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DEVELOPMENTS IN SOCIAL SECURITY AND PENSIONS WORLD-WIDE

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ABSTRACT

The paper considers the variety of social security and complementary pension scheme arrangements which have developed in different countries, and examines some recent trends in pension reforms, designed to address the problem of the ageing population and other structural shortcomings in existing structures.

KEYWORDS

Pensions; Social Security; Savings

1. INTRODUCTION

For many centuries employers have provided employees with pension benefits as a reward for long and faithful service. However, this was very much at the discretion of the employer and was usually on an entirely *ad hoc* basis.

In the 18th century a few more formal pension fund arrangements began to be established, which involved contributions being set aside during the working lifetime with a view to being accumulated in a separate fund to provide an income in retirement.

There was little in the way of public welfare systems, although different societies over the centuries had had schemes of various sorts to assist people in difficulties. Social security, as we know it, began to develop in the latter part of the 19th century, initiated by Bismarck's social insurance plan in Germany.

Social security schemes developed rapidly in the 20th century, with each country taking a slightly different route and with differing emphases being placed on public, as opposed to private (employer-based) provision, and on protection against different contingencies — sickness, industrial injury, widowhood, retirement.

Nowadays most national governments regard it as an essential matter of public concern that they should have a policy on social protection. In order to narrow somewhat the otherwise vast field of consideration, this paper will focus on the issue of pensions. The ultimate objective of social policy in this field might be stated as ensuring an adequate income for all in retirement, when they are no longer drawing directly an income from their labours.

There are, of course, many ways of approaching this objective, which some see as a clear responsibility of the state, and others see, quite paternalistically, as a responsibility to protect those who are unable to, or have failed to, protect

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themselves. Some political philosophies have taken it as axiomatic that there should be public policies designed to redistribute wealth from the rich to the poor. Others see public policy in this area more in terms of encouraging the provision of retirement benefits by the most economical and efficient route, or the focus may be primarily on pensions as a vehicle for saving, with all the advantages this may have for the economy and the investment markets.

2. THE THREE PILLARS

Income for retirement is usually characterised as being supported by three pillars: social security, complementary pensions and individual savings. These are organised, respectively, at the level of society, the enterprise and the individual, although there are many variations, particularly in the way in which complementary schemes are structured.

Social security is usually the outcome of government policy at the national level, and is frequently operated within a formal legal framework for a substantial part of the population or for all of it. Financing is generally on a pay-as-you-go basis.

Complementary pension schemes are designed to complement or supplement social security. In some countries they are provided at the initiative of individual employers or groups of employers, and are generally (but by no means always) funded externally from the employer's own business.

The third pillar is usually provided on the initiative of individuals, and may consist of a variety of savings vehicles, some of which may be specifically designed for pension purposes.

Sometimes social security authors refer to a fourth pillar, which relates to income from continued employment, perhaps at a reduced level of hours.

3. A RICH DIVERSITY

Social security can, and does, take many forms. It may be provided as of right to citizens, perhaps on the basis of a residence requirement; or it may be based entirely on the contributory principle. Contributory social security is often designed to appear like private insurance, with benefits being earned by the premiums paid, although the extent of redistribution, and communal risk-sharing, can be much greater then in private insurance, and nowadays there is rarely any formal actuarial connection between contributions and benefits in a normal insurance sense.

Different social security schemes have very different philosophies, with some being designed to provide benefits related to earnings, either just before retirement, or throughout the working life, whereas others provide a flat-rate benefit independent of earnings. With flat-rate benefits the contributions may also

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be flat-rate, but it is now quite common for schemes with flat-rate benefits to have earnings-related contributions, thus increasing the redistributive impact of the scheme.

At one extreme is the view that you should get what you pay for, with higher earnings, and hence higher contributions, leading to higher benefits. At the other extreme is the view that benefits should only be provided to those who really need them. Such targetting, as it is now often called, can be achieved through subjecting applicants to a test of their income or wealth (or both), and paying benefits only to those with means below a defined level (usually tapering off over a range).

An alternative approach is to require all citizens to make their own provision for retirement, but for the government to underpin this by setting a guaranteed minimum level of pension. It would then top up to this level any pensions from private sources which, for a particular individual, aggregate to less than the guaranteed minimum.

To describe, or even to attempt to classify, all the different approaches to pensions through social security and complementary provision would be an enormous task. Instead, this paper will seek to draw out some themes by considering the pattern of provision in a sample of countries.

France

Post-war France has developed an almost exclusively pay-as-you-go system, which very much resembles a two-tier social security structure, but is, nevertheless, always described in terms of a basic scheme and complementary schemes. However, membership of the complementary schemes is mandatory. Although there are many different complementary schemes, mostly having their origins in a professional or industry-wide affiliation, they are, in practice, largely grouped under two major umbrella organisations — AGIRC (Association Générale des Institutions de Retraite des Cadres) and ARRCO (Association des Régimes de Retraites Complémentaires).

