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Approaching a common denominator? An interim assessment of World Bank and ILO position on pensions

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[1] The views expressed here are those of the author and do not commit the International Labour Office. The paper draws on pension policy country profiles that have been established by staff of the ILO's International Financial and Actuarial Service (ILO FACTS), i.e. Krzysztof Hagemejer on Poland, Hungary, Czech Republic, Christina Behrendt on Kazakhstan, Wolfgang Scholz on Bulgaria, Karuna Pal on Argentina and Thomas Renner on Turkey.

Abbreviations

DB	Defined Benefit
DC	Defined Contribution
GDP	Gross Domestic Product
IMF	International Monetary Fund
ILO	International Labour Office
ILO-FACTS	International Financial and Actuarial Service of the ILO
ISSA	International Social Security Association
MDC	Mandatory Defined Contribution
MDG	Millennium Development Goals
NDC	Notional Defined Contribution
OECD	Organisation for Economic Co-operation and Development
PAYG	Pay-As-You-Go
WB	World Bank

Summary

This paper briefly traces the main stages of the inter-institutional debate between the World Bank and the ILO on pension policy during the last decade.[2] It focuses on the analysis of pension policy advocacy of the different institutions including in particular the latest draft of the most recent World Bank policy paper on pensions[3] and a brief analysis of real life development in pension reforms since the appearance of the World Bank Publication "Averting the old age crisis…" in 1994.

In 2000, Monika Queisser (today OECD) concluded that[4] "The positions of the International Organizations, particularly the ILO and the World Bank, have increasingly converged…." and that the previous "dogmatic approach has given way to a predominantly pragmatic position".

The paper concludes that the positions have converged. The World Bank is now ready to support a much wider range of pension reforms. Concessions were obviously forced by the undeniable and frequent difficulties that market-based reforms met in the implementation process. The ILO does not object to pluralistic multi-tier systems but has never regarded individual savings (defined contribution schemes) as more than a secondary or voluntary tier. The ILO recognizes that mono-tier social insurance schemes have failed to achieve sizeable population coverage in many developing countries. Both agencies are now broadening their advisory capacities towards basic universal pensions as an instrument to alleviate old-age poverty and a contribution to achieve the Millennium Development Goals (MDGs). Differences that remain are largely a matter of emphasis and weights that the different tiers assume in the views of the agencies. The ILO's first objective still remains to secure adequate and reliable income security for people in old age, disability and survivorship. The World Bank remains preoccupied with achieving containing public pension expenditure.

It is, however, too early to call the debate off. The fact that institutional views converge does not mean that a common rational strategy to assuring decent income for pensioners and the financing of such benefits has been found. A coherent view of the macro-economic and macro social policy roles of pension schemes is still missing. The common denominator – while no longer zero or negligible - is still too small. There is some way to go before we can claim that the

[2] The paper traces policy positions. It does not attempt to analyse the full set of reasons for the promotion of certain types of pension reforms by the World Bank and/or the ILO. It is obvious that some reasons for the promotion of certain policy positions lay outside the realm of pension or social policy. They belong to the political economy within and outside of national governments and international institutions (such as the financial interests of capital market agents). Norbert Blüm (Minister of Labour of Germany, 1982 to 1998) calls this sphere a "minefield of political and economic interests". (Quote speech in Geneva…). This issue would deserve a much deeper analysis and is beyond the scope of this paper.

[3] See World Bank (2004). The first draft was issued for discussion in May 2004 and presented to the ISSA General Assembly in September 2004. The latest draft is dated 28 October 2004.

[4] See Queisser (2000), p.44

role of pension schemes, in the combat against poverty and the preparation of societies for their own ageing, has been intellectually clarified.

1. The history of the debate: The unfolding drama

The debate on the appropriate strategy to reform public pension systems dates back to the early 1980s when Chile reformed its social security pension scheme replacing the partially funded defined benefit scheme by a mandatory defined contribution scheme (mandatory retirement savings scheme (MRS)). While the ILO remained sceptical (Gillion and Bonilla, 1992), the World Bank embraced the new model.

Act One: Averting the old age crisis

The full blessing of converting whole or major parts of national defined benefit pension schemes into retirement saving schemes by the World Bank only occurred in 1994 when the Bank issued the by-now famous publication "Averting the old age crisis…". (E. James et al. 1994).

The book basically advocates three-pillar (or tier) pension systems to avoid anticipated upward-spiralling pension cost. The focus was clearly on the second tier, i.e. the privately managed fully-funded component of the system.

Table 1: The 1994 pension paradigm of the World Bank

Pillar number	Target group	Characteristics	Nature of participation	Financing method
1	Potentially all groups but targeting the poor	Universal or means-tested social pension or social assistance pensions	Mandatory	General revenues, PAYG
2	Formal and informal sector	Personal savings plan or occupational plan	Mandatory	Individual contributions, fully funded
3	Formal and informal sector	Personal savings plan or occupational plan	Voluntary	Individual contributions, fully funded

Source: James, E. et al./World Bank (1994).

The main message of the book is that this system would insulate the pension scheme against the effect of ageing societies and that it also increases growth due to a rise in savings.

The publication was aggressively and successfully marketed by the World Bank which launched a world-wide publicity campaign during the years following the publication of the volume. At the same time WB staff around the world advocated the blueprint or derivates thereof in national pension debates. The policies advocated in national contexts were more flexible than the book appeared to concede. Bank policies also embraced the new Swedish reform model whose focus was the switching from a classical defined benefit formula to an allegedly new "notional defined contribution scheme" (NDC) where the benefit formula mimicked the pension calculation of a fully funded individual retirement savings scheme without actually building up monetary reserves. The multi-pillar and savings pillar centred model was applied in an increasing number of Latin American countries and some countries outside Latin America, such as Kazakhstan, while the Swedish model was adopted first in Latvia, then in Poland and later in Russia. Poland was seen as a strategic country for introducing systemic pension reform into the transition countries, and was probably also seen as an entry point into "old Europe". The Bank sent one of its leading welfare economists to head the secretariat of the plenipotentiary of the Polish pension reform.

Act *Two: Reactions*

The International Social Security Association (ISSA) and the ILO expressed their scepticism indirectly and basically only voiced their doubts in a relatively low key fashion, *inter alia,* through an article in the ISSA review (most prominently by Beattie and McGillivray, 1995). This article focused on the uncertainty of benefit levels for covered persons created by the World Bank paradigm. The decision was made to research the issue in more depth and respond through a substantial publication that provided full analysis of the complex issue of pension reform. The process took its time. Probably too long.

Towards the end of the 1990s the academic criticism of the WB model and in particular its pre-occupation with the forced savings components in its paradigm drew criticism from within and outside the Bretton Woods institutions. First doubts were voiced around 1998 and 2000 from within the Bretton Woods institutions as Heller (1998) and Barr (2000) first formulated criticism for the IMF. Internally in the World Bank, criticism was formulated in 1999 by Orzag and Stiglitz (1999).

Criticism centred around several key issues. Firstly, it was shown that it was by no means clear that national pre-funding of pension schemes actually made pensions less vulnerable against the effects of ageing, bad governance or economic shocks. The evidence of the impact on growth was also considered inconclusive. It was shown that both PAYG and funded systems required good governance and enduring economic output to ensure their viability. Systemic reforms often camouflaged the fact that actual benefit levels are reduced over time. Many authors also pointed out that the financing of the transition from PAYG or partially financed schemes to fully-funded schemes caused transitional fiscal problems in most countries, even if agreeably the resources needed to fund the physical consumption of the retired generation would not increase. The arguments pro and contra funding do not need to be replayed here in full detail. They were summarized *inter alia* in Cichon et al. (2004) and are reprinted in the Annex.

The ILO (ILO 2000) finally produced its response to "Averting …" in a textbook style volume on pension policy that *de facto* opened up the ILO position towards multi-tiered pension systems. The ILO is less prescriptive about its paradigm, sees it as advantageous for developing countries and carefully avoids recommending a one-size-fits-all systemic reform model to countries with mature pension schemes. For countries which are developing or are re-engineering a new system the ILO recommended effectively a four tier system including a “zero tier” with a social safety net (social assistance) tier outside the pension system.

