PENSION PROVISION, LIFETIME FINANCIAL SUSTAINABILITY, CARE AND DIGNITY IN OLD AGE. LEGAL AND ECONOMIC ISSUES

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Abstract: [181 words] The legal, policy and economic issues associated with pension provision, lifetime financial sustainability, and particularly care and dignity in old age and their implications for home life are fundamental challenges for the future of our society. Pension provision is in crisis and this paper highlights the crucial policy choices and regulatory challenges that this entails. The analysis also highlights the importance of the 'nuclear family' and the 'extended family' in the provision of care, from child care to old age care and the consideration that the home, supported by the wider society, is the natural environment in which such provision ought to take place. In this context, an adequate legal and regulatory framework for pensions needs to balance a number of competing interests, given the implications in terms of intergenerational debt within the national "family" of the financing of care and income in old age, the need for financial sustainability over a lifetime and the broader social justice considerations that are at stake in the design of schemes that provide adequate care and income in old age in a market economy.

Keywords: Pensions, pension regulation, demographic change, risk bearing.

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1 Introduction

The legal, policy and economic issues associated with pension provision, care and dignity in old age are fundamental challenges for the future of our society. In this context, an adequate legal framework needs to balance a number of competing interests, given the implications in terms of intergenerational debt of the financing of care and income in old age and the broader social justice considerations that are at stake in the design of schemes that provide adequate care and income in old age in a market economy. We stress the importance of the 'nuclear family' and the 'extended family'[2] in the provision of care, from child care to old age care and the consideration that the home is the natural environment in which such provision ought to take place. The starting point should be the dignity of human beings. Such dignity, embedded in the recognition and protection of human rights, is both a constitutive part of the rule of law and a key principle of international law whose doctrinal foundations were laid down by Francisco de Vitoria and which today finds general acceptance via the United Nations Universal Declaration of Human Rights.

The chapter is structured as follows: in Section 2 we provide a primer on pensions that explains the main types of pension and their characteristics. Section 3 highlights the issues underlying the adequacy and sustainability of pensions, following which Section 4 examines the main reasons for regulating pensions. Section 5 looks at the distinctive risks offered by pension provision and how it differs between types, while Section 6 examines the specific issue of the decline of defined benefit pensions. Section 7 focuses on the peculiar behaviour of households in some Anglo Saxon countries with high debt and low pension saving then Section 8 looks at recent UK regulatory devlopemnts as a case study of how conflicts in pension provision are managed. Finally Section 9 concludes with an emphasis in particular on wider intergenerational fairness bearing on the young.

2 A primer on pensions

We need to start with the theory that households rationally maximise lifetime consumption but also minimise its volatility (the life cycle hypothesis) – implying borrowing early in life cycle, then saving which is decumulated in old age. In this context, a pension provides a guaranteed income stream from retirement age until death (insurance against living for a long time). Pensions affect all of us at nearly all stages in life; in working life we pay taxes to finance current pensions and make contributions for our own pensions, then in retirement we draw benefits. In order to provide for a secure old age, we can save part of our salary and draw on accumulated funds after we retire or we can obtain a promise (from the government or from our children) that after we retire we will receive some income. These interests are not solely individual, the working generation has a clear interest in ensuring their parents have adequate retirement income, not least in the context of reduced intra-family commitment of direct care.

Pension schemes are typically divided into defined benefits pensions and defined contribution pensions. In the former, as the name indicates, what is defined is the benefit: a set portion of working income on retirement with no link with what people have actually contributed.

[2] "The family is like a factory of hope (…). Take special care of children and grandparents. Children are the future, the strength that moves us forward. Grandparents are the living memory of the family. To look after grandparents, to look after children is the expression of love". Pope Francis, Address in Philadelphia, 26 September 2015.

In defined contribution pensions there is no promise of any particular level of benefits. In a defined contribution pension scheme, only contributions are fixed, and benefits therefore depend solely on the returns on the assets of the fund. The link between what people contribute and what they will actually get out is made explicit.

