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Why is the Employment Rate of Older Swiss so High? An Analysis of the Social Security System

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1. Introduction

Population ageing, better health of older persons, and lower birth rates will, in the near future, have a significant effect on the workings of labour markets in virtually all industrialized countries. There are three main reasons for this observation. First, these developments will inevitably change the age composition of the labour supply: the proportion of older workers in the labour market will increase. A second implication of the changing demographic structure is the negative effect that this development has on (primarily unfunded) public pension systems. Most pension funds in many industrialized countries are already confronted with severe financial difficulties, and innovative solutions for assuring future pensions are called for. Finally, the ongoing demographic change will, with the current retirement age, significantly reduce the labour supply. Furthermore, this reduction in labour supply cannot be compensated for by capital accumulation (e.g. Börsch-Supan, 2001).

The changing composition of the labour force, the financial problems of unfunded pension systems, and the reduction of the total labour supply will inevitably have two related consequences. The first is that there will be a certain amount of pressure to increase the official retirement age. Thus, for Switzerland, the OECD recommends that the official retirement age be gradually increased to 67 years of age for both men and women. The second consequence is that training of older workers, i.e. the upgrading of their job skills and the related increase in supply of vocational and on-the-job training, will gain importance (see OECD, 1998). In fact, and due to the changing composition of the labour force, this latter point is likely to gain in importance irrespective of whether or not the official retirement age is increased. According to the OECD, the training of adult workers will play an important role in assuring strong economic growth in the future.

Despite the need to increase the employment rate of older individuals, public policy in Switzerland (as in most European countries) has concentrated instead on propagating early retirement. There are a number of reasons for this emphasis on early retirement. First, overemployment in Switzerland is, in comparison to other European countries, remarkably

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high, including among the older population (Sousa-Poza and Henneberger, 2002a). This could be a result of the relatively long working hours or the high GDP *per capita* in Switzerland. Whatever the reason, such overemployment could be enhancing the trend towards early retirement. Second, unemployment rates increased quite dramatically in the 1990s, which possibly gave rise to increased (partially involuntary) early retirement. A third potential reason is that actual retirement ages are high in comparison to other industrialized countries. Some politicians have argued that aligning the actual retirement age with that of neighbouring countries should be feasible.

As opposed to other European countries, the trend to early retirement in Switzerland has only really come about in the past decade. However, the results are quite impressive: whereas in 1991 about 20 per cent of all men aged between 62 and 64 and all women aged between 59 and 61 took early retirement, this value had increased to about 30 per cent by the year 2000. Thus, at the moment, almost every third worker takes into early retirement. Nevertheless, Switzerland still has a high employment rate of older workers: whereas over 70 per cent of all individuals between the ages of 55 and 65 are employed in Switzerland, the corresponding figure for Germany is a mere 38 per cent. The values for the other countries bordering Switzerland are even lower (Figure 1).

It is generally accepted that the institutional framework plays a vital role in determining the employment rate of older workers. More specifically, the social security systems such as, for example, pension schemes, unemployment insurance, and invalidity insurance have in many countries evolved into institutions that strongly influence the retirement decision. This is primarily done by providing incentives for early retirement. Although other factors such as customs and economic conditions also influence the retirement decision, one can fairly say

