Original Article

Many roads to Rome: Varieties of funded pensions in Europe and Asia

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ABSTRACT The paper studies the variety of funded pension designs that has emerged over the last decade. Two main trends have characterised the global pension landscape within this period: first, the introduction of a large number of funded schemes; and second, a shift from defined benefit to defined contribution. While funded pensions of the defined contribution type often tend to be equated with the model of individual accounts, in fact several models have emerged. This paper illustrates these differences with reference to the schemes introduced in Western Europe, Eastern Europe and Asia.

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INTRODUCTION

The last decade has seen sweeping changes in many pension systems around the world. The key theme of reforms has been to change the balance between public and private pension pillars. Many industrialised countries have cut back the level of public pension benefits and tried to strengthen the private pillars. Many emerging economies have been facing pressure for change to their pension systems as well. Central and Eastern European (CEE) countries had to completely restructure their pension systems inherited from socialist times, whereas Asian emerging economies had to establish pension systems from scratch, as the informal family support system has been substantially weakened.

The main rationale for funded pensions, and one of the main triggers of reforms, is the

coming demographic change. The more societies are ageing, the more pay-as-you-go systems run into problems. Funded pensions promise a way out of this dilemma, as they are less prone to demographic developments. The increasing importance of funded pensions coincides with a trend within funded pensions, namely the shift from defined benefit to defined contribution plans. The great majority of the funded plans introduced over the last decade is of the defined contribution type. Defined contribution plans often tend to be equated with the individual account model.

In this context, this paper explores three developments. First, countries around the world have tried to strengthen the funded pension pillars to create more balanced pension systems. Second, there are multiple design options for funded pensions, and defined contribution plans in particular. The main dimensions here are whether the plans are mandatory or voluntary and whether or not they grant individual

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investment choice. The numerous new pension plans introduced over the last decade mirror these multiple options and defined contribution models. Third, the differences between the respective pension pillars are becoming blurred. In many countries, mandatory funded pensions obliterate the difference between the public and the funded pillars, as they can be seen as part of the public system. The differences between the occupational and personal pillar are getting smaller as well, as there is a trend to use them as substitutes. To illustrate these developments, this paper looks at the defined contribution pension plans in Europe and Asia, and focuses on the schemes and plans recently introduced. It first analyses the demographic situation and future in these regions as well as the rationale for funded pensions. Following this, an overview of the plans introduced, the levels where they have been introduced and the design options are presented, before the defined contribution plans are explored in greater detail.

FUNDED PENSIONS AND DEMOGRAPHY

The coming demographic transition has far-reaching implications for the sustainability of public pensions. This has been especially relevant for Europe because of the existence of generous public pillar systems.¹ The ageing of populations, a result of increasing life expectancy coupled with decreasing fertility, puts pressure on the public pension system, as the number of contributors is declining, whereas the number of pensioners is increasing. In the end, either contributions must increase or benefits decline. In Europe, the ratio of people over 65 to the population between 15 and 64 is substantially increasing, from 25 to 52 between 2004 and 2050 on average in the EU-25.² Although there are substantial differences among European countries in terms of their demographic future – Spain, Italy and Bulgaria will be hardest hit, whereas countries such as the United Kingdom, the Netherlands or Sweden have a better demographic outlook – the trend is clear and all European countries are ageing.

More surprising and much less publicised is the demographic development in the Asian emerging economies. The ageing process in Asia is of similar magnitude as in Europe. The difference is that the speed of ageing is much higher in Asia. Although many countries currently have a relatively young population, they will age rapidly during the next generation. Both South Korea and Taiwan currently have old-age dependency ratios of 13; in 2050, the values will be 65 and 63. Hong Kong and Singapore are facing an ageing process of a similar dimension, and Japan will be, according to almost all projections, the oldest country in the world.³ China will also be confronted with a substantial and rapid ageing process. However, there is one crucial difference between Europe and Asia: the challenges differ, as the starting conditions differ. In contrast to Europe, the Asian emerging economies have had to establish a formal pension system first – public and private pillars alike. This process started with South Korea in 1988 and has lasted until the present day. The reasons behind it include the weakening of the traditional family support system because of rapid industrialisation, urbanisation and increased mobility. Thus, the establishment of formal pension systems, public and private, has become a top priority for decision makers.

