

Pension Corporation Research

Pensions: A Complex Landscape

November 2008

Dr Frank Eich and
Dr Amarendra Swarup



Table of contents

i. What is the issue?	2
ii. Background	3
iii. Providing for income in retirement: the bigger picture	4
iv. Objectives	6
v. Using the Lenses	9
vi. A Final Note	12
Appendix A	14
Appendix B	15
Disclaimer	16
About the authors	17

i. What is the issue?

Pension reforms have been high on the political agenda in many developed countries over recent years and pension issues have been discussed intensely in the public as a result. In recent years, much effort has been devoted to make state, public and private pension systems fiscally more sustainable in the light of demographic change. In many developed countries, this has been achieved - at least ex ante - by encouraging greater private sector and personal involvement. Equally, many governments in emerging economies and developing countries have been pursuing their own pension reform agendas.

Nevertheless, despite this spotlight on pensions, many important facets remain badly understood and need to be discussed in greater detail. Most observers would agree that societies have not yet reached the end of the reform process and that dealing with pensions may always remain “work in progress” as new information becomes available – such as on trends in life expectancy - and as societies evolve. Furthermore, additional effort will most likely be required to ensure that the desired outcomes will eventually materialise.

Pensions Tomorrow intends to contribute to this much-needed debate on how to take pension systems forward – both in the UK and internationally – over the coming years by offering high-quality and timely analysis as well as independent peer-reviewed research.

The purpose of this note is to ask some of the key questions that could inform future research into pensions. The general issue under consideration is not new. *How to structure the future provision of pensions, taking into account wider economic, demographic and societal considerations at home and abroad?*

Most people are not aware that formal pensions for the many are a relatively recent phenomenon.¹ In the past, people worked and once they got older and could no longer work, their children looked after them. And once their children got old, their own children looked after them – in short, the family unit mattered.

In the western world this informal arrangement fell apart more than 100 years ago. Partly in response, western societies created the welfare state (e.g. Bismarck’s introduction of the state pension in Germany in the 1880s), which provided a safety net through different means and also led to the creation of an industrial workforce with employment contracts rather than diffuse commitments within communities. But one should not forget that when the welfare state was created in many countries, life expectancy was hardly higher than the legal pension age – government outlays were limited. Bismarck’s Germany had a life expectancy of just over 50 years, so pensions from the age of 70 years onwards were a minimal fringe cost for the government.

In recent decades, falling fertility rates and ever increasing life expectancy has put increased pressure on the welfare state in the developed world and many pension schemes – including both state and public sector – have been perceived to be unaffordable now, forcing governments to reconsider their policies. In some countries, strong inward migration is considered to be an appropriate policy response but closer scrutiny shows that this can hardly be a long-term strategy –at most, it gives policy makers some breathing space and a limited opportunity to postpone any hard decisions.

Governments around the world have been dealing with this issue for years, international organisations, think tanks and trade unions have given advice, and

¹ The award of pensions itself dates back much further. Monarchies awarded pensions for services as far back as the Middle Ages though there were few beneficiaries. This was also a common practice in Roman times, with the last Western Roman Emperor Romulus Augustus being the last to be pensioned off when he was deposed by the Germanic chieftain Odoacer in 476 AD.

universities have provided valuable analysis. Societies have been dealing with this in their own particular ways, reflecting differences in cultural and historical backgrounds, and economic and demographic circumstances. Despite the closer integration of the world economy, in most countries, this issue has been treated as a domestic issue.

The private sector has played its own important part in many countries by offering occupational pensions or by offering financial products, helping both the sponsors of pensions as well as individuals prepare financially for retirement. The fact that governments across the world have reduced *ex ante* their future fiscal burden by encouraging greater private sector and personal involvement does not mean though that this will also be *ex post* the eventual outcome. For the desired outcome to materialise, the private sector and personal involvement must develop as intended. Experience from around the world shows that this has not always been the case, requiring frequent and potentially costly policy changes and putting additional burdens on individuals and businesses alike. The complex interactions between fiscal policy and pension savings also play a role for both – an area touched on briefly later in this essay when we examine the role of tax relief.

In a number of developed countries, for example, defined benefit pension plans have been closed to new members as scheme sponsors face increasing liabilities in the light of ever higher life expectancy and find the resulting regulatory funding requirements increasingly unaffordable. Does this trend require adjustments elsewhere in a country's pension arrangements? Will today's structures deliver the desired outcomes or do participants such as governments and financial markets need to innovate?