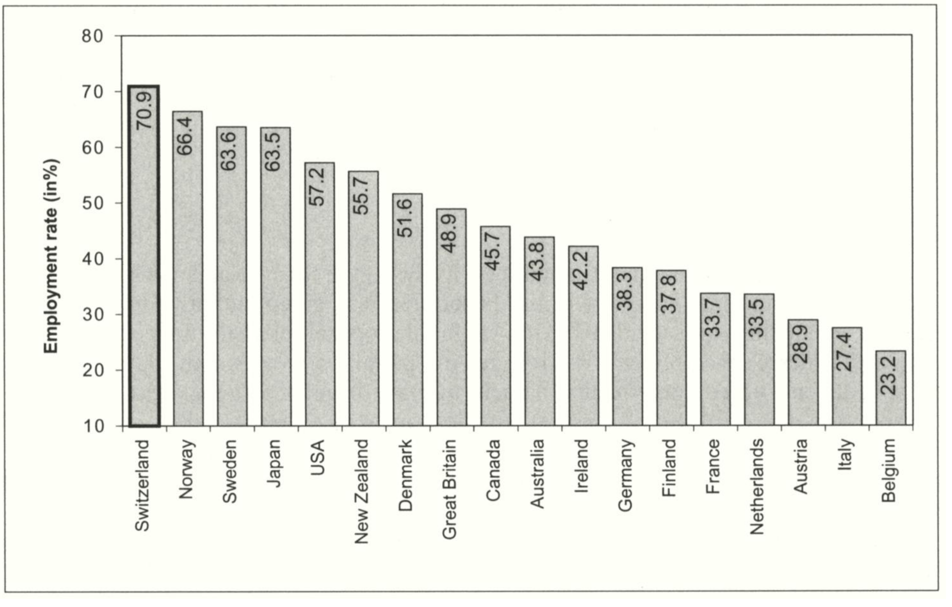

Figure 1: Employment rate of individuals aged 55–64: average for the years 1996–2000
Source: OECD, *Employment Outlook*, several years.

that the trend to early retirement in many European countries has primarily resulted from changes in the institutional framework.

The aim of this paper is to try to explain the high employment rate of older workers in Switzerland by taking a detailed look at the institutions that primarily (or potentially) could influence the retirement decision. The paper is structured as follows. Section 2 provides a general overview of the Swiss social security system. In section 3, the main systems that potentially could influence the retirement decision are discussed. These are old age insurance, the occupational benefit plan, invalidity insurance, and unemployment insurance. For each of these, the services, the funding, and the age-related aspects are discussed. Although the design of the Swiss social security system plays a decisive role in assuring the currently high employment rate of older workers, other reasons also exist. These are discussed in section 4. Section 5 concludes.

2. The social security system in Switzerland

2.1 *Overview*

In the past century, Switzerland has developed a comprehensive social security system. Ten social insurances provide financial aid to individuals who are not able to cover their basic living expenses due to a lack of labour income. Four of the ten provide for old age and invalidity (old age insurance, occupational benefit plan, invalidity insurance, and supplementary benefits plan), while three cover the risks of sickness and accidents (sickness insurance, accident insurance, and military insurance). The unemployment insurance and the income compensation plan compensate for a loss of income due to unemployment or military service, respectively. Finally, one federal social insurance provides family allowances.[1] Table 1 lists the ten types of social insurance in Switzerland indicating their year of introduction and their expenditures in 2001.

Total expenditure on all types of insurance amounted to approximately SFr 103 billion in 2001, which corresponds to approximately 25 per cent of GDP. Old age insurance and the occupational benefit plan, both forming part of the Swiss old age provision system, accounted for 60 per cent of the total social security expenses.

2.2 *Development*

The development of a federal social security system in Switzerland dates back to 1890, when in a constitutional amendment the Federation was given authority to introduce an insurance for sickness and accidents. After an initial proposal for an insurance covering both the risks of illnesses and accidents was rejected in a popular referendum in 1900, the proposal was split up into three components, namely military insurance (a sickness and accident insurance for men in military service), sickness insurance, and accident insurance. The military insurance was implemented in 1902. The sickness insurance and the accident insurance, both not yet compulsory, as had been initially planned, only followed in 1914 and 1918, respectively.

The great economic depression of the 1920s hindered further development of the Swiss social security system between the two world wars. During the two decades following World

[1] Due to the fact that these allowances are regulated at the cantonal level, diversity among cantons is large. As the implications of this insurance for the employment of older workers are minor, it will not be discussed in this paper.