Even though demographic developments have pushed pension reforms that are aimed at creating balanced multipillar systems by strengthening funded pensions, there are also economic reasons for multipillar systems with a significant share of funded pensions in retirement income. Funded pensions, especially in the form of defined contribution plans, have the advantage of being actuarially fair, transparent and exposed to other forms of risk than the public pillar, so that risks are diversified.⁴ Funding also disburdens the future state budget, and is often associated with positive macro-economic effects, such as higher savings and higher growth rates.⁵ The price for the positive effects is that defined contribution plans in particular expose their members to a higher degree of investment risk, which results in higher individual responsibility and new requirements regarding financial education, advice

and product solutions. These effects depend crucially on the design of the plans, which will be investigated next.

THE DIFFERENT FACES OF FUNDED PENSIONS

Although the goal of strengthening funded pensions has been shared by many countries, the ways to this goal are far from homogenous. In fact, there are substantial differences in the approach that the countries have adopted with regard to funded pensions. In addition, there has been a remarkable shift in the design of funded pensions themselves, namely from defined benefit to defined contribution plans. This shift is clear-cut, but has not resulted in a single defined contribution model. There are different forms of defined contribution plans that have emerged around the world and that differ substantially.

The shift from defined benefit to defined contribution plans has been gradual, but unambiguous in the industrialised world, and is linked to factors, such as increasing labour mobility, changing industry structures and rising costs of defined benefit plans.⁶⁻⁸ This shift entails that almost all new pension plans are of the defined contribution type. This trend is not confined to the industrialised world; on the contrary, defined contribution plans are the prime vehicle for funded savings in the emerging economies. Chile started this trend in the early 1980s, and it was not until the 1990s that other countries followed, but then they did so in a wave. Almost all Central and Eastern countries introduced this kind of plan, as did many Latin American countries and most Asian countries.

If we look more closely at the level at which funded pensions have been introduced, much has been happening on the level of the state. Many governments partly funded their public pension pillars by introducing pension reserve funds (PRFs). These funds operate similarly to a defined contribution scheme in that they accumulate savings to cover expenses in the future. The reserve funds are supposed to build up as much capital as possible, so that they can cover as much of the liabilities as possible.

Work-related pensions are the second level at which the new schemes have been introduced. Even if the newly introduced schemes are almost exclusively defined contribution in nature, their design differs substantially. Although the most prominent examples of defined contribution schemes are certainly individual accounts of the 401(k) type, there are many more design options. The first distinction is whether participation is mandatory or voluntary. Emerging economies have primarily opted for the former, whereas most new plans in developed economies are based on voluntary participation. Mandatory funded plans are not occupational pensions in the traditional sense. They are mostly financed with a portion of the social security contributions, and thus employers are involved only indirectly, but they can be considered workplace-based, as employment is a precondition for membership. Voluntary workplace-related plans refer to traditional plans, which require the involvement of the employer, whereas voluntary personal plans are tax-favoured retirement savings purely at an individual level. Table 1 shows which types of plans have been introduced in which European and Asian countries over the last decade.

Table 1: Classification of funded pension plans established during the last decade

	<i>Mandatory</i>	<i>Voluntary</i>
<i>Workplace related</i>	Bulgaria China Croatia Estonia Hong Kong Hungary Latvia Norway Poland Romania Slovakia Sweden Taiwan	Austria Belgium China France Germany Greece Japan Slovenia South Korea The United Kingdom
<i>Personal</i>		Austria Czech Republic France Germany India Ireland Portugal The United Kingdom

A second crucial distinction is the possibility of individual investment choice. The degree to which members can accommodate their retirement investments to their preferences, but also the risk they can expose themselves to, is determined by the design of investment choice. Investment choice is the norm in the voluntary personal and tax-favoured retirement saving plans that have been particularly popular in Western Europe. Quite a few European countries introduced these types of plans, and an interesting new characteristic of them is that they are closely linked and even substitutes for occupational pensions in several countries. The remainder of this paper explores the design of the recently introduced pension plans at the different levels in greater detail.