There are a number of ways the issue of future pension provision could be approached. For example, one might want to think about the issue in terms of desirable objectives for a pension system such as:

- Efficiency (static and dynamic)
- Equity (fairness)
- Affordability and sustainability (both financial and social)

These objectives could then be used as a core set of overlapping "lenses" when looking at the issue of future pension provision, though other "lenses" are feasible too. Importantly, as we shall demonstrate, these "lenses" can be used to study pensions simultaneously at a range of scales from large "big picture" macroeconomic themes such as political uncertainty to subtler, smaller scale but equally important issues such as the management of assets and liabilities for an individual pension fund. There is also the issue of credibility – in particular, political consistency – which cuts across all the lenses under consideration here and is touched on later in the essay. However, before doing so, this note provides some background on pension arrangements in developed and developing countries.

ii. Background

Future trends in developed and developing countries

Low fertility rates, ever increasing life expectancy and the ageing of the baby boom generation are putting increased financial pressure on the welfare state – be it for pensions, or health or long-term care - in the developed world. In most developed countries, governments have concluded that they can no longer afford the generous tax financed pay-as-you-go state pensions they have been offering in the past and have therefore reduced future entitlements. Increasing the state pension age has been one policy to achieve that. Another has been in several countries to introduce so-called "sustainability factors", which automatically adjust future state pension entitlements as life expectancy evolves.² At the same time, many governments have boosted private

² Examples include Sweden, Germany and Italy.

sector involvement in the provision of pensions and introduced (or announced) pension products, which should make it easier for individuals to save for themselves.³

In addition, on a macroeconomic level, governments in many developed countries have reformed the labour markets to raise employment rates, particularly those of older workers, and consolidated the public finances by bringing down public debt and/or by accumulating assets⁴ ahead of the expected fiscal consequences arising from an ageing population.⁵

A cursory look at some of the main demographic trends in selected countries over the coming decades indicates that fertility rates are falling and life expectancy rising in developing countries as well.⁶ Some – if not most – of them are growing old before they became rich enough to establish a welfare state. China is an obvious example and it could be argued that developing countries are facing even bigger challenges than developed countries in providing retirement incomes in the future. For example, how should China deal with the issue of the closing down of state-owned firms, which at least in the past offered some type of safety net, and how should it deal with its rapidly ageing population – partly the result of the country's "one child policy"?⁷

What about the oil-rich societies of the Arabian peninsula, which currently have the financial means to support generous welfare systems but are faced with the depletion of their oil reserves in the coming decades? How will they prepare for the ageing of their (currently) still young but often under-educated populations? For example, Table 1 in Appendix A shows that the old-age dependency ratio is projected to increase by more in absolute terms in the United Arab Emirates than in many developed countries.

One should not see the trends in the developed and developing world as separate events. In some developed countries, strong inward migration is considered to be one appropriate policy response to an ageing population – whatever the true merits of such a policy. Inward migration to the developed world is mirrored by outward migration from the developing world. What are the economic consequences of these migration flows for the recipient and origin countries?

Equally, what are the challenges and opportunities created by sovereign wealth funds for the developed and developing world? What opportunities and challenges arise from the fact that societies are at different stages of the ageing process and with longevity increasing at different rates? Does the optimal structure of pension provision depend on what other countries are doing in this area?

iii. Providing for income in retirement: the bigger picture

Given that family networks no longer play a major role in looking after the elderly in developed countries and are rapidly weakening in developing countries and emerging economies, societies need to find other ways to organise themselves to support the old.

Roughly speaking the choices are that:

- individuals look after themselves

³ Examples include the so-called Kiwi Saver in New Zealand, the Riester Rente in Germany or the personal pension accounts in the UK, to be introduced in 2012.

⁴ The list of countries that have substantial government-owned assets includes Canada, Denmark, Sweden, Australia and New Zealand. These assets are often held in pension funds.

⁵ In the European Union, member states have been encouraged to pursue a "three-pronged approach" to the ageing problem: reform the welfare state, boost trend growth and consolidate the public finances. See *COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT: The long-term sustainability of public finances in the EU*, European Commission (2006) 574, 2006.

⁶ See Table 1 in Appendix A.

⁷ *The Graying of the middle kingdom: the demographics and economics of retirement policy in China*, Centre for Strategic International Studies, 2004.

- firms provide pensions as part of their remuneration package
- Government organises it, using the whole range of instruments available to it
- Other key players such as the financial markets and labour unions fill the gap

Most countries use a mixture of all four approaches. Within a country, the dominant approach will vary by socio-economic group. For example, in the UK, around half of all pensioners rely entirely on the Government's state pensions and millions more draw a public service pension. The former group of people will have had relatively low lifetime earnings and are likely to have worked for businesses that do not offer pensions. The latter will have worked, for example, for the civil service or as teachers. The importance of the state pension in providing income in retirement declines for higher socio-economic groups. For these groups, occupational and private pension schemes become more important. In other countries – especially in continental Europe - the role of government is bigger for larger parts of society.

All the above approaches have the same aim: to ensure that future retirees (who will generally no longer be working) will be able to claim a share of future production (generated either by those working or from an asset base) for their own consumption purposes. A simple tax-financed, pay-as-you-go state pension system could achieve this as could a setup in which individuals save for their retirement. However, each raises questions that need to be debated.

Should all agents – individuals, business and government – be responsible? If yes, how should responsibility be allocated? Should government provide generous state pensions for all its citizens? Or should firms be responsible for the pensions of their employees by, for example, running defined benefit pension schemes? Or should individuals be responsible for their own pensions, for example by paying into personal pension accounts or other types of savings?