Table 1:
Types of social insurance in Switzerland

Social insurance	Year of introduction	Annual expenses in million SFr	% of total expenditures
Old age insurance	1948	29,081	28%
Occupational benefit plan	1985	32,900	32%
Invalidity insurance	1960	9,465	9%
Supplementary benefits to old age and invalidity insurances	1966	2,351	2%
Unemployment insurance	1952	3,415	3%
Sickness insurance	1914	14,204	14%
Accident insurance	1918	6,523	6%
Military insurance	1902	244	0%
Income compensation plan for military service	1953	694	1%
Family allowances	1953	4,359*	4%
Total		103,236	100%

Source: Federal Social Insurance Office (2002a); Bollier (1997).
* Including family allowances paid directly by the cantons.

War II, however, significant progress in the development of a social state was achieved. As Tschudi (1989) points out, the adverse conditions of the war led to increased solidarity among the population and the need for additional social insurances had become apparent. At the same time, unprecedented economic growth facilitated the funding of new insurances. Among the milestones of this period was the introduction of the compulsory old age insurance in 1948, the unemployment insurance in 1952, and the invalidity insurance in 1960.

In 1974, a constitutional amendment laid the basis for a three-pillar system of old age provision, a Swiss development that has received some acclaim among international organizations.[2] It foresees a division of old age provision between public, occupational, and private insurance. The federal old age insurance, which forms the first pillar, was established in 1948. Its objective is to cover the basic living expenses of all retired persons in Switzerland. The second pillar constitutes the occupational benefit plans. Many companies had already established such plans prior to 1974 in order to guarantee their employees an old age pension income in excess of the small pensions provided by the federal insurance. In a law passed in 1985, the Federation set guidelines for occupational benefit plans and obliged employers to insure their employees in such a scheme. The third pillar covers individual savings and life insurances. As opposed to the first and second pillars, the third pillar is not compulsory. Savings in this pillar profit from attractive tax exemptions.[3]

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[2] The historical development of the Swiss multi-pillar system is discussed in Helbling (2000) and Hepp (1990).
[3] For an elaborate discussion of the Swiss three-pillar concept see Sousa-Poza and van Dam (2001) and Queisser and Vittas (2000).

3. Social insurances influencing the employment rate of older Swiss

In the context of this study, we are primarily interested in those social insurances whose institutional design might encourage or discourage the employment of older people. We will therefore focus on old age insurance (section 3.1), occupational benefit plans (section 3.2), invalidity insurance (section 3.3), and unemployment insurance (section 3.4).

We do not ascribe to the remaining insurances any significant influence on the employment of older workers. The sickness and accident insurances only cover the expenses for medical treatment, but they do not substitute labour income as a means of financing the basic costs of living. Military insurance and the income compensation plan for military service have a limited importance as they are restricted to military personnel. Finally, family allowances are paid to parents with young children, thus not affecting older people.

Figure 2 shows the social insurances that will be discussed in more detail in the subsequent sections. The old age insurance and the occupational benefit plan form part of the three-pillar system of old age provision, as presented in section 2.2. They define the retirement age as that after which a person can receive an old age pension. Therefore, they have a crucial influence on the employment of older individuals. Before reaching retirement age, an invalidity pension or unemployment benefits can be used as a substitute for labour income. We will therefore also assess the institutional design of the invalidity insurance and the unemployment insurance.

3.1 Old age insurance

The compulsory old age insurance aims at covering the basic living expenses of all retired people in Switzerland.

3.1.1 Benefits

Old age insurance is compulsory for every person in Switzerland and optional for Swiss citizens living abroad. The insurance entitles them to receive an old age pension after reaching the legal retirement age, which is currently 63 years for women and 65 years for men.

