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Public-Private Interactions: Mandatory Pensions in Australia, the Netherlands and Switzerland

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Abstract Mandating plays a role in the retirement income system of nearly every country in the world. In this essay, mandatory pensions refers to employer-provided occupational pensions in the second tier. Mandated second-tier pensions appear to substitute for a portion, or all, of the earnings-related part of social security.

Both Australia and Switzerland mandate private pension coverage, and the Netherlands has a partial mandating program. While mandating with full compliance would raise to 100% the coverage of the population to which the mandate applies, in reality compliance is never complete: low-earning, part-time and part-year workers and the self-employed are typically excluded. Moreover, the actual level of coverage depends on the extent of compliance, and on people's views concerning the fairness of the mandate; the incentives, such as tax preferences; and the enforcement effort of government. It is interesting to consider why a country would choose to mandate private pensions rather than mandate earnings-related pensions through social security, and what the consequences of such a choice are. The reasons may include mistrust in the power of government, or a philosophical bias on the part of the citizenry toward private sector provision of pensions. Those reasons are balanced against the costs and risks of providing pensions through the private sector. There is evidence that poverty rates in these three countries have declined since mandating was introduced.

1. Introduction

This essay is a preliminary exploration of the place of mandating occupational pensions in the current evolution of ideas and experience with pension reform in mature industrial societies. Individual account pensions as a first tier of retirement income have been mandated by half a dozen countries in Latin America and a couple of countries in Eastern Europe. In addition, a few countries have mandated occupational pensions as a second tier. We consider which countries have pursued this approach and why, and the effect of mandatory occupational pensions on social security pensions. The focus of this article is on the interplay between the

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development of mandatory occupational private pensions and their impact on the basic social security public pension, and the impact of the public pensions on the private system. We limit our analysis to three prototypical examples of the mandating of private pensions—Australia, the Netherlands and Switzerland.

Voluntary and contractual agreements by private firms and the government as employer, rather than general provider, spawned the field of occupational pensions. The growth of these pensions raises two critical issues for pension reform: regulation and interdependencies. Concerning regulation, if government stimulates the demand for occupational pensions through taxes, it typically regulates potential abuse and misuse of tax forgiveness. Although regulation is an important topic, interdependencies are the focus of our analysis. Interdependencies raise the question of the unity of the overall social protection system, in particular, between the public retirement system of support and that provided by the enterprise which employs the individual. How do these two retirement income streams affect each other?

The interaction between a mandated occupational pension system and the public scheme is a relatively unexplored issue in most discussions of pension reform. When the mandatory systems have matured, and have been in place long enough for retiring workers to have spent their entire career within the system, will the public regime become residual, and thus permit the schemes to be viewed as offsetting each other rather than being complementary to each other? In this view, mandating is a way of shifting responsibilities from the public to the private spheres of society. But the public pillar could serve a different function, as a base for a diversified system of income packaging from multiple sources rather than a single dominant source. Hence the question of the interdependencies between a public minimum income support (with flat-rate benefits being, as we shall see, only one form that a redistributive, guaranteed, minimum income can take) and private income sources. This is an important question because we believe it is naive to think, as many proponents of funded systems do, that the rates of return of the mandated system will be so attractive that it is simply unnecessary to be concerned with the fate of the public regime. On the contrary, we believe that as funded systems mature, interest will revive in a non-conditional public guarantee, that is, basic income without transfer-tested conditions. This issue will be discussed in the conclusion of this essay.

We highlight some of the dominant features of a national pension system architecture that is based on the logic of a design that creates a blend between a basic first public pillar and a mandated private system as a second pillar. Both the basic and mandatory pillars take a variety of forms in different countries, but what they share are some concepts as to basic and mandatory.

For each country, we develop the argument in three stages. First, we review the structure of the public regimes. Second, we review the varied types of mandated arrangements that have developed. Third, we consider the patterns of interdependencies that might emerge when a mandated system matures. Intentions and promises are, after all, different than actual practice, as the Australian experience demonstrated in July 2000 when the government decided to reduce the pension withdrawal rate for increases in income to 40%.

We proceed as follows. In section 2 we discuss issues in public-private interactions, and then in section 3 examine the three examples of countries that use mandating for second-tier pensions. In section 4 we draw conclusions concerning public-private interactions in the three countries.

2. Public-Private Interactions

2.1. Interdependencies

In discussing public-private pension interdependencies, the interdependencies usually considered are those between public social security pensions and voluntary occupational pensions. That discussion provides a basis for our analysis. Public social security pensions have several effects on voluntary occupational pensions. Social security pensions may reduce the level of occupational pensions by substituting for them—the substitution effect. Generous social security benefits crowd out voluntary occupational benefits. However, by encouraging earlier retirement, social security pensions may raise the lifetime level of pensions desired, perhaps providing extra room for voluntary pensions—the early retirement effect.

Both the substitution effect and the early retirement effect would be expected to influence the structure of mandatory pensions, although the mechanisms by which the effects work would differ from those of voluntary pensions. Concerning the substitution effect, countries with a generous social security system would be less likely to mandate that occupational pensions be provided. Conversely, mandatory occupational pensions would more likely be established in countries that provide relatively small benefits through their social security systems. With regard to the early retirement effect, in countries with mandatory occupational pensions, for any given level of benefits that mandatory pensions provide, the earlier the age at which workers retire, higher contributions and higher accumulated assets would be required. Thus, in countries where the mandatory social security system permits and encourages retirement at relatively young ages, the contribution rates and assets associated with the mandatory occupational pensions are expected to be higher. While the effects of social security on occupational pensions have received considerable analysis, relatively little analysis has considered the effects of occupational pensions in the reverse direction. We have identified five possible effects of voluntary pensions on social security systems that would also be effects of mandatory pensions.

First, voluntary private pensions predate social security systems in many countries. Generally, social security systems are developed as a reaction to the perceived failure of private sector arrangements to adequately provide for retirement income for the entire population. Low coverage by private pensions may provide an argument for expanding social security. Alternatively, it may provide an argument for mandating private pensions. While mandatory occupational pensions have only been established since the start of social security systems, an efficient mandatory pension system that provides benefits with relatively low risk takes pressure off the social security system as a source of benefits and may result over time in those benefits being smaller than they otherwise would be. If the private sector is viewed as being more efficient and reliable than the government sector, then countries may extend pension coverage by mandating private pensions rather than by expanding social security pensions. Second, the desire that private sector pensions should provide a significant part of retirement income may limit the level of benefits provided through the social security system, especially for middle- and upper-income workers. Third, the tax treatment of private pensions may provide the basis for the tax treatment of social security benefits. As a matter of equity, policymakers may view it as desirable that the two types of benefits are similarly taxed. Fourth, the private sector may be a testing ground for ideas that are later incorporated into social security. For example, the experience with defined contribution plans in the private sector may be a factor in the interest in incorporating a defined contribution portion for social security. Fifth, as societies seek to limit retirement income risks, the risks of the private system may affect the level and types of risks that are viewed as acceptable in the public social security system. Risks can be reduced by diversifying and by holding lower risk assets. Both these approaches to reducing risk may be ways that private pensions affect social security. If private pensions are low risk, then more risk can be held through social security pensions. If private pensions have a relatively high degree of financial market risk, then it is less likely that financial market risk would be viewed as desirable in social security.

In a broader framework, both social security and occupational pensions are affected by the views of workers and employers as to the proper role of government versus employers and individuals in providing retirement income benefits. These views are affected by national traditions, philosophies concerning individualism versus paternalism, and the relative efficiencies and reliability of government versus the private sector.

2.2. Mandatory Pensions

Mandating is one important tool in the repertoire of tools available to government in forging a national social policy. A government can elect to provide the pension itself, and most social security pay-as-you-go (PAYGO) systems are of this type. It is useful to distinguish who pays or contributes and who provides the benefits. In social security, the government directly administers or provides for cash transfers, but does not necessarily pay for pensions. Instead, it mandates that the employer and employee share the cost, and in some countries where there is a disparity between financial obligations to the pensioners in the system and the contributions received to meet these obligations, the government covers the deficit, usually about 20% of the total outlay. This form of mandating who should pay is most common. Sometimes governments decide to share the task of administering the program with the employers. This increasingly is the case in the domain of sickness pay, where the firms pay and provide for a limited time, typically the first six weeks or the first year of an illness, and then the sickness benefit system takes over where the firm pays and the state provides. Workmen's compensation and industrial injuries benefits provide other examples of the state's willingness in earlier historical periods to mandate that firms both pay and provide.

Why would a country impose on its private market-oriented firms a mandatory obligation to provide its employees with an occupational pension, i.e., an employer-financed and employer-administered retirement pension? Did the state mandate in recent years that firms should provide for occupational pensions as part of the industrial relations process? We now propose an interpretative framework. Our initial hypothesis is that the key to unraveling why some governments turned to mandating pensions can be best understood by the limits of the kind of public pension that the country elected to develop in the early historical stages of the evolution of its social policy. Wherever a country introduced some form of universal, or quasi-universal, flat-rate benefits system financed from general taxation it proved to be unstable, because it led to political pressure to introduce supplementary pension arrangements to make the system more adequate for the aged population in retirement. Sometimes the process took a long time, as it did in Australia, and sometimes the supplementary system was put in place more quickly, as in the Netherlands. Sweden spent about 30 years in the slow evolution of a universal pension system, from 1913 to 1945, but then a short decade later began a politically divisive debate which culminated in 1959 with the passage of new legislation to create an earnings-related social insurance program, and eventually the Folk pension lapsed into a residual institutional form. Sweden did not choose mandating, but social insurance (ATP) as its supplementary system.

3. Public Retirement Benefits: Australia, the Netherlands and Switzerland

3.1. Introduction to the Three Countries

Most countries have a flat benefit component in their social security system. They provide a basic minimum benefit, perhaps through a combination of programs, that workers receive even if they have low lifetime earnings. Flat benefits do not vary, or vary relatively little, with the level of the worker's earnings. They generally do vary, however, by other factors such as family status and number of years of paid contributions to the social security system, or years of residence in the country.

Most countries also supplement the flat benefit with an earnings-related benefit. However, this earnings-related supplement can be paid through either a public social security program, or an occupational pension. In the case of occupational pensions, it can be either voluntary, as in the Nordic countries, or mandatory, as in Australia, the Netherlands and Switzerland. These three countries do not provide a substantial earnings-related benefit through their public social security systems.

A common feature in all three countries is very high coverage by occupational or private pensions after they were mandated. In the Netherlands, 91% of workers are covered by private pensions because of labor agreements that make coverage mandatory for all firms, particularly those in the industrial sector, that have negotiated a contract, including those firms that did not participate in the signing the contract. In Australia and Switzerland, private pension coverage is mandatory for most workers. In all three countries, the earnings-related part of the retirement income system is provided either primarily or entirely by near universal private pension coverage, rather than by social security. This pattern suggests that the overall structure of retirement income in these countries may be similar to that found elsewhere. The primary difference may be that the earnings-related portion of benefits is provided through the private sector rather than through the social security system. Although it is only a recent characteristic in the case of the Netherlands, all three countries have a tradition of limiting the role of government in the provision of retirement income and relying to a large degree on private sector provision.

3.2. Australia

3.2.1. The Public Age Pension

The public or social security pension in Australia is known as the "Age Pension." Unlike the Netherlands, which introduced its basic age pension fairly late, in

1957 under the General Old-Age Pensions Act (AOW), Australia had established its system in 1908. Australia opted for a system financed from general revenue, with flat-rate benefits and entitlement determined by both an income and an asset test. The logic of these means tests, as an assessment of the eligibility to receive a pension based on the value of the retired person's income and assets, has not changed since its introduction, but the way in which it affects which individuals receive a pension and the value of the pension has undergone radical change over time. One informant maintained that the instability of Age Pension policy is due largely to the design of the system as non-contributory, since the individual cannot claim benefits as an earned right of entitlement which was paid for during his or her working life.