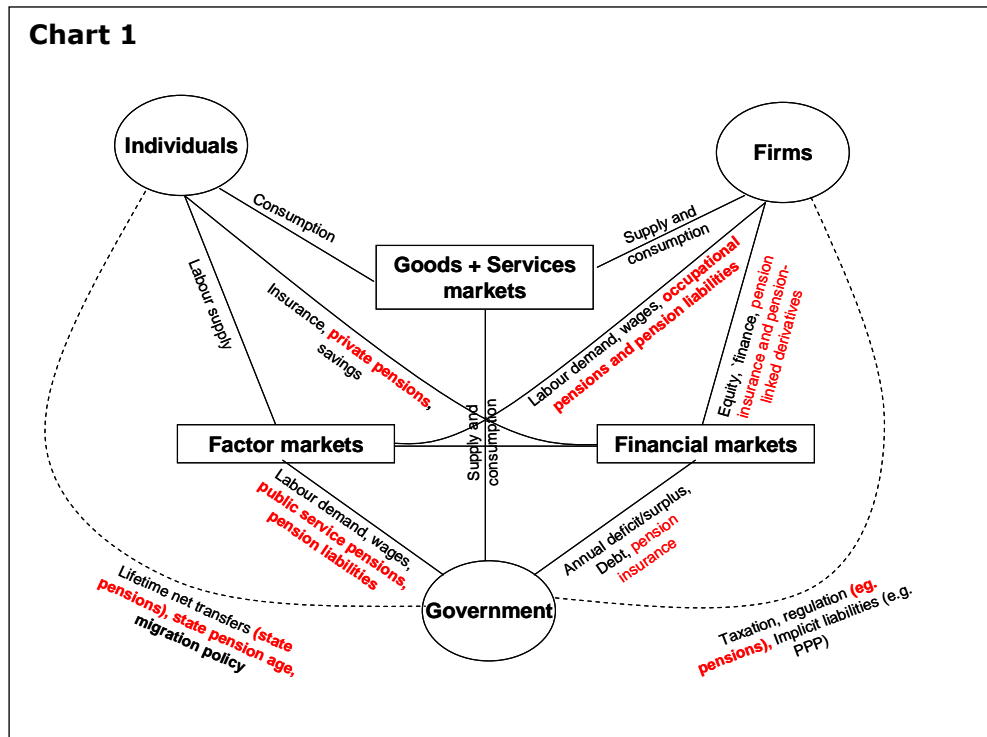
In 2004, the Indian Government introduced a defined contribution pension scheme for public sector employees and is tabling a Bill in late 2008 to allow banks in the private sector to manage some of these government pension assets – an unusual and bold step. However, this also opens up further questions. How should such a selection process be implemented? How can the government ensure that pensioners – present and future – get the best deal? What are the incentives for the banks and how will the government ensure these are aligned with individuals? What are the contingencies and who will ultimately be responsible financially should one of these providers get into trouble?

The different approaches have their respective strengths and weaknesses, for example, with respect to their impact on the growth potential of the economy⁸ or – partly related – the allocation of risk. In addition, there are major issues of intra-generational and intergenerational fairness to be considered.

None of the questions can be answered in isolation. As the following chart of a stylised economy shows, individuals, firms and government all play important roles and are all closely connected through a myriad of channels.⁹

⁸ And hence the size of future production that could be shared.

⁹ For simplicity, the chart ignores the international side of the economy though a simple schematic extending this is given in Appendix B.



Government, individuals and firms are equally important agents. Individuals interact with firms and the Government in the labour market, and in the goods and services market. Individuals offer labour, while firms and the Government (the public sector) demand labour. With the help of labour and capital, Government and firms produce goods and services that are consumed by individuals (e.g. health care and cars).

Firms in the financial markets are not different from other firms in the sense that they also use labour and capital to produce goods and services, which are consumed by economic agents. However, the financial markets are shown explicitly here as they play a particular role in the pension issue and could well provide some of the solutions.

Government also plays a special role as it interacts with individuals and firms not only through the factor, and goods and services markets but also through other channels. For example, government decides on the lifetime net transfers between an individual and the state (which includes taxation) or sets the parameters, which determines labour market outcomes (e.g. migration). It can also tax and regulate firms and shape the competitive environment by, for example, imposing import barriers.

The chart shows a snapshot in time and is therefore static. Over time, small differences in interactions could lead to different outcomes though. For example, slightly more government spending on health could lead to an increase in life expectancy, which in turn would affect demand for goods and services, and labour supply. Firms that provide defined benefit pension schemes to their employees might over time develop different business plans from those developed by firms without defined benefit schemes. Over time, one type of firm might invest more in research and development, might become more innovative and might contribute more to economic growth. This in turn would affect the government's tax base and hence the government's choice set for lifetime net transfers to citizens. And so it goes on. This simple example illustrates how important it will be to examine the bigger picture with all its myriad constituents and study the dynamic, longer-term effects of different pension arrangements.

iv. Objectives

What characteristics should the desired outcomes have? As mentioned, three potential objectives for the provision of pensions in a society could be:

- Efficiency (static and dynamic)
- Equity (fairness)
- Affordability and sustainability (both financial and social)

This list is not exhaustive – other objectives such as “simplicity” could be added for example – but likely uncontroversial. However, this is not to say that uncontroversial equals unchallenging. This next section discusses these objectives in more detail. The objectives are then used as “lenses” to study a number of key issues and case studies.