Table 2: The 2000 ILO paradigm (developing countries)

Pillar number	**Target group**	**Characteristics**	**Nature of participation**	**Financing method**
0	The poor	Social assistance scheme providing means-tested benefits	Mandatory	General revenues, PAYG
1	Formal and to the extent possible informal sector	Public defined benefit scheme ensuring a replacement rate of between 40-50% of average lifetime income	Mandatory	Contributions, PAYG or partially funded
2	Formal and informal sector	Defined contribution scheme publicly or privately managed	Mandatory or voluntary, including occupational plans	Individual contributions, fully funded
3	Formal and informal sector	Saving, or non pension benefits (housing) etc.	Voluntary	Individual

Source: ILO (2000).

Contrary to the World Bank the ILO stresses the importance of adequacy of benefit levels (i.e. the aspect of income security), the extension of coverage and the role of good governance as a *sine-qua-non* condition for the proper functioning of all pension systems. The bottom line of the ILO position was summed up in 2000 by Queisser (Queisser 2000) as “… the ILO is fundamentally unwilling to accept systems which cannot guarantee insured persons with a full contributions record any more than benefits at the subsistence level”. Since the minimum replacement rates required by ILO Social Security (Minimum Standards) Convention, 1952 No.102 are close to many national relative poverty lines the ILO can be expected to stand that ground.

The International Social Security Association in the framework of its Stockholm initiative paralleled the ILO work with L. Thompson’s ‘”Older and wiser” that probed in more analytical detail into some of the crucial technical issues surrounding pension financing. Largely due to the fact that the organizations do not have access to public relations budgets that are equivalent to those of the World Bank, these ILO and ISSA publications never achieved as much political influence as the World Bank publication.

2. Real life developments

While the academic policy debate was raging in and outside the institutions a variety of pension reforms were introduced in a number of countries during the 1990s and early 2000s. Following the Chilean reform, 11 more countries in Latin America have included mandatory savings tiers into their pension systems. The first wave of such systemic reforms in Latin America was followed by reforms in 14 countries in Central and Eastern Europe and Central Asia (e.g. Bulgaria, Croatia, Estonia, Hungary, Kazakhstan, Kosovo, Latvia, Lithuania, Macedonia, Poland, Romania, Russia, Slovakia, Ukraine), which implemented multi-tier systems that were essentially scaled down versions of the Latin American reforms.

The World Bank associated itself with a number of such reforms, called systemic or paradigmatic reforms. The reform blueprint generally consisted of a multi-tier system. The first tier would consist of a reduced PAYG tier, making room for the addition of a second tier in the form of a fully-funded Chilean type individual savings scheme. In three cases, Latvia, Poland and later Russia, the pension formula for the first tier pension scheme was converted into a NDC formula.

Simultaneously, but often overlooked, a number of countries adopted so-called parametric reforms of their pension systems or entered into a reform process. These reforms have generally focused on the adjustment of some parameters, prominently through:

(1) increasing pension age,
(2) modifying eligibility conditions,
(3) reducing benefit entitlements through changes in the pension formula or indexing rules,
(4) adding a new pillar to the pension system.

The ILO is associated with a number of such reform processes (Cyprus, Luxembourg, Panama, ….). In the case of Turkey, the ILO and the WB jointly worked on proposals for a parametric reform of the existing complex pension scheme and the introduction of an additional voluntary tier (Renner 2004). Major corrections in terms of retirement ages and benefit generosity have been legislated in many other countries. At times the reform process is slow, ILO recommendations for a stringent parametric consolidation of national pension schemes were not heeded for example in Luxembourg and Cyprus. In other countries (such as Austria, France, Germany and Japan) where none of the international agencies wields noticeable influence, governments also developed reform proposals. Some of them were even challenged by mass demonstrations. The resistance to change despite the widespread awareness of emerging demographic pressures seems to remain high.

Systemic reforms in Latin America were summarized as having had some degree of fiscal and financial success with respect to containing expenditure. This is an obvious consequence of introducing major tiers (i.e. the savings tiers) which are in automatic financial equilibrium that will help to bring expenditure down in the long-run. However, concerns about the long-term financial burden of the state for minimum pension guarantees and guaranteed minimum rates of return remain high (e.g. in Chile, see Arenas and Benavides, 2003). Social assistance payments to the elderly are likely to increase in countries where coverage has dropped or not reached envisaged levels which is the case in all Latin American reform countries (except possibly in Uruguay). Low coverage is one of the most important problems that haunts the systemic reform countries. Coverage is still under 20% in some of the Latin American reform countries. The recent report on Latin America[5] states that reforms have delivered “significant fiscal, social and financial benefits, but the failure to extend access to social security and private pensions to a broader segment of society has been a major disappointment”. Low coverage will create substantial long-term old-age poverty and trigger renewed public expenditure for basic social assistance schemes also in systemic reform countries in Eastern and Central Europe and Central Asia, where only the countries who resorted to parametric reform (i.e. the Czech Republic and Slovenia) could maintain the traditionally high population coverage in that part of the world.

Major problems were encountered when financing and organizing the transition in systemic reform countries. In Argentina, the second fully-funded pillar is virtually defunct as the Government had to reduce the value of bonds and is still burdened with an additional debt due to its obligation to finance the transition. The financing of the double burden has contributed to the recent financial crisis.[6] Transition in Eastern Europe, notably Poland, was bumpy as the transition cost caused default of the contribution-collecting first tier due to transfer of resources to the second tier individual savings schemes (Hagemejer 2004). Russia is experiencing similar problems.

De facto replacement rates of pensions will drop in many reform countries significantly. Ultimately dropping replacement rates is the only source of additional savings that a paradigm change generates in comparison to parametric reforms. In Poland replacement rates may be reduced by about one-third (ILO, CEET 2002, p.129) and in Argentina replacement rates may drop to about one-third or even less of the present level (ILO, 2004b, p.56). The adequacy of benefits in systemic reforms is perceived to be guaranteed by PAYG financed minimum pension guarantees (that can be introduced under any PAYG systems). Average pension amounts are likely to gravitate towards the minimum levels. It is obvious that in the face of severe demographic shifts the sometimes very high pre-reform replacement rates would have had to be reduced in any case. The transition to larger shares of pension amounts to be generated by DC schemes means that the downward shift is accompanied by the unpredictability of future pension levels.

Administrative cost ratios in systemic reform countries notably in Latin American countries are extremely high, ranging from 2.3% (Chile) to 4.5% of insurable wages (Mexico). While in some cases this includes premia for invalidity and survivor benefits, the rates are high enough to reduce pension levels by between 20% and 30%. Conversion of the accumulated pension into an annuity at retirement can attract further fees that might be in the order of 15% of accumulated assets (Thompson 1998). Together these charges could easily reduce the present

[5] World Bank: “Keeping the promise of old-age income security in Latin America”, Washington, 2004, as quoted in News release 2004/340/LAC.

[6] A more detailed description of the Argentinean case can be found in Pal (2004).

value of pensions by about one-quarter to more than one-third, which could easily bring the real average rate of return of a pensioner with a long career down to that of a PAYG system.[7]

It is obviously true that in most countries where systemic reforms were undertaken, the previous PAYG or partially-funded DB schemes were in need of reform. However, the new World Bank pension paper and real life developments fail to convince the reader that consolidation could not have been achieved through parametric reforms which could have avoided most of the transition problems.

3. Refining positions: The World Bank

For the time being, the last act in the drama is the new draft pension policy paper by the World Bank (WB draft 2004) which largely builds on a review of reform experience during the last decade.[8] The Bank has simultaneously embarked on an internal review of the efficacy of its pension policy. This time the ILO reactions will be more substantial but might still remain low key. An internal working group of the Social Protection Sector is presently reviewing the institution's pension policy position.