Old age insurance law defines a minimum old age pension. It is worthwhile pointing out that, since 1975, the minimum pension has only been adjusted to inflation, i.e. no substantial

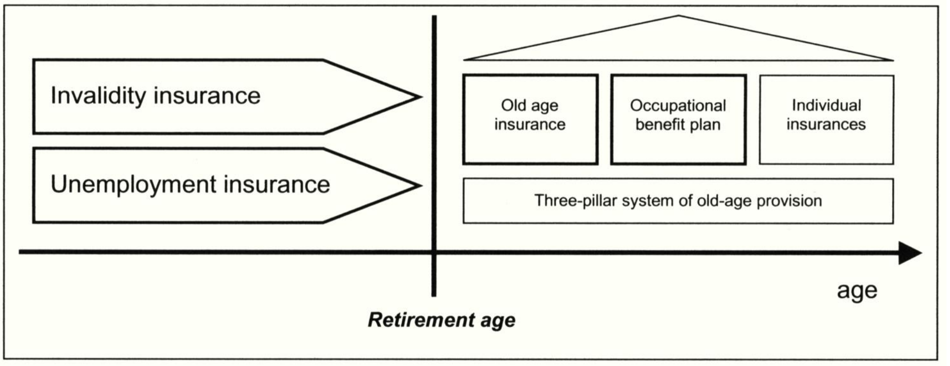

Figure 2: Social insurances possibly influencing the employment of older workers

increases have taken place. As of 2003, the Federal Social Insurance Office (2002b) has set the annual minimum pension to SFr 12,660, which, by Swiss standards, is very low. Especially for older people living alone, the minimum pension does not cover basic living expenses. These costs have been calculated to be SFr 16,880 by the Federal Social Insurance Office (2002c). In order to fulfil the constitutional assignment (namely ensuring that retirees have a pension that covers basic needs), the difference between the old age insurance pension and basic living expenses gets covered by an additional social insurance, the supplementary benefits plan.

The level of an individual pension is defined by the average annual work income of a person between the age of 21 and retirement age. For individuals who, due to child-care responsibilities or due to care of handicapped relatives, were non-employed for a certain period of time, every year spent on these activities is counted with a pro-forma income of three times the minimum pension. In practice, this applies nearly exclusively to women. If the average annual income during a person's work life was larger than SFr 12,660, pensions are above the minimum level. There is, however, a cap limiting the maximum pension to twice the amount of the minimum pension, i.e. SFr 25,320. This maximum pension is being paid to people who had an average income of at least six times the minimum pension (SFr 75,960 or more). Thus, the Swiss public pension scheme is highly redistributive. This redistributive nature assures that the funding of the public (unfunded) system is not in as precarious a situation as in other countries.

While old age pensions are clearly the most important benefit of this insurance, it also provides pensions to widows and widowers, and to orphans. Furthermore, there are special payments to invalid older people.

3.1.2 Funding

Old age insurance is mainly funded by insured people and their employers in a pay-as-you-go (unfunded) system. Both employer and employee contribute 4.2 per cent of the employee's wage, i.e. 8.4 per cent in total. Self-employed workers pay between 4.2 per cent and 7.8 per cent of their income depending on its level, while the contributions for unemployed persons are calculated in accordance to their financial wealth. Federal and cantonal contributions amount to about one-quarter of the old age insurance's total income. These contributions come mostly from taxes on alcohol and tobacco.

A comparison of the funding and the benefits of the first pillar reveals the redistributive nature of the system (see Figure 3). While there is no cap on old age insurance contributions, the benefits are limited to relatively modest pension payments.

As in other countries, the funding of the first pillar is strongly affected by the demographic changes taking place in most industrialized countries. The Federal Social Insurance Office (2002d) predicts that the dependency ratio will have declined from 6.5 in 1948 to 4.0 in 2000, and will decrease to 2.5 in 2030.[4]

3.1.3 Age-related aspects

With respect to the employment of older people, the legal retirement age, i.e. the age after which old age pensions are provided, is of crucial importance. When old age insurance was introduced in 1948, this retirement age was set at 65 years for both sexes. Men's

[4] The dependency ratio is defined as persons aged between 20 and 63 divided by the number of individuals aged 64 or older.