FUNDED PENSIONS THROUGH THE STATE

Actually a contradiction in terms in the context of a pay-as-you-go system, funded public pensions in the form of PRFs have become a very pronounced trend in the international pension landscape. They exist in Belgium, China, France, Ireland, Japan, Korea, Luxembourg, the Netherlands, Norway, Portugal, Sweden, Spain, Taiwan and Thailand. In most of these countries, PRFs have been in existence since the late 1990s. The funds differ mainly in their mode of financing, how explicitly they are committed to covering pension liabilities and when and how the money can be accessed.

The single most important reason to establish PRFs is future demographic change. PRFs aim to mitigate its effects by prefunding a part of future pension payments of the pay-as-you-go systems. The accumulated assets will then be used to finance parts of the pension payments in the future, thereby limiting otherwise necessary future contribution hikes. Put differently, at the point when the ratio between employees and pensioners becomes unfavourable, the pension system can draw on accumulated capital to pay benefits instead of being purely dependent on contributions.

This buffer function can be of crucial importance for the public pension system and its sustainability. For example, the assets of the

Korean PRF could, in 2006, cover 67 times the annual public pension expenditure. Korea is exceptional in the sense that pension payments are limited, as the system was introduced only in 1998. Nevertheless, in other countries also PRF assets can cover several years of pension expenditure, for example 5 years in Ireland or 4 years in Sweden.⁹

Another way to illustrate the importance of PRFs is total assets. The Japanese fund managed assets of around EUR 830 billion in 2007, its Norwegian counterpart around EUR 270 billion and the Swedish reserve fund EUR 95 billion.^{10–11} The Organisation for Economic Co-operation and Development (OECD) estimates the assets under management (AuM) of all PRFs to amount to EUR 2.9 trillion, implying that these funds manage assets almost three times those of hedge funds and six times those of private equity funds and have around 60 per cent more assets than sovereign wealth funds.¹² Figure 1 shows the size of selected PRFs.

The size of many PRFs makes them important players in the financial markets. Investment strategies greatly differ between them, and range from exclusive investments in governments bonds to very sophisticated and diversified investment strategies. In addition to their contribution to a higher sustainability of public pensions, the existence and growth of PRFs is evidence of an increasing integration of the public and funded pillars and the importance of funding even in the public pillar.

Figure 1: AuM of selected PRFs 2007 or latest year available.
Source: OECD, national statistics.

MANDATORY FUNDED PENSIONS

A model of pension provision that sits between the first and the second pension pillar is that of mandatory funded pensions. Whether this type of pension provision is seen as belonging to the first or the second pillar differs from country to country. The reason for this ambiguity is that contributions are mostly part of the social security contributions. This model is exemplified by most CEE countries.¹¹⁻¹⁴

Europe

After the fall of the Iron Curtain, the need for substantial reform was pressing, as the inherited pension system was completely state-run and unsustainable. After introducing parametric reforms, such as increasing retirement ages and abolishing privileges for certain groups, the vast majority of countries decided to introduce mandatory funded pensions of the defined contribution type. Hungary was the first country to do so, in 1998, followed by Poland 1 year later. The countries that have most recently introduced this pension design are Slovakia in 2005 and Romania in 2007. Of the eleven CEE countries, eight have now introduced such a mandatory pillar. Only the Czech Republic, Slovenia and Lithuania remain the exceptions. The contributions to the system are a part of the social security contributions, which are then redirected into a private pension fund selected by the member.