The basic scheme provides benefits based on the average salary during the best 10 years of working lifetime, revalued in line with an index up to retirement age. The complementary schemes are more properly classified as defined contribution schemes. However, the benefits do not depend on the results of investing the contributions, but on the pay-as-you-go financial balance of the schemes. In return for payment of contributions, members are allocated a certain number of points, the 'price' of a point being adjusted each year. Having collected points throughout their careers, members have these turned into pensions once they are past pension age, according to the value ascribed to the points from time to time.

Since the complementary schemes are unfunded and operate on the pay-as-you-go principle, it is necessary to balance total benefit outgo and total contribution income each year. Managing this in order to ensure that pensions do not change suddenly and arbitrarily, as a result of shifts in the demography, is quite a complex process, but these schemes are financially more robust, in the face of an

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ageing population, than pay-as-you-go defined benefit schemes, since there is considerable scope for managing the price and value of the points.

There is no (post-war) tradition of funded pension schemes in France. Above the level of provision of the complementary schemes, individuals are required to rely on their own savings. However, since the complementary schemes only cover earnings up to a certain level, employers do sometimes provide top-up (supplementary) pensions arrangements for high earners. These may simply be pension promises, backed only by the employer's word and financial resources, or they may be secured externally through an insurance company or bank. It is tax-efficient to design top-up pension promises so that they vest only on retirement.

There is a heated debate taking place in France about the future of complementary pension provision. Will the pay-as-you-go schemes be sufficiently robust to survive the rapid demographic ageing? Would it be better for the economy to have a much higher level of funded complementary pension provision? The debate has a tendency to be highly charged politically, as the pay-as-you-go complementary schemes are very powerful and have strong backing from the unions, as well, indeed, as from employers.

Germany

Like France, Germany's economy suffered very badly in the Second World War, and the concept of funded occupational pension schemes was largely abandoned. The social security scheme provides benefits based on revalued average earnings, although the formula whereby this is achieved is somewhat opaque. The level of benefits is relatively modest, at 40% to 50% of earnings, and there is, therefore, an incentive for employers to provide complementary pension schemes, which are usually integrated with social security, aiming to provide a combined benefit, from the two sources, of some 70% of final salary.

The commonest method of providing complementary pension benefits is the direct pension promise. There is no separate pension fund, but the employer makes a formal provision (book reserve) on his balance sheet, the calculation of which is prescribed by the tax authorities. Since this arrangement means that the security of pension rights is entirely dependent on the continual financial viability of the employer, employers using this method of financing pay a premium to a mutual pension security insurance company, which guarantees payment of the vested benefits in the event of the employer not being able to pay. Benefits usually vest only after 10 years of membership in Germany, so the protection provided by this means is only partial.

Although book reserves are by far the commonest type of pension arrangement in Germany, there are three other ways of providing complementary pensions. Some of the larger employers do operate pension funds, with segregated assets. These have to function more or less as captive insurance companies. Another variation on this is the support fund mechanism, and finally there is the possibility of directly insuring the benefits with a commercial insurance company.

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Denmark

Denmark is a small European country, but it provides an interesting example of another model of pension provision. The social security pension is flat-rate, universally available, subject only to a residence requirement, and financed directly from taxes, with no separately identifiable contributions. There is a very small earnings-related element operated as a national scheme.

Most employers provide complementary pension schemes. Indeed, in many cases these are the subject of collective agreements within industries. The schemes are mostly defined contribution, accumulating a capital sum which is used to buy an annuity at retirement. Some are operated as independent pension funds, but the majority make use of specialised pension insurance companies as the investment vehicle.

United States of America

The U.S.A. has a well-developed contributory social security scheme with earnings-related contributions and earnings-related benefits (in bands up to a ceiling). The contribution is always described as a tax, although it is specifically earmarked for social security and is paid into the social security trust fund. The contribution schedule is fixed by Congress for many years in advance, with a view to achieving what it describes as 'close actuarial balance' over the period of the actuary's projections (now usually 75 years). This means that the present value of expected tax is approximately equal to the present value of expected benefit payments over the 75-year period. It does not necessarily imply that tax income and benefits outgo are closely in balance over shorter periods. Contributions are currently higher than is needed to balance income and outgo on a year-by-year basis. Consequently a fund is building up, although this is invested solely in U.S. Government paper, so the effect on the economy is no different from the government raising the extra revenue by means of some other tax mechanism.

Occupational pension plans are well-developed in the U.S.A., since social security provides only a modest level of benefit. Historically most plans were defined benefit, with the benefit expressed as a fraction of final salary. There are, however, some quite large plans with benefits expressed in flat dollar amounts.

In recent years more and more defined contribution schemes have been established, and many defined benefit schemes have been closed down. This process is said to have been accelerated by the level of regulation imposed on defined benefit schemes by ERISA (Employees Retirement Income Security Act). An easy escape route was provided when the Pension Benefit Guaranty Corporation (PBGC) was established, since the PBGC would pick up the liabilities from underfunded plans. After a few years this loophole was closed, with PBGC only being permitted to take over the liabilities of underfunded plans where the employer is financially impaired.

Many Americans save directly for their retirement using tax-efficient individual pension savings plans.

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Australia

Yet another model is provided by Australia. Here the social security benefits are payable only on a means-tested basis, with the test extending to assets as well as income. The benefits are financed out of general tax revenues.