It is also useful to distinguish pay-as-you-go and funded pensions. In pay-as-you-go pensions, which are usually defined benefit, today's pensions are paid from contributions made by today's workers, who in turn hope that their pensions will be paid by tomorrow's workers. (In countries such as Poland and Sweden there are elements of defined contribution in state pensions.) In pay-as-you-go systems the working population pays for the pensions of the retired generation. In funded pensions assets are accumulated to pay the pension of the worker in retirement. Whereas there is a clear form of transfer in the case of pay-as-you-go from one generation to another, it is not absent in private funds since the working generation in effect generates the national income from which pension claims are fulfilled.

There are state (public) pensions and private pensions. The former are usually pay-as-you-go and the latter are usually funded. Private pensions are often divided into occupational (company) and personal. In developed countries, publicly provided pensions have long been considered a key achievement of the welfare state. Public pension schemes were established (as a safety net – the Beveridge model) when the pyramid of the population included a large youth base and few older people, with shorter life expectancy, as traditional family based care declined in the wake of the industrial revolution.[3] In some cases such public pensions would also provide an income guarantee offering workers a significant proportion of their salaries as a pension (the Bismarck model). However, with the ageing of the population and declining fertility this has become a 'time bomb' in many developed countries and some developing countries, because the expected payments imply a large and perhaps unsustainable increase in contribution rates, with significant burdens on the younger generation.

Occupational pension scheme**s** are pension schemes established by companies for the purposes of providing benefits for employees in the form of pensions either on the basis of defined benefit or defined contributions. Many firms, especially in countries such as the UK and US, are switching from defined benefits to defined contributions. Personal pension schemes are individual defined contribution pension contracts, often arranged with a life insurance company. Personal savings that have been invested in pension funds or in privately held individual retirement accounts are a major and growing component of household wealth. A key difference with other forms of wealth is illiquidity, with assets unavailable for use till retirement.

One may distinguish a pension plan and a pension fund. A pension plan is a contract setting out the rights and obligations of members and sponsor of a pension scheme. A pension fund is comprised of the assets accumulated to pay retirement obligations. For defined contribution, it is the same as the plan, for defined benefits, it is the means to back up or collateralize the employer's promises set out in the plan. Hence there can be underfunded or overfunded defined benefit schemes. Pension

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[3] Financial Times, 5 December 2013: "When contributory state pensions were introduced in 1926 to alleviate the hardship of old age, only a minority of Britons were expected to live long enough to receive payments… Though politicians are right to reduce the cost of pensions…they should not forget the compassionate aims that led to the creation of the current system".

provision can be mandatory or voluntary. In the UK the latter route has been preferred, with growth of pensions depending on self-interest on the part of employers and workers (Davis, 2001). In a number of other countries, funded schemes have become mandatory, notably OECD countries such as Australia, Sweden and Switzerland.

The financing of pensions, the need to shift from unfunded to funded and the need to shift from public to private are fundamental challenges for governments around the world. Governments – and the working generations - have an interest both in the relief of old age poverty and in ensuring that most pensioners can provide for themselves in retirement rather than being dependent on forms of income support. This in many cases entails a form of guarantee. As noted, there are no guarantees for defined contribution, although as discussed below there are important issues raised requiring regulation.

Pension guarantees fall into two categories: (1) guarantees of defined benefit private pension schemes, which require firm regulation, as discussed below; [4] and (2) direct state promises to pay pensions to individuals (whereby the government guarantees a pension – a defined benefit financed through taxation). As noted, it is these 'unfunded promises' to pay defined benefits pension that contribute to the Government's 'implicit pension debt' (IPD), governments can reduce this IPD by: (a) raising the retirement age; (b) moving from a pay-as-you-go to a funded system or to a system that combines public and private funds. Meanwhile, governments must also create a suitable legal framework for the regulation of private pensions (personal and occupational) as we discuss below, with the pensions mis-selling scandal in the UK being a clear example of inadequate consumer protection regulation.