One of the crucial differences among these funded systems in CEE relates to investment choice. In Estonia, Hungary, Latvia, Lithuania, Poland and Slovakia, pension funds can or must offer funds with different risk profiles. In the other CEE countries, pension funds are only allowed to offer a single fund. Slovakia, for instance, follows the lifecycle concept quite closely. Pension fund members are free to choose which of the three funds on offer they would like to join. When they are less than 15 years away from retirement, they can no longer be enrolled in the fund with the highest equity share. Seven years before retirement, they are obliged to switch to the conservative fund with no equity exposure.

A similar model of mandatory funded pensions was introduced in Sweden in 1998, wherein 2.5 per cent of pension contributions are deposited into an individual premium pension savings account, and members can invest their money in one of 779 investment funds. If they fail to select an investment fund, their contributions are transferred into a default fund. The scheme is administered by a government agency that distributes the capital to private fund managers, registers the funds and undertakes all clearance activities. The main difference to the systems in CEE is the wide range of choices that are given to participants, but also that the mandatory funded element has a different function in the Swedish system. Whereas traditional occupational and third-pillar pensions are scarcely existent in CEE, Sweden runs an occupational pension system with a coverage rate of around 90 per cent and has a well-developed third pillar. In this sense, the Swedish premium pension serves as a top-up to other sources of retirement income, rather than a central element. This may also explain why the asset allocation of the default fund, which comprises 28 per cent of total assets in the system, is heavily equity-driven; over 80 per cent of assets are invested in global, Swedish and emerging market equities.¹⁵

Sweden is not the only Western European country where the idea of mandatory pensions has taken hold. Austria transformed its old severance pay system in 2002 into a fully funded system where contributions are directed to independent staff provision funds. The new system is not a pension scheme in the narrow sense, as assets are paid out not only at retirement, but also when employees switch jobs; however, the savings can be used for retirement purposes, and there are ongoing discussions on whether the scheme should be developed into a proper pension pillar. Additionally, a fully formed mandatory pension pillar was introduced in Norway. In 2006, the country made occupational pensions mandatory so that every firm with two or more employees must offer an occupational pension scheme. Having allowed defined contribution plans in 2001, most new plans are of the defined contribution type.

Asia

Establishing formal pension systems has been the main challenge in the emerging economies of Asia. Because of the demise of the traditional family support system, old-age poverty has become a serious threat, and this has increased the need for formal pension systems radically. Funded pensions have played a key role in this pension reform process.

Singapore runs the oldest funded system in Asia. Established in 1955, the Central Provident Fund is a public institution and a multipurpose fund, providing for most social security functions, including retirement. There is a guaranteed minimum return applied to savings, and no investment choice is foreseen in the main schemes. No other dedicated pension schemes are in operation, and retirement income is based on funds accumulated within the scheme. Hong Kong has a similar system. Before the introduction of the Mandatory Provident Fund (MPF) system in 2000, the only formal pension schemes were occupational schemes with modest coverage. The MPF system is based on personal defined contribution accounts, and is mandatory for all employees that are employed for more than 60 days. In most cases, employers choose a master trust scheme from external financial providers, and employees can then choose among the constituent funds. The system has a targeted replacement rate of around 30–40 per cent and will be the main source of retirement income, as there is no public pay-as-you-go pillar.

Taiwan also introduced a mandatory defined contribution pillar, but with a very different design. The New Labour Pension Scheme succeeded a defined benefit system that suffered from strict eligibility criteria, and consequently a low coverage rate. The new system complements other schemes in the public and occupational pillars, and does not foresee individual choice, but a minimum rate of return. The design of the mandatory pillar in China more closely resembles the Eastern Europe model. In a comprehensive reform effort in 1997, China established the foundations of a multipillar system. The mandatory funded portion of the system is part of the public pillar and is meant to

complement the public 1a pillar, which is designed as a pay-as-you-go system. The 1b pillar, which does not foresee investment choice on the part of the participants, is fed by a part of employees' social security contributions.¹⁶ In addition to these countries, Thailand is also preparing to introduce a mandatory funded pension scheme in 2010, which will be of the defined contribution type.