The WB paper aims at defining a new modified World Bank position (called "perspective") on pension reform. The paper appears to be less rigid in its policy prescriptions than the three-pillar model for national pension systems that was heralded in the 1994 publication "Averting the old age crisis…". It claims that the World Bank supports reform options of a much wider variety than was to be expected after "Averting the old age crisis…", although much of the paper is still advocating a greater level of individual funding of retirement benefits (in the form of Mandatory Retirement Savings Schemes).

3.1 Basic elements of the new World Bank perspective on pension systems and their reform

The paper defines the key elements of the new perspective under four major headings:

A. Primary goals of pension reforms

These goals are:

- *adequacy of pension systems*
  relating to preventing poverty and some level of income replacement in old age;
- *affordability*
  relating to acceptable levels of contribution rate;

[7] Calculated on the basis of average real wage increases of 2% p.a. and long-term average real rates of return of 3%.

[8] Quote regional papers….

- *sustainability*
  relating to the ability to finance promised benefits over a long-term period;
- *robustness*
  relating to the ability of the system to survive economic, demographic and political shocks.

B. *A secondary goal:*
A potentially positive contribution of pension systems to economic development.

C. *Criteria for World Bank support*
The Bank will support pension reform plans in countries if the following conditions are met:

- sufficient progress expected towards the primary goals of pension schemes (see A);
- the macro-economic and fiscal environment is capable of supporting the reform option;
- the administrative structure is able to implement it;
- effective regulatory and supervisory arrangements are in place;
- credible long-term commitment of the government is in place;
- there is sufficient local buy-in and leadership; and
- there is sufficient capacity building and implementation.

D. *"Acceptable" reform options*
The paper identifies five types of reforms, of which the first four can be combined in various ways:

(1) parametric reforms, which keep the basic structure of the existing Defined Benefit (DB) schemes in place but change its parameters (such as pension age, pension level etc.);
(2) reforms that introduce Notional Defined Contribution (NDC) schemes (i.e. schemes that mimic the benefit formula of fully-funded schemes but are essentially financed on a PAYG basis);
(3) market-based reforms, providing benefits under individually fully-funded Defined Contribution (DC) financing under private management;
(4) reforms that introduce or strengthen the public pre-funding of DB or DC benefits;
(5) multi-pillar reforms that combine different types of pension schemes.

While parametric reforms are seen as "…the majority of actual pension reforms…" they are quickly dismissed as "…in most cases…not able by themselves to lead to reformed modern pension systems", but can be "a crucial precursor for a …paradigmatic reform." (Part II). Notional Defined Contributions schemes are seen as the best way to reform an unfunded scheme even though it is explicitly acknowledged that they are virtually identical to the French or German point system with actuarial reductions or increments for early retirement.[9] The paper concedes that full market-based reforms may only be possible in countries with low "implicit pension debt"

[9] See also Cichon (1999) who proves the mathematical identity between NDC schemes and DB schemes with actuarial reductions and increments in case of early respectively late retirement.

where no double burden would be created for the transition generations when switching to a new reformed system (see discussion below). Public pre-funding may give some reasons "for optimism" but governance problems with the degree of public ownership of private assets are seen as a disadvantage. Furthermore, difficulties in guaranteeing the independence of investment decision by public investment agencies from government interference are expected. Finally, multi-pillar systems are clearly discussed as the preferred pragmatic option. The definition of a multi-pillar system is widely cast. The standard three-pillar system of "Averting the old age crisis" is replaced effectively by a five-pillar system of the following structure (p.55 in the May version).

Table 3: The new 2004 multi-pillar pension paradigm of the World Bank

Pillar number	Target group	Characteristics	Nature of participation	Financing method
0	Lifetime poor, possibly others	Universal or means-tested social pension or social assistance pensions	Residual *(why not universal?)*	General revenues, PAYG
1	Formal sector	Public pension plans, public managed, DB or DC or NDC	Mandatory	Contributions, PAYG or partially funded (*not clear*)
2	Formal sector	Occupational or personal pension plans, DB or DC, *(no mention of public or private execution)*	Mandatory	Individual contributions, Fully funded
3	Poor, informal and formal sector *(how can the poor contribute ?)*	Same as 2	Voluntary	Individual contributions, Fully funded
4	Poor, informal sector, formal sector	Personal savings, homeownership and so forth	Voluntary	Fully funded (i.e. backed by personal assets)

Source: Summarized version of table on page 55 of May version of World Bank (2004).

The WB paper discusses the pros and cons of the different reform options. The weighting and presentation of the arguments and the conclusions, however, clearly indicate the strong preference of the Bank for a prominent role of individually-funded and privately-managed schemes within multi-pillar systems. The discussion of the potential benefits of funding and the administrative requirements to make it work within a multi-pillar environment extends over a large part of the paper while the design of the first pillar (number zero in WB counting) takes up two-and-a-half pages and the conceptualization of the fifth pillar (in the Bank's counting) is virtually absent.

3.2. Discussion

Some notions in the "perspectives" deserve a more in-depth discussion.

3.2.1 The notion of adequacy

It is the first time that a World Bank publication discusses the notion of adequacy of pension levels. There is one concrete hint as to what the Bank considers adequate. The understanding of the authors seems to be that an average worker requires a 40 per cent replacement rate to "maintain subsistence levels of income". Low-income workers may require higher rates. However, replacement rates beyond 60 per cent "are not likely to be viable" (part I, section 3). The 40 per cent rate is close to the rates prescribed in ILO Convention No. 102. However, ILO Conventions are ignored, although this would be the place to discuss the role of the ILO and international conventions and standards.

The only further reference to adequacy is the level of US$2 per day for the zero-tier, a figure that clearly has to be discussed in national contexts, but is probably a good point of departure in many poorer countries where it could amount to too little or too high a per cent of per capita GDP.

3.2.2 The notion of affordability

Here it becomes methodologically and analytically obscure and echoes some of the early unsubstantiated prescriptions that we have seen in Eastern Europe in the early 1990s. Contribution rates in excess of 20 per cent are categorically declared as "detrimental" to middle- and high-income countries and the threshold could be 10 per cent in low-income countries. These figures are not discussed in the context of overall national social budgets nor in the framework of overall public expenditure. Neither are complementarities and the crowding out effects of different types of social transfers, let alone overall limits to taxation discussed in this context. There is absolutely no reason why a country should not spend say 25 per cent of its payroll on pensions (which would roughly be the product of a 50 per cent demographic burden and an average replacement rate of 50 per cent) provided that the overall tax and contribution burden is not too high. Agreeably, the term "too high" has to be defined in national contexts. These figures are also discussed independently of the size of the wage share at GDP or the underlying demographic structure of societies.

3*.2.3 The justification of reforms and analytical inconsistencies*

"Unreformed" systems are considered inadequate since they:

- do not have clear objectives which can, *inter alia*, lead to over-provision for some groups on the one hand and simultaneous under-provision for other groups on the other hand;
- do not always keep their promises;
- are not designed to cope with demographic change;
- often create wrong labour market incentives;
- reduce individual savings (and may reduce national savings rates).

Reformed systems (i.e. multi-pillar systems) on the other hand can allegedly avoid over-promising, provide an important impetus to capital markets and avoid implicit pension debt. This is a classical list of arguments. Most of the negative effects of unreformed systems are governance problems that can be corrected by governance measures and may equally affect reformed schemes. In other cases (such as the alleged effects on national savings rates) inconclusive factual evidence is played out as theoretically conclusive. Some of the key concepts of the reasoning deserve some analytical excursions.

Excursion One: The ageing problem

In the section on ageing it is acknowledged for the first time that both funded and unfunded schemes are negatively affected by ageing (p. 24). "Both types of systems need the next generation to complete the intergenerational contract since under both financing mechanisms younger workers are needed either to finance the transfers to the current elderly or to buy their accumulated retirement assets thereby converting savings into consumption." None the less a combination of funded and unfunded schemes is seen as a better risk management strategy, since the funded and unfunded systems react to a different degree to ageing. No explanation is given as to why and how. If further analytical work was done (the ILO International Financial and Actuarial Service has started it)[10] the impact of ageing on financial rates of return could probably turn out to become the Achilles' heel of all reforms based on funding.

