two alternative scenarios for fertility ethnic composition as well as age composition will be quite different implying both differences in economic performance and in the political balance between claims for benefits and willingness to endure taxation. While none of the scenarios will ‘solve’ any ‘ageing problem’ the adaptation preferred by the alternative electorates is likely to differ quite a lot. In particular the initial conditions for the continued evolution beyond 2050 will appear dramatically different to the two alternative electorates at that point in time.

5.1 The uncertainty of long-term projections

Long-term projections have to deal with considerable uncertainty. That goes even for population projections in spite of the considerable inertia inherent in demographic change. One way of dealing with that is to use stochastic forecasting methods that attempts to quantify the uncertainty of the projections. There are currently two different approaches. One is based on pure statistical estimation of the uncertainty surrounding observed developments in the different components of demographic change (Ahlo [25], Lee and Tuljapurkar [26]). The other (Lutz et al. [27]) also use expert judgment to foresee how the process of demographic change may change in the future.

The question is how inertial and persistent current trends are likely to be. Will things settle down in a high or low fertility regime? Feed-back from other social and economic processes need to be considered for the long term projections (which is not really the case for any of the currently available approaches). Some of these processes are governed by collective and private choices made on the basis of demographic projections themselves. This self-reference property may introduce both reinforcing feed-back that tend to make projections self-fulfilling as well as negative feed-backs that tend to make them self-refuting.

In particular pension systems are highly sensitive to the projections since the prospects for the financial stability are judged using these projections, and in the Swedish system life expectancy at 65 will even determine the level of the pension. It is therefore important to be aware that life expectancy is computed from current life tables and does not constitute a reliable predictor of what will be the actual mean number of remaining years of life. Thus a medical breakthrough in the treatment of some important cause of death will always pose a threat to the financial stability of the system, or conversely a serious epidemic like, say, bird flu may somewhat cynically provide a considerable bonus to the system.

The pension system itself will also govern patterns of intergenerational transfers within countries as well as between countries. Bequests as well as inter-vivo gifts depend on the benefit level actually realised in the system. Some research (Kohli [28], Fritzell and Lennartsson [29]) show that there is a quite substantial downward flow to younger generations from the pension income. In turn intergenerational trade-offs affect migration and fertility decisions and leads to self-referential dynamics of considerable complexity that involve elections, altruistic preferences and social norms. In our illustration of alternative scenarios we only make very minor adjustments in fixed parameters and still end up with vastly different populations and economic and political balances.

6. Conclusions

The democratic dilemma of an aging society is intricately interwoven with the reproduction of a society whose citizens constantly changes over their life courses. The largely unknown uncertainties of the distant future and the unknown wishes of the population that is alive and active at that point in the future make it a precarious political course to attempt to automatise welfare systems and place them outside of the public debate without at the same time

providing constitutionally regulated ways for initiating reform and adaptation. The Swedish pension reform has provided us with an example, generally considered to be a rather successful and innovative pension reform, but with built-in weaknesses that may be vulnerable to even small variations in the parameters of future population growth for example. The much greater uncertainty about economic and social development over a whole life course makes it almost a certainty that the system will have to be reformed within a future that may be well within the active period of the young voters of today.

Our main conclusion from the preceding discussion is that although automatic stabilisers may be very valuable in order to avoid too frequent and disruptive political strife around the long-term social security the future is almost certain to surprise us and precipitate a need for reform in one direction or the other. By making such reforms constitutionally regulated potentially dangerous panic reactions and social conflict may be avoided and the democratic legitimacy of the welfare state preserved by allowing extensive public debate at the same time. It is necessary to acknowledge the predicament that lies in the fact that the design of these long-term systems is being decided on unequal terms by those who stand to benefit from them and those who will carry the obligations in a future that we only imperfectly can foresee.

We have argued here that it is not a viable long-term solution in the aging future to isolate some policy areas from others and design them for automatic maintenance that restores balance no matter what happens. Politicians need to accept responsibility and prepare for making adaptations of long-term institutions both as a response to unpredictable events but also, and more importantly, to the changes of mind that a changing electorate will express in the future. There will also in the future be crises, choices to be made and priorities to weigh. There is no neutral way to automatically adapt to this. The priorities to be made are political in essence and sustainable solutions will require democratic deliberation. Closing your eyes and leave it for experts to sort out things will only produce more fundamental crises and emergency solutions with low durability that in the end will challenge the legitimacy of democracy.

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