While the program is very popular among the general population, it is still surprising to witness significant shifts in purpose within short periods of change in political regime. Such strong shifts from stringency to generosity and the reverse signal more than a weakness of design—they reflect a deep value conflict in the norms of public policy by which pensions are viewed as spending both too much and too little on the aged population. One way that public policy deals with such value conflicts is by "cycling" between the twin objectives, first adopting one extreme, then another. The shift from stringency to generosity is shaped both by the ability to meet the cost of the program and by an ambivalent commitment to both goals. During the depression years, the pension was interpreted as a loan with a lien against the pensioner's estate at their death. But in the past 50 years, the goal was defined as living in "modest comfort." However, the benchmark for an adequate pension remained vague until 1972 when the Whitlam government promised that the basic pension would be raised until it reached 25% of average weekly male earnings. This standard has prevailed, while the debate of too little or too much has persisted. But a new goal has entered the public debate, namely, that the modest-comfort level should be achieved by increased self-reliance on personal savings and private pensions. How the meaning of this objective in relation to the Age Pension evolves is now being played out. Before examining these questions, a brief description of some of the main features of the Age Pension is reviewed.

The pension scheme initially paid retirement benefits for both men and women at age 65, but in 1910 the age of entitlement for women was lowered to 60, in the view that women became incapacitated to work at a younger age than men. In 1993, the government decided to raise the age for women over a 20-year period to equal that of men. Entitlement is based on residence rather than citizenship. In 1969 the period of required residence was lowered from 20 to 10 years. Over the years, the government periodically explored the feasibility of establishing a contributory earnings-related benefit system, but the means-tested pension system proved to be quite resilient. The basic structure of the system has withstood the test of time remarkably well, although, as we document below, many important administrative and financial changes have been introduced within the prevailing structure.

The objectives surrounding the asset test need to be understood in the Australian context as differing from those in other countries. The asset test in Australia is more a way of excluding the top earners than a strategy for earmarking benefits for the needy. “The purpose of the asset test is to ensure that pensions are not payable to very wealthy people who have arranged their affairs to qualify under the income test. (In fact about) 95% of pensioners are assessed under the income rather than the asset test” (Whiteford 2000b, p. 8). It is perhaps best to describe the Australian system as a partially universal system, reaching about 82% of the aged population, including both the age pensioners and those former members of the armed forces receiving a means-tested service pension. Two-thirds of these pensioners receive the full pension rate and 27% receive a part-rate pension since they have income above the tax-free threshold.

What is particularly interesting is to identify the characteristics of the 18% of the pensionable aged population that are not actually receiving an Age Pension. According to an unpublished Commonwealth Treasury estimate, they fall into three groups: 6% are former public service workers at the Commonwealth and State level; 6% have assets which are too high to qualify for the Age Pension; and 6% are still working in their previous job (or chose to be self-employed), or are married to someone who is working.

These figures for groups not receiving the Age Pension are so small because of a “lump sum culture” designed to disguise current income by converting it into an asset that meets the eligibility standards for receiving a part or full Age Pension. The lump sum culture is the widely accepted norm of managing one’s finances, and the eligibility rules reinforce the practice since the asset test provides for high asset exemption and a sharp taper for income above this level.

Not only is the system, de facto, quasi-universal, it is also relatively generous. The government has legislated to maintain in law that the single pension rate not fall below a minimum of 25% of male total average weekly earnings, in addition to indexing the value of the basic pension to the consumer price index. Many analysts believe that the actual real benefits are in fact substantially more generous than this measure suggests for several reasons. The 25% gross is closer to a 33% net, since the average tax liability of pensioners is much lower than male average earnings, and more than 73% of pensioners own their homes outright, which reduces the actual cost of living. Moreover, the basic pension is supplemented from two sources: private pensions and concessionary services provided from state and local governments. A concession card entitles pensioners to a broad range of benefits, such as cheap drugs, lower water and tax rates, and cheaper transportation. "There is very little understanding of the net value of these benefits to pensioners" (Department of the Treasury 2000, p. 7).

It is interesting that both the Australian and the Dutch systems struggled with the tension between an earnings-related social insurance design and a non-contributory state pension, the Netherlands vacillating between the two options and eventually opting for a compromise in the basic pension that included features of both alternative logics. By contrast, the Australians maintained continuity with the system that they accepted at around the turn of the last century, namely, a system which remained flat-rate, non-contributory, resident and means-tested based on need. But within this basic structure, Australia struggled continuously between two competing conceptions—whether the conditions for imposing the means test should be stringent or generous. At one extreme was the principle of a basic benefit with no or minimum conditions, which would have transformed the system from one based on need to one based on residence. At the other extreme, was the view that the means test should become residual over time as individuals increasingly relied on income from savings and investment independent of the state. Below is a brief account of how this struggle was played out.

"During the 1960s and 1970s, a political movement tried to abolish the means test on age pensions" (Whiteford 2000b, 5). Perhaps the first major step in this direction was made in 1969 with the introduction of a "tapered means test" which made it possible for additional income above a threshold of income known as 'the free area' to be reduced by 50% rather than 100%. The effect of this new policy was to substantially increase the proportion of the age pensioners receiving a reduced rate to roughly one-third in the 1990s. This still meant that two-thirds of those receiving the Age Pension were in the free area and thus receiving the full rate of pension. But the next move toward transforming the means test was made when the Whitlam government, committed to the principle of generosity, appeared determined to move toward a program based on universal entitlement by removing the means test for those over 75, and then two years later in 1975 it lowered the age to 70. The Fraser government then continued the trend by replacing the income and asset test with only an income test.

But in the late 1970s, concern about a federal budget deficit reversed the policy initiative away from generosity to one of fiscal accountability, which meant increased stringency for the Age Pension. And by 1978, the income test for those age 70 was reintroduced, and then in 1985 the asset test was once again accepted. Economic constraints overcame the idea of non-conditional benefits to all aged residents. What was ushered in during the 1990s was a new procedure for assessing assets in the context of objectives centered on self-reliance. Most individuals tried to minimize their current cash income to maximize their pension entitlements. They did this by converting income to assets, in particular by home ownership, since the value of the home was exempt from the asset test. How to discourage this behavior became an important objective if public policy was to encourage personal saving and the value of private pension income could be taken into account. One way of addressing this issue was to introduce "deeming" rules to deal with this practice.

As early as 1987, the definition of income for assessing pension eligibility was extended so that income from financial investments would be "deemed" as being received on an annual basis. Then, in 1996, income test deeming rules were introduced that replaced all previous rules for dealing with how to translate assets into income. A couple with assets under $50,000, no matter how these assets are invested, would be deemed to earn at 3.5% as income and 5.5% as income above that amount. The deemed income is added to other income to determine the benefit level under the income test. The actual income earned was not counted. Not surprisingly, these rules soon became widely accepted and many financial institutions decided to pay interest rates based on the social security deeming rates (Whiteford 2000b, p. 6–7).

But despite these deeming rules and the focus on self-sufficiency, the commitment to increased generosity of the Age Pension continued. From July 2000, the pension withdrawal or taper rate was reduced from 50% to 40%. In addition, the maximum pension and the income and asset test free areas were increased by 4% and 2.5% respectively (Department of the Treasury 2000, 6). The taper rate is the rate that for each additional dollar of income above the free area, there is a withdrawal or reduction of the value of the basic pension until a ceiling is reached and the individual is no longer entitled to receive the public pension. These measures were introduced for reasons other than the development of a coherent pension policy. This introduction of increased generosity into the Age Pension offers an interesting example of tax policy driving long-term pension policy. It also shows that policies in different domains move in different directions which do not necessarily reinforce each other. The story in brief is the following. The new Coalition government, now in power, introduced a new value-added tax, the Goods and Service Tax (GST), which increased the cost of goods and services by 10%. As part of the package of income tax reform, the government was committed to the principle of compensating recipients for the cost-of-living increases that occurred. This decision to lower the taper rate was made without consulting the civil servants in the Department of Family and Community Services responsible for long-term pension policy. It was a decision made by Treasury officers; there was no consultation because this was interpreted as a decision about tax policy. The reduction in the taper rate was designed to help those pensioners whom it would be difficult to help with income tax cuts, because their tax liabilities were not high enough. But the independent action of the Treasury also signaled another message that concerned the relationship between superannuation reform, to be discussed below, and the most recent pension reforms introduced by the government, also discussed below. The implicit message was that the superannuation reform was never intended to save much money on public spending for the Age Pension (Whiteford, 2000c).

3.2.2. Mandated Private Pensions: The Australian Story of Superannuation

Australia moved toward a mandatory system in two stages. Since World War II, Australia has had a well-developed occupational pension system called superannuation. These pensions were, by and large, limited to public servants and male white collar workers employed in large firms. Low-income, casual and blue-collar workers were by and large not covered. By 1986, about 40% of the working population was covered by a superannuation system that was voluntary and depended on a generous system of tax advantages with an estimated annual value of $8.7 billion. How generous was this level of tax forgiveness? This indirect level of spending compared to the $13.8 billion in direct spending for the Age Pension.

The first move to change this system did not arise from an initiative within the public social policy domain. Instead, it started in the industrial relations system. In 1986, the government sought to increase voluntary superannuation coverage provided by firms by supporting union demands to increase it through industrial awards, a universal 3% of earnings to be set aside by employers into a superannuation fund. These employer-provided contributions were to be made in lieu of an equivalent wage rise. This proposal by the unions was the outgrowth of centralized wage negotiations, which were part of an Accord between government, the trade unions and employers. The Australian Industrial Relations Commission approved such claims by unions under industrial awards since it felt that there would be a surge of individual unions making such demands and a coordinated effort would make more sense. It also viewed this effort as a way to constrain the growth of labor costs that would also be attractive to employers because direct wage increases involve added costs for employers in the form of payroll taxes and mandatory workers compensation costs. Later in 1986, the Industrial Relations Commission announced that it would approve such industrial agreements that would restrain demand for wage increases in exchange for a more generous occupational pension.

The first hurdle to overcome was a challenge by opponents that such an Accord was outside the terms of reference of the industrial relations system. The High Court of Australia was called upon to adjudicate the disagreement. When the High Court decided that matters of superannuation were a legitimate subject for labor arbitration, the decision ushered in a large-scale voluntary system that dramatically increased the size of the occupational pension system available to most blue-collar workers. Employee coverage in the private sector grew from 32% in 1986 to 68% in 1991. At this time, the union decided to demand an additional 3% in employer contributions to the superannuation fund. But in 1991, the Industrial Relations Commission rejected the union claim. The Commission pointed to the continued problem of non-compliance by employers, especially for part-time, low-wage and seasonal workers, leading to an incomplete coverage of awards, as one-third of private sector workers were still uncovered and even an additional contribution of 3% would still have not been sufficient to provide for a significant increase in retirement income. The Commission felt that the piecemeal approach to implementation was counter-productive to the creation of a coherent retirement system; it argued in the National Wage Case decision that further development of a retirement system "may be flawed to the point of frustrating its contribution to the achievement of an adequate national retirement incomes system" (Department of the Treasury 2000, p. 13). The Commission recommended to the government that in order to overcome these problems, it should convene a national conference with all the relevant parties participating. The government rejected this advice, since it feared that it would not be able to control the outcome of such a conference. Instead, the government decided to make use of its tax power to deal with the problem of compliance. The employer contribution was to be transformed to a charge, which would gradually increase to 9% of ordinary time earnings (OTE). With the administration of the voluntary occupational pension system, the government elected to introduce a compulsory Superannuation Guarantee (SG) that was designed to supplement the industrial award system.

To address the problem of noncompliance, the government imposed a severe tax penalty—non-compliant firms had to pay the tax office the value of the contribution plus interest, a late fee penalty and administrative costs. Most firms found it easier to simply make a contribution for all employees directly into the pension fund. This produced another administrative problem of many small accounts and undeclared awards, which even the individual recipient was unaware they were entitled to (Later, in 1999, the government had to deal with this troublesome problem and under new legislation created self-managed funds for a new category of small funds with fewer than five members. This new fund was placed under the supervision of the tax office, which imposed less stringent regulations than those to which the superannuation funds were subjected).

In this new mandated Superannuation Guarantee system, private pensions are compulsory and occupational pensions are automatically vested, funded and preserved. The term preservation meant that the individual could not withdraw assets until after age 55, however later legislation gradually lifted this to age 60. The funds are thus preserved for retirement. As before mandating, employers are required to make prescribed minimum contributions on behalf of employees to special pension funds. All employees aged between 18 and 65 are covered in the plan except for those earning less than $450 per month, which equals the taxation threshold of an annual income of $5,400.