Efficiency (static and dynamic)

An economy is (statically) efficient if the available resources are allocated in such a way that productive capacity is maximised. Dynamic efficiency goes further and requires that the growth potential is maximised. In other words this concept goes beyond the mere allocation of existing resources today.

Given the time horizons relevant to pensions, dynamic efficiency is arguably the more relevant concept. The key drivers of economic growth are labour, capital and technological progress (productivity). The supply of labour can increase as a result of a larger share of people of working age participating in the labour market or by an increase in the size of the working-age population itself. The quality of the labour force also matters; hence educational attainment and skills are also drivers of economic growth.¹⁰

Capital – physical, knowledge, social and financial – is provided by the public and private sectors. For most pensions, increasing longevity and an imperfect knowledge of how to manage assets and liabilities together has led to large deficits in the private sector and large mostly unfunded public liabilities in many countries. This has placed additional pressure on individuals, who are being gradually moved towards holding investment risk; corporate sponsors, who are finding that funding pressures and demands for older schemes are increasingly burdensome for shareholders and management; and governments, who are faced with the prospect of an increasing tax burden. The gap between social promises and fiscal reality is increasingly unaffordable for both firms and governments, and the scale of existing deficits and increased funding pressures make it likely that new ways of optimising this capital such as public-private partnerships will need to be found.

Over the long term, however, the key driver to economic growth will continue to be Productivity growth. Productivity growth is the result of innovations arising from spending on research and development but can also be in the form of non-technological innovation, the latter perhaps reflecting new organisational structures, which allow for more efficient processes.

Innovation and the resulting efficiency can also be seen within the pensions arena. In the Netherlands, for example, the aggregation of small pension schemes and the growing popularity of fiduciary management have led to a marked decline in scheme deficits. Similarly, in the UK, the advent of the pension buyout market has provided a way for occupational defined benefit pension schemes to tap into the private capital markets and secure their benefits with a regulated third party. This has also led to greater benefits for companies, allowing them to remove otherwise potentially unconstrained liabilities from their balance sheets and producing greater cash-flow for investment and shareholder distributions. On a more macroeconomic scale, it could be argued that different pension arrangements across the public and private sectors might affect the allocation of labour across these sectors and as a result might affect long-term productivity growth.

¹⁰ The “endogenous growth theory” has studied the relationship between, inter alia, education and economic growth. The relationship between institutional design and economic growth could also be studied in this context.

Equity (fairness)

A key principle should be that a pension system is fair. A system which is fair and – importantly – also perceived to be fair will be more readily accepted by society than a system which is not. However, what constitutes “fairness”? Should it be defined as fairness across generations or within generations? Should the fairness of a government policy for an individual be judged on a snapshot in time or over the lifetime of that individual? Should fairness be defined in terms of opportunities or outcomes? How fair are different types of occupational pension schemes?

There are also questions of fairness within pension schemes. For example, in the UK, there is a growing divide between public sector pensions and those in the private sector. The former enjoy generous defined benefit schemes that are mostly unfunded, while the latter are being slowly but certainly pushed towards a money purchase system as companies close their occupational pension schemes to new membership. Investment risk is now being transferred to the individual so that the ultimate size of their pension depends on the performance of financial markets.

Just take the example of two people, one born one year after the other. Both have similar careers and prepare similarly for retirement. The only difference is that the first individual retires and converts his fund into an annuity just before a stock market fall, whereas the second individual will have to live with the fall. Is this just “tough luck”?

Similarly, as another example, in many defined benefit schemes, the value of a pension to a more senior staff member is often greater than the value of lifetime contributions made by the person in question, as wage progression often accelerates for these individuals towards the end of the career. In contrast, rank-and-file workers generally see a gradual and steady increase in wages over the course of a career. Does this mean that to some extent, their contributions are effectively subsidising the higher pensions for management?

Affordability/sustainability

The “affordability” or “sustainability” of pension systems can be interpreted in several ways. First, it can be interpreted in terms of fiscal/financial sustainability. Can governments afford to pay a rising share of GDP on pensions in the future when they will also likely have to spend more on health and long-term care? Where would the revenue to finance this additional spending come from?

Alternatively, in which areas could spending be reduced to make room for increased state pension spending? Governments and international organisations have done substantial work over recent years to estimate future spending trends and to assess whether the public finances might be sustainable in the long-term.¹¹ In Europe, the European Commission nowadays takes into account long-term public finance trends in its annual assessment of member states’ public finances in the context of the Stability and Growth Pact.

“Sustainability” could also be interpreted in terms of “social sustainability”, which links back to fairness issues. Governments will only be able to pursue their announced policies in the long term if they have the backing of the electorate to do so.

Business might interpret “affordability” and “sustainability” yet differently. In a labour market in which “jobs for life” are gradually disappearing and faced with rapid – and importantly in magnitude unexpected – increases in life expectancy, many businesses have concluded that they can no longer “afford” or “sustain” their existing pension schemes in the future. The rapid closure of defined benefit pension schemes over recent years in several countries is the result of such a judgement.