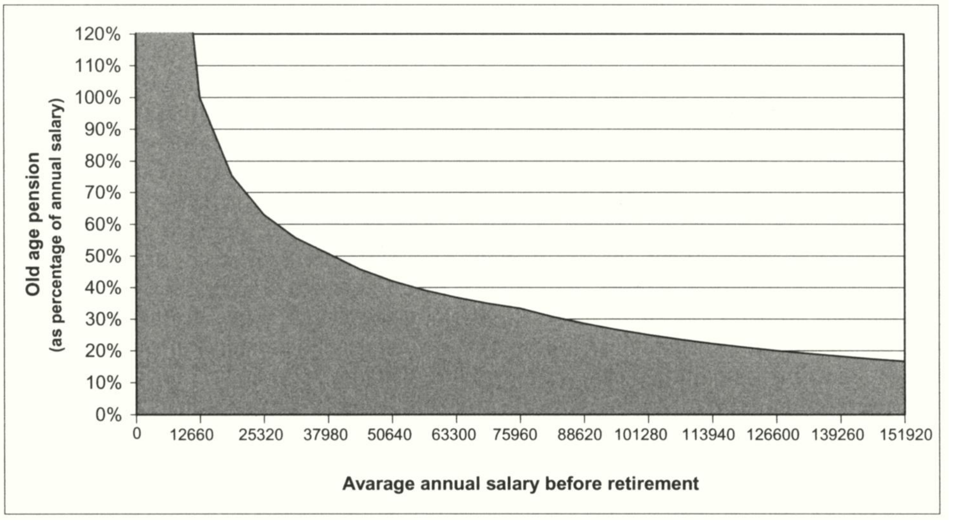

Figure 3: Old age pensions in relation to annual salary before retirement

retirement age has remained unchanged since. Women's retirement age, however, was lowered to 63 in 1956, and to 62 in 1964. With the aims of reducing the cost of insurance and of treating men and women more equally, the retirement age for women was once again raised in the last revision of the old age insurance law in 1997 where it was set at 63 years (as of 2001) and will be raised to 64 years by 2005. The Federal government (2000a) even wants to go one step further and bring the retirement age for women back to 65 years by 2009. This proposed measure will, needless to say, have a positive effect on the employment of older women.[5]

Besides raising the retirement age for women, a revision of old age insurance law in 1997 (the tenth revision) also introduced a flexibilization of the retirement age for both men and women. Old age insurance pensions can now be received up to two years before reaching the legal retirement age. However, the pension payments in this case will be reduced in an actuarial neutral manner. Since 1969, older people have also been able to choose to postpone their retirement by one to five years (i.e. up to the age of 70) and receive accordingly increased pensions thereafter.

The early and the deferred claim of old age pensions have been used with different intensity. The statistics provided by the Federal Social Insurance Office (2002d) for the year 2002 show that, of all older people eligible for early or deferred retirement, some 25 per cent of women and 8 per cent of men chose to receive old age pensions one year prior to the legal retirement age (see also Widmer and Sousa-Poza, 2003). At the same time, only 0.5 per cent of women and 1 per cent of men opted for a deferment of their pensions.

The Federal Government (2000a) has even proposed a further flexibilization in its plan for the 11th revision of the law, which is currently being debated in parliament. It would allow

[5] This change is part of the 11th revision of the public pension scheme currently being debated in parliament. Although there has been some criticism of increasing women's retirement age, observers are quite confident that this increase will be approved.

individuals to draw old age pensions up to three years before reaching the legal retirement age. One of the most attractive suggestions of the current revision is that half a pension can be claimed if employment does not exceed a certain level. This can be done from the age of 59 up to the age of 70. Thus, should the 11th revision be passed as planned, then part-time employment in old age will be greatly facilitated.