It is acknowledged explicitly that ageing is best dealt with by "allocating the gain between a longer supply of lifetime labour and an decrease of retirement leisure". In plain language this means the solution is increasing retirement ages. Interestingly and surprisingly that measure is not discussed in full depth anywhere else in the paper.

The reason is probably simple. The following graph 1 shows that on the basis of the demography of rapidly ageing Western Europe[11], the increase of retirement age or better the extension of the *de facto* working life is probably a solution for all "unreformed" DB schemes. Acknowledging this would probably debase one of the fundamental arguments for more financial market-based reforms.

On the basis of simplified model calculations[12] that were developed for the purpose of this note (and are certainly in need of confirmation by more sophisticated models) it could be shown that the problem of increasing demographic burdens can be contained by measures that increase labour force participation. An increase of the labour force participation rate of the age group 15 to 64 years through various measures such as the increase in labour force participation rates of

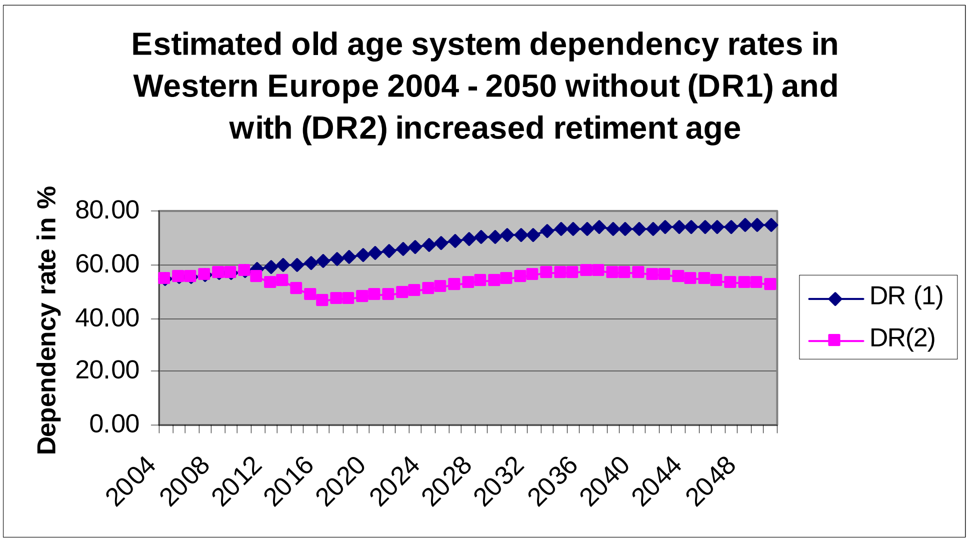
[10] See Cichon, Hagemejer, Scholz (2003).

[11] Combined data for Austria, Belgium, France, Germany, Liechtenstein, Luxembourg, Monaco, Netherlands and Switzerland taken from the UN 2002 population projections.

[12] The model assumes a long-term average increase of 2.5% of real GDP per annum, long-term average increase of labour productivity per worker of 2%, a starting unemployment rate of 10% in 2004, a starting labour force participation rate of 80% for males and 70% for females with increases to 90% and 85% respectively.

women to levels slightly below that of men, and increased overall rates due to earlier entries into the labour force, but first and foremost a gradual increase of the *de facto* retirement age from 60 today to 65 (here simulated between 2011 and 2021), the old-age demographic dependency rate can be kept at the present level for the next five decades.

Graph 1:



Source: ILO-FACTS estimates.

Not all of the potential increase of labour force participation and the increase of the retirement age might be achievable in practice. The difference has to be made up by migration if the overall level of standard of living has to be kept in ageing societies.

In any case, the ageing problem of societies cannot be reduced to a pension problem. Overall and per capita GDP growth rates are at risk when populations age and employable labour forces shrink. The achieving of increased labour force participation rates for all ages over 18 to 20 is imperative for the maintenance of standards of living in ageing societies. Migration can help to maintain a stable dependency rate but will only provide partial relief or lead to exploding populations. The maintenance of a sufficiently big endogenous labour force remains crucial.[13]

[13] See Cichon; Léger; Knop (2003).

Excursion two: The implicit debt

A further justification for reform is the notion of implicit pension debt that "unreformed" systems are allegedly amassing. It is discussed in the context of a full market-based reform. The concept is often used by Bank staff but remains misleading. Implicit dept only occurs if the present value of all future pension benefits minus the present value of all future social security taxes or contributions is negative. If contribution rates are increased in line with expenditure, or expenditure is reduced to meet acceptable contribution levels, the "implicit pension" debt disappears. The concept thus implies that no parametric adjustments will be made in the pension systems over many decades – which is contrary to all historical experience. As a matter of fact all partially funded or PAYG pension schemes are built on the assumption that contribution or tax rates have to increase periodically in the future to match the natural maturation process of these schemes.

Implicit pension debt only surfaces as an explicit problem when the pension paradigm is changed and the "old scheme" is deprived of some of its resources because they are transferred to the financing of a new system. It is ideologically helpful to declare some of the emerging double financial burden for the transition generation as being an implicit debt that has always existed and is now only becoming visible.

The paper accepts that "full market-based" paradigm changes are only possible in countries with no or only small implicit debt. This basically leads to a limitation of full market reforms to countries that are introducing pension schemes. Most of these countries will not have functioning financial markets and supervisory mechanisms in place that would be needed as a precondition for such systems.

3.3 Intellectual lacunae and limitations

The main weakness of the new WB perspective is its analytical mono-dimensional thinking. Pensions are first and foremost a redistributive justice problem in a society. In real terms (i.e. consumption levels) transfers to the elderly have to be generated by current GDP. Transfers can be organized via capital markets or via the fiscal system. Their size has to be fine-tuned with other sources of original income of the recipients as well as other transfers (like for example, free health care). They have to be discussed in an overall fiscal, social and economic policy context. As already suggested, it is analytically insufficient to discuss old-age pension problems in isolation of the overall impact of demographic developments on economic performance, and in isolation of overall social and public expenditure and financing problems.

Ageing, the HIV/AIDS pandemic and economic restructuring as a consequence of globalization pose fundamental problems for all social transfer systems, including pension schemes. It is not sufficient to analyse how pension schemes can cope with such risks. Major national income transfer schemes also naturally have to play a role in facilitating societal adaptations to such risks. Pension schemes may not be able to increase the overall national level of savings, but they may well steer a certain amount of national investment into long-term productive industries. Market mechanisms alone are not likely to react to long-term structural demographic and economic challenges.

The other open question that has not been discussed so far is the following. If we take as given that the overall envelope of taxes and contributions is limited in any society, then funding vs. PAYG financing of pensions is also synonymous with the question investments vs. redistribution. How much of the potential resources for social transfers should a society devote to income redistribution in order to stabilise consumption and secure minimum current standards of living while it foregoes the opportunity to trigger investment in certain industries? Put to the extreme this means: Do we spend money on anti-poverty schemes now, possibly losing some of the growth that may reduce poverty later? And, do we know the impact of lower poverty levels on long-term growth? A comprehensive economic theory of pension and social transfer policy is still missing.

In this situation it is unclear why the Bank favours individual retirement schemes which are by definition fully funded over flexible and intelligent funding arrangements under partially-funded defined benefit schemes. The latter schemes can adapt the level of reserves to the investment needed for a rational investment policy while fully funding locks the pensions savings in at a defined and certain level, unless the government borrows resources back from the funding tier. The latter would effectively turn the schemes into PAYG-financed schemes.