Mandating has created a retirement system compelling employers to accumulate for their workers the equivalent of 3% of wages in 1992, 7% in 2001, and 9% in 2002. One way to appreciate the relative size of this commitment is to recognize that about 60% of GDP is spent for wages and salary, hence 9% of this amount would mean that roughly 5% of GDP would be set aside for a mandated private occupational pension program. Some analysts believe that this amount is not insufficient to provide for an adequate pension income that would replace about 60% of last earnings, the benchmark generally used in Australian studies. However, a Treasury analysis rejects the conclusion of these studies. But the research acknowledges that the results are sensitive to a number of assumptions which were required to make the projections. The most important of these are the "investment mix; whether retirement income is taken as a lump sum or a pension; the effects on social security asset and income tests; and future investment earning rates" (Davis 1999, p. 9). To address the contentious question of the adequacy of these contributions, a plan was devised which would lead employees, who under the mandated system are not required to contribute, to make supplementary contributions, with a variety of tax rebates to avoid excess burden on low-wage workers. The original plan, which did not materialize, was to set aside 15% of wages into a trust fund, with an employer contribution of 9% supplemented by a employee contribution of 3% to be introduced in stages and a government indirect contribution of 3% in the form of tax concessions. When a new Coalition government came to power in 1996, concerned about the size of the budget deficit it inherited, it rejected the plan because it called for an increase in government spending.

The logic of the mandated occupational pension was to transform the terms of a labor arbitration accord, which set aside pension funds in lieu of wages and was set up to function as an occupational termination or severance pay scheme, which provided workers with a lump sum at the time of retirement, into a genuine retirement program replacing wages with pensions. Making this transition given the lump sum culture and its intimate tie with the public age pension would be a difficult task. A first step was to introduce a norm shift that established a consensual public objective, namely, the principle of self-reliance. This objective created tension between competing principles, and not only was this tension present in the Australian system, it also surfaced in the Dutch system. In both countries, there is an equally strong belief in encouraging self-help and financial independence by reliance on private provision in the form of mandated private occupational pensions and reliance on the public program, which is based on need in Australia, and in the Netherlands, a hybrid combination of need and contribution.

Regardless of how this tension gets resolved in the long run, the Superannuation Guarantee dramatically raised the proportion of workers covered by an occupational pension and the level of funded assets set aside as a defined contribution for a future pension. These funds now cover 89% of employees, and the assets in these pension funds increased from 19% of GDP in 1983 to 68.7% of GDP in 1995. Despite fluctuations in the market, the value of these assets is probably substantially higher today. In addition, individuals can supplement these mandated occupational pensions by voluntary superannuation assisted by generous tax concessions. The value of private pension assets comes from a Treasury estimate prepared by the Retirement Income Modeling (RIM) unit. What is striking is how different this estimate is from the OECD figure of 31.6 % (OECD 1998, table V). The point is important because the new figures show that all of the countries which, with the exception of the United Kingdom, rely upon mandating have among the highest asset rates in the Western economies: the Netherlands rate is 87.3%, Switzerland is 117.1%, the U.K. is at 74.7%, compared to U.S. at 58.2%. The lesson to be drawn from these figures is that employer-based occupational pensions are most likely to flourish under a system of mandating. The British experience shows that the use of incentives—tax incentives plus the incentives to contract out from social security—remains an important alternative way to promote private pensions.

Examining the Australian asset figures does not offer a direct way to compare the current level of spending for private and public age pensions. However, Whiteford (2000a) has provided an estimate of direct spending for superannuation pensions and for superannuation lump sum payments in 1997 and the value of tax expenditures. One way to cash out the value of the lump sum is to use the deeming method for transforming assets to income. If we follow this procedure, then we have a rough estimate that the private spending is about 30% of the spending level of the Age Pension. The estimate for public tax expenditures designed to stimulate the expansion of private pensions is roughly 52% of the combined value of the public and private spending for age pensions. So if we add direct and indirect outlays for pensions together (Age Pension and tax expenditures, private superannuation and the deemed value of the lump sum payment) and express this amount as a percentage of GDP, then the aggregate level of spending increases to roughly twice the amount of the public age pension. Such an approach can be questioned, but there is no accepted accounting procedure for dealing with the public-private interplay. The clearest message is that private spending and indirect public spending in the form of tax forgiveness has a major impact on our understanding of the level of aggregate spending for the public age pension (not including surviving partners and disability pensions).

Only $65 billion out of a total of $430 billion in pension assets came from individuals who were newly covered in the Superannuation Guarantee program. This means that about 85% of the total assets in superannuation schemes was contributed by individuals who had an occupational pension before it was mandated. Of course this is not surprising, since it takes time for a funded system to mature, and the new contributions only began to accumulate after the program was introduced in 1993. It takes a long time before the accumulated assets grow to a substantial amount, and therefore the current value of these pensions is quite modest.

3.2.3. A Brief Overview of the Superannuation Guarantee System

The most transparent achievements of mandating are the extension of coverage rates, and the expansion of a funded pension system. As a result, Australia boasts that it has “one of the broadest contributory superannuation schemes in the industrial world” (Department of the Treasury 2000, p. 15). It achieved this outcome by creating a privately mandated, compulsory employer contribution system, unlike other countries that mandate employee contributions usually into a public PAYGO social security system. The Treasury’s account of the history of retirement explains that it was easier to oversee and administer a program for half a million employers than a program of 5 million employees (p. 15).

But this spin on mandating fails to capture the full picture. While there are 200,000 separate funds, 98% of assets are in fact concentrated in 8,000 different funds. The overwhelming bulk of these are small and undedicated funds which have increasingly been placed outside of the formal superannuation system to help reduce administrative costs. In 1995, the government created a small accounts collection system, the Superannuation Holding Accounts Reserve (SHAR), for employers that had found it difficult to locate a fund “that would accept small and one-off superannuation contributions” (Department of the Treasury 2000, p. 16). But these 8,000 funds are by no means homogeneous. To a large extent the Australian system is decentralized into a mix of defined contribution and defined benefits schemes organized in different sectors. The conventional breakdown is in terms of three types of fund: public sector, industry, and corporate enterprise. But the RIM forecasting unit in the Treasury offers a more detailed disaggregation based on the allocation of total assets, which captures something about the variety of forms and sponsors of funds. Six categories and their share of total are presented: public defined benefits, 24.3%; private defined benefits, 21.2%; private defined contributions, 13.4%; total Superannuation Guarantee, 15.1%; personal and roll-over, 17%, and; self employment, 8.8% (*Super Funds* November 1999, 5). Perhaps most striking is that the total for all forms of the SG constitutes about 15% of the total combined assets for each of the half dozen categories reported in the magazine, *Super Funds*. This figure makes it clear that mandated funds are only part of the aggregate story of the occupational pension industry. Second, mandating has not transformed the asset pool into a defined contribution system, at least 40% of the total continues in the form of defined benefits financed primarily from a funded system, rather than PAYGO alone, and these are found almost equally in the public and private sectors. Finally, various forms of personal rather than collective accounts seem to make up a substantial part of the pension industry.

With this more differentiated picture in mind, we can recognize that the Australian funds operate as a trust under the sole responsibly of the trustees. These funds are now supervised by a single regulatory agency, the Australian Prudential Regulation Authority, whereas, as in the Netherlands, two separate bodies had supervised them. The superannuation funds appear to face few regulatory restrictions: there is no minimum rate of return on investment, there is no government guarantee, and no uniform system of reporting the performance of fund portfolios to members. The investment portfolio is varied, with almost 40% in equities and 29% in overseas investments. With a weak regulatory framework, there is always the kind of danger that the British pension industry has in recent years faced. The most recent crisis, the closure of Equitable Life to new business, casts doubt on the government's plans to promote savings through private pensions (Davis 2000, p. 49–50).

Adding to the varied and decentralized structure of the pension industry and its weak regulatory structure is a taxation system that is complicated. Once the income of the recipient is above the tax threshold, superannuation benefits are fully taxable. But superannuation benefits paid as a lump sum are taxed at a low rate since, "the maximum rate that applied to lump sums was 3% (the 60% top marginal tax rate applied to 5% of the lump sum)" (Department of the Treasury 2000, 21). There was considerable concern that the "more lenient taxation treatment of lump sums deterred retirees from using their superannuation benefit for the purposes of providing genuine retirement income" (p. 21). While a direct solution to this problem was not directly joined, the new Coalition government did introduce in 1996 a superannuation surcharge of up to 15% to be applied to high-income earners. As an offset to these and other taxes, there is an extensive system of concessional tax returns, especially for low- and middle-income earners. In July 1992, low- and middle-income earners were entitled to a 10% tax rebate for contributions up to $1,000, subject to a means test. Commenting on these developments, an article in *Super Funds* magazine reports "Australia's retirement savings are now fairly highly taxed. This is one of the few countries in the world where savings are taxed on entry to a superannuation fund, while they are in the fund, and on exit (above the $90,000 threshold)" (*Super Funds*, November 1998, 19). The Treasury's history of retirement elaborates how this came to be. Prior to 1983 employer contributions and earnings were tax exempt, but were taxed when the basic benefits were received; for an employee, it was taxed as a contribution but not as a benefit. After 1988, the tax system was amended. Apparently the rationale for a change was that as super funds became more widespread with the expansion of coverage, indirect tax costs also increased, which in turn put pressure on other taxes to take up the added load. When, in 1983, lump sum taxation was introduced, it threatened the superannuation tax base as individuals increasingly invested in cleverly constructed roll-over vehicles that deferred annuities, and lump sum revenues. In an effort to deal with this problem, in 1988, a 15% tax was applied to all employer contributions and to the roll-over accounts which sheltered annuities, lump sum payments and the like. As a result, the system taxed contributions, investment earnings, and then at the point of withdrawal also taxed benefits.

This system of evasion and the struggle to prevent tax evasion also produced a considerable amount of "churning" which involves the interaction between taxation and transfer systems. Whiteford (2000a, p. 156) more formally defines churning as "the simultaneous flow of transfers and taxes into households and taxes out of the same households." In general, countries with a high level of spending and taxation also have high churning. The Australian system by this standard should therefore have low churning, and while this might be generally true for Australia, Whiteford (p. 164) also suggests "that churning is relatively much larger at the bottom end of the distribution." In 1984, about 43% of unweighted income, which includes all taxes and transfers, could be described as churning (Figure 4.21). It would appear that the difficulties of resolving the issues surrounding the transformation of lump sum payments into an income stream are particularly hard to resolve, since a resolution would affect entitlement to the Age Pension and further exacerbate the problems of churning. Thus, churning appears to be an inherent part of superannuation and the Age Pension. It is difficult to avoid the complexities of integrating within the same household the system of receiving transfers from mandated occupational pensions, subjecting both to taxes, and then providing concessional tax, treatments to the household to prevent overburdening low- and medium-income families with unfair taxation.

3.2.4. The Interdependencies of Mandating and the Age Pension

The Australian superannuation and Age Pension systems are in a continuous process of transition, so all comments must be cautionary and tentative. The Australian experience raises some of the most difficult questions about the impact that a mandatory private pillar has on a means-tested basic public scheme financed from general taxation. When the industrial relations system opted to forgo its formal wage demands to promote a voluntary employer-based occupational pension system, the union that advocated this trade-off did not consider in detail, if at all, the implications of this action for the future development of the means-tested Age Pension. There is no evidence to suggest that when the government extended the Accord into a mandatory occupational pension that there was any serious attention given to whether people would still be receiving an Age Pension when the mandated system reached full maturity. But because the Australian public system is means tested, the interplay between the public and private pillars had to be joined at some time.