As the Federal Government correctly states, the reduction of pension payments in case of early retirement is more painful for people having lower incomes, thus possibly preventing them from using that option. It is therefore proposed to financially facilitate early retirement for people with lower incomes by applying lower reduction factors in the calculation of their pensions. This is a problematic measure, as it creates a financial incentive for early retirement. The early retirement option will be financially more attractive than a retirement at the legal retirement age. At the same time, this costly flexibilization would almost negate the financial gain achieved by raising the retirement age for women to 65 years, as shown by the Federal government (2000a). Considering the fact that, even without financial incentives, a strong trend toward early retirement emerged in the past decade (Figure 4), such measures should, in general, be avoided.

Another change proposed by the Federal Government (2000a) that may (albeit marginally) discourage the employment of older individuals is the abolition of the preferred treatment of people working past the legal retirement age with regard to old age insurance contributions. Currently, these workers and their employers are both exempted from paying old age insurance contributions on the first SFr 18,990 of the worker's annual income. The main advantage of the current exemption is that it does not impose additional costs on the employment of part-time workers: an important issue in trying to stimulate the demand for older workers. Furthermore, pensions are only calculated based on the income prior to the legal retirement age, deferment does not lead to a higher pension (i.e. above the actuarial-neutral increase due to the deferment). Thus, one could at least question the fairness of introducing such contributions for workers who have passed the legal retirement age.

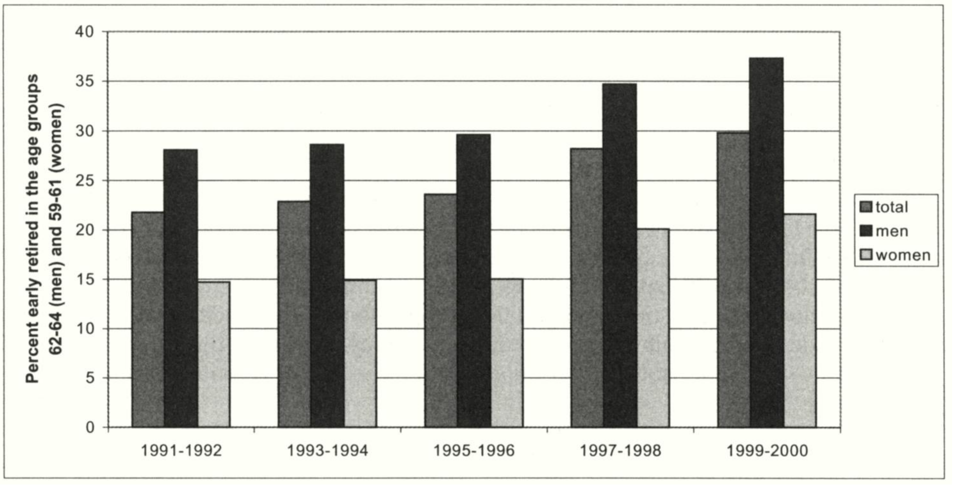

Figure 4: Trend to early retirement in the 1990s
Source: Swiss Federal Statistical Office (2001).

In conclusion, we can state that, at present, old age insurance does, in general, encourage the employment of older people until the legal retirement age. It is also important to note that the actual retirement age in Switzerland is very close to the official retirement age. This contrasts sharply with many other countries (such as Germany) where strong deviations between these two ages exist (see OECD, 2003).

According to a survey of 30 countries in the OECD (2003), only Iceland and Norway have higher official retirement ages for men than Switzerland. However, 19 countries have the same retirement age for men as Switzerland, i.e. 65 years. What is quite remarkable is that, in Switzerland, the effective and the official retirement ages are virtually identical, and, with regard to the effective retirement age, Switzerland ranks sixth among 30 countries (behind Iceland, Japan, Mexico, Portugal and South Korea). This is an indication that, at least in an international comparison, incentives for early retirement have been relatively low. As shown above, however, there are strong indications that this situation may change in the near future. The government's plan for a revision of old age insurance law envisages a further flexibilization of the retirement age and a way to facilitate access to early retirement.