Meanwhile, to quote from the World Bank website (http://www.worldbank.org/en/topic/pensions _ "Worldwide, the most dramatic aging is projected to take place in low and middle-income countries. Traditional family-based care for the elderly has broken down in many developing countries without adequate formal mechanisms to take its place. For the elderly, inadequate transfers from either formal pension systems or from informal family and community transfers can severely reduce their ability to cope with illness or poor nutrition. In low-income countries, only one in nine workers contribute to a pension program. This proportion has remained stagnant for decades, affecting their ability to receive adequate pension benefits.

Public spending on pensions also tends to be regressive, being concentrated on a very small proportion of workers. Too often, the cost of paying for pensions crowds out spending on other deserving programs--- such as health or education programs-- and when payments exceed contribution revenues, cross-subsidies are required from broadly based taxes, such as a value-added tax. In middle-income countries, large gaps in pension coverage exist among lower-income, informal sector workers. This is compounded by demographic pressures straining the ability of pension systems to finance benefits. This is particularly true in transition economies in Eastern Europe and

[4] But also note the comment of S. Foley, Financial Times, 25 February 2014: "Unlike many investors whose aim is to maximise returns, the managers of defined benefit plans have a different priority. Theirs is to make enough money to meet the promises they have made to employees and then to sleep at night…".

the former Soviet Union, where pension spending is frequently the largest government expenditure, as well as a major source of fiscal deficits, and accelerated aging has reduced the number of younger workers supporting older workers that need pension coverage."

The World Bank called for a multi-pillar system of pension provision in a 1995 report to allow national pension schemes to better diversify their risks and ensure adequate and secure retirement income provision in the interests of all generations, including the following:

   – A mandated, unfunded and publicly managed defined-benefit system (tax financed 'pillar' to alleviate old age poverty)
   – A mandated, funded and privately managed defined contribution 'pillar' based on personal saving accounts or occupational plans
   – A voluntary third 'pillar' for those wishing additional protection (retirement savings: individual, employer-sponsored etc.)

- In 2005 two additional pillars were added to the World Bank multi-pillar system:
   – A basic non-contributory "zero pillar" to deal more explicitly with the poverty objective and
   – A fourth pillar to include the broader context of intra-family support, access to healthcare and housing, etc. The extended family can be an important pillar particularly in developing countries. It is this last pillar that deserves further consideration both from a policy/legal perspective and from an academic perspective, acknowledging – via policies cemented in rigorous research – the benefits that intra family support provides (with implications for the tax system, too) and to facilitate – where appropriate – the transition from the informal to the formal sector. In this context, to quote from , 'Aging in the European Union' (Rechel et al 2013) "The most important policy options for improvement of long-term care include supported self-care and home-based services that enable older people to remain in their own homes or a home-like environment." [5]

These approaches have been followed most closely in Chile, but have also been emulated in many other developing countries. Meanwhile many OECD countries are dependent largely on a mandated public system with private funds being rather minor, as for example in Italy and France.

3 Adequate and sustainable pensions

The debate about the adequacy and sustainability of pensions touches upon a number of financial and non-financial issues, which complicate the debate.

[5] Interestingly, Cash-for-childcare schemes (benefits used to support maternal childcare at home) have become popular in Nordic countries. In a recent book edited by Sipila et al (2010) ("Cash for Childcare. The consequences for caring mothers") they point out that cash for care schemes (whether for the old or for small children) can be 'depicted as an institution of the informal regime', which 'offers an alternative to work done in the labour market' (p. 31). They further suggest tax relief and changes in the 'hidden work regime' (family-based childcare, family based eldercare, informal employment and voluntary work).