¹¹ *The impact of ageing on public expenditure: projections for the EU25 Member States on pensions, health care, long-term care, education and unemployment transfers (2004-2050) Report prepared by the Economic Policy Committee and the European Commission (DG ECFIN), 2006.*

v. Using the Lenses

Many key issues can be seen through a combination of the above outlined lenses and can be viewed at a variety of increasingly granular levels. Here, we briefly outline some areas deserving of further research, though this is not intended to be an exhaustive list of what the Pensions Tomorrow initiative may look at.

Longevity

Setting up an efficient, fair and sustainable pension system is a major challenge and might never fully be achieved. The challenge is made larger still by the fact that longevity trends – and hence one of the key parameters determining the size of the challenge – are not well understood. Actual increases in life expectancy have generally been much more substantial than previously assumed in official population projections, with the result that government, business, the financial markets and individuals had to readjust their behaviours and plans. In hindsight, previous behaviours turned out to be suboptimal. It should, therefore, be a priority to improve the understanding of future longevity trends.

For individuals, increased longevity is desirable and not surprisingly, therefore, most developed societies spend a significant percentage of GDP annually on healthcare and medical research to ensure that we all have longer and healthier lives. As the population ages, this share is projected to increase over the coming decades and governments will have to ensure that the public finances will remain sustainable and government policy inter-generationally fair. Equally, increases in longevity can lead to large unanticipated costs for business and there is substantial evidence that this is adversely affecting the finances of pension funds and their sponsors.¹²

Sponsors and trustees are increasingly concerned about longevity as the recent trend for life expectancies has been ever upwards and to make things more complicated, the extent of future increases is also highly uncertain. Another fundamental problem is that for most schemes, liabilities are calculated insufficiently frequently, using out of date longevity assumptions and increasing the risk of unexpected future increases in liabilities.

In recent times, the area has become all the more important because of increased regulatory scrutiny in the UK and elsewhere, and growing pressure for schemes to adopt more realistic mortality assumptions that reflect the latest scientific evidence – a change that could significantly increase their total liabilities by 3% or more for every added year of life expectancy. This also presents additional shorter-term risks for corporate sponsors as they may be ordered by regulators to divert extra cash into the scheme to meet these future liabilities via a contribution notice.

It is hardly surprising then that managing this risk and its consequences has hitherto been far from straightforward and more research is needed to understand the issues better. The role financial markets can play in managing and mitigating this risk is also deserving of further study. The growth of a robust market in catastrophe bonds to manage the risk from natural and man-made disasters is evidence that idiosyncratic but crippling risks can be managed effectively. Recent steps have been made with companies launching longevity indices and hedging products but this is only the start.

Fundamentally, who should carry the longevity risk and does the allocation of this risk make a difference to the dynamic efficiency of the economy? Can longevity risk be hedged effectively and how would one construct a longevity index acceptable to everyone? Can firms be actually effectively insured against future longevity increases by the financial markets?

¹² Over the last decade, new accounting standards have greatly increased transparency with respect to the effects of increased longevity on pension fund finances. Many occupational pension funds are also at risk due to the presence of spousal benefits should the main beneficiary die, which can enhance the longevity of the fund. For example, the American Civil War Veterans Pension Fund made its last payment in 2001, nearly 140 years after it was first set up in 1862.

Hidden Risks

On a more granular level, the latter question also goes to the heart of the hidden risk run by many defined benefit pension schemes – the lack of a holistic approach when dealing with the assets and liabilities within these schemes. While commentators have focused in great detail on the losses suffered by banks from the unwinding of the credit cycle over 2007-08, much less attention has been paid to those institutions which supplied large amounts of wholesale funding to banks at very low rates by buying bonds and have suffered major losses as a consequence.

Pension funds top this list. In the UK, for example, pension fund lending to UK financial institutions, through purchase of their bonds, is estimated to have risen by a factor of forty times from £2 billion in 2000 to £80 billion by 2008. This capital in turn was used by banks to fund excessive loan growth. When the value of bank debt and bank equity collapsed, many pension schemes suffered twice – both through the marking down of their assets and by a sharp increase in their estimated future liabilities, due to lower discount rates as gilt yields fell in response to the impending economic slowdown. The spreading of the contagion into the real economy and its impact on the equity and bond markets as a whole only exacerbated this further.

The majority of pension fund trustees are inexperienced in investments and are simplistic in their approach. Liabilities are calculated typically once a year, using longevity assumptions and a discount rate often implicitly linked to the assumed return on pension assets. The assets are then invested in traditional instruments such as corporate bonds to create large matching portfolios to address the duration mismatch between the pension liabilities and assets. The rest of the assets are then invested in some broad return seeking asset classes – typically equities and these days, a small allocation to newer asset classes such as hedge funds – in the belief that despite their volatility, their returns over the long term are sufficient enough to meet all the liabilities and compensate for longevity risk.

The problems with this approach, however, are manifold. The liabilities are calculated insufficiently frequently; the longevity assumptions used are often out of date; and most importantly, the discount rates vary from scheme to scheme, often presenting a less than prudent valuation of the true costs of delivering pensioners full financial security. The problem is that trustees are effectively banking on an uncertain set of future gains to pay off their obligations to millions of pensioners – current and future – across the country.