3.2 Occupational benefit plan

The occupational benefit plan law aims at ensuring that employees receive an old age income beyond the one guaranteed by the old age insurance in order to assure the *accustomed* standard of living in old age. This is the Swiss second pillar.

When the law was introduced in 1985, a large variety of schemes were already in place. These had been set up on a voluntary basis by private and public employers. Taking this situation into consideration, the law did not enforce a unification of the existing occupational benefit plans, but only defined minimum standards. Thus, occupational benefit plans are still managed in a very decentralized fashion and they enjoy a large autonomy with regard to their institutional design.

3.2.1 Benefits

The law demands that employers insure their employees aged 25 to 65 in an occupational benefit plan if their annual income exceeds the so-called co-ordination deduction of SFr 25,320. For self-employed workers, membership in an occupational benefit plan is optional. Widmer (1998) criticises the requirement of a minimum salary in order to enter an occupational benefit plan. Although full-time workers in Switzerland normally have an annual income larger than SFr 25,320, many part-time workers might not reach that threshold. Most of these individuals are paid on an hourly basis (see also Flückiger and Ramirez, 2000). Sousa-Poza (2003) shows that currently about 35 per cent of all employed women earn less than the co-ordination deduction (Table 2). This proportion has remained constant throughout the past decade. Thus, a substantial fraction of employed women does not benefit from coverage in the second pillar. Men's coverage in the second pillar is estimated at well over 80 per cent.

According to Tschudi (1989), however, employees with a low income are already sufficiently provided for by old age insurance. This point is at least debatable, as the first pillar is by no means very generous. But ultimately it is primarily an equity issue. Nevertheless, the Federal Government (2000b) has opted against a change of the current regulation. The reason given by the Federal Government is also not very convincing. It stresses that a reduction of the

Table 2:
Earnings above the co-ordination deduction

	1992		1996		2002	
	no. of individuals (aged 20–60)	**% of employed individuals (aged 20–60)**	**no. of individuals (aged 20–60)**	**% of employed individuals (aged 20–60)**	**no. of individuals (aged 20–60)**	**% of employed individuals (aged 20–60)**
All	2,083,000	75%	2,126,000	77%	2,213,000	77%
Men	1,323,000	84%	1,326,000	88%	1,328,000	87%
Women	760,000	63%	800,000	65%	885,000	65%

Note: Self-employed individuals are excluded.
Source: Sousa-Poza (2003).

co-ordination deduction would imply too large an administrative burden for small and medium-sized enterprises, as they would have to additionally insure up to 100,000 employees.

After retirement, insured individuals are entitled to draw a pension that depends on their annual salary prior to retirement. More specifically, occupational benefit plans insure the part of the annual salary between SFr 25,320 and SFr 75,960. This is the so-called "co-ordination earnings". The calculation of the annual pension, which is based on the co-ordination earnings, is relatively complicated (see section 3.2.2). For an employee who had constant co-ordination earnings over the whole employment period between the age of 25 and 65, the pension would amount to roughly 63 per cent of the co-ordination earnings. The maximum annual pension would thus be about SFr 32,000.

As Figure 3 shows, the combination of occupational benefit-plan pensions with old age insurance pensions results in a total old age pension that ranges between SFr 12,660 (the minimal old age insurance pension) and roughly SFr 57,500. The first and second pillars of the Swiss system for old age provision thus guarantee a pension that equals approximately 75 per cent of the salary before retirement.

It has to be mentioned, however, that membership in an occupational benefit plan became mandatory with the introduction of the Occupational Benefit Plan Law in 1985. Individuals who started contributing in 1985 but retire before 2025 will only receive reduced pensions. In order to receive a full pension, 40 years of contributions are generally required. Thus, an employee who retires in 2003 will only receive about 45 per cent of the full occupational benefit plan pension shown in Figure 5.