Amongst the non-financial issues we must consider,

- Demographic trends (aging population and life expectancy improvements, inversion of the population pyramid), which as shown below is a world-wide phenomenon.[6]
- Averting old age poverty
- Dignity in old age
- Disintegration of extended family
- Labour market incentives (mobility).
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Amongst the financial issues the following are noteworthy:

- Savings and economic and financial stability issues affecting pensions
- Fiscal sustainability, given the increases in public debt and budgetary deficits that may accompany a large IPD.
- Inter-generational debt and redistribution; transfer of money from young to old
- Capital market development (the example of Chile which set up private Administradoras de Fondos de Pensiones, AFPs has served as a model for many other developing countries). For a wider discussion see Davis (2004b).
- Appropriate regulation of private pension funds, to which we now turn.

4 Why regulate pensions?

As discussed in Davis (2014), abstracting from issues of redistribution, a case for public intervention in the operation of markets arises when there is a market failure, i.e. when a set of market prices fails to reach a Pareto optimal outcome (a state of allocation of resources in which it is impossible to make any one individual better off without making at least one individual worse off). There are three key types of market failure in finance, namely those relating to information asymmetry, externality, and market power. These apply in differing degrees to the various types of financial institution; in particular, there are quite distinctive problems associated with banks (Davis 2012) as opposed to pension funds (McCarthy and Neuberger 2009). But we can certainly discern examples of each in the pensions arena which imply individuals or families cannot easily obtain retirement income security without regulatory assistance.

Regarding information asymmetry, if it is difficult or costly for the purchaser of a financial service to obtain sufficient information on the quality of the service in question, he may be vulnerable to

[6] As regards demographics, Professor Emily Grundy of the LSE is conducting research that considers inter alia the impact of changes upon various types of family support, see Grundy (2013).

exploitation, including fraudulent, negligent, incompetent, or unfair treatment, as well as failure of the relevant institution per se. Retail users of financial services such as those provided by pension funds may be particularly vulnerable, because clients seek investment of a sizeable proportion of their wealth, contracts are one-off, and they involve a commitment over time. Furthermore, they are unlikely to find it economic to make a full assessment of the risks to which pension funds are exposed - including for defined benefit funds, the sponsor's solvency and the level of funding. Participants may not be aware of costs, returns, volatility, and the range of outcomes for prospective pensions in the case of defined contribution funds. Hence the need for "consumer protection" style regulation for pension funds – and consumer education, as discussed further below.

Externalities imply non-priced consequences of some agents' actions on others. Liquidity risk underlying contagious bank runs is the most obvious example in financial markets. Given the matching of long run liabilities and long run assets in pension funds, contagious runs are less likely. However, there are other possible externalities from failure of pension funds, notably to the state (Impavido and Tower 2009), and similar investments by pension funds may give rise to economy wide (macroprudential) risks to financial markets as well as to funds themselves (Bank of England 2014). Hence the importance of counter cyclical regulations and guarantee funds for defined benefit schemes, which protect consumers but also the state.

Failure of market forces to achieve an optimal outcome may also arise when there is a degree of market power. This may be of particular relevance for pension funds, notably when membership is compulsory. Employers in an unregulated environment offering a pension fund may structure plans to take care of their own interests, so for example they can institute onerous vesting rules (time taken before workers gain a right to their benefits) and better terms for management than workers. They may also want freedom to fund (or not) as they wish, and maintain pension assets for their own use, regardless of the risk of bankruptcy. They may not take care of retirement needs of some types of employee such as frequent job changers, young workers or women with broken careers due to childbearing.

Some would argue that pension funds should be regulated independently of these standard justifications, for example to ensure tax benefits are not misused, and that the goals of equity, adequacy and security of retirement income are achieved - in effect correcting the difficulties in annuities markets that necessitate pension funds and social security (Laboul and Yermo 2006). Regulation may also be based on the desire for economic efficiency, for example removing barriers to labour mobility, and indeed financial efficiency so firms' costs in running pension funds are minimized and pensions are affordable for members. Altman (1992) suggests that the term "private pension" is itself a misnomer, as the distinction between private and public programs is increasingly blurred. Terms and conditions are often prescribed by the government; they are publicly supported by tax subsidies; there is compulsory provision in several countries; and in some countries (such as Japan and the UK), private funds take over part of the earnings related social security provision function.