4. Refining positions: The ILO

The ILO's position, just like that of the World Bank, has been changing over the last four to five years in particular in view of the real life reform experience. The process of defining an agency position is still ongoing and the results of an internal working group are expected for the beginning of 2005. After the comprehensive analytical volume issued in 2000 the ILO will not issue a lengthy paper but probably will develop a concise policy statement. It will largely draw on recent technical co-operation work[14] in Europe, Africa, the Caribbean, Latin America (Argentina, Chile and Panama) and Asia.

Since a number of years the ILO is pursuing a comprehensive approach[15] to social sector reform in the form of national action plans for social protection supported by analytical tools like Social Protection Expenditure and Performance Reviews (SPERs) (*inter alia* Arenas de Mesa and Salazar 2003) and its social budget approach which aim at ascertaining the long-term sustainability of the overall national social protection systems.

[14] See i.a. ILO (CEET) 2002, ILO (Luxembourg report 2001), ILO (Cyprus report 2003) and other technical reports in the list of references.

[15] See, inter alia, Bonilla and Gruat (2003).

Within that framework a new multi-tier approach to pension policy emerges from recent publications[16] and technical advisory reports. Based on the recommendations of the World Commission on the Social Dimension of Globalisation (2004), the Office now clearly promotes the exploration of universal basic pensions as a component of a basic socio-economic floor (ILO, 2004c, p.37) and as a major tool to combat old age income insecurity through the achievement of universal pension coverage. This recommendation is clearly based on the finding that traditional social insurance-based schemes or individual savings-based schemes alone are not likely to solve the coverage problem in the medium-term future in most low- and middle-income countries. Basic universal pensions could actually also provide a security floor for reformed systems in Latin America that have not achieved substantial population coverage and income security.

On the other hand, the Governing Body of the ILO has explicitly confirmed that the ILO's Social Security Minimum Standards Convention (No. 102) of 1952, was still up to date. This implicitly means that the ILO still aims at a minimum replacement rate (on average) of 40% of the previous wage.

Another factual development is that the ILO so far did not in any single case suggest Mandatory Retirement Savings Schemes in any of its technical co-operation reports. If at all - such schemes are regarded as voluntary additions to mandatory tiers for higher income groups. What seems to be emerging is a pension system pyramid that can follow national development patterns and hence can be built up gradually consisting of:

- universal or social pensions to be introduced at an early stage of economic development but none the less aiming at 100% population coverage;
- a mandatory social insurance tier with flexible and intelligent partial funding for all formal sector workers and such informal sector workers that can be included;
- a voluntary tier that can consist of occupational pensions or other voluntary private arrangements;
- a non-pension old-age security tier that supports various non-pension benefits that aim at guaranteeing a certain income security of the elderly (home ownership, access to long-term care, access to affordable health care).

A tentative structure for new or structurally reformed national pension schemes could look as follows:

[16] Authors in the ILO (e.g. ILO (2004a), pp 382 and Cichon (2004)) are repeatedly making a case for the exploration of universal or social pensions as a first tier for national social protection systems.

Table 4: A new tentative ILO paradigm (2004/05)

Pillar/tier number	Target group	Characteristics	Nature of participation	Financing method
1	Lifetime poor, possibly others	Universal or means-tested social pension or social assistance pensions	Residual or universal	General revenues, PAYG
2	Formal sector	Public pension plans, publicly managed DB To ensure a replacement rate of 40% of lifetime wage or the national poverty line together with tier one	Mandatory	Contributions, PAYG or partially funded; Funding levels to be determined flexibly in line with financial and economic needs and capital market absorption capacity and admin. capacity of the scheme; reserves can be publicly managed
3	Formal sector	Occupational or private personal pension plans, DB or DC,	Voluntary	Individual contributions, Fully funded individual contributions
4	Poor, informal and formal sector	Non-pension income security measures (promotion of home ownership, access to health care and long-term care etc.)	Voluntary	Individual, Fully funded

The systemic differences between the ILO and the World Bank positions have minimized but are still substantial. There remains a clear focus in the ILO on the principal objective of income security (i.e. guaranteed - or at least as certain as possible - replacement rate). There is no willingness to forego the policy parameter of flexible funding through promotion of fully-funded pension schemes. The ILO is not opposed to funding *per se* but prefers collective funding under a DB scheme. The reserves can be managed by private agents provided clear investment polices are defined by the scheme. The ILO also places importance on the access to affordable health care for pensioners and secure housing as a crucial element of the package.

The key financial steering instruments that have been identified and recommended in various Technical Cooperation (TC) reports over the last years are:

- increasing retirement ages; and
- the adjustment of pension in line with prices rather than wages, provided that this will not lead to increased poverty of pensioners.

In virtually all pension schemes that the ILO has valuated actuarially over the last decades the application of these two instruments would achieve long-term financial consolidation without creating fundamental income insecurity for pensioners.

5. Points of convergence

There are obvious points of convergence between the ILO and the World Bank. On these points the institutions and their constituents can and should engage in a constructive dialogue. Some of the more important points are:

(1) Coverage

This is the first time that the Bank acknowledges that a pension system should provide adequate income to all citizens across the entire income range, i.e. thus opting for full coverage. This is fully compatible with the strategic objective of the ILO's Social Protection Sector. Concrete modalities of such policy options and the acceptability of consequential pension expenditure have to be discussed in principle but more importantly in every country case individually.

(2) The zero pillar or the social pensions

The Bank sees this as a first anti-poverty tier in national pension systems to be provided to all or needy persons over a certain age. This ties in with the promotion of universal tax-financed pensions as a part of a socio-economic floor in the ILO Director-General's Report to the International Labour Conference 2004.[17] A constructive dialogue can be had on benefit levels, age limits and the fiscal and financial feasibility, as well as the positive effects for whole family units of such pensions in developing countries. The role of demogrants as a way to mend some of the social shortcomings of pension schemes which have followed a dominantly market-based reform (such as Chile) can also be discussed. There are some indications that countries might be willing to discuss such options. There are also indications that a number of countries can afford combating old-age poverty through universal pensions (see Excursion three).

[17] ILO (2004c), p.37.

Excursion Three: Are universal pensions affordable?[18]

Relatively little is known about the typical overall national (net and additional) resource needs of universal pension schemes with modest benefit levels. The following table summarizes the existing evidence in six countries with existing non-contributory pensions (including universal and means-tested schemes). The costs of these schemes are mirrored against crude ILO hypothetical cost estimates for four further countries. The data and estimates are not completely compatible and further research is required to confirm the estimates and the statistical findings. However, it can – tentatively - be concluded that the cost of a basic universal pension scheme does not seem to be extravagant. Depending on the concrete country case, one can delineate from the table that a basic universal pension scheme with a benefit level of about 20% of per capita GDP could probably cost between 1 and 2% of GDP and would require probably between 5 and 10% of overall government revenues.

Regardless of whether such a transfer system is introduced at once or gradually over time, a national resource mobilization strategy has to be developed and agreed upon by the government and society at large.

Any national and international resource mobilization strategy to combat old-age poverty in developing countries would ultimately face the challenge to mobilize resources in the order of around 1 to 2 % of GDP, which would be the equivalent of approximately 20 % of the current overall national social expenditure levels. This may sound reasonable but it requires budgetary shifts in the order of up to 10% of government budgets. Such shifts are never easy and may have to be phased in over years. However, as the example of Nepal shows, one can introduce universal pension schemes gradually by initially only covering subgroups of the elderly (e.g. people of age 75 and above) as well as survivors and possibly disabled people.

[18] This excursion box is an excerpt from Cichon (2004).