Many larger employers in Australia sponsor defined benefit (usually final salary) pension schemes. However the coverage of occupational schemes was partial, and the government has now introduced legislation to require contributions to be made to occupational pension schemes. This mandatory contribution requirement is encouraging new pension schemes to be established on a defined contributions, rather than a defined benefits, basis. Defined contribution schemes are usually designed on the basis of accumulation funds, with the interest added each year to the accumulated investment, according to the investment performance of the fund. This leads to investment policies designed to protect the capital from downward fluctuations in value, which is often not in the long-term interests of the members. Benefits usually emerge in lump sum form, and, although an annuity may be available, most people prefer to take the lump sum.

United Kingdom

The U.K. has a contributory flat-rate social security scheme, with contributions expressed as a percentage of earnings. The social security scheme has additional earnings-related benefits, but individuals can be opted out of these benefits (contracted-out) if they belong to a qualifying occupational pensions scheme. This can be a defined benefit scheme providing at least a certain level of benefits, or a defined contribution scheme, which provides specific protections to the proceeds of investing the minimum contributions, which are allocated out of the social security contributions and correspond in value to the benefits forgone in the social security scheme.

Even if an individual's employer does not operate a qualifying scheme, the individual can still contract out of the state earnings-related pension scheme (SERPS) by means of an appropriate personal pension.

There are some 37,000 defined benefit occupational pension schemes in existence in the private sector and about 90,000 defined contribution schemes, although many of the latter are very small, the average size being only 10 members. Defined benefit schemes are nearly all based on final salary, frequently aiming to provide a pension of two-thirds of final salary after a full career.

4. PROBLEMS FACING SOCIAL SECURITY SCHEMES

Having experienced a period of unprecedented growth since the end of the Second World War, social security schemes are today coming under increasing pressures. Some of these pressures are financial, others structural and others political (a fuller discussion of these issues can be found in Daykin, 1994).

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Social security schemes face a difficult financial future because of their increasing maturity and the rapid ageing of populations. Schemes offering coverage against a wide range of benefits have seen rising costs in respect of incapacity and unemployment benefits.

In many developing countries the coverage of social security is far from universal, often being limited to those employed in the formal sector of the economy, and excluding much of the rural population. Maintaining the real value of benefits has also been a constantly recurring problem. Although, in principle, this should be easy to achieve in a centrally administered system, with financing usually on a pay-as-you-go basis, it may be tempting to reduce benefit outgo by less than fully indexing pensions. Periods of very rapid inflation can make even good intentions of full indexation difficult to implement effectively.

Many social security schemes also have serious administrative problems, particularly in relation to the collection of contributions. Good IT systems are essential, as are clear lines of responsibility and accountability within the social security organisation, and well-structured incentives for employers to co-operate and employees to want to contribute.

5. Some Solutions

There are no easy solutions to the problems facing social security schemes, particularly where benefit promises are over-generous and maturing, and where the population is ageing rapidly, usually as a result of a combination of reducing fertility and increasing expectation of life.

One answer is to deny the existence of a problem, and simply to increase contributions (or taxes) as necessary to meet the rising costs. In some cases this may be workable. Many industrialised countries have already experienced significant ageing without unacceptable increases in contributions. Some would argue that increasing levels of real wages will enable the necessary contribution increases to be absorbed. In some cases this may be so, but in countries where collectability of contributions is already a problem, and, where social costs are already approaching (or beyond) 50% of earnings, it is difficult to see significant future increases being sustainable.

A logical solution may be to raise the retirement age, especially in countries where it is currently very low. A majority of countries now seem to be homing in on 65 as the retirement age, although a few have gone higher (67 in the U.S.A., Denmark and Norway) and Sweden is consciously linking the retirement age to expectation of life, with a regular pattern of reviews and the intention that the retirement age should go up so that the expectation of life at retirement age remains more or less constant.

Increasing the retirement age is all very well from the point of view of restricting benefit outgo. It will not result in an increase in contribution income unless people are able to stay in employment to a higher age. This will depend,

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among other things, on the economic situation. If work is not available, raising retirement age is tantamount to cutting benefits.

In practice, it may be difficult in many countries to avoid cutting back benefits in order to balance the books, painful and politically unacceptable though that may be. The earlier that plans are made, the better. Sudden reductions in benefit are likely to be highly controversial, but a gradual whittling away of the level of benefit relative to earnings, or a progressive reduction in the benefit scale, might be absorbed with relatively little opposition. The pain of any progressive reduction of benefits may be alleviated if it is accompanied by the progressive introduction of an effective level of complementary pension provision.

6. Advantages and Disadvantages of Complementary Schemes

It is dangerous to view complementary pension schemes as a panacea for the ills of social security. The problems of an ageing population are not spirited away by a shift to private provision through complementary schemes. It will still be the case that the economic activity of a declining number of people of working ages will need to support a growing number of retired people. However, under a funded system this transfer is effected through the ownership of assets, which may be more easily achieved than a direct transfer through tax or social security contributions. It is certainly less likely to be a source of high profile political controversy.

Complementary pension schemes offer a much greater degree of flexibility to employers and to employees to manage the total remuneration package, with components relating to retirement and other benefits. They also help individuals to identify much more closely with the build-up of their retirement benefits and to feel a sense of ownership of the underlying assets.