5 Who bears the risk?

Provision of a pension gives rise to various risks – notably of inflation, longevity and market risk of asset price volatility, as well as political risks and risk of inadequate saving and liquidity, credit and interest rate risks. A key issue then is who bears those risks? Are they the individuals or institutions that are best placed to bear those risks?

Looking briefly at the risks one by one, these include:

Liquidity risk for a pension fund if assets are difficult to convert into cash when payments to pensioners are due, at a time when income falls short of expenditure.

Market risk from capital uncertain assets such as equities and long term bonds as well as real estate and hedge funds.

Inflation risk if pensions are not increased to allow for the cost of living, or if an individual has a level annuity.

Credit risk in that insolvency of the firms issuing equities or corporate bonds as well as loans gives rise to such risk.

Solvency risk for defined benefit funds where assets can fall short of liabilities and then insolvency of the sponsor would threaten the provision of pensions. In most countries there is no solvency risk for defined contribution funds, although in Switzerland defined contribution funds include a guarantee element of minimum returns (currently 1.25%).

Asset and liability mismatch risk, which arises when assets held are too volatile for the time profile of payments, thus generating excessive risk, or alternatively the fund may have shorter maturity assets than liabilities, giving rise to reinvestment risk. Fair value accounting has made for greater volatility of balance sheets as a result of mismatch (Schembri 2014).

Longevity risk, namely that the population covered lives much longer than expected and so the assets accumulated are inadequate for the guaranteed pension (for defined benefit) or the expected pension (for defined contribution) (OECD 2014).

Actuarial risks when long term asset returns fall short of those expected when setting contribution rates, especially if management costs are high, thus reducing the net return that benefits the members.

Governance risks when the fund is vulnerable to conflicts of interest or even fraud due to inadequate governance structures.

Political or regulatory risk may also apply in that the government or regulators may change the parameters of pension funds in a way that is difficult for the funds to resolve.

Considering these risks for the different types of pension, in social security the government bears most risks, leaving political risks to the participants that the system will be reformed with lesser benefits for given contributions. Such reforms, which are often implemented, include increasing the retirement age, reducing the level of pensions (e.g. in line with rising longevity) and raising contribution rates. However political risk applies to a lesser degree for all pensions, for example the current proposal in the UK to change taxation from that of benefits to that of contributions, which can be seen as a "tax raid" on pensions (Armstrong et al 2015).

For defined benefit private funded schemes the sponsor bears most risks, leaving risks that pensions will not be paid due to deficits/corporate insolvency. These risks are in the US and UK mostly covered by a Guarantee Fund. While this is beneficial to members, its institution also gives rise to moral hazard where provision of a guarantee gives pension funds an incentive to underfund in the belief that the government will pay the pensions. This is partly counteracted by risk based contributions to the guarantee fund.

For defined contribution, all risks are transferred to the individual - including longevity risk in UK now it is no longer required to buy an annuity with a defined contribution pension fund at retirement, as is also the case in countries such as the US. There is in our view a high risk of inadequate saving especially as employers contribute much less than for defined contribution than for defined benefit, and even with a level annuity there is inflation risk. Also there is a recognised risk of inappropriate investment (too safe when young or too risky when approaching retirement) and excessive costs for individual defined contribution plans which reduce returns markedly. (The UK's NEST plan discussed below seeks to reduce this problem.)

And here the issue arises. Can individuals in the context of the home make the complex calculations necessary to optimise their defined contribution pensions, given the risks that they bear? Should "life cycle" investment (risky when young and low risk approaching retirement) and high contribution rates be mandatory? In this context, we note that according to OECD work on retirement income security in defined contribution schemes (OECD 2012), there are controllable and non-controllable factors in defined contribution pensions. Factors chosen and controllable are contribution rate, length of time paying in, time they retire, investment strategy, and the way assets are paid out after retirement). On the other hand, factors inherently uncertain are spells of unemployment (or childbearing) which restrict contributions, real wage growth, return on investments, inflation, interest rates and longevity).