But in Australia the political issue was postponed. What could be the political issue? After the state mandated the voluntary system, workers could postpone consumption in the form of current wages in exchange for an employer contribution to a private pension upon retirement, and perhaps, at that time get a pension that might not be much better than what they were currently entitled to get from the public age pension. One could assume that the private funded pension invested in a lifetime of equities would yield a generous pension, much in excess of the value the non-contributory public scheme could offer. Thus, the problem of acquiring only a private pension of equal value to the public scheme would disappear. But if the promise does not materialize, then most people could believe, especially after the indirect employer contribution later became compulsory, that this amounted to “a hefty implicit tax” which yielded very modest benefits (Whiteford 2000c). Anticipating such a situation, one can see the politics of integrating the public and private retirement systems becoming contentious, creating widespread pressure to preserve the value of the public pension as a supplement rather than alternative to the private system. By and large this situation does not arise in contributory social insurance systems, but the issue could arise when a country has a minimum public guarantee that is transfer tested. This occurs in Sweden, when an individual only receives the Folk pension if he or she qualifies for public social insurance benefits for low-income earners (ATP). But this form of transfer testing is not likely to be a political issue since over time, as the social insurance systems mature, fewer people are placed in this situation.

The logic of a differentiated system based on a near universal public means-tested program in combination with a near universal private occupational program is that the private benefit is to be preferred and should act as a substitute for the public program. Double-dipping is a signal of a design failure, in the view that a complementary system based on combining public and private resources is duplicative and therefore inefficient, and perhaps also unstable.

But the history of Australian practice has evolved a de facto, complementary public and private system. The earliest and most important way that these complementarities were achieved was by the design invention that converted the private income into a lump sum payment on retirement and then created rules of access to the public system that ignore most of this income, except for the very wealthy. A person's primary residence is not treated as an asset, and the asset limit that disqualifies a person from the public system is generously set for a couple at $400,000. If this practice is maintained in the future, then "private pensions will be (as they now are) an adjunct, rather than a replacement for the Age Pension. Even when private pension strategies are fully mature in the early 2040s, it is projected that low- and middle-income earners will continue to rely on the Age Pension for a significant proportion of their income in retirement" (Whiteford 2000b, p. 23–24). This practice of complementarity between the public and private systems of provision could be described as following a 70:30 rule, by which the public system provides a large subsidy for the income of the bottom 70% of the income distribution. It is an empirical question whether the rule is more accurately described as 80:20 or 60:40, but the principle of current practice is clear.

Will future policy continue to follow the current practice of the 70:30 rule or some variation of it, or will future policy seek to fundamentally change it? There is evidence that both substitutive and complementary policies are being pursued. Not surprisingly, there are several competing views of how to answer this question depending on one's interpretation of the intention underlying the mandatory superannuation reform. The Treasury's decision to compensate for the introduction of the value-added GST tax by lowering the marginal tax on the Age Pension from 50% to 40% for part-rate pensioners could be interpreted as an assertion that the SG was never intended to save much money on public spending; that in any event, the Age Pension was never expensive so there was not much money that could be saved, and; that tax policy should have precedence over pension policy. The interaction between public and private will, de facto, thus continue to be complementary for the two-thirds of the population that benefited from the extended coverage of the SG and who now have accumulated only modest assets.

But it is also possible to interpret the interaction of the public and private schemes from a very different perspective. In this view, the SG ushers in a new era, with new social ideals of promoting self-sufficiency. At the time that the SG was introduced, the Business Council of Australia (BCA) advised employer groups not to cooperate with the government unless it was prepared "to tackle the full array of complicated issues associated with retirement incomes, including double-dipping and the proper integration of super and pensions" (Department of the Treasury 2000, 13). What this could mean in practice is still not clear or politically settled. SG can be viewed as an adjunct or a substitute designed to replace the Age Pension. A replacement strategy could be designed to reduce the total proportion of the aged receiving a public pension. Self-sufficiency could mean that the new mandated system would attempt to reverse the 70:30 rule, so that instead of 30% of the high-income earners being excluded, this would mean that 30% of the low- and medium-income earners would be included. A more modest goal, that would still be an adjunct rather than a substitution, is to improve the share of private income over the free area, thus reducing the average rate of payment for age pensioners rather than the number of recipients (Whiteford 2000b, p. 22). David Cox, professor at Melbourne University, raises the issue of how early retirement would create a complementary public and private mix. He notes that "it is important to recognize that this [super] is not yet a fully fledged retirement incomes policy, as the links with the Age Pension are not resolved. Nor is its integration in terms of entitlement ages or the forms of benefit." He then takes a strong position on how the system should not be integrated. "We must discourage early retirement without integration or we may see people using their accumulated superannuation to fund an early retirement" (*Super Funds* June 1995, p. 22). But age integration may be another way to link the public and private systems, much as the early retirement VUT system does in the Netherlands, although in a very different context.

Current governmental policy is best understood as based on the view that in a public means-tested world increasingly dominated by private provision it is best to convert the private pension into an income stream that is then subject to an income means test. Such a policy tries to overcome the perversity of the lump sum culture of evasion that characterizes present practice. But it also gives rise to a counter practice of discovering new forms of evasion by creating roll-over vehicles and other forms of protecting the lump sum. In fact, a new industry has emerged to advise individuals how best to assure that the public and private systems continue to be complementary rather than substitutive. How this strategic game will get worked out in practice depends partly on the performance of the super funds and partly on the political will to challenge the current practice of complementarity. The system is continually evolving.

3.3. The Netherlands

3.3.1. The Basic Public Scheme

At the beginning of the twentieth century, political discussions started as to how the Dutch should provide retirement income. The central issue was the question of the responsibility of the government. Debate on the form that the basic public pension should take remained unresolved for a long time after the first public pension system was enacted into law in 1919. The debate centered on whether to have an insurance type system, based on the principle of equivalence, with a transparent and close relationship between contributions and benefits, or a state pension based on the principle of solidarity, with a design based on benefits that were universal, uniform for all retired persons, non-contributory and non-conditional. In 1947, the parliament passed the Old Age Emergency Act, which provided flat-rate and contribution-free pension payments. But this was only a temporary act, which had been promoted by the Dutch government in exile in Britain. While the scheme drew on the long debate within the Netherlands about the form pensions should take, it was strongly influenced by the Beveridge Report, which favored a universal pension based on flat-rate contributions and benefits. But it was not until 1956 that the temporary act was transformed into the General Old-Age Pensions Act (AOW). It was passed by parliament but the main provisions were based upon the recommendations of the Social Economic Council that modified the logic on which the Emergency Act was based. The AOW tried to forge a reconciliation in the long-standing dispute between advocates for insurance and advocates for state pensions by insisting that the finance come from the contributions of the insured person and not from employers. This does not mean that the state does not also play an important role in financing, based on the logic of a state pension for all residents. The state pays for the funds needed to cover the cost of contributions for low-income groups. But in recent years the contributions have been sufficient to cover all current costs and there has been no contribution from general revenue. In the United Kingdom, the contribution-financed basic pension led to quite different outcomes because low-income people who did not contribute were ineligible to receive benefits. As a result, some 20% of the aged population do not get the basic pension and rely on means-tested income support. The example is important since it shows the dangers of thinking in terms of ideal typical systems, rather than actual practice (Liu 1999, p. 38). By contrast, in the Netherlands, low-income people below the tax threshold do not make pension contributions, but they are included in the universal public system. However, the added cost to the system is financed from higher contributions from the second- and third-lowest tax brackets. So the Dutch system is a hybrid—contribution based and when necessary tax financed.

One of the questions to be addressed by any system of solidarity is who should be protected by the social security system? The Dutch opted for inclusive protection. The 1956 legislation called for compulsory insurance for all residents, rather than just citizens, independent of the source and size of their income. Over time, this came to mean that contributions were broadly equivalent to an earmarked income tax, with anomalies that were linked to the way the tax structure was organized. This blurring of the tax and contributory system remains an important unresolved question in Dutch social policy, although legislation to change the tax system is high on the political agenda. This especially affected the position of married women. If a woman was working, the tax was based on the higher family income; if she was not doing any outside paid labor, she did not pay any contributions and was covered by her husband's contributions. Therefore, it was the husband who received the pension, since the wife did not earn a pension in her own right. This later became a political issue, and the rules were changed to recognize wives as individuals rather than spouses. The size of the pension would be equal for everyone but take account of household structure. A single person gets 70% of the base amount, which was eventually set at the net minimum wage level. A couple originally got 100%, to take account of economies of scale in household size, but after the rule change each couple received 50% of the base amount. Pensions are calculated as a percentage of the net minimum wage and are treated as taxable income when the benefits are received (The net minimum wage is about two-thirds of the average wage). Pensions are thus indirectly indexed to wages to the extent that the minimum wage keeps pace with average wages. But the indexing is flexible, and in times of a large public debt and fiscal constraint, indexing has been postponed. Individuals only begin to receive a benefit at age 65. Therefore in periods of high unemployment other programs such as disability, sickness and unemployment insurance become the pathways to encourage early exit from work.

It is important to recognize that thus far we have been implicitly considering only full pension claims. In fact, the system was only partially uniform and the benefits are only partially universal. Each issue is briefly considered. First, the requirements for acquiring such a claim are stringent. To receive a full benefit, a person must be continuously insured from the ages of 15 to 65. An uninterrupted career requires 50 years of residence, and the entitlement therefore accumulates at a rate of 2% of the minimum wage for each of these 50 years. Therefore, for each interrupted year of residence the full pension is reduced by 2%. At present, about 5% of the aged population will be affected by the residency requirement rules. However, as the society becomes more open to immigration, it can be expected that many more people will be affected by the residence rules. While there are opportunities for people to buy back the missing years of residence, few people take advantage of these rules.

Second, as discussed above, married women did not receive a pension in their own right until the law was changed in 1985. Under pressure from the European Union (EU), the government changed the rules and divided the pension equally between the spouses at no additional aggregate cost to the public system. Although the rule change did have an effect on how the private supplementary pension was to be calculated, since the unit of analysis is based on the individual in the public system, for many pension funds the unit remains the couple. Shifting to the same family unit as the public system would increase the cost of private pensions. A similar reform has also been enacted in Switzerland. Everyone earning an income above a minimum amount would have to pay a premium on a range of his or her income between the minimum and maximum (Alber 1998, p. 31–35; Anderson 2000, p. 11–15). Employers do not contribute to the basic old age pension in the Netherlands, thus sidestepping issues between wage earners and the self-employed.

The AOW provides a flat social security old age benefit to all, regardless of labor market status, varying only by household status. It is a limited social security system, which means that supplementary occupational pensions are needed to provide an adequate retirement income. Each individual aged 65 or older, whether retired or not, is entitled to a benefit of 50% of the net statutory minimum wage, with a supplement of 20% for single persons, 40% for single parents with a dependent child, and up to 50% for persons with a partner below the age of 65. While progressive income taxation of benefits introduces some progressivity for those whose benefits are taxed, it does not greatly affect income distribution among the elderly. Progressivity in the system comes from the contributions that are based on earnings but do not yield a flat benefit.

The financing is designed to be self-regulating in that the level of contribution is raised in anticipation of the forthcoming increased level of spending when the aged population bubble expands in the next 40 years. But the government was forced occasionally to supplement the pension funds from general revenues when the system ran deficits, as it did from 1993 to 1996. In 1998, however, AOW introduced a partial funding system after the government set aside 250 million guilders to be placed in a fully funded system, the assets of which accumulate to assure that in the future, the contribution rate does not exceed 18.25% of income. But in practice the designated funds were not set aside and permitted to accumulate interest; instead, the savings fund was designated as a line item in the public debt, to be credited against the debt when the contributions are unable to meet the cost of the benefit levels paid out because of the large expected increase in the size of the pensioner population.

By 1990 all contributions to the general people's insurance (including the AOW) were integrated into the general income tax schedule, thus exempting the first 7,000 guilders or so from contribution payments. The pension is not funded from general revenues, but is financed from a tax on income above the tax free allowance. However, the AOW contribution rates jumped from 6.8% in 1957, when the scheme was introduced, to 14.3% in 1990, and 17.9% in 2000. In 1998, AOW spending was equal to 5% of GDP, and it has remained stable over time.

There is some discrepancy between official figures and those reported in an OECD (1996) publication which indicates that 6.04% of GDP was spent for old age pensions, 1.09% for civil servant pensions and 0.40% for early retirement.