It should be stressed that the above figures for the occupational benefit plan represent only the legal minimal standards. The statistics provided by the Swiss Federal Statistical Office (2002) indicate that a large part of the occupational benefit plans have regulations that are more favourable for the employees. For instance, many occupational benefit plans foresee a lower co-ordination deduction than the law provides. The upper and lower limits for the insured part of the income are even abolished altogether for 31 per cent of all insured

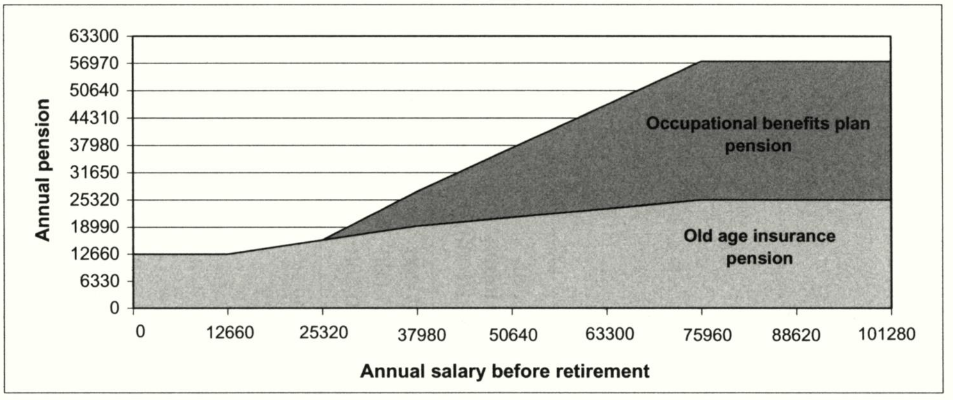

Figure 5: Old age pension income from old age insurance and mandatory occupational benefit plan

Note: The calculation of the occupational benefit plan pension is based on the assumption of a constant income during the whole working life and a yield of 3.25 per cent p. a. on occupational benefit plan accounts.

individuals. Because of the above-minimum coverage provided by many occupational benefit plans and due to the fact that a large part of the labour force was already insured before 1985, the average annual pension from the second pillar paid in 2000 was already at a relatively high level of SFr 21,777.

Finally, it has to be mentioned that old age pensions are the most important, but not the only service of an occupational benefit plan. Like old age insurance, it also provides special pensions to widows, orphans, and handicapped older people.

3.2.2 Funding

Occupational benefit plans are exclusively funded by employers and employees. Contribution rates are defined by the funds themselves and thus a large degree of flexibility exists. Federal law requires only that the employers contribute at least the same amount as their employees. According to the Swiss Federal Statistical Office (2002), the total contributions by the employers indeed exceeded those of the employees by 60 per cent.

As opposed to old age insurance, occupational benefit plans are not based on a current-income system. Instead, every employee has a personal occupational benefit plan account to which annual contributions and interest payments are made. The annual pension to be received after retirement equals 7.2 per cent of this account's balance at the time of retirement. It is calculated according to equation 1:

Equation 1: Calculation of an annual occupational benefit plan pension for retirement age 65

$$AP = 0.072^* \sum_{j=1}^{40} (CEI_j{}^* a_j{}^* (1 + IR_{40-j})^{40-j})$$

AP Annual pension

CEI_j Co-ordinated earned income of year j
(i. e. part of the income of year j between SFr 25,320 and SFr 75,960)

a_j Multiplicator depending on age

$$aj = \begin{cases} 0.07 & \text{for } j = 1, 2, \ldots, 10 & \text{(ages 25–34)} \\ 0.10 & \text{for } j = 11, 12, \ldots, 20 & \text{(ages 35–44)} \\ 0.15 & \text{for } j = 11, 12, \ldots, 30 & \text{(ages 45–54)} \\ 0.18 & \text{for } j = 31, 32, \ldots, 40 & \text{(ages 55–65)} \end{cases}$$

IR_j Yield for an investment over j years, must be