Can education and regulation help people cope, and focus on correctly calibrating their contributions, retirement age, investment and annuitisation? We consider that knowledge of pensions is hugely inadequate and there is a need for much more education, in school and afterwards, while regulation needs to be perhaps more directive. The example of Chile (Davis 2014) shows that progress can be made, in that for example pension risk simulators can be used to help employees understand related uncertainty about projected future pension benefits

6 Why did Defined Benefit plans die?

Since defined benefit is a less demanding form of pension in terms of risk for the beneficiary, it is important to note why this form of pension provision has declined in the UK, US and a number of other countries in recent years (Davis 2004a). A first aspect is regulation. For example, in the UK regulations such as compulsory indexation to price inflation make provision of guarantees by sponsors costly. Forms of risk based regulation has put a greater focus on risks in defined benefit funds in countries such as the US, UK, Germany and the Netherlands (although defined benefit funds have tended to remain in the Netherlands, albeit with flexibility in terms of indexation). Then there are market risk factors, notably the asset-side problems from capital market volatility in 2002 and 2008 that led to marked deficits in defined benefit funds, requiring considerable additional contributions by firms to return funds to balance (on the Netherlands in 2002, see Davis and De Haan (2012)). There has been an additional burden from low long rates that have boosted the cost of liabilities (i.e. pension provision from the defined benefit fund). A further concern is that such deficits might give rise to a search for excessive yield to make up losses due to mismatch, leading to credit risk also (DNB 2015, OECD 2015).

Market discipline has become more severe, notably IFRS accounting standards requiring deficits to be measured at market (fair) value and put on balance sheets have meant firms have become highly sensitive to deficits and their potential impact on the share price, encouraging closure of DB funds. The market value focus of accounting as well as regulation (Davis 2014) has also put increased focus on interest rate risk. It may shorten time horizon and limit investment in illiquid assets (whose pricing is more difficult than marketable assets). Guarantees in defined benefit funds have also been affected by increasing longevity in excess of what was anticipated, not least owing to advances in health care. Fees for guarantee funds in the UK and US may also have played a (small) part in the decline of defined benefit funds.

It should be added that not all individuals are suited to defined benefit funds, since they typically offer a lesser return to those who change jobs regularly. In other words they are fundamentally less suited to an economy with high labour mobility. Finally, it is worth noting that defined benefit funds can have wider macroeconomic effects: Risk based regulation and fair value accounting may lead to procyclical behaviour (Bank of England 2014). The pattern is often an inadequate surplus build-up in upturn (surpluses are often limited by the tax authorities owing to funds' tax free status. Then there may be fire sales in the downturn; heavy funding needs after the downturn which put pressure on corporate finances. The question arises whether more macroprudential regulation is warranted to attenuate these patterns. At least there was after 2008 a need for relaxation of strict minimum funding rules, such as such as longer periods to recover shortfalls (Canada, Netherlands, UK, US), moratoria on contributions (Japan) and lower minimum returns (Switzerland).

7 A "profligate cohort"

In considering pension provision, it is worth looking at overall household finances in the context of the ongoing demographic transition to an older society. Taking the example of the UK, albeit also similar in the US, households have on average high debt, while pension saving is low. We need to have in mind the theory that households rationally maximise lifetime consumption but also minimise its volatility (the life cycle hypothesis) – implying borrowing early in life cycle, then saving for pensions which are decumulated in old age. In this context, any constraints on borrowing are seen as undesirable – an insight which motivated financial deregulation, easing such constraints. The impact of securitisation was to ease constraints further. But debt has arguably risen beyond what is rational, partly driven by housing market frenzies when people overborrow to get a "foot on the ladder" (see Barrell and Weale (2009), Davis (2012)).