The above approach also ignores the fact that markets are fundamentally unpredictable and blind faith in long-term outcomes is often a poor steer. Risk is a broad term with many different constituents and avoiding the pitfalls should be the key driver behind any sensible investment policy implemented. Fundamentally, the level of risk taken within a scheme should be a tailored one that seeks to hedge out all risks that could disproportionately impact the asset-liability mismatch – the key metric of the scheme's solvency. Further, where the risks cannot be almost entirely hedged, they need to be managed in the most efficient manner, i.e. ensuring that the levels of risk taken do not adversely impact the asset-liability mismatch in any significant manner should markets turn suddenly.

Markets change everyday and so do the risks associated with them. Yet, beyond the market risks monitored by others, there are a number of hidden ones such as interest rates, inflation, currency fluctuations and asset class correlations. In a recessionary environment, the weakness of corporate sponsors' covenants will be exacerbated and there is a danger that these levels of excessive risk can cause pension funds to fail and potentially even drag down sponsors if they are unable to honour their covenants. This can seriously damage the interests of pensioners, workers, shareholders and taxpayers, raising the question of how the provision of pensions affects the business behaviour of sponsoring firms as well as their relationship pension trustees.

Are today's governance and other structures well placed to deliver over the coming decades the pension outcomes desired today? Should investment regulation be

loosened on pension funds and pension insurance providers due to their longer time horizons? Can firms be effectively insured against future pension liabilities by the financial markets and can this be extended to individuals with personal pensions? What about the role of government safety nets such as the Pension Protection Fund in the UK?

The Nature of Tax Relief

Tax relief is a key part of government plans to encourage individuals to take a greater role in saving for retirement. As an example, the British Government currently supports the provision of old-age pensions in two ways: direct public expenditure on state provided pensions and 'indirect' expenditure through tax relief on private occupational and personal pensions.

For the latter, the tax relief takes three main forms. First, individuals can claim back any tax paid on contributions to their pension fund by either themselves or their employers. Second, pension funds receive tax relief on their investment income. Last, the lump sum component of any pension payment – currently 25% – is tax free.

The rationale is simple – by providing financial incentives which increases the return on saving, the Government hopes to encourage people to save more for their retirement.¹³ This is because of the perceived benefits of saving to make people financially more secure in old age and more pragmatically from the Government's perspective, as it reduces projected state pension expenditure in the long term.

However, there is little evidence that these tax incentives have actually increased the overall level of private saving, particularly for lower income groups, with most of the pension saving at the cost of other forms of saving. Various explanations have been advanced such as the complexity of tax incentives; their lack of appeal to lower earners, who pay lower rates of tax and therefore, gain relatively less from reduced tax liabilities; and to myopia affecting many individuals' long-term decision making. It is this savings gap¹⁴ – the Government's own figures estimate that up to 13 million people may be under-saving – that have led to the impending introduction of Personal Accounts and it remains to be seen whether this will solve the problem.

However, the failure of tax incentives to close this gap is all the more interesting when the UK is compared to New Zealand, for example, where the lack of tax incentives has apparently not resulted in a savings gap, with a quarter of the workforce having individual private pensions. This raises important questions of policy. Is the present system in the UK the best way of helping private pension provision or could alternative structures of tax relief do the job better?

The current system may also be seen to be inequitable and highly regressive from some perspectives due to the tiered structure of income tax. Although all taxpayers pay for the tax incentive system, the benefits are greater for higher earners due to their higher marginal rates of tax, creating the paradoxical situation where higher earners receive more state support for their private pension contributions. They are also more likely to contribute, accentuating the inequity further. Consequently, just over half of the tax relief is received by 2.5 million higher rate tax payers.

The problem is compounded by the growing cost of this tax relief on the Exchequer. While tax relief today is often seen as tax deferred tomorrow, this is not necessarily the case as the system has distinct tax advantages. First, individuals can elect take a proportion of pension monies accrued as a tax free lump sum at retirement. Second, they may well have received tax relief at a higher rate than is paid on the pension received in retirement.

¹³ It should be noted that tax relief is also provided in the form of ISAs, PEPs and TESSAs to encourage people to save generally.

¹⁴ The difference between the amount people need to save annually to achieve what is considered to be a "reasonable" income in retirement, and the amount they actually save.

The net result is potentially a growing loss of revenues to the Government and a growing subsidy by the present taxpayer. According to the Inland Revenue's latest numbers for 2006-07, the cost of relief was 1.6% of GDP – an increase of 87% since 1998-99. There are also additional costs for the relief from National Insurance Contributions on employers' pension contributions. This is significant, as it represents about 25% of the cost of all state pensions and retirement benefits. With the impending introduction of Personal Accounts where people will have to choose to opt-out of a private pension, the costs of relief may rise significantly further.

What part has the rapid growth of high income jobs – in the financial sector, for example – played in this rising cost of relief? Can governments financially afford to pay – directly or indirectly – pensions? Can they socially afford not to pay?