Excursion Table E.1: Summary of observed and estimated resource needs of non-contributory pensions in selected developing countries, 2000 and later

Country	Type of pension	Pension age	Calculated population coverage (% of total pop.) direct beneficiaries	Monthly amount of basic universal pension			**Cost of basic universal pension**	
				In national currency	US$ equivalent	In % of per capita GDP (5)	**In % of GDP**	**In % of total govt. revenues**
Countries with established schemes								
Botswana (6)	universal	65	3.8	151 Pula	28	10.5	**0.4**	**0.8**
Brazil 2000 (1)	means-tested (soc. Ass and rural pens.)	55-67 (7)	5.8	200 Reais	87	22.5	**1.3**	**5.2**
Mauritius 2000/2002 (4)	universal	60	9.0	1700 Rs	58 (3)	21.0	**1.9**	**8.6**
Namibia 2002 (2)	universal	60	4.3	218 Rand	25.8	18.6	**0.8**	**2.5**
Nepal 2000 (4)	universal /means tested surv. benefits	75	1.8	150 Rs	75.620	11.0	**0.2**	**1.9**
South Africa 2000 (1)	Means tested (nearly universal)	60f/65m	4.0	640 Rand	75.6	34.6	**1.4**	**5.2**
ILO estimates								
Burkina Faso 2002	universal	60	n/a	10% of average wage			**1**	**9.1**
Panama 2000	universal	60	8.0	58.55 Balboas	58.55	20.0	**1.6**	**6.0**
Tanzania 2000	universal	60	3.0	n/a	15.2	70.0	**2.1**	**9.0**
Zimbabwe 2000	universal	60	n/a	773.7 Z$	n/a		**1.9**	**7.9**

Notes and sources: (1) HelpAge/IDPM (2003) cost of universal pensions; (2) ILO-FACTS estimates; Source for total Govt. Revenue World Bank, World Development Indicators 2003, Table 4.11 (except for Tanzania where national statistical office data were used); revenue data for Botswana, Burkina Faso, Nepal and Zimbabwe from 1990; (3) amount increasing with age; (4) Source: Willmore (2003); (5) GDP per capita for 2001 from World Development Report; (6) Source: Redd (2003); (7) 67 for social assistance pension and 55/60 female/male for rural pensions; Source: HelpAge/IDPM.

(3) *Replacement levels and adequacy*

This is also the first time that the Bank is concerned with adequacy of benefit levels and even more concretely a benchmark for the average pension replacement rate, i.e. 40 per cent of the wage, for the entire system, i.e. the combined replacement rate of all pillars. This is in the order of magnitude of what ILO Social Security (Minimum Standards) Convention, 1952, No. 102 would prescribe as a minimum (i.e. 40 per cent of the average wage of a "standard worker", which could be higher than 40 per cent of the average wage in individual cases earning more than the average wage). This leaves room for discussion of normative levels of replacement rates. Forty per cent of the average wage is in the order of magnitude of many national relative poverty lines.

(4) *(Pre)-funding of pensions*

This is also the first time that collective public pre-funding as an explicit alternative to individual pre-funding (i.e. mandatory individual retirement savings) is mentioned as a valid reform option. The ILO never contested the principal merits of partial funding provided that safeguarding conditions with regards to the quality of governance, the functioning and supervision of financial markets and the potentially negative effect of ageing on the returns on investments are met. Collective or public funding can easily be combined with defined-benefit schemes. That combination would better balance the financial risk associated with ensuring certain income levels in old age between the society and the individual.

(5) Notional defined contribution schemes

Notional defined contribution schemes are mathematically identical to Defined benefit schemes with a correctly calculated accrual rate and actuarial increments or decrements for late or early retirement.[19] Such schemes have been in operation in Western and Central Europe for a number of decades. Thus there should not be any major source of disagreement on the issue.

6. Summary and Conclusion

Monika Queisser was right. There is a tale of convergence to be told when comparing the World Bank and ILO positions on pensions. This is even more obvious now than it was four years ago. The World Bank has to be congratulated on the intellectual rigour with which it is reviewing its own position. The review is still incomplete and in the end leaves the reader with only two reasons why pension systems should be reformed along the lines the WB suggests: the containment of pension cost and the boosting of financial markets. The latter might be beneficial for the economy and hence the welfare of the society as a whole, but that can be achieved under the existing DB schemes, just as necessary corrections to expenditure volumes can be achieved through the extension of the active working life or the modification of the adjustments of pensions. The review concedes to positions put forth by WB critics that the WB contested over

[19] See Cichon (1999).

the years, such as the vulnerability of all pension schemes to ageing, the critical importance of good governance and the impossibility to pursue complete systemic reforms in countries with mature DB schemes.

There are now a number of points of convergence between positions of the World Bank and those that were held by the ILO and ISSA and some of its member organizations. This is largely due to the wide list of types of pension reforms that is now acceptable to the Bank, a constructive dialogue between the institutions and national stakeholders can now be held in any country. It appears that pragmatic solutions are possible that should help to balance political interests, policy objectives and systemic financing necessities.

However, convergence has come at a high price. Essentially, World Bank supported reform models have not lived up to their promises. The World Bank's own analysis of pension reforms reveals – but does not acknowledge – that the transition phase in many countries with systemic reforms has hit serious snakes. Income security in pension age is not achieved. Coverage is lower than ever and administrative costs are high. In some countries obvious advances have been made to achieve long-term financial and fiscal sustainability. However, these could have been achieved by parametric reforms that were and are supported by ILO. The risks of the World Bank's strategic approach that pension expenditure in a society can only be reduced by camouflaging it by paradigmatic reforms which lead to higher dispersion of pensions amounts but lower overall average pensions are becoming transparent. The Economist (25th September 2004), a clearly un-suspicious observer, summarizes the Latin American experience as follows: "…the reforms may not prove politically durable, since they are not creating a comprehensive system of income security in old age."

And yet, there is no reason for the critics of the WB approach to triumph. Parametric reforms are progressing slowly, too slowly perhaps. No real remedies have been found to convince people in developed countries to retire later and join the labour market earlier. In addition, only recently and of late have the ILO and other institutions discovered that basic universal pensions may make a difference to poverty in old age notably in developing countries. For too long has the ILO clung to supporting Bismarckian style pension schemes in developing countries as the only means to achieve income security and poverty alleviation in old age.

Both institutions still face the common challenge to make:

a) pension systems an effective tool of poverty reduction in developing countries; and
b) an effective tool to alleviate the economic and welfare effects of ageing in higher income countries and facilitate a socially fair globalization in industrialized and developing countries; and
c) develop an economic theory that helps countries make a rational choice between combating present poverty through current transfers versus investing in possible higher growth in the future.

It is difficult to understand why there is not yet a coherent economic theory of pension policy which answers questions such as:

Do we need pension reserves to achieve an investment potential that helps us to invest in infrastructure that facilitates the employment and enhances the productivity of an older workforce?

How do we rationally decide the conflict between the need for current income distribution through pension payments, or the need to use some of the pension contributions for other social purposes (health and education) and the need for national savings at a certain stage of development?

Can we justify publicly enforced savings – which essentially reduce the fiscal space for other social transfers – without a national industrial policy that ensures that these essentially public resources are invested in a rational way in the long run?

Convergence may be under way. Researchers like Barr, Brown, Stiglitz, Thompson, Orzag and others have contributed to the process and forced reason into institutional intellectual bulwarks. Estelle James' 1994 publication ("Averting the old age crisis") clearly triggered the debate and the thinking. For that, she and her co-authors deserve praise. We now know much more about the financial functioning and management of public pensions than we knew ten years ago.

Convergence may be the latest act in the pension drama. It cannot be the last. The common denominator between the institutions, largely forced by real work experience, is bigger than zero. However, it is not big enough yet. Intellectual rigour, rationality and pragmatism in developing intelligent national pension strategies still have a long way to go.

* * *

Annex: The “funding versus PAYG” debate in pension financing

(re-print of box. 5.13 of Cichon et al. (2004): Financing Social Protection)

Box 5.14. A hot potato: Funding versus PAYG debate in pension financing

Most current proposals to re-introduce full funding in national pension systems on in parts thereof advocate the introduction of MRS schemes, following the example set by Chile in the early 1980s. The World Bank has become a major proponent of such schemes, although concrete proposals by country vary as to whether they should be introduced as a first or a second-tier system.[1] *Leaving aside all arguments dealing with the administrative feasibility of transition as well as all evidence of past mismanagement of funded and non-funded systems, we are listing below the main arguments for and against*[2] *a pension system which relies on individual savings.*

Arguments in favour

1. *Population ageing and the resulting greater demographic burden of national pension systems will lead to PAYG contribution rates that will become unsustainable as contributors will not be willing to accept higher contributions to finance income transfers to the non-active population. Current PAYG schemes place an enormous implicit debt on the active population. Collective or individual savings for the future would avoid such a burden, since part of pension expenditure would be financed from past savings. National pension systems would thus be less vulnerable to adverse demographic developments.*

2. The economies in many countries – notably countries in transition and developing countries – are in urgent need of investment capital. Since foreign investment often remains sluggish, forced savings of the population through a "pension" system can create domestic capital for investment. The schemes would lead to higher national savings rates which would create more resources for investments and consequently increase long-term growth.