We also see in this context an impact of pure time preference especially for the "profligate cohort" born in 1950s-70s, willingness to forgo future consumption for more in the present. They may hope rising house prices will "bail them out" of poverty in old age, while making little or no contribution to pensions. This is irrational firstly due to the short term risks of default from high debt – which was poorly controlled by lenders till recently. But also in the longer term the individuals concerned take a risk of poverty. Rising house prices cannot be guaranteed especially as in future there will be less young people for the elderly to "trade down" to.

8 Recent UK developments – a case study

Recent reforms are seeking to limit the amount of tax relief given on pensions in the light of the fiscal crisis facing the UK. Accordingly, limits have been imposed on contributions so that employee contributions cannot exceed 100% of salary, which is only likely to possible for high earners. Also there is a limit for each individual of £40,000 on tax free contributions per annum. Furthermore, there is a cap on total accumulation of £1.25 million. While it is true that pension tax relief goes largely to high earners this is also an incentive for managers to continue with workplace pensions, so there could be negative consequences. There has been a consultation to possibly change pension taxation from having contributions tax free to pensions tax free, which could markedly depress pension saving. It would make pensions no more tax advantaged than houses or ISAs while being much less liquid (see Armstrong et al 2015). It is also not "time consistent" as there would be no guarantee that a future government would not tax pensions as well as contributions. In practice the proposal was shelved, at least for the time being, by the Chancellor.

Meanwhile, to help ensure adequacy of retirement income there is a new social security pension, which unlike its predecessor will maintain its purchasing power but there will be some losers (especially some women). The government is introducing the "Nest" scheme for small employers to offer pensions at low fee levels. They will be obliged to offer such pensions to their employees in the future, this raising coverage (although contributions may not be sufficient to provide a decent pension). Finally it is worth noting the tendency in the UK and elsewhere to risk based regulation of pension funds (Davis 2014). Whom is it protecting? Ostensibly it is members but in the US and UK it is also the pension guarantee scheme. One consequence of risk based regulation is falling equity holdings, which could have an adverse effect on pensions since they offer the highest return among financial assets.

10 Conclusion: Intergenerational issues

Concluding, we have emphasised the importance of pensions for lifetime financial sustainability and in particular ensuring care and dignity of the elderly is maintained within the context of the home. We have highlighted elements of the current crisis in pension provision, linked as it is to demographic patterns and fiscal problems but also financial asset returns and regulatory aspects and also social changes that have diminished tradtitional care obligations between generations. We have highlighted that an adequate legal and regulatory framework for pensions – essential to ensure retirement income is sustained - needs to balance a number of competing interests, given the implications in terms of intergenerational debt of the financing of care and income in old age, the need for financial sustainability over a lifetime and the broader social justice considerations that are at stake in the design of schemes that provide adequate care and income in old age in a market economy.

In this wider context, it is also important to note there are major issues of generational fairness within the wider national "home" arising in countries such as the UK linked partly but not solely to the pensions issues discussed above, as the transition to an older society takes place. The young are burdened with future taxes to pay off government debt and required to finance future pensions against a background of worsening demographics. They also face ever-heavier costs of a university education, and in many areas are priced out of residential property. We may add to this the impact of quantitative easing (QE) on asset prices which benefits the older people who hold financial assets.

The pensions younger people will have are lower quality than the previous generation (defined contribution as opposed to defined benefit), while the grants offered to previous generations to go to university have become loans. Possible political consequences are a “battle of generations” in the future, see Goodhart et al (2015).[7] Such potential conflicts also arise in various ways in other countries where a large “baby boom” generation is now entering old age, while subsequent generations are much smaller.

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[7] God’s warning to Israel at the end of the Old Testament applies also to the UK and many other OECD countries in the light of patterns of pension provision “He will turn the hearts of the parents to their children, and the hearts of the children to their parents; or else I will come and strike the land with total destruction.” (Malachi 4:6). For additional Bible verses that we suggest are relevant to the topic, see our working paper version (Davis and Lastra 2016).

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