VOLUNTARY FUNDED PENSIONS

Europe

Voluntary pensions have historically been the most prevalent form of old-age retirement provision. In the desire to have stronger funded pillars, numerous new schemes and new incentives for existing schemes have been introduced all over the world. What is interesting about the new schemes is that often the lines between the respective pension pillars are blurred. This applies not only to the distinction between the occupational and the personal pillars, but also to that between the first and the other pillars. As we have seen, the blurring between the public and the funded pillars is also occurring in many of the mandatory funded pension schemes, where funded pensions can be seen as part of the public pillar or as a publicly organised complement to public pensions.

Portugal is a good case in point for the last development. In 2008, the country introduced a new scheme that is supposed to give citizens the option to offset a decrease in public pensions. The scheme is of the defined contribution type and participants have a choice to contribute 2 per cent, 4 per cent or 6 per cent of earnings in addition to their social security contributions in individual accounts. What distinguishes it from conventional voluntary pension schemes is that it is organised and run by the state. Contributions are invested in a fund managed by the Portuguese PRF and converted into shares called retirement certificates.

The United Kingdom has introduced plans that are hard to assign clearly to a pillar. The stakeholder plans, established in 2001, are actually

third-pillar plans of the defined contribution type, but employers with five or more employees without an occupational scheme have to provide access to stakeholder pensions. In this sense, third-pillar plans become interwoven with occupational plans and can be used as an alternative. In the very same direction go plans to introduce personal accounts from 2012 onwards. The novelty of the scheme is that employees are auto-enrolled either in occupational schemes or, if they do not have access to them, in a personal account scheme. Contributions will come from employers, employees and the state through tax relief.

Similar developments of linking personal pensions to occupational pensions and using them as substitutes are occurring in Ireland. Access to third-pillar-scheme, Retirement Annuity Contracts, is open for employees, except that they are enrolled in a company pension plan. A new scheme introduced in 2003 called Personal Retirement Savings Accounts needs to be offered by employers if they do not run an occupational plan. The plans are portable, also to company pension plans, which underlines their mutual replaceability.

Generally, almost all Western European countries that have traditionally relied on public pensions have introduced funded plans to diversify retirement income and often to offset cuts in the public pillar. Greece is an extreme case for the reliance on public pensions. The country introduced the legal basics for an occupational system only in 2002; this very late introduction is a result of the fact that the replacement of the public pillar for an average earner is still more than 100 per cent.² The continental European countries have had funded plans in operation, but the lion's share of retirement income came from public pensions, and thus they introduced new plans. Belgium did so in 2004, when the country established the legal framework for sectoral occupational plans, based on collective agreements. Within the first four years of existence, membership in these plans grew to more than 500 000 members.

Austria introduced a second type of occupational plan called occupational collective

insurance to have an insurance solution in the second pillar available. In addition, third-pillar pensions were strengthened through the introduction of a plan called state-sponsored pension provision in 2003, where participants have a choice between insurance and investment products. This scheme turned out to be a spectacular success, and membership currently amounts to around one million. Similar developments took place in Germany and France. In 2001, a new occupational plan was added to the prevailing insurance vehicles in Germany, which facilitates more liberal investment strategies. New third-pillar plans were introduced a year later. The third-pillar Riester pensions had a slow start, but by 2007, they had attracted almost 11 million participants.

France undertook similar efforts to strengthen funded pensions. Along with the establishment of a PRF, new plans in the second and third pillars were launched. Second-pillar PERCO plans are defined contribution in nature, and providers, which are chosen by company and union representatives, must give participants at least three investment options. Assets in these plans grew from EUR 77 million to 1.4 billion between 2004 and 2007, with around 330 000 participants. Even more successful were third-pillar PERP plans, which are life insurance policies with different forms. Within 3 years, participation jumped to almost 2 million.