3. Savings schemes are *defined-contribution schemes*, meaning that individual benefits are determined exactly by the amount of contributions paid during the active working life. Since these contributions have to be credited to individual accounts they cannot be diverted by the State and, on the other hand, benefits do not pose a (major) risk to public finances, since benefits paid out are on average equal to the accumulated savings. These schemes are thus deemed to be in automatic financial equilibrium. As a result, this system helps to stabilize allegedly "exploding" social expenditure.

4. In times when $i > w+g$ funded schemes provide a higher return on contribution payments than PAYG-financed schemes: where i describes the rate of return on investments, g the rate of growth of employment and w the rate of growth of wages. In an ageing society with declining or stagnating employment levels that should be the case. This is the standard relationship that was first mentioned by Samuelson (1958).[3]

Arguments against

1. Funded systems need reliable and stable capital markets as the pension levels of future generations of pensioners rely on long-term positive real returns on investments. Capital markets in many countries are not yet functioning and even in functioning capital markets long-term positive real rates of return cannot be relied upon. Funding merely replaces the *reliance on the willingness of future generations to support the older generation* by *reliance on the long-term performance of the economy*.

2. Funded systems and hence future pension levels are vulnerable to inflation. The historical evidence in Europe regarding the long-term reliability of savings is clearly less than encouraging.

3. Since benefits are individually dependent on personal savings, institutions have less incentive to collect contributions than in collectively financed systems. Individuals, on the other hand, are just as likely to evade contributions as under PAYG systems. In particular, low-income groups (maybe particularly myopic) might find ways to avoid paying, preferring to solve present financial problems rather than distant income problems at times of old age. The Chilean example shows that despite the alleged attractiveness of the system, compliance could not be improved. Low compliance in particular by low income groups means increased poverty in the long term, which in turn means higher social assistance payments (through a hidden or contingent liability for the State).

4. Pension schemes with individual accounts have only a very limited solidarity component. The only form of redistribution is due to the insurance component (people who live past normal life expectancy might benefit from an annuity-based pension). Income redistribution between different income groups is generally excluded. Defined-contribution schemes in particular offer no or scant protection of younger workers against the risk of invalidity, and very limited survivors' benefits. They also offer no possibility to reward women and men for such desirable activities in society as periods spent child rearing or taking care of disabled or sick family members. Without publicly financed subsidies the negative effects of still shorter employment biographies cannot be compensated. Savings-based pensions in their pure form *de facto* desolidarize a society, putting squarely on the shoulders of the individual the financial risks that periods of sickness, unemployment and disability pose for the maintenance of the standard of living during invalidity, survivorship or old age.

5. If decent pension levels were to be maintained in the present PAYG schemes during transition to the new, funded levels, the active generation would face a double burden. It would have to finance the transfer incomes of the inactive population and simultaneously build up reserves for the future financing of its own retirement income. This would either place a prohibitive burden on the present active generation, or the government would have to borrow resources, inter alia from the savings for future pensions under the new systems. However, this would again – as in the present PAYG systems – mean borrowing from future generations which would have to pay back the borrowed amounts.

6. The part of GDP that is consumed by the retired population has to be financed out of the production of the active population under any financing system, whether pension payments are

actually financed from the capital income share or the labour income share of GDP. On the GDP level all social transfer systems are *de facto* PAYG systems. This is due to the fallacy of composition: individuals can shift consumption forward over time (into retirement age) by contributing to a pension scheme, but societies as a whole cannot. The goods and services that will be consumed by the next generation of pensioners cannot be stockpiled – they have to be produced by the next generation of workers.[5] Hence national pension schemes – whether fully funded, partially funded or PAYG – are only devices that define how future consumption is shared between active and inactive groups in a society. The relative size of these generations will always influence their share in total national consumption. All financing systems are thus vulnerable to economic and demographic trends. If the active population and/or overall output decline (either due to the demographic shrinking of the workforce or to unemployment) and if the pensioners' share of current disposable income is boosted relative to the share of the fall in employed population, inflationary pressures are likely to reduce the income levels of the inactive population under both PAYG and funded pension schemes. This effect could be avoided if the decline of working-age population can be compensated by increased productivity. Such higher productivity – needed to safeguard benefit levels in funded pension systems – could also be used to stabilize the financing of PAYG pension systems.

7. A high level of funding would create reserves which would rapidly approach the level of GDP that could easily become concentrated in the hands of very few institutional investors. This might constitute a serious non-democratic shift of power in any society. Furthermore, there might not be enough investment outlets nationally and reserves would have to be exported (which adds a further measure of risk or is of no use to the domestic economy) or the domestic rates of return will be driven below the inflation level, which erodes the pension entitlements of the saving generations.

8. The ageing crisis is a myth. There is no automatic explosion of social expenditure in ageing societies. First, pension expenditure has to be seen within the context of overall national social spending. The increase in pension expenditure will be compensated by certain expenditure items that will diminish over time (family benefits, unemployment, housing and education). Second, if a generation makes a rational decision to have fewer children than its parents' generation, then the members of that generation will simply have to work longer – thus compensating for missing workers in the generation of their children. Effective increases in retirement age, combined with a higher labour force participation of women, can defuse most of the demographic tension in overall national social protection systems (see the Euroland exercise in Chapter 2). ILO model calculations show that if present employment levels in Europe were to be maintained and the retirement age increased to 67 during the next decades, then the overall cost of national social expenditure could be kept in the present order of magnitude.[6] With growing longevity and improved health status of the elderly population there is no demographic supply side constraint that would make a dramatic increase in the demographic ratio inevitable. Ageing alone is thus no reason to move to a funded system. The real problem is therefore an employment problem. If economies were able to maintain the level of employment, then social protection would most likely remain sustainable.

On (tentative) balance…

Some tentative conclusions can be drawn from the above sets of arguments:

1. Ageing alone does not provide sufficient financial or economic reasons for replacing present PAYG pension systems. Overall expenditure is not likely to explode and can be controlled by parametric reforms of PAYG schemes.

2. Individual savings may isolate the overall financing of the pension system more effectively against poor social governance. They may make it more difficult to “load” pension expenditure with unfunded liabilities, which are often a consequence of government “generosity” (especially before elections) or hidden financing of unemployment.

3. Mandatory savings schemes individualize financial risks. If the economy does not perform well or if the individual has an unfortunate personal economic biography (interrupted by sickness, disability or unemployment) the individual savings are reduced and the consequence is a lower individual pension without repercussions for the society or the community of contributors. Since governments generally function only as financial guarantors of last resort to national pension systems, this reduces their fiscal risk. Actuarially speaking, savings schemes are in "automatic financial equilibrium".

4. PAYG-financed schemes provide more predictable benefit replacement rates to individuals, as benefits are less dependent on economic performance and hence less vulnerable to bad economic policies or governance. The benefit package under a PAYG scheme can also be more comprehensive, as it can provide adequate coverage of contingencies like invalidity and death and minimum income guarantees to low-income workers. Savings-based pension schemes individualize financial consequences of poverty, unemployment, invalidity and sickness and lead to particular disadvantages for women and low-income earners. However, they can only guarantee a relative pension level, as the absolute amounts of the average level of pensions depend on the economic and demographic environment.