A very peculiar characteristic of the Dutch General Old-Age Pensions Act was (and still is) the role of the social "convention" in defining the public-private mix. This convention creates a set of norms and rules that establishes an unwritten obligation for pension schemes to be set up in such a way that they take account of the size of the pension payment of the public pension scheme and strive to achieve a replacement rate of 70% of the last earnings before retirement. It is important to recognize that these norms are enacted as a convention and not as a legal obligation. Verbon (1988, p. 2) has argued that, "The expectation was that the public pension scheme would be superfluous as soon as every member of the Dutch society would have joined a private pension scheme." But this interpretation is incomplete and assumes that the systems are substitutive of each other. Another reading is that the convention established from its inception that the public pension was intended to provide a foundation on which to build private pension schemes that would be complementary and not substitutive.

The evolution of the story is, however, more complicated and the pattern more cyclical. In the early years, the public pension increased sharply and reached the level of the minimum wage. Between 1957 and 1981 the gross pension for a couple divided by the gross average income, increased from 30% to 61%. Politically, this would suggest that private firms would staunchly support a stronger public pension, since this development would imply, if the principle of complementarity was carried out in practice, that the private pension would become relatively smaller as the public pension expanded (Verbon 1988, p. 24). But during the 1980s the cost of the pension became problematic as efforts to reduce costs grew more sustained. Another feature of government policy during this period was that a significant part of the expenditure increase after 1973 was "debt financed." Between 1960 and 1988 debt increased from 40% to 70% of GDP (Bovenberg and ter Rele 1999, p. 133–134). In this economic environment, the government froze benefits and switched to a cost saving index formula for several years. These actions by the government produced a decline in the real value of the public pension, and therefore, if the social convention was to be honored, the occupational pension had to carry a larger proportion of the total pension budget.

The social convention is only one of the social mechanisms that shapes the public-private mix of Dutch pension policy. The government also makes use of a Pension Covenant, by which the government convenes the social partners and sets out its concerns about the direction of pension policy and encourages the partners to find a solution. If they are unable to reach an accord, after a 4-year period, then the government will make known its intention to mandate compliance with a government-imposed solution. This covenant sets a strong incentive for the social partners to collectively find a way to resolve the issues on the table.

In December 1997, a Pension Covenant was created which left to the social partners the task of finding a solution of how to modernize the pension system: to make it less financially costly; to lower the fictional AOW franchise which set the value of the benefits that the private funds have to contribute to realize the 70% replacement rate, and; to reduce the "white spots," i.e., firms that do not offer pension plans to some workers. A committee on the Social and Economic Council would then review the achievements of the Covenant four years later to decide whether to recommend legislative action if the social partners could not find a solution. By the time that the review took place in 2001, much of the political interest that had created the Covenant had passed.

3.3.2. The Dutch Style of Mandating

In addition to the use of social conventions and Pension Covenants, the Dutch also make use of a form of coercion in more acceptable terms known as mandating. To understand the Dutch system of mandating, we need to clarify the many subtle lines of demarcation that separate the concepts of private, mandating, and funded. We start with two special meanings of private mandating in the Dutch context. Since World War II, the Dutch government has encouraged the growth and development of employer-sponsored and industry-wide occupational pension systems in the private sector. The pension institutions and the system of mandating that they have created appear, from an international perspective, to be surprisingly different from those of the systems created in other mature welfare states.

These occupational pensions are contractual—they arise from a contract negotiated between employers and employees on a sector or industry-wide basis. The government, however, does not mandate that such contracts should be made. One might indeed think that as the net density of union membership decreases such contractual pension agreements would decline over time, and that the system of mandating on which those agreements depend would weaken. But the evidence does not support such a conclusion. Net density is the most widely used measure of total union membership as a percentage of the labor force. The difference between the gross and net measures is that net density excludes non-active members such as students, conscripts and the unemployed. What the data show in the Netherlands is a decline from 38% in 1965 to 23% in 1995, with the Netherlands having the lowest and most rapidly declining union density (Freeman et al. 2000, p. 53, table 1.3).

The civil servants have one of the largest pension funds in Holland, but only about 20% of all civil servants are members of a union that actively participates in reaching a collective agreement. Nevertheless, when such a contractual agreement is reached it is binding on all employees and departments in the public sector. There are two interpretations of how this process works. One view holds that the process is automatic; but, another explanation holds that mandating occurs only if the social partners (organizations representing employers and employees) in that branch make such a request to the Minister of Social Affairs. It is only at this point, after such a formal request, that employers within a branch of industry are obliged to take part in the industry-wide scheme, even if they were not a party to the original contractual agreement.

The motivations for mandating are varied. For example, government was eager to avoid the establishment of a privileged competitive position of lower costs for firms that offered less generous pensions within a sector. In order to avoid the distortions of competition that could be introduced if firms used different pension schemes as a factor in setting wages and commodity pricing, the regulation mandated that all firms within an industry develop the industry-wide contractual pension scheme. Government regulations to this effect were introduced as early as 1947, making the contractual pensions provision compulsory for all firms in the sector. Company pension and other pension arrangements are only permitted to opt out of mandating if these plans were as good as, or better than, the plan mandated by the industry-wide contractual agreement. And, of course, once an employer then offers a pension scheme, it is compulsory for employees to participate.

This system of mandating leads to extensive coverage by workers in employer-sponsored private pension plans. Mandating created a significant rise over time in the proportion of employees covered by private sector supplementary pensions. A survey in the mid-1980s suggested that about 20% of the population were not covered. But a more recent survey in the 1990s suggests that 91% of the working population are currently covered. Kremers (2000, p. 7) estimates that 9% of the working population do not participate: 2% because no scheme was offered because of small firm size or the creation of new sectors, such as new technology, and; 7% are not eligible because they work too few hours or only have temporary jobs.

The question of noncoverage leads to our next question of the special meaning of “private” in the Dutch context, viewed as a pension program that is not state operated and therefore operates within the regulatory framework set by the state for private plans. This naturally raises the problem of how to deal with the supplementary pension programs provided by the state in its role as an employer, rather than as the provider and funder for the basic pension program. In 1995 the civil servant pension system was privatized, and the privatized public sector pension fund (ABP) is therefore now considered as one of the four main types of supplementary pensions. There are also 850 corporate pension funds, the largest of which are global in nature, including those of firms such as Royal Dutch Shell, KLM, and Philips, and 11 professional association funds. But the 82 multi-employer sector plans account for both the largest employee membership and 66% of the total Dutch pension fund assets. Only a handful of large sector plans account for the majority of all sector plan participants, since most funds are small in respect to both membership and assets (Clark 2000, p. 7).

While there are important differences among these different funds and between the corporate and sector pension plans in terms of the size of their assets and how they are invested, these differences are not as crucial as the difference between funding and life insurance. And this moves us into our third definition of "funding." Funding refers to the technique of capital accumulation, but simply because a pension scheme employs this technique does not by itself warrant the use of the term funded, as "Funding must be the main way to finance the scheme" (Labout 2000, p. 15).

The meaning of funding in the Dutch context is important for two reasons. First, the basic public pension system decided in 1998 to make use of a partially funded system to prevent the contributions in the basic pension from exceeding 18% of wages. What is being projected is an AOW "virtual fund" that will be within the government budget and be operated concurrently with a systematic decline in the budget deficit. The annual contributions to the fund are projected at 0.6% of GDP. When the cost of the AOW fund rises above 5% of GDP, the contributions will come from the more traditional approach of a central government contribution supplementing individual contributions. Second, the early retirement VUT program, which is a PAYGO financed contractual system, is now moving toward funding as the main way to finance early retirement. VUT was developed in the early 1980s to deal with the age rigidity of the basic pension that starts only at age 65. Different substitute pathways into retirement needed to be invented at a time when unemployment was high. With at least 10 years of uninterrupted employment, a worker age 60 could retire with a replacement rate of at least 80%. The program was both popular and expensive. The government plans to phase out gradually the present system of exempting contributions and taxing benefits that made the VUT system of PAYGO financing attractive and replace it with a capitalized flexible pension system.

Although the Netherlands is a small country, with a total population of 16 million people and a workforce of 7.5 million, it is perhaps "the most funded collective pension system in the world" (Kremers 2000, p. 1). The evidence in Table 1 of this paper suggests that this is perhaps an overstatement. But the two examples above do clearly illustrate that there is a tendency when a system is in trouble to turn to funding as a way out of the malaise. And this use of pre-funding is found both in the public sector (the basic AOW pension), and in the private benefit system as in the case of the early retirement VUT system. Thus, the size of the funded pool is likely to increase further as policy dealing with population aging increasingly comes to rely on this technique. These examples focus on the funding of collective pensions in the mandated pension system and in the voluntary contractual early retirement program, systems that accept the traditional defined benefit plans. However, there is also a competitive pension arrangement that is profit making rather than collective and this is the life insurance system.

Where does the life insurance system fit into the framework of mandating? And does the interest in individual saving plans portend a slow transition to defined contribution plans? How does the Dutch system maintain a balance between solidarity and individual choice when life insurance companies are actively excluded from participating in the mandatory system that has a monopoly status among collective actors if they cannot maintain standards set by the contractual pension system? The broader question that the example raises is what is the justification for a system based on mandating in a competitive market environment? The assets of life insurance institutions in Holland are by no means trivial. In 1997 they accounted for 33% of GDP compared to 111% of GDP for the assets held by the pension funds (Kremers 2000, p. 4). However, the system of individuals purchasing personal accounts remains relatively small. In 1998, expressed as a percentage of GDP, personal accounts totaled only 0.4% compared to 4.7% for funded pensions, which are mandatory after a contractual agreement is reached, and 5.0% for the public AOW.

The issue was raised in the framework of EU competition and creating an integrated market for financial services. The Dutch high court had also to rule on the legality of the sector funds' exclusive domain because of the mandatory requirements of the regulations. The case was brought by three different sector pension funds that wanted to make alternative pension arrangements with external insurance companies (Clark 2000, p. 17–25). In all three cases, "the insurance industry was excluded from the provision of pension and insurance benefits to individual firms" (p. 17). The court held "that Dutch government regulations allowing sector funds with the agreement of the relevant social partners to petition for compulsory affiliation did not contravene EU competition policy." The court justified the rulings by establishing a hierarchy of social and economic objectives and argued that issues "like competition and the abuse of dominant position should be set aside" in order to realize the social objectives of "the Dutch government's policy of protecting sector-wide pension plans from external competition" (p. 21).

This discussion of the life insurance companies' bid for competitive rules should not obscure the current regulatory framework within which group life insurance functions, especially for small pension funds. Employers and employees are equally represented on the boards of directors of pension funds, and many employers of small firms within an industrial sector contract with group life insurance plans to administer their pension arrangements. Moreover, reinsurance is especially attractive for these smaller pensions to protect their portfolios.

A system of private mandating must put in place a system of regulation and supervision to protect the benefits that workers are mandated to accrue. In the Netherlands, the Ministry of Social Affairs is the regulatory body for pension funds, and the Ministry of Finance is responsible for life insurance companies. The supervisory body for both is the Insurance Supervisory Board, which oversees the fully funded mandatory pension schemes. Interestingly enough, it needs to reach a balance between tight oversight and the delegation of discretion. An example of each case may be helpful. One of the most troublesome labor market issues in a mandated private pillar is how to deal with the portability of pensions when workers change jobs. This problem has haunted the regulatory bodies and the social partners since the inception of private schemes. A solution seems to have been forged in 1994 when every employee was given a legal right to take along "the capital corresponding with his accrued right to a new employer's pension fund...The transfer value of pension rights...is converted into actuarially equivalent pension rights under the new scheme" (Kremers 2000, p. 9). This is clearly a highly regulated solution to an old problem.

By contrast, investment decisions, again after years of experimentation, followed a different principle, that of the "prudent person," which calls for almost no restrictions on the portfolio created by the pension funds, except the limitation of 10% investment in the sponsoring company when the fund is a company fund. Dutch pension funds are free to invest their assets as they see fit. Because the Netherlands is a small country with limited possibilities for diversifying investments in its domestic capital markets, the result of this policy was a dramatic increase in investments abroad, from 25% in 1996 to 60% in 1999. Obviously the large funds tend to diversify more worldwide and also outside of the EU (Kremers 2000, p. 12–13). The contrary policy is substantial quantitative investment restrictions and more concern with national objectives of promoting local savings and the use of local resources for industrial and real estate developments. Each regulatory system has to resolve these issues and each does so in quite different ways.