These new plans in Western Europe are evidence of a fundamental change in pension system design. The traditional pattern of relying on public pensions is on the decline. Policy makers launched a great number of new funded plans in the occupational and private pillars, and sometimes even as a part of the first pillar, in the hope of disburdening the public pension system and controlling fiscal sustainability. The greater role for funded pensions will result in a greater diversification of retirement income. In this sense, it may no longer be appropriate to view Western Europe as the showcase of unsustainable public pension systems. The pension systems of many Western European countries will look less like this and more like the pension systems of Switzerland and the Netherlands, those countries

with a long tradition of funded pensions and diversified retirement income.

Asia

Voluntary retirement savings in Asia mostly take the form of occupational pensions. Tax-favoured personal schemes are rare, as the main aim has been to establish formal pension systems in the first and second pillars; the third pillar does not have priority. A second trend has been to transform severance pay systems into formal occupational systems.

As a part of its comprehensive pension reform, China introduced an occupational pension system in addition to the mandatory 1b pillar in 2004, the Enterprise Annuities. Enterprise Annuities are a defined contribution scheme without individual choice, and must be established as a trust that can take the form of either an internal (pension council) or external trustee (professional trustee). In the latter case, licensed financial institutions fulfil this role, whereas in the case of an internal trustee, there is codetermination on the part of the employees. Participation so far is mainly confined to large state-owned enterprises; within the first three years of existence, 263 enterprises had introduced new Enterprise Annuity schemes, covering 940 000 participants. Only 50 of 23 million small- and medium- sized enterprises (SMEs) in China had registered new Enterprise Annuity plans by mid-2006.

South Korea is a case where formal occupational pensions are in the process of replacing severance pay systems. The original severance pay system was introduced in the early 1960s, and has been the main pension scheme for private sector employees, but suffered from a lack of comprehensive coverage and an overdependence on the financial situation of employers as the schemes were mostly unfunded. In addition to this, the scheme was not specifically targeted for retirement purposes. The new corporate pension system, introduced in 2005, is voluntary, and the conversion from severance pay to the new schemes needs to be based on an agreement with a company's employees and is subject to employees' agreement. Defined benefit and defined contribution plans

are permissible with very strict investment limits, especially for defined contribution plans. In the first years of existence, defined benefit plans dominated. Similar developments took place in Japan, where defined contribution schemes were introduced in 2001 and defined benefit schemes in 2002 to replace prior unsustainable plans.

India is also about to introduce a voluntary system, not on the basis of occupation, but on an individual basis. As the most pressing problem for India in the realm of pension policy is to cover the informal workforce – only 12 per cent of the workforce is covered by formal pension arrangements – additional occupational plans were not seen as effective. The new system, which starts in 2009, after years of political resistance, builds on a mandatory defined contribution scheme introduced for Indian civil servants in 2004, and extends it to all citizens; the main focus is on employees in the unorganised sector. Record keeping, collection and disbursement of benefits will be centralised; and distribution, one of the major hurdles, will be handled by points-of-presence, mainly state-owned banks, so that access is made easier in rural areas. Participants will be able to choose from several investment options following a lifecycle model.

Generally, the trend towards funded pensions is very prominent in Asia, but mandatory schemes seem to be more popular than voluntary schemes. This is probably because of the fact that many Asian countries try to achieve sufficient coverage of formal pension systems, which is easier with mandatory schemes.

CONCLUSIONS

The worldwide trend towards funded pensions of the defined contribution type has been a remarkable development, and probably the most important development in the pension landscape of the last decade. Nevertheless, this trend did not result in a uniform defined contribution model, but in several models with different design characteristics. This diversity has important repercussions for regulation, risk-bearing and types of investment strategies in the respective markets. How these characteristics are designed will have a crucial effect on future retirement

incomes. Because of increased blurring between the respective pension pillars – through PRFs, mandatory funded pensions or substitution options between the occupational and personal pillars – there will be an increasing need to view retirement income in its entirety.

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