Political Uncertainties and Time Inconsistency

Equally, as household structures and the business environment change, work patterns evolve and even what societies perceive to be "fair" is likely to change over time. Pursuing the objectives mentioned earlier must be done within the constraints imposed by these inevitable uncertainties. In other words, a successful pension system should at least be reasonably robust to these changes.

Without doubt, future societal or economic developments will require policy changes though, however good the intentions of today's policy makers and other agents. A "good" pension system should therefore enable politicians to make these changes without having to restart fundamental debates at every opportunity. Politicians must also be in the position to make these changes without "losing face". The worry to "lose face" – even when no blame can be put on the politicians – is a major obstacle to reform efforts in a democratic society.¹⁵

Another major challenge will be to ensure that the objectives will be reached not only in theory ex ante but also in practice ex post. Even if it were theoretically possible to devise a structure today that led to efficient, fair and affordable pension provision in the future, how can economic agents – government, business or individuals – today ensure that they themselves or future economic agents will be committed to these plans in years to come? Given the time horizons involved, major time inconsistency problems exist. What mechanisms could help to overcome these obstacles? Less research has been conducted on these "practicalities" than on the theory.¹⁶

Ultimately at least some basic responsibility will arguably always lie with government as, first, society will generally not accept that individuals live in extreme poverty and, second, democratic processes will allow special interest groups (including the "elderly") to influence future election outcomes. The more they are disappointed by future outcomes, the more organised and vocal they are likely to become and hence the more likely they will be able to influence future election outcomes in their favour. While ex ante responsibility might lie with individuals or the private sector (firms), ex post the responsibility will almost certainly fall back to government if other arrangements fail to deliver as expected.

vi. A Final Note

One final major issue to note in this context is the credibility of behaviours over the 30- to 50-year time horizon. For example, how credible are the promises made by today's politicians on future state pensions? While "Government" will exist in the future, the political actors will have changed over the long term and different parties might be in power. Commitment can therefore only come through institutions and not through individual politicians. But which opposition party feels obliged to honour the promises made by their predecessor once they move into office?

¹⁵ For example, a government might be forced to change its policy because new information emerges.

¹⁶ See for example, *Credible Pensions*, Tim Besley and Andrea Pratt

<http://econ.lse.ac.uk/staff/prat/papers/fiscalstudiesFinal.pdf>.

Does this suggest that political decisions that affect society for decades to come should be made by cross-party committees rather than a governing party?

Future politicians can renege on social promises made in the past in the light of future political pressures. How can Government ensure that today's policies will be implemented? What are the appropriate governance structures for government-run pension funds?

Are social promises enough or are legal contracts required? Should responsibility be moved to other actors such as central banks (as in the case of the Norwegian Oil Fund), which could run state pension funds, or even the financial services industry through public-private partnerships?

Equally, how credible is it for working-age individuals of a large cohort to accept the pension promises made towards them once they actually reach retirement age? What incentives do they have to stick to previous agreements? Will these individuals not try to minimise their net transfers to the Government at a cost to other cohorts by demanding low taxes now while they work but high pensions and generous healthcare provisions once they reach retirement? Large enough cohorts (e.g. baby boomers) are powerful enough to renegotiate ex post the property rights through the democratic process.

Finally, how credible is it for private-sector firms to guarantee pension entitlements in the future, including to former employees who left the business years or even decades ago? Has this credibility changed as a result of fewer "jobs for life", which has fundamentally changed the contract between employer and employee? Is it not attractive for firms to default on their promises, in the hope that Government will take on ultimate responsibility? What – if any – contract exists between firms and Government?

As befits such a complex topic, the questions and problems are clearly difficult and many. The answers are few and it is hoped Pensions Tomorrow will provide a forum to debate and help formulate the eventual solutions.

Appendix A

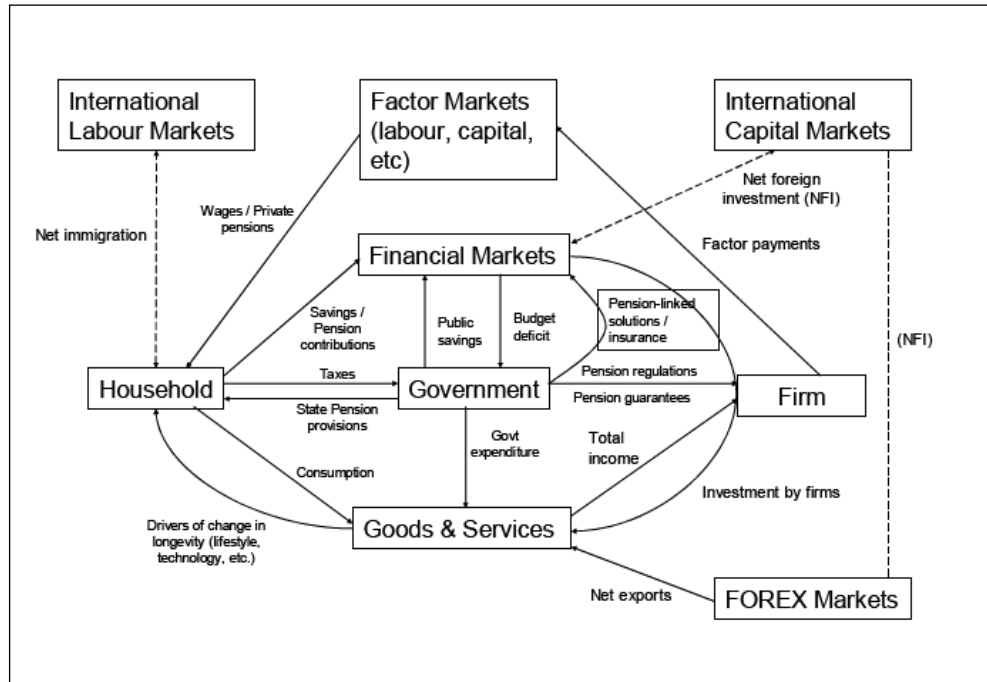
Table 1 summarises some of the main demographic trends in selected countries over the coming decades.