3.3.3. The Interplay Between the Mandatory Private and the Basic Public Pension

In the Netherlands, compared to other OECD countries, the private sector plays a relatively large role constituting half of the 100% of GDP spent on total public and private pensions combined. We have identified three institutional arrangements that have contributed to such an outcome. In some ways these are clearly unique to the Dutch system of reaching agreement, but in other ways they are general to most democratic and mature industrial societies. All societies rely to some extent on conventions, covenants, contractual agreements and mandating although the form they take are different in each country. In Australia, as we have seen, the introduction of contractual agreements was the first step taken to expand coverage of employer-provided pensions, and these agreements would have continued to expand if the arbitration commission did not object to the failure of firms to comply with the agreements. Reluctantly, the state introduced mandating to get compliance. Thus, mandating and contractual agreements are closely related. In the United States, when contractual agreements collapse and lead to a strike threatening national interests, the president will intervene and mandate arbitration which can be imposed by the courts when the parties cannot agree. And finally, all societies have social conventions that define the norms and rules that are implicitly followed by the social actors in reaching agreements, and these conventions are reinforced when the norms are explicitly recognized only when they are violated.

These institutional arrangements are worked out to produce a unique public and private interplay in which the Dutch occupational pension funds play a more important role in the retirement income system than that of occupational pensions in most other countries. Although the private Dutch pensions are funded, they continue to retain the form of defined benefits, which try to replace 70% of either average or last earnings. This has occurred largely because the public and private systems are harmonized in such a way that a decline in the level of public provision is offset by an increase in the mandatory funded private system. In 1969 the major national employers' and employees' organizations in the Netherlands adopted the principle for pension policy that for long career workers an employee's old age pension benefit, including the basic social security pension, should be at least 70% of the employee's last salary (based on a pension earned over a work career of 40 years of service). Many workers do not work for 40 years and their resulting pension is lower. The 1980s witnessed dramatic cutbacks in the public provision. "Delsen calculates that together with the freeze of benefits between 1993 and 1995, the size of the basic public pension as a percentage of the average gross salary decreased by 25% between 1980 and 1998" (cited in Haverland 2000, p. 14). This is in direct contrast to a dramatic rise in this ratio reported earlier for the period between 1957 to 1980. This was achieved without a direct attack on the logic and purposes of the basic pension. The cut in benefits was executed by silent or indirect means, such as decoupling the minimum wage on which the benefit value of the basic pension rested, from the accord on wage developments, the so-called linkage rule.

Moreover, benefits were cut by 3% in 1984 and frozen from 1985 to 1989 (p.14). In 1992, a contingent system of linking wage developments to social benefits was introduced, depending on the ratio of inactive recipients to active wage workers. A rise above 82.8% triggers the linkage (p. 19).

"For the participants in occupational funds, the AOW retrenchment did not matter in financial terms, as the defined benefit target of 70% (AOW plus occupational pensions) did not change. Relative losses in basic pensions were compensated by the occupation tier, which increased in importance" (Haverland 2000, p. 15). Privatization, mandating and funding, the hallmarks of a market-oriented system of provision, work in the Dutch system to offset fluctuations in the generosity of the public provision. It works this way because the system of mandating private sector obligations is based on the principles of solidarity. Compulsory membership prevents the firms from defecting from the contractually agreed upon plan. Joint representation in contractual bargaining is designed to dampen inter-firm rivalry and preserve the value of pension funds' replacement rates, and the system of regulation preserves the principle of oversight (e.g. of pension portability) and the autonomy of pension funds to follow the rule of the prudent investor with minimum interference.

The Dutch system has through its unique combination of the four Cs of social policy—conventions, covenants, contractual agreements and coercion (mandating)—managed to address some of the more intractable problems of private systems, such as the portability of pensions, allowing workers to carry their pension with them as they change jobs. In addition, Dutch defined benefit pensions provide much better protection against inflation than do many pension systems. This is because most plans are based on final salary, which provides inflation protection during the accumulation phase. More unusually, most plans provide some type of inflation protection once benefits are being paid. Finally, Dutch defined benefit pensions are better regulated and subject to less risk than is the case for most countries. Pension benefit insurance is not provided because the pension regulation provides adequate protection of the rights of participants. But any system that depends on contractual agreements, in which different funds reach different settlements about the design of private pensions will also generate considerable diversity and non-uniformity. However, the four Cs tend to balance each other so as to limit the diversity within a set of implicit conventions that pay attention to both solidarity and costs.

3.4. Switzerland

3.4.1. The Development of the Swiss System

The most striking feature in all three countries is the extent to which policy follows existing practice rather than precedes it. The introduction of a mandated, funded occupational system in Switzerland simply legitimized a system that was not only already in place but was maturing over time. Many large companies had already been providing employer-based occupational pensions prior to the post-World War II period. In 1972, Swiss voters passed a referendum that changed the constitution, permitting the Federal government to mandate that occupational pensions be provided in all firms. This referendum enshrined in the Swiss constitution a multi-pillar approach to the government's pension policy. However, the seeds for such action were already set in the decade of the 1960s. "The approach was publicized in the Lausanne Fair of 1964 with the graphic presentation of a house with three more or less equal pillars" (Queisser and Vittas 2000, p. 54, footnote 1). But by the early 1970s, this goal was already common practice, since more than two-thirds of all workers were covered by an employer-provided pension arrangement as compared with one-third in 1940. Switzerland had already achieved a higher level of occupational coverage than the roughly 50% level that the United States had reached by the end of the 1990s. Switzerland was an early OECD country to articulate the multi-pillar metaphor and it articulated a policy of public mandating as the way to convert the idea into action. While the Swiss idea was long accepted as a guiding benchmark for practice, it was not formally implemented into legislation until 1985. The underlying idea was simple and intuitive. The state has a redistributive role for the less well-off in society via public pensions, employers have a responsibility for the workers they employ via occupational pensions, individuals have a responsibility to save for themselves via personal accounts.

But two questions remain. First, why did legislation take so long? And second, why was mandating the preferred choice of the government? Why did it take until January 1985, another 13 years, to actually legislate a compulsory mandated system? Perhaps the answer lay in the fact that the country was preoccupied with the oil crisis and the growth of unemployment. Switzerland coped with its labor market problem in a characteristic way, one that involved strong decisive action which answered the question of who should be permitted to work when jobs are scarce, but at the same time did not require an expanded role of government. The Swiss answer was that male nationals should have the clear preference for the remaining jobs. This meant that foreign guest workers were sent home, and enterprises were expected to decrease employment by encouraging women to leave the labor market, much as the United States did after World War II to make room for returning war veterans. Swiss employment and pension policy both relied on the role of private enterprise to carry out national objectives by using the institutions of the market and civil society more strongly than an expanded role of the state.

But it was still not clear why it was necessary to compel employers to do what apparently they were prepared to do voluntarily with the indirect incentives of the tax system. Queisser and Vittas offer an interpretation based on the earlier historical work of Helbling. The answer they provide was that mandating was a "defensive measure against a major expansion of the public pillar" (Queisser and Vittas 2000, p. 7). As early as 1963 the very idea of a multi-pillar system was viewed as "the first attempt to articulate a defense against a relentless expansion of the public pillar." In 1966, a conservative coalition led by the Confederation of Church Trade Unions put forth a proposal to make the second pillar compulsory. The coalition's proposal was rejected, and a Commission of Experts was subsequently created, which made the same recommendation. Then, in 1969, the Labor Party promoted the idea of nationalizing all pension schemes into an expanded public pillar. This proposal mobilized the government into action to revive the idea of mandating as a politically more attractive alternative than the nationalization of the pension industry. The outcome was a referendum to pass legislation calling for a mandated private pension system. This interesting narrative, that mandating had its origin in an effort to offset the expansion of the public system, is not a theme that has been developed in other Swiss accounts of pension reform, nor is it an account of the experience that followed mandating, which witnessed a significant expansion of the public domain. Switzerland slowly expanded its welfare state to the level achieved in many Western industrial economies (Armingeon 2000).

3.4.2. The Public Pillar

Switzerland has had a public social security pension system only since 1948, which is much later than most European countries. As noted earlier, the Netherlands was also late, in fact, even later than Switzerland, in establishing a social security system for old-age benefits. The Swiss public program (AHV) is based on provisions in the constitution, and any major change must be made by amendment. Since its introduction, it has been a system in transition. It has had ten major revisions, and an eleventh revision is being considered. The public pillar is the national social security program. It provides a fixed minimum level of income, with the aim since its inception of replacing about a third of average earnings through a progressive redistribution in its financing structure among current contributors. This is achieved through two mechanisms: first, there is no ceiling on the contributions that individuals and firms pay into the system; but second, benefits are paid within a narrow range set by a minimum and a maximum level benefit level that is three times the minimum level. The system is financed on a PAYGO basis by means of mandatory contributions, and it covers all persons legally residing or working in Switzerland, regardless of their nationality. It is essentially a contributory, earnings-related system, with a small means-tested program that supplements the benefit of some low-wage earners (This discussion draws mainly on the following four citations: Queisser and Vittas 2000; Bonoli 2000, ch. 4; Hepp 2000; and Armingeon 2000).

To elaborate briefly, the public pension is financed through contributions of 4.2% of salary each by employees and employers, and up to 7.8% of salary for the self-employed. There is no ceiling on contributions for employed persons. Persons who are not employed and are aged 21 or over contribute an amount based on their assets and occupational pension income. The social security system also receives a state subsidy equal to 20% of its benefit payments.

Pension benefits vary between a floor and a ceiling, the upper limit being twice as high as the lower limit, i.e., the minimum pension. Within these limits, benefits are composed of a flat minimum benefit plus an amount that is variable, which depends on the number of years of contributions and the participant's relevant average annual earnings. These limits are frequently adjusted and indexed according to the Swiss indexing system, which is based half on price changes and half on nominal wage changes. Both the design and financing of the system make the basic public pillar very redistributive. This occurs for several reasons. The design of unlimited contributions means that contributions are paid on total income, while the design calls for benefits that are restricted to a limited range, with the aim of achieving a replacement rate of between 30% to 35% of average earnings for workers with average earnings. This design is based on a very different logic than that of the British system of flat-rate benefits and flat-rate contributions. One can readily see this by examining how the 1993 two-step benefit formula works in practice, compared to the earlier formula. The replacement rate of a worker earning half the average wage increases from 52% to 56%, while those with earnings at and above the average earning rate continue to receive the same rates as before the two-step pension was introduced. The primary objective of the new formula is to increase the replacement rate for low-wage workers earning half the average wage. The new policy was intended to reduce the number of pensioners that rely on the means-tested supplement.

The lower benefit limit does not represent a sufficient standard of living since it is below the social assistance level. For this reason, a general revenue financed income-tested pension supplement was introduced in 1965 that provides a pension slightly higher than the social assistance amount. The supplementary pension was introduced in 1998 and 11% of ordinary pensioners receive these supplements, most of whom are disabled. Only 5.6% of recipients are actually old age pensioners. The population receiving the public pension consists of three types of recipient: 81% are aged, age 65 for men and 64 for women; 6.7% are surviving partners, many of whom are below pensionable age, and; 12.3% are disabled (Queisser and Vittas 2000, p. 15–16). We have limited our analysis to the age pension. In most countries, all three groups are part of the public social security system sometimes in separate programs. This poses some awkward problems for comparative purposes, since the ratios of surviving partners and disability differ quite sharply in different countries, and many of these individuals have not reached pensionable age. To avoid these difficulties, our focus will be limited to the aged program.

The position of women, in general, and wives, in particular, has been a major issue in the Swiss system. Prior to 1997, wives of insured persons were not required to contribute to the basic pension. This may not seem so surprising when we recognize that a similar set of norms about the position of wives prevailed in the Netherlands. It is only recently that the Dutch permitted wives to receive pensions in their own right, rather than as a spouse. In Switzerland this goal was achieved only after a long and intense political struggle. In the 1995 legislation, the average earnings of married, divorced, or widowed persons are determined by splitting the earnings from employment of both husband and wife during the years of marriage. Thus, the principle of an individual entitlement to a pension regardless of gender and marital status was introduced. Now wives have a pension in their own right as compared with the earlier system of only a couple's pension, which was 150% of the husband's contribution. But this system penalized single-earner couples, since income splitting meant that each individual would get half the earner's contribution. To address this problem of the single-earner family, the principle of contribution credits for those with children or providing informal care to others was introduced. However, the innovation was costly and it was decided to cover the costs by raising the retirement age of women, which had been 61 years. Here, too, a compromise was reached as the retirement ages for men and women were set at ages 65 and 64 respectively. These rules only apply when both spouses are retired and only for pensions obtained after 1997. Benefits are also provided for widows, widowers and surviving children. The benefits are increased every two years based on the Swiss system of indexing (Bonoli 2000, ch. 4).