5. The effect of pension funding on national savings rate is generally inconclusive (see Brown, 2002, pp.13-14), but positive effects cannot be excluded under certain economic circumstances, for example in countries where the propensity to save is low, and where well targeted and concentrated investments are urgently needed (inter alia in countries emerging from a major economic or political upheaval and lacking access to foreign investment).

6. On a macro-societal and macroeconomic basis PAYG and funded pension systems or savings schemes are both subject to demographic and economic risks. The fact that highly funded schemes are subject to the same demographic risks as PAYG schemes is demonstrated in box table 5.14.1 – an illustration of stylized simplified demographics of a national old-age pension scheme – which shows the evolution of two pension schemes operating in the framework of a declining population. The schemes only differ by the pension formula and the method of funding. Ten points (or better periods) in the schemes’ life cycle are concerned. It is assumed that at each of these points a full new active generation that spends 40 years in activity is starting to contribute and a retired generation that spends 20 years in retirement is starting to draw pensions. At each period a new generation joins the active status and an “old” active generation goes into retirement (even if in this simplified model the old generation dies out after half the period). On the road to retirement the active generation loses 25 per cent of its members to death. An arguably conservative real rate of

return of 1 per cent per annum was assumed for a savings scheme. The table shows that if one assumes that asset prices in capital markets and in the real economy adjust themselves in line with declining populations, then the replacement rates under the funded scheme fall in line with the demographic development, whereas in the PAYG scheme the contribution rate should increase if no policy intervention takes place. If contribution rates are perceived to be high in PAYG schemes then policy action would consist of reducing replacement rates or the number of beneficiaries by increasing the retirement age. That means that neither the PAYG nor fully funded schemes are demographically immune.

Box table 5.14.1.

Stylised development of funded and unfunded pension schemes

Assumed average wage: 100
Assumed average pension: 40
Wage increase: none
Pension increase in line with wages
Interest rate in % 0.01
Discountrate 0.990099
Surviving cohort 750 out of 1000

STANDARD PAYG

	Time	periods								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Actives	1000	1000	1000	900	800	700	600	500	500	500
Survival Rate		0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Initial pensioners	0	750	750	750	675	600	525	450	375	375
Average wage	100	100	100	100	100	100	100	100	100	100
Average pension	40	40	40	40	40	40	40	40	40	40
Replacement rate	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Acc. Capital	0									
PAYG cost - PAYG	0.00	0.15	0.15	0.17	0.17	0.17	0.18	0.18	0.15	0.15
contribution rate	0.15									

STANDARD FULLY FUNDED ASSET PRICE ADJUSTMENT

	Time	periods								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Actives	1000	1000	1000	900	800	700	600	500	500	500
Survival rate		0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Initial pensioners	0	750	750	750	675	600	525	450	375	375
Average wage	100	100	100	100	100	100	100	100	100	100
Average pension	0.00	40.23	40.23	36.21	35.76	35.20	34.49	33.53	40.23	40.23
Replacement Rate	0.00	0.40	0.40	0.36	0.36	0.35	0.34	0.34	0.40	0.40
Capital Price adjustm	1.00	1.00	0.90	0.89	0.88	0.86	0.83	1.00	1.00	1.00
Acc. Capital (for survivors)	549971.7	549971.7	494974.5	439977.4	384980.2	329983	274985.9	274985.9	274985.9	274985.9
PAYG COST	0.00	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
contribution rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15

STANDARD FULLY FUNDED NO ASSET PRICE ADJUSTMENT

	Time	periods								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Actives	1000	1000	1000	900	800	700	600	500	500	500
Survival rate		0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Initial pensioners	0	750	750	750	675	600	525	450	375	375
Average wage	100	100	100	100	100	100	100	100	100	100
Average pension	0.15	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23
Replacemnt Rate	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Capital Price adjustm	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Acc. Capital (for survivors)	549971.7	549971.7	549971.7	494974.5	439977.4	384980.2	329983	274985.9	274985.9	274985.9
PAYG COST	0.00	0.15	0.15	0.17	0.17	0.17	0.18	0.18	0.15	0.15
contribution rate	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15

7. The transitional cost of switching from a PAYG scheme to a savings scheme is substantial. Cost may be borne by the transition generation or pushed forward to a future generation by borrowing throughout the transition period; in either case, the double-burden effect for at least one generation remains. Some reforms even “consolidate” present pension expenditure – that is, reduce

benefit levels and hence force pensioners to “contribute” to the financing of the transition. The ILO study on pension reform in Turkey has shown that it takes about five and a half decades for the total annual deficit financing of the transition to the government to disappear, if the government finances the transition by covering the liabilities of the phased-out old pension scheme. The reason for the persistence of the double burden effect is simple. In PAYG schemes one or more early generations receive a windfall profit – that is, they receive more in pensions than they contribute. Think of it as a “grandfather clause” – that is, a case where the first generation of retirees is receiving pensions without paying at all, their pensions being paid by the next generation. That “debt” is now carried forward from generation to generation, each active generation paying for the consumption of the previous one. If we see this as a problem, then we automatically assume that society’s days are finite (or numbered) – at some point in time there is a last generation of youngsters who will not have successors to finance their consumption. As long as nobody questions the system we can go on taxing the next generation for ever. As we have seen, active generations need to produce the goods and services for the inactives anyway. Questions will arise only when the relative size of the generation shifts and the burden of the active generations is perceived as becoming too heavy. At that point society will be looking for a new formula of sharing consumption between actives and inactives. This is the situation we are now encountering in many “old” or “ageing” societies. The debate of funding versus PAYG financing of pension schemes is *de facto* a distributive battle for shares of consumption between the old and the young.

8. Therefore, both PAYG and funded schemes are facing demographic and economic risks. They differ by the actual allocation of the risk between the society and the individual. This allocation is a policy decision, one that is obviously not independent of income policies. If the overriding policy objective is relative income stability for the elderly, dependants and survivors, a society would maintain a defined-benefit scheme regardless of its overall cost. If on the other hand the main policy objective is to maintain fiscal and financial stability to the greatest extent possible, then letting a financial market mechanism decide on the respective consumption shares of the elderly and disabled versus the active population would be the preferred option. In order to “sell” the latter option to the public, the notion of “equity” is used a policy instrument. That means that pension levels are linked not only to financial market performance but also strictly to own contributions to the scheme. The idea of “I get out of it what I put in” appeals to many people’s feelings about equity and fairness, but ignores elements of “social” insurance whereby personal contributions also buy protection against a wider set of social risks. If you are unlucky enough to live in a country which undergoes fundamental political or economic crises while you are of active age, your pension under a defined-contribution scheme will be small, whereas a PAYG scheme can compensate to some extent for previous hardship and make sure that you participate to a much larger extent in present affluence. Pension formulae are ultimately a means to ration consumption of the inactive population in line with policy preferences.

9. Ultimately, the total size of consumption depends on economic growth which in turn depends on labour productivity. There may be valid arguments to use the national pension system to create additional national savings in a particular historical situation, namely if these savings are used to invest in the long-term ability of the society to maintain a solid growth path. In the absence of other sources of investment, that may be the perfect way of investing in the long-term financial stability of the pension scheme. If a country falls into anarchy, even investing in a national police force

might be a good investment from a long-term pension perspective. It may help to protect property rights and hence attract long-term investments which are the basis of economic affluence. However, as we have already seen, in defined-benefit pension schemes almost any level of reserves can be achieved. The difference from funding pension schemes on an individual level would then simply be that the reserves are collective rather than individual in nature and that their level has no impact on the level of pensions. Reducing pensions or extending the duration of working lives would require transparent policy decisions when the demographic or economic environment changes, whereas in the case of individual funding that would be done through a hands-off approach by the government.

Notes

[1] The first and most prominent source is World Bank (1994).

[2] Many of the arguments are discussed in detail in Beattie and McGillivray (1995).

[3] As quoted by Barr (2000).

[4] See for example Barr (1993), p. 2220.

5 Cf. Cichon (1996).

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[A complete list of actuarial and social budget report form 1990 – 2004 to be added in the final version of the paper]