Table 1	Fertility rate			Life expectancy ¹			Old-age dependency ratio ²		
	2005 ³	2030 ⁴	2050 ⁵	2005	2030	2050	2005	2030	2050
Selected countries									
Australia	1.79	1.85	1.85	78.9	82.0	84.1	19	35	41
Brazil	2.25	1.92	1.85	68.8	73.1	76	9	19	31
China	1.73	1.85	1.85	71.3	74.8	77.4	11	24	39
Germany	1.36	1.54	1.74	76.5	79.1	81.4	28	46	54
France	1.89	1.85	1.85	77.1	79.6	81.8	25	38	45
India	2.81	1.97	1.85	63.2	69.3	73.4	8	13	21
Italy	1.38	1.54	1.74	77.5	79.9	82.1	30	44	60
Japan	1.27	1.4	1.6	79	81.5	83.3	30	52	74
Mexico	2.21	1.85	1.85	73.7	77.2	78.9	9	18	34
Russia	1.34	1.51	1.71	59	64	68.5	19	28	39
South Africa	2.64	2.13	1.85	48.8	55.3	61.2	7	12	14
UAE	2.31	1.95	1.85	77.2	79.6	81.9	1	6	27
UK	1.82	1.85	1.85	77.2	79.6	81.9	24	35	40
USA	2.02	1.85	1.85	75.6	77.9	80.4	18	31	34

¹ Life expectancy at birth, males. The overall trend is similar for females. ² This is defined as the number of people aged 65 years and over as a share of those people aged 15 to 64 years. ³ 2005-2010. ⁴ 2025-2030. ⁵ 2045-2050.
Source: United Nations World Population Prospects 2007.

Appendix B

A simple schematic of an open economy including the role of international markets.



Disclaimer

This document is being delivered as an information only document by Pension Corporation LLP ("PC"). No offer is being made by PC by delivery of this document and no reliance should be placed upon the contents of this document by any person who may subsequently decide to enter into any transaction. Opinions expressed are opinions of the author(s) only.

This publication has been prepared for general guidance on matters of interest only and is intended for professional/corporate recipients and not for individual/retail customers or pension scheme members and should not be passed on to such without our prior consent and does not constitute professional advice of any kind. You should not act upon the information contained in this publication without obtaining specific professional advice.

No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and, to the extent permitted by law, Pension Corporation LP, its members, employees and agents do not accept or assume any liability, responsibility or duty of care for any consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it.

Facts and views presented in Pension Corporation Research have not been reviewed by, and may not reflect information known to, professionals in other Pension Corporation business areas. Pension Corporation Research is disseminated and available primarily electronically, and, in some cases, in printed form.

© 2009 Pension Corporation. All rights reserved. 'Pension Corporation' refers to the Pension Corporation LP and its affiliates each of which is a separate and independent legal entity.

About the authors

Dr Frank Eich holds an MSc and PhD in Economics from the London School of Economics, and has worked as a professional economist both in the private and public sector. Before joining HM Treasury as an economic adviser in 2000, he worked for three years as a country economist for the Economist Intelligence Unit. In 2008 Frank worked on European and international economic policy issues in the German Finance Ministry in Berlin; he joined Pension Corporation as senior economist in October 2008.

Telephone + 44 (0)20 7105 2236
Email eich@pensioncorporation.com

Dr Amarendra Swarup handles alternative investments at Pension Corporation and is also the Head of Risk Management for the company. He was previously at Altedge Capital, a AAA-rated hedge fund of funds based in London. Amarendra holds a PhD in Cosmology from Imperial College London and is a CAIA (Chartered Alternative Investment Analyst) charter-holder as well as a member of the CAIA Exam Council. He has written extensively for a wide range of media publications and academic journals. He is currently working with Bloomsbury Publishing to put together a comprehensive volume of essays on global finance.

Telephone + 44 (0)20 7105 2234
Email swarup@pensioncorporation.com



**PENSION
CORPORATION**

Pension Corporation, 14 Cornhill, London EC3V 3ND. Telephone +44 (0)20 7105 2000 Fax +44 (0)20 7105 2001
Email info@pensioncorporation.com www.pensioncorporation.com