Private initiative is highly regarded in Switzerland, while central government is viewed with some mistrust. Perhaps for these reasons, historically, there has been an aversion to providing a public social security pension that would provide such high benefits as to discourage employers, unions, and individuals from providing private plans that supplement the benefits provided by the public sector.

3.4.3. Mandating the Second Pillar

By a national referendum, Swiss voters codified an expanded role for the private sector relative to the public sector in the provision of retirement income. The primary goal of the mandated second pillar is "the continuation of an appropriate lifestyle," to be realized through a program design that calls for "coordinated income" between the public and the private pillars. The Swiss approach is distinctive in its use of employer-provided occupational pensions mandated by the state to fill the gap between the state pension and what is considered an appropriate lifestyle. However, the institutional design of the second pillar is set up to achieve both a high level of redistribution at the low and medium end of the distribution, and continuity for those at the upper end of income distribution through supplements to the mandatory pension.

Thus the second pillar actually consists of two quite different components: a compulsory and mandated element, limited to the coordinated earnings for low- and middle-income earners whose incomes fall broadly between 40% and 120% of average earnings, and; a voluntary element, whereby the employer has the discretion to supplement the pension benefits above the minimum required level for workers on higher incomes. All employers must affiliate with a registered pension institution to fulfill the legal benefit requirements within the minimum and maximum coordinated earning range; but, for the plans with benefits above these levels, that is, for these voluntary plans, the law imposes no minimum requirements. Instead, it leaves the operational elements of the plan to be determined solely by the employer. Hence, there is wide variation in the terms and benefit levels for pension plans for higher income workers and relatively uniform conditions for low- and middle-income workers. Firms can create a separate legal entity to administer these plans, and these top-hat pension benefit schemes can be affiliated with non-registered institutions. Moreover, the firm can also set up a plan that ignores the minimum and maximum levels and integrates the higher income earners into a single plan, where all workers can benefit from the integration of the public and private schemes, while at the same time ensuring that all legal requirements are met.

It seems plausible, since the mandatory system is so generous and redistributive to the bottom end of the distribution, that firms feel free to be even more generous at the upper end of the distribution, where tax concessions prevail at levels which are similar to those for the third pillar of personal pensions. The assets available to the second pillar are very high, with accumulated financial resources in 1997 at 128% of GDP, a figure that excludes the assets of insurance companies and mutual funds. Pension funds are separated by different types of classification: legal forms separate the public and private sector, and since the state is the guarantor in the public sector, partial rather than full funding is possible. Higher earnings groups are found in both sectors; a second classification is the requirement to register or not, and top-hat benefits are not required to register; third, plans are grouped by the type of plan they offer and their administrative structure is documented. Here the difference between defined benefit and defined contribution plans can be found, and also the practice of operating with one general scheme for all participating employers, or separate schemes for the mandated and voluntary programs (Queisser and Vittas 2000, p. 26). Clearly, a great deal of information is available, but there has been little analysis of the share of assets, the level of benefits, and the relatively unequal distribution of resources between the voluntary and mandatory programs. The discussion above is therefore speculative. Our focus is on the mandatory private pension system.

The 1985 law mandates compulsory coverage for all workers whose annual income exceeds the minimum pension level. This level is set annually and is coordinated with the maximum level of the public pension. In 1990, the value of the minimum pension was equal to 40% of the average gross earnings, and persons with income below that amount are not required to participate in the mandatory private pillar. Compulsory contributions by employers and employees are limited to the coordinated income range which is now set at three times the minimum pension level, that is, 40–120% of average earnings. Workers within this range have to join the pension plan provided by the employer. They have no choice—no option to opt out or to change plans.

We consider next the rationale for the exclusion of some workers from the compulsory private pension system and its implications for the universality of the mandated system. There are two main reasons for this exclusion. First, the public pension is able to achieve its goal of an appropriate lifestyle because the replacement rate for those with less than half of annual earnings is about 60% and, if necessary, there is a means-tested supplement to bring individuals up to this level. About 5% of the aged get such a supplement. Second, the rule protects low-paid workers from the financial burden of having to contribute to the private pillar, although they are free to participate, on a voluntary basis if they so choose.

The rules for non-participation in private pensions are somewhat broader than those set by minimum annual income level. Also excluded are the self-employed, the unemployed, the disabled and those working for less than three months. Queisser and Vittas (2000) estimate that in 1996 only three-quarters of the active labor market were subject to compulsory participation. They also estimate the proportion of the aged population that actually receive a private mandated pension. Separating coverage rates, i.e., those affiliated with a pension plan, from beneficiary rates, i.e., those who actually receive benefits is informative. Surprisingly, in the Swiss mandatory system, only 30% of all old people actually receive a private pension. Queisser and Vittas (2000, p. 31) conclude that "the second pillar still has a long way to go before it reaches universal coverage." Separating rules and actual practice helps to put mandating in pragmatic perspective.

The mandatory pension is designed to replace in combination with the public plan 60% of the nominal earnings of a single person and 80% for a couple, with the public plan providing a replacement level of 30–35% for the worker with average earnings. The mandatory plan is formally a fully funded, defined contribution plan, which pays benefits based on contributions and interest. However, in practice, it operates as a hybrid plan that combines features of both defined benefit and defined contribution plans; benefits are designed to pay a percentage of a person's last earnings, and although it is financed as a defined contribution plan, the actual plan also sets out to achieve targeted benefit levels. Switzerland has a minimum guaranteed rate of return on mandatory pension plans, and most employers establish notional individual accounts and pay the guaranteed rate of return on these accounts. Because they pay a fixed rate of return rather than the rate of return they actually receive on the pension fund investments, the plans are cash balance plans rather than defined contribution plans. By law the plan must also pay a nominal rate of return of 4% on its investment. In 2001, the total contribution rate is between 16% and 17% of the insured salary.

An interesting feature of the pension systems of these three countries is that only Australia uses defined contribution plans for a major part of the mandated pensions. The Netherlands uses defined benefit plans, and Switzerland predominantly uses cash balance plans, which comprise a hybrid plan that combines features of defined benefit and defined contribution plans. This has important implications for understanding how the voluntary component of the second pillar is financed.

What is the broader significance of our story? We believe that all mandatory pension systems are concerned about the financial risks workers bear. To reduce those risks below what they would be with a regular defined contribution plan, Switzerland has the minimum rate of return guarantee. As a reaction to that guarantee, employers have moved to cash balance plans. A cash balance plan is a notional account plan that stipulates an annual investment return that is credited to each individual account. Because Switzerland is able to provide low risk retirement benefits through a compulsory employer-based system, there is less need for benefits provided through government social security. Thus, the trends of spending for public pensions, despite the growing share of the aged in the population, have been relatively stable over time. The puzzle is how the argument applies to Australia, which uses defined contribution plans for its mandatory pensions, but has no rate of return guarantee or other mechanisms that we are aware of to limit the financial risk. In the Netherlands, the worker's financial risk is limited because the mandatory plans are defined benefit plans. Thus, the common association of mandating with defined contribution plans is misleading.

Another distinctive aspect of the Swiss system is that although the pension is mandated by the state, it is controlled and dominated by the employer who selects the type of pension insurance and the amount of the pension above the legal standard. Workers have no right to opt out and "have very little influence over the details of pension insurance" (Hepp 2000, p. 4). Pension plans have a board of trustees in which there is joint participation by both employers and employees, while unions play no role in this structure. But the employer alone sets the basic design of the pension system, within the legal constraints. It may be surprising therefore to find that while employers are only legally required to contribute a co-equal amount to finance the system, in practice they actually contribute 60% of the total contributions. The legal structure makes the system generously redistributive. The coordinated income from both the public and the private sectors replaces two-thirds of the last earnings of the average worker, an even higher amount for those below the average earnings and a substantially lower amount for those on above average earnings.

Switzerland has pension benefit insurance for plans that are part of its mandatory pension system. Switzerland guarantees a minimum rate of return of 4%, which is backed by employers first and then by a privately managed central guarantee fund. The central guarantee fund is supported by mandatory contributions from all pension funds of 0.04% of wages between a specified minimum and maximum wage level. The arrangement has worked without major problems partly because of the stability of the Swiss economy and partly because of the concern for reputation and goodwill among Swiss employers. Single employer funds usually make contributions necessary to make up any shortfall below the required 4% (they are sometimes pushed to do so by the supervisory authority), and funds managed by insurance companies and banks also contribute the amount needed to reach the minimum in order to safeguard their reputation. Even though the mandatory pension plans are organized on an employer basis, there is an element of national solidarity in their financing. The national social security fund contributes to pension funds with an unfavorable age structure.

The mandated role of the second pillar causes that pillar to play a role similar to the national social security program. This role may account for some of its unusual features. Workers vest immediately in both their own and their employer's contributions. Immediate vesting of employer contributions is unusual, with deferred vesting of employer contributions of five years or longer being common in most countries with significant private pension systems.

The mandatory pension funds generally provide portable benefits for job changers. This is the case because most plans are cash balance plans, where the worker has a readily determinable balance in his or her account, and that balance forms the basis for transferring assets to a new plan. Pension portability is a problem in most voluntary pension systems.

Perhaps because of its mandated role in the retirement income system, the second pillar benefit has been designed so that it has relatively low risk. A law in 1958, predating mandating, required that an employer establishing a pension plan must do so through a separate legal entity, such as a foundation or a cooperative society. This was intended to protect the fund in the case of bankruptcy of the sponsoring company. Pension funds are legally required to meet their obligations at all times. This requirement discourages investments in securities with volatile prices. There is also a Guarantee Fund, which provides subsidies to individual funds with an unfavorable age structure, but more importantly it provides funds to compensate for insolvency of pension funds. Insolvency cases have increased rapidly and, as a result, the contribution that each fund must make for this insurance has risen. In 1998, each fund was required to contribute 0.1% of the coordinated income to the Guarantee Fund.

The accumulated retirement capital is required by law to be converted into an annuity at the time of retirement. The value of the annuity is set at 7.2% of the fund's accrued assets at retirement, that rate being set by law. This conversion rate has been in effect for many years, not varying with fluctuations in interest rates, nor with the increase in life expectancy, as would privately provided annuities in the absence of such a mandate. The replacement rate for a person with a full career of contribution is about 35%, which together with public pension leads to a replacement rate of about 70%. Note, however, that old-age pension benefits are not required to make post-retirement adjustments for inflation, but employers are free to do so at their own discretion.

3.4.4. Interactions in the Swiss System

The late introduction of the first pillar social security plan in Switzerland was partly due to the early development and increasing importance of voluntary occupational pension plans, which reduced the political pressure for a national social security plan.

One way in which the private plan interacts with the public one, and with the rest of the society as well, is through the creation of what has come to be known as pension fund capitalism. The assets of these pension schemes, if we include life insurance and collective plans, amount to over 200% of GDP. Twenty-one percent of the funds are invested in equities, and 19% in foreign investment. These huge amounts being drawn from retirement resources reshape the nature of modern capital markets.

Consider next a more specific example of how the public policy of making occupational pensions mandatory affected the private pension system. Mandating was uniformly imposed throughout the private sector and included all firms irrespective of their size. The result was to create a problem in the establishment of many small pension funds that were not economically viable. In 1996 almost 60% of all funds had fewer than 100 members, but they accounted for only 3% of all affiliates. Queisser and Vittas (2000, p. 25) believe that "The large number of small institutions makes supervision and transparency difficult without offering any real benefits to workers. It is one of the major weaknesses of employer-based schemes, that is made worse by the captivity of workers, who do not have the right to switch funds." Measures have been taken to mitigate these problems by requiring that the small funds be covered by insured funds operated by collective or pooled foundations.