Most importantly of all, a system of funded complementary schemes creates investment, usually on a fairly large scale, which can play an important role in the development of a country's economy, particularly if direct investment in companies and in shares is permitted.

On the downside, coverage of complementary schemes is likely to be patchy, unless complementary provision is made mandatory. Such schemes often find inflation difficult to cope with, although the problems are not insuperable. A major potential problem concerns the security of accrued rights. External funding may provide safeguards against the risk of the employer being unable to fulfil his promises. However, the level of funding may not be adequate, investment returns may be lower than expected (or inflation higher), or other aspects of the experience may deplete the level of assets held in respect of the accrued liabilities. An important part of the process of developing complementary pension schemes is to find ways of satisfactorily safeguarding the security of accrued rights.

This can be done by a variety of means, including external funding with a

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minimum funding requirement, or some form of employer insolvency insurance. In practice, most countries accept that the security of accrued rights cannot be absolute. However, improving that security is a desirable objective, both from the perspective of the possible demise of the employer and from the point of view of not discouraging mobility.

Complementary schemes can be established on a defined benefits or defined contributions basis. Under the former, the member is given a clear promise regarding the benefits being accrued, usually in terms of a percentage or fraction of final salary (or average salary). The future cost of delivering the promised level of benefits can only be estimated, as it will depend on a whole variety of factors, including mortality and disability experience, salary increases, investment returns, the extent to which members withdraw early on leaving the employment, etc.

Defined contribution schemes, on the other hand, have a clearly defined cost, according to the contributions paid, but it is not possible to predict what benefits will emerge, either in absolute terms, or in relation to final salary before retirement.

Defined benefit schemes, in particular those based on final salary, are generally perceived as favouring people who continue in employment up to retirement age. There is potentially a problem over value for money in respect of early leavers. This can be alleviated by requiring early vesting (i.e. entitlement to the accrued benefits when leaving before retirement age) and revaluation of the accrued benefits during any period of deferment. Even with revaluation in line with a consumer price index, the early leaver's benefits are still likely to be worth less than the benefits in respect of that same period of service if he or she had remained a member up to retirement age, since the latter benefit would have been based on final salary. It is difficult to correct for this inherent bias in a final salary scheme, to which employers are usually not averse, since it rewards loyalty. If desired, a more equitable balance between stayers and early leavers can be achieved by designing the scheme in terms of revalued career average salary instead of final salary.

Defined contribution schemes are seen as offering maximum flexibility and portability for the early leaver, as, in principle, the accumulated amount can be moved from one scheme to another (if the scheme is employer-based) or simply left where it is (and added to during subsequent periods of employment) if it is a personal pension with an independent provider.

There is generally little or no cross-subsidy between members of a defined contribution scheme (except perhaps between those who die earlier or later if annuities are offered from the scheme), whereas there may be extensive cross-subsidies in a defined benefit scheme, with those who stay obtaining better value for money than those who leave early, ill-health retirements better than normal retirements, married persons better than single persons, and high fliers better than those with a modest salary progression. Some aspects of these cross-subsidies can be seen positively as providing protection for those who need them, for example

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those forced to retire early on grounds of ill-health, or those who die early leaving dependants. These protection elements are usually missing from a defined contribution plan, although it is possible to arrange them separately, using group life and group disability insurance.

The open-endedness of a defined benefit scheme, the lack of any direct relationship between investment return and ultimate benefits, and the fact that it is usually only the cost to the employer which is affected by investment performance, generally makes it possible for there to be a high degree of investment freedom (subject only to national legislative requirements, either directly in relation to investments or with regard to meeting minimum solvency criteria). With defined contribution plans there may be more of a tendency to focus on short-term performance and stability of capital values, since the annual change in an individual's accrued entitlement is often subject to disclosure requirements, and nobody likes to see the value of their pension going down, even temporarily. Such a tendency has been observed under the Australian defined contribution arrangements.

There are many different ways of organising defined contribution schemes. In some countries the social security system is of this type, sometimes known as a national provident fund (as, for example, in Singapore). Such schemes would generally have their investments centrally managed, although it could be organised by allocating different parts of the fund to competing managers. A number of South American countries have introduced defined contribution arrangements as an optional alternative to social security (Peru - 1993, Colombia - 1994), as an option for the second tier above a basic level of social security (Argentina - 1994) or entirely in place of social security (Chile - 1981). In each case there is a choice of commercially operated funds, with some restrictions on the frequency with which switches can be made between funds.

Defined contribution pension products can naturally be offered by insurance companies. The investment accumulation element could be offered by a variety of other financial institutions, such as unit trusts or banks, subject to the accumulated sum being used to purchase an annuity at retirement age. Such financial institutions could cater for individual membership or for group schemes, relating to the employees of a particular employer, or some other group affiliation (e.g. members of a profession).

In principle, there is no reason why an employer (or group of employers) should not set up an independently managed pension fund to provide pensions on a defined contributions basis, depending on the structures approved under national legislation. There are various other approaches adopted in different countries which are not specific to individual employers. Mutual benefit funds can sometimes be established, which are controlled by the members, whether or not they receive contributions from employers. In other environments, pension funds can be established as commercial operations, competing on investment performance and charge levels, to offer pension accumulation to contributors.

A pure defined contribution investment vehicle would have values reflecting

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current market values of investments and, in principle, there need be no constraints on investment policy. However, it is usually thought desirable to restrict investments to forms which can readily be valued and which are unlikely to present serious problems of realisability. It is common, however, to offer a capital guarantee (at least implicitly), so that the value of the initial investment is protected, and increases in value are expressed in terms of adding a rate of interest to the current balances. This means that an investment policy must be adopted which avoids the risk of falling market values, or else significant unallocated margins need to be maintained to ensure that pay-outs can be supported if market values are depressed.

In a directly investment-linked defined contribution vehicle, it is possible to offer a choice of funds with different investment policies, or even an individually tailored investment policy, for the members under a particular group arrangement. In order to maintain a simple structure, benefits have to be paid in lump sum form, as withdrawals from the individual accounts (not necessarily all at once), rather than offering protection against longevity risk through the provision of annuities. Annuities can always be purchased from a suitable insurance company with the available lump sum. If annuities are to be provided through the scheme, actuarial reserves will need to be established and appropriate solvency margins maintained.

Sometimes there is demand for other forms of guarantee, such as a guaranteed minimum level of pension (either in absolute terms or in relation to final salary) or a guaranteed rate of return on the investment accumulation. Most such guarantees are expensive to offer, and generally require government backing or else a firm commitment by employers to underwrite the cost. In Chile the government guarantees a minimum level of pension of about 25% of the average wage to those who have contributed for at least 20 years to a private fund. Argentina effectively guarantees 40% of the average wage for those who have contributed for 30 years, but more than two-thirds of this guaranteed underpin is the continuing basic social security pension, which remains in place. Some guarantees may be able to be offered commercially, but the cost involved may reduce their attractiveness. In Chile, each fund must guarantee to provide a return each year which is no more than 2 percentage points below the average of all funds. Peru and Argentina have similar requirements on funds, which inevitably mean that funds have to maintain a form of equalisation reserve to cover years when they are required to top up.

A lot of recent debate has focussed on the issue as to whether contributions to complementary pension schemes should be made mandatory for all, entirely voluntary for each individual, or voluntary subject to the possibility of employers imposing a mandatory requirement on their employees. Although there is much to be said from a public policy viewpoint for making contributions mandatory, there may be practical problems in implementing such a policy, particularly if there is a large informal sector and rural population. It may be thought undesirable to make the requirement mandatory, unless there is a realistic prospect of enforcing

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the requirement. On the other hand, provided employers are required to contribute in respect of employees, and this can be satisfactorily policed, the self-employed could reasonably be said to be responsible for their own pensions savings — and it would usually be to their benefit to take advantage of a tax-efficient savings vehicle.

Another common debate in regard to the development of a coherent national policy on complementary schemes is whether the government should provide some guarantee of underpin of a minimum level of pension. This is possibly desirable if there is no general social security scheme, but the fall-back could simply be a means-tested level of social welfare. A guaranteed minimum level could also help to overcome transitional problems, as those who join such a system with only a few years to go to retirement age may be unable to build up a satisfactory level of benefit. On the other hand, guarantees of this sort may be undesirable unless compliance with the contribution requirement is at a high level, and it could have the effect of encouraging more risky investment strategies.

South America

There has been much interest in the experience of Chile, and, more recently, other countries of South America, in undertaking radical reforms of social security. In 1981 Chile closed its social security scheme to new entrants, requesting, instead, a mandatory level of contributions to be paid by employees to commercially-run pension funds (Administradoras de Fondos de Pensiones — AFPs). The participants, usually described as affiliates, are required to contribute 10% of income (subject to a ceiling) for old age benefit and a further 3% or so to pay for invalidity and survivors' insurance and to cover the expenses of the AFPs (about $1\frac{1}{2}$%). Additional voluntary contributions are permitted.

The AFPs maintain individual accounts for the affiliates and, on attainment of the retirement age of 65 for men, 60 for women, offer the option of an annuity or a phased withdrawal of the balance. AFPs must guarantee a rate of return on the balances each year which is no more than 2 percentage points below the average for all AFPs, covering any shortfall from their capital or from an equalisation reserve.

The government guarantees a minimum level of pension of about 25% of the average wage to those who have contributed for at least 20 years, topping up what is available from the AFP account. Pensions are also still paid by the state to those who opted to stay with the social security scheme in 1981. Those who transferred to the new AFPs were given recognition bonds by the government in respect of accrued social security rights. These are increased at 4% a year above the rate of inflation, and mature at the individual's retirement date, at which point cash is paid to the AFP to purchase additional pension for the individual.

The Chilean AFPs have performed extremely well, producing, on average, a real rate of return of 13% over the first 15 years of operation. 1995 was the first

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year in which a negative real rate of return was achieved. There are now 21 AFPs, covering a membership of 95% of the labour force.

In 1993 a somewhat similar scheme was introduced in Peru, except that new entrants to the labour force are still permitted to opt to join the social security scheme, and the AFPs are offered as an alternative. AFP affiliates are required to contribute 15% of their income (with no employer contribution), but those opting to transfer to AFPs were given a $13\frac{1}{2}$% salary increase. Under the social security system, employees pay 3% and employers 6%. There is no government minimum pension guarantee.

Argentina introduced individual savings accounts in 1994. A basic social security pension has been left in place, with a continuing contribution of 16% of salaries. Above that, a further 11% of salaries is paid to the savings accounts, although individuals can opt for this to go into the social security scheme to purchase additional defined benefits. Those who do not opt are automatically affiliated to a savings account.

In Argentina the pension age for the social security pension is being gradually raised by 5 years, to 65 for men and to 60 for women, and the period of contribution necessary to qualify for a pension is being doubled to 30 years.

The new Argentine system guarantees a minimum pension to affiliates of the savings accounts, made up partly of the basic state pension and partly of an underpin for the defined contribution part. AFJPs (as they are known in Argentina) must guarantee a real rate of return relative to the average of AFJPs. There is also a government guarantee, in nominal terms, of the rate of return achieved by the Banco de la Nacion AFJP.

Existing rights in the social security system will be recognised by payment of defined benefit pensions, so the run-off of old liabilities will take longer than under the Chile or Peru reforms. About 50% of the labour force are now affiliated to AFJPs, of which there are 26. Contributions are collected centrally, together with social security contributions and tax.

A fuller description of the pension reforms in Chile, Peru, Colombia and Argentina can be found in Queisser (1995).

Central and Eastern Europe

Some interesting developments in the field of complementary pension schemes are taking place in central and eastern Europe. Each of the countries in the region has a fully developed social security scheme, providing a good level of benefits relative to salary levels. The costs were met either from the national budget or from the contributions of employers (who were very largely public bodies of various sorts). There was generally little or no scope for private pension arrangements.

Following the political changes in these countries and in the light of concerns about the growing cost of the social security schemes, each country is embarking on a programme of reform of the social security scheme, in conjunction, in most cases, with plans to encourage the formation of complementary pension schemes.

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Reform packages usually involve: the introduction of employee contributions; the elimination of special categories of members with privileged benefits; raising retirement age (especially, initially, for women, who generally have a very low retirement age, particularly if they have had children); introduction of unemployment benefits; and scaling down of pension benefits.

Hungary has introduced legislation to provide for the establishment of mutual benefit funds, reviving an old tradition in the country, but now primarily as vehicles for complementary pension provision (health insurance funds are also provided for). The funds can be set up on the initiative of an employer or group of employers, or at the instigation of a group of employees (with or without financial support from their employers) or by a group of people with some common affiliation (e.g. members of a union or a profession, or people from a particular geographical area). Control is exercised by the members, but the fund is required to make use of appropriate professional skills, including actuarial skills if any death benefits or annuities are provided. Contributions to the funds are made out of gross income (before tax), and the investment proceeds of the funds are not subject to any tax. Insurance companies are not permitted to offer tax-advantaged pension schemes, but they can offer administrative or investment services to the mutual benefit funds, as can consultants and other financial institutions.

The Czech legislation provides for the establishment of commercially run pension funds, owned by insurance companies, investment houses, or other interested providers of capital. Individuals can select which pension fund to belong to, or employers may offer to their employees membership in a particular fund, with a defined level of employer and employee contributions. There are no tax reliefs, as such, for those funds, but a small matching contribution is available from the government if employees contribute.

A considerable number of pension funds have already been established in Russia, but the legislation is still being prepared. A defined contribution system, probably with tax reliefs, is envisaged, with the possibility of single employer funds (primarily for large employers), as well as open funds which individuals or smaller employers can join. Insurance companies will probably be able to set up funds, but there is to be a pension fund supervisory body separate from the insurance supervision.

European Union

New proposals to encourage complementary pension schemes are being adopted or considered in many countries in the E.U., particularly in those countries where complementary schemes are not yet very widespread. A major debate has raged in France about the need for an additional layer of funded pension provision, either because of anticipated future difficulties with the pay-as-you-go complementary schemes, or because of the perceived financial and economic arguments in favour of a greater level of funding and investment.

In Italy, there is widespread concern about the affordability of the existing

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rather generous social security system. Urgently needed measures to raise the retirement age and scale down benefit promises have met with vociferous opposition, but these are seen as essential precursors to any significant development of complementary pension provision. Legislation to reform the social security scheme and to facilitate the setting up of complementary schemes has recently been approved.

Spanish legislation in 1987 was designed to encourage funded occupational pension schemes, as opposed to informal pension promises operated on a pay-as-you-go basis or with book reserves, and, consequentially, rather poor security. The legislation insisted on a high level of employee participation in the management of pension funds, and this, together with other areas of complexity in the legislative requirements, inhibited any significant level of growth of funded schemes. New legislation is now being considered to make the setting up of funded schemes easier, and to ban pay-as-you-go and book reserve arrangements.

The U.K. and Ireland have an extensive system of complementary schemes, including both employer-sponsored occupational pension schemes and personal pensions. Both countries have taken steps to improve the security of complementary pension schemes (particularly defined benefit occupational schemes) by introducing minimum funding requirements and a more wide-ranging role for the Scheme Actuary (see Daykin, 1995).

Legislation at the E.U. level has had an influence on complementary scheme developments, particularly in forcing equality of treatment of men and women in complementary pension schemes (even in situations where social security schemes continue to discriminate, e.g. in respect of retirement age, or availability of survivors' benefits). Other promised E.U. legislation has not yet materialised, but proposals are being worked up to facilitate the acquisition of pension rights by those who migrate from one country to another within the E.U.

There are really two principal ways in which this could be achieved. The simplest would be to develop a more uniform approach to the acquisition of entitlement to benefits on leaving employment before retirement age (vesting). The requirement here is no different for international mobility than for mobility within a country, although it is more important that each country should have a similar standard. At present there are wide variations, with the U.K. allowing no more than 2 years as the minimum vesting period, the Netherlands operating almost immediate vesting, Germany allowing vesting periods of up to 10 years and France having no vesting requirement at all.

It is necessary, not only to require vesting of accrued rights, but also to require vested (preserved) rights to be maintained in value, in line with earnings movements, or, at least, with price increases, if the acquired rights of early leavers are not to be eroded away by the effect of inflation, having regard to the fact that, for someone who stays in employment up to retirement age, the value of the accrued rights in respect of these years will usually be determined by the final salary before retirement (or some similar definition). Only the U.K. and Ireland currently require revaluation of preserved benefits.

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The other potential solution to the mobility problem is to require pension schemes to pay cash transfer values to another complementary pension scheme if a member changes employment (even if the new scheme is in a different country), or to a personal pension arrangement to which the individual can continue to contribute from different countries. The transfer value solution requires, first of all, a resolution of the vesting and revaluation issues, as the amount of the transfer value needs to be related to the value of the accrued rights. There are also problems here with the attitudes of countries operating pay-as-you-go (e.g. France) or book reserve (e.g. Germany) complementary pension schemes.

Even if these technical problems could be satisfactorily overcome, the attitude of taxation authorities remains a formidable obstacle to cross-border mobility. They see a risk of losing the possibility of recovering tax, even on a deferred basis, if tax concessions are enjoyed and the accrued rights are then transferred to another country.

7. Regulation of Complementary Pension Schemes

Although the political philosophy behind the encouragement of complementary pension schemes is generally in favour of flexibility and freedom of action for employers and individuals, there is a fair measure of agreement that a certain amount of regulation is essential, and that this needs to be backed up by reasonably strong supervision. There are many possible areas for regulation (see Daykin (1995a) for more details), which might include:

— benefit structure;
— lump sums or annuities;
— mandatory contribution levels;
— equal treatment of men and women;
— other non-discrimination requirements;
— acquired rights for early leavers (vesting);
— inflation protection of benefits (in payment and in deferment);
— sound and prudent management;
— reporting requirements;
— minimum funding requirements; and
— marketing rules.

A formal legislative basis is needed for the tax treatment of complementary pension schemes. This should cover the treatment of:

— employee contributions;
— employer contributions (both from the employer's point of view and from the point of view of the employee's assessed income);
— investment income and gains within the pension fund; and
— the payment of benefits.

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The tax treatment is seen, in most countries, as an important instrument for creating incentives to employers and employees to make provision for retirement through complementary pension schemes. Such incentives can be designed to operate selectively, in order to encourage particular behaviour, or to favour particular pension vehicles or groups of people. Unfortunately, the behavioural impact of such provisions is not always easy to predict. It is also often the case that differences in tax treatment between alternative pension vehicles are unintentional and probably undesirable. There is much to commend a policy of equitable treatment of the various alternatives, unless there are strong underlying policy initiatives at stake.

It is worth noting that the majority of countries have adopted a system of tax incentives for complementary pension provision which enables contributions to pension schemes to be made out of pre-tax income or treated as an expense in determining profit. Benefit payments, on the other hand, are usually taxed as earned income. There are some exceptions to this, as a surprising number of countries permit a lump sum to be taken at retirement entirely free of tax, or with tax only at a reduced rate. Investment income of pension funds is often free of tax.

Once established, the taxation treatment of complementary pension schemes may be quite difficult to change. However, both New Zealand and Australia have made radical changes in recent years, no doubt driven by a desire to reduce the extent of tax deferral in the system. New Zealand has moved fully to a system of non-deductibility of contributions, but tax-free benefits. In principle, this does not make much difference to the average pension scheme member, unless the rate of tax payable during employment is higher than might be applicable in retirement. The contributions can be scaled down, so as to target a level of pension equivalent to that which would be payable net under the traditional tax treatment.

8. Investment

A particular problem for the development of complementary pension schemes in an entirely new environment is that of investment. Suitable investment vehicles may not be available, particularly if equity markets are not developed and government paper is, essentially, short dated. Pension fund investment managers have an objective of maximising return, subject to proper management of the level of risk. Risk should be expressed in terms of the possibility of the proceeds from the assets failing to cover the liabilities. Although defined contribution schemes do not have independently determined liabilities, it might still be appropriate to set investment objectives (and the definition of risk) with regard to an earnings or price-related growth target.

Pension funds in newly emerging markets may find that they have to invest directly, rather than through stock markets. This will inevitably require rapid

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development of sophisticated investment appraisal techniques. It will also necessitate a conscious emphasis on diversification of risk.

Legislators face a dilemma, when seeking to implement new structures for complementary schemes, in deciding whether to impose tight controls on investment, in order, theoretically at least, to protect the members. Such controls may, in practice, act against the interests of the majority of members, although they may provide some protection against the results of excessive risk-taking. It may be more productive to set only limited investment restrictions, and place the onus on pension fund managers to demonstrate that they are investing in accordance with what might reasonably be expected of a prudent investor.

Attempts within the E.U. to increase investment freedom, both in regard to the choice of investments themselves and the appointment of investment managers, have so far been frustrated, since a significant proportion of member states seem reluctant to accept dilution of their current practice of limiting investment choice. There was particularly strong disagreement over the desirability or otherwise of leaving pension funds free to invest in currencies other than that of the liabilities, which many investment experts would argue has diversification benefits which outweigh the possible currency risk, particularly if the liabilities are expressed in real rather than nominal terms.

9. Compensation Funds

Political pressure in the U.K., following the shortfalls in the Maxwell pension funds, has been for the setting up of a broad-ranging compensation fund to ensure that pension scheme members do not lose out in the event of a failure of a pension fund. Although the idea may seem superficially attractive, there is inevitably a cost involved, which would have to be met by the other pension funds (or by the taxpayer if the compensation fund is financed by the government). It is also vital to ensure that the existence of a compensation arrangement does not distort behaviour, or encourage employers to walk away from their liabilities. This proved to be a particularly serious problem when the Pension Benefit Guaranty Corporation (PBGC) was created in the U.S.A. Since the PBGC would take over the assets and liabilities of underfunded discontinued pension plans and underwrite the liabilities, there was a perverse incentive for employers to underfund their pension plans, discontinue them and hand the problem over to the PBGC. It was not long before it was realised that this had to be stopped, and the role of the PBGC was restricted to taking over the liabilities of pension plans where the employer is in financial distress.

Few countries have, in fact, implemented compensation funds of this sort. Even in Germany, which has no external security for accrued pension rights in the large majority of schemes which operate on the basis of book reserves in the balance sheet of the employer, did not introduce any form of guarantee fund until 1975. In the case of Germany, the PSV (Pensionssicherungs-Verein) is a special

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insurance company, owned by the employers and providing insurance to employees, in relation to their accrued pension promises, against the risk of their employer's insolvency. The insurance protection only covers vested rights, however, and with the long vesting period (10 years) which is the norm in Germany, many pension promises are simply lost in the event of employer insolvency.

Sweden and Finland both have credit insurance against the risk of employer insolvency. In their case, pension funds do maintain assets separate from the employer's business, but they are permitted to make unsecured loans back to the employer. The risk of default by the employer on these loans is covered by the credit insurance. The Finnish credit insurance has been completely restructured in the last couple of years, as large numbers of defaults, in the wake of a very serious recession, led to a crisis in the credit insurance system.

Japan has a compensation fund to cover liabilities which are covered by complementary pension schemes operating in place of the social security scheme. Since these liabilities are, in most cases, substantially below the full benefits offered by the pension schemes, and the full liabilities are, in principle, fully funded and separated from the employer's own business, there have been very few claims on the compensation fund.

The U.K., similarly, has an arrangement for compensating and funding shortfalls in respect of defined benefit occupational pension schemes where the employer goes into default, to the extent that the benefits are substituting for social security benefits. A more general compensation scheme is to be introduced by legislation which is currently under consideration by Parliament. However, it will apply only to losses arising from fraud, theft, or misappropriation of assets, and will replace only 90% of the lost assets (subject to restoring solvency to no more than 90% of the minimum requirement) (see Daykin (1995) for some commentary on the proposals for a minimum funding requirement which have recently become law in the U.K.).

10. Conclusion

There is currently an enormous level of interest, in many countries around the world, in encouraging the development of complementary pension schemes, or in putting in place a new framework for such schemes. They are increasingly seen as being an important part of the solution of problems facing social security schemes, which include the rapid ageing of populations, over-generous benefit promises, unduly low retirement ages and, in some cases, restricted coverage, inefficient administration and problems of contribution collection. Complementary pension schemes are also seen as having an important part to play in economic development, in support of privatisation programmes and as generators of capital investment.

A number of industrialised countries, with long-established traditions of

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generous social security schemes, are questioning the realism of maintaining this strategy, and are actively looking at the possibilities for developing funded complementary schemes.

In countries with a long tradition of complementary pension schemes, there has also been much activity. There are moves towards greater investment freedoms and supervision with a somewhat lighter touch. However, there have been steadily increasing requirements on schemes with regard to member participation, disclosure, equal treatment of men and women, fair treatment of early leavers, revaluation of benefits and minimum standards of solvency.

In view of the tremendous diversity of social security systems around the world, many of which are currently undergoing (or have recently undergone) significant change, and the even wider variety of complementary pension schemes, this paper has only been able to touch on a few broad themes which might be of general interest, particularly with a view to providing a broad perspective on a fascinating and rapidly developing canvas.

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