The public system affects the private one in more fundamental ways, which we can appreciate with a quick review of the basic pattern of integration between the first and second pillars. The public social security benefit (AVS) and the mandatory pension benefit are integrated in terms of benefits for low-wage workers through the relatively high earnings minimum of about 40% of average earnings, below which workers are not required to be covered by mandatory pension plans. In addition, there is a ceiling of about 120% of average earnings, above which contributions to mandatory pensions are not required. Thus, the basic public social security program is designed as a system based on earnings-related benefits and contributions, with a small means-tested supplement received by 5% of aged beneficiaries (but 11% of age pensioners and the disabled). Policy is directed at improving the benefits of low-wage earners so that means-tested supplements would be less important. The financing is from these contributions, plus a 20% contribution from the central government. This is a hybrid form, but it is clearly not a flat-rate benefit system financed from general taxes. In 1995 such a proposal was debated and dropped because it would have meant a reduction of benefits to about half of the number of current recipients if the flat-rate benefit line was pegged at the level of the maximum benefit (Bonoli 2000, ch. 4, footnote 9).

Although benefits are earnings-related, low-income earners get a higher percentage of their benefits replaced than high-income earners. This feature is similar to the Social Security program in the United States. What is distinctive in the Swiss system is that the basic public pillar is not supplemented by a public earnings-related scheme to achieve adequate pension replacement levels of about 60% of past earnings. This was the Swedish approach to dealing with the low benefits levels of its Folk pension. The Swiss approach is mandating private occupational pensions to bring the public pension to an adequate replacement level. It is this interaction with the public and private programs that captures the essence of a mandated system. However, the mandated system does not apply to the whole distribution of earnings, but is limited to a small earnings range, which is three times the level of the minimum benefit. Only 40% to 120% of average earnings fall in the range of income that is coordinated between the public and private schemes. The mandatory pension benefit is designed to provide supplementary benefits to middle- and upper-income workers. The ceiling provides room for firms to provide supplementary occupational pensions and also for individual choice in enabling upper-income workers to participate in the third pillar of personal pensions.

Because together the first and second pillars provide an adequate level of retirement income for most workers, the level of benefits in the two systems interact in an offsetting manner, with the balance between the two reflecting the views of the majority of Swiss voters. In May 1991 the Social Democratic Party and the Association of Trade Unions submitted a legislative initiative to raise the pension levels in the first pillar and reduce contribution obligations in the second pillar. This initiative was rejected in a 1995 national referendum.

The aging of the Swiss population clearly has a financial impact on both the first and second pillars, but it puts a special burden on the public PAYGO program. The 1970s witnessed a substantial increase in the proportion of old-age recipients in the basic public AVS program. As a result the public program, which had a positive financial balance in early 1970, began to run a negative balance in the late 1990s (Bonoli 2000, p. 133, table 4.1). This could affect the interaction between the public and private pillars. The design of the Swiss system is based on the logic that the public provides for the basic needs and the private mandated system acts to supplement this level to a consensually defined appropriate retirement income. In the future, there could be a shift towards even greater reliance on the funded mandatory second pillar if there is growing pressure to reduce the financial deficit in the AVS program. The main point is that there is a sensitive balance in the public-private interaction. In the Netherlands we saw a quite sharp shift in the relative size of the two pillars when, in the 1970s, there was considerable political pressure to reduce the level of the budgetary deficit. We do not know if this tension will get worked out in the Swiss story (Note that only 18% of the mandated occupational pension covers public sector workers, this proportion is much lower than in the Netherlands or Australia. Thus a public-private dichotomy is a useful, if only a rough approximation of the Swiss interaction).

4. Comparison of the Three Mandated Systems

What kind of public system gives rise to the demand for mandated employer-based occupational pensions? Solidarity is a governing principle that is animated by a unified view of universal access for all residents. The three examples make clear that a public approach based on solidarity can be designed in strikingly different ways. The design variations make clear that principles of equivalence, in the sense of earnings-related contributions and benefits, are nested in the ideal of solidarity. But within this variety of schemes, all these basic public schemes recognize that an adequate retirement income requires an employer-based private program to complement the public program. Adequacy requires complementarity and interdependence with these mandated occupational pensions. We first review the design variations that emerged in the public programs that made the commitment to mandating.

Since its inception in 1909, Australia's public Age Pension has been means tested, providing a flat-rate benefit and financed from general taxation rather than contributions. It is also the oldest program among the three, since the Netherlands's basic program was introduced in 1957, and Switzerland's in 1948. But Australia has a unique interpretation of means tested—solidarity is interpreted more as excluding the top end of the income distribution rather than concentrating at the bottom, and as a result, 80% of the aged population receive a means-tested Age Pension from the government. No other country adopted this design. For a short time, the Dutch explored a design financed from general taxation, but then switched to a system in which all residents were expected to make contributions for their retirement over a 50-year period. But the benefits they receive are flat rate, equal to two-thirds of the minimum wage. The Swiss followed a model of expecting all residents to contribute, including those who are not employed, but then imposed a strongly redistributive design. The contributions are levied on total income without a ceiling for all income-earning contributors and a benefit replacement rate of 100% for a worker earning 20% of the average, 52% for those earning half the average, and 36% for a worker earning at the average, with replacement rates falling for workers above the average (See Table 1 for a preliminary attempt to highlight some of the important

Table 1 Comparison of the public basic, minimum pension in Australia, the Netherlands and Switzerland

Design Features	Australia	Netherlands	Switzerland
Financing	General taxation	Contributions 17.9% of personal earning up to an annual ceiling of 45,000 guilders	Contributions 8.4%; and general taxes 20% of total income**
Benefits: replacement rates	25% of male gross earnings	Flat rate: half of net minimum wage*	35% of average earning as a percentage of the minimum benefit
Eligibility	Means test: income and assets	50 years of residence	35 years of contribution
Assets	68.7% of GDP	111% of GDP	117% of GDP
Coverage	82–89% of employees	91% of employees	74% of the labor force

* Basic pension provides 45% of the overall pension in the 1990's
** Employers and employees each contribute half, and non-employed contribute a percent of income

differences in the public pension domain in the three countries). We did not expect to find such a surprising variation in the design of the basic public pillar.

Perhaps it is not surprising, since there are three different types of public regimes, that there might be three quite different patterns of linking the public and private spheres. And this is what we found. In Australia, the pattern of interaction can perhaps best be described as one of indecision. There is evidence of two plausible directions being pursued: substitution and supplementation. The public tier is both income and asset conditioned. When mandating was introduced it was a vehicle for deferring wages and the issue of the link to the public age pension program and the private occupational pension systems was not the primary concern. In fact, different governments held different views on the linkage. There is no doubt that some experts expected that as mandatory superannuation plans matured, the value of the pension benefits would increase over time. They predict that the rates of return from a fully funded system will prove to be so attractive that the need for a complementary public pillar will be only very marginal. With larger pension income, fewer elderly would be eligible for any benefits from the public program. Thus the public unfunded tier might not have any aging problem at all, but would show declining expenditures over time, as the 80% of the population receiving an Age Pension would slowly acquire an adequate employer-based private pension and loose their entitlement to the public benefit. Following this logic the underlying model of interaction is one of substitution.

But there is another supplementary model of the interaction between the public minimum income support system and the mandatory private income sources, which treats as politically problematic the logic of a system that income tests the public pillar against annuities received from the private sphere. "Will people who save all their working lives and get a pension that is not much more than the minimum guarantee not see this as a hefty implicit tax of their pension savings?" (Whiteford, 2000c) Moreover, current tax policies appear to be driving pension policy. The government was committed to providing a tax rebate to low- and median-income families when they imposed a value-added tax on most items of consumption. So, in July 2000, the government reduced the pension withdrawal rate from 50% to 40% to compensate part-rate pensioners for the consumption tax. Thus the tax policy appears to be antagonistic to the goal of substituting the private income stream from the public guarantee. The lowering of the so called "tapered means test" to 40% had the effect of increasing the proportion of aged receiving the public age pension. If this direction of policy turns out to be dominant in the future, there will continue to be a large subsidization of income for the bottom three-quarters of the population. The implicit model of interaction is that of diversification and a pattern of complementarities, with the mandated private pension augmenting and supplementing the minimum public income guarantee.

The Dutch model of interaction as harmonization was politically clarified from the very inception of the public program. When the Emergency Law was passed in 1949 it called for a means-tested non-contributory program with low flat-rate benefits to be financed from general taxation. But in the same year, legislation known as "The Compulsory Participation in a Sectoral Pension Fund" was also passed that called for an integrated public and private scheme. The Emergency Law was criticized as creating a disincentive for participation in occupational pensions. There was much political debate centered on the competing principles of self-reliance which an integrated system was premised on and the principle of solidarity based on need on which the Emergency Law was based. This is of course the tension reviewed above, about how to integrate the mandatory occupational pension and means-tested Age Pension introduced in the 1992 Australian pension reform. But in the 1956 legislation, implemented in 1957, which created the old age pension (AOW), the principles underlying the Emergency Law were rejected and the program became contributory, and non-means-tested, relying upon general public financing only under special economic conditions. Thus, the principle that the public and the mandatory private programs were to be treated as two parts of a unified defined benefit system designed to replace 70% of past earnings was accepted. The public provided a minimum guarantee which provided a floor of income protection in retirement with the funded private system supplementing the base amount. In the early years the public benefit system expanded and contributed a larger share of the total. Then, in the 1990s, constraints in the public budget reversed the pattern as the share of private pensions became more important in the income package of the aged after retirement. But rules were created which prevented private pension funds from capitalizing on the expansion of benefits in the public sector. Pension funds that were integrated with the public AOW program would have to calculate the integrated pension based on the public pension levels in force before the public program expanded.

Since the public retirement age starts at age 65, the pattern of public and private supplementation only begins at the age of entitlement to a public pension. When people retire earlier there is also public and private mix, but it is the public disability rather than the age pension that then comes into play. The story of the public-private interplay with these programs turned out to be quite different and less successful than the system that evolved with age pensions. The public-private interaction is based on a subtle combination of institutional collective decision-making procedures. The most interesting and important of these in the area of pensions are the following: conventions, which are not legally binding but widely accepted norms, such as the 70% replacement rule; covenants, by which the state asks the social partners to find solutions to issues which it regards as problematic with the implicit threat that if a satisfactory solution cannot be found the state might coerce action through legislation (Social and Economic Council, 2000); and coercion or mandating, by which the state can extend the contractual agreements that social partners agree upon to all employees and firms in a sector that did not participate in creating the collective agreement.

The Swiss model follows the same logic as that of the Dutch model, namely, that of a unified public and private system which supplement each other to reach an appropriate income replacement level of about 60% to 70% of past earnings. The most important difference between the programs in the two countries is that the Swiss model's compulsory contributions are levied within a limited "coordinated income" of covered workers. The design of private pensions is not determined by the social partners as in Holland; instead, the decisions are taken by the employer alone without consultation with employees. The Swiss model has both mandatory and voluntary aspects, in the sense that the state requires that firms create a private supplementary pension, but allows the firm decision-making power. Collective agreements do not play any role in the process; it is a voluntary decision of the employers within the constraints set by the state. This range is set annually and is defined as the income between the maximum public pension and three times that level. In practice the coordinated income range is centered between 40% and 120% of average earnings. This constraint leads to important differences in the overall design of the interaction. So the question of what happens above and below this range gives the Swiss model a very distinctive character. Those below 40% of average earnings will get a replacement income of almost 60% of their past income, hence it is not necessary for them to participate and contribute to mandatory occupational pensions scheme. As for those with income above 120% of average earnings, supplementary voluntary occupational pensions are very common and these plans may, if they choose, impose no upper limit on covered income and may also dispense with the lower threshold as well. "The former would enable high-income workers to attain a reasonable replacement rate from both pillars latter would allow low-income workers to participate in the second pillar" (Queisser and Vittas 2000, p. 33).

This is a first attempt to conceptualize the private public interplay in three countries. There is no shortage of histories of the public sector and there is an equally rich history of the private pension system, but what has been neglected is an analysis of the interaction between these spheres, or the public-private mix. We are planning to publish a book on this subject and this paper is our first exploration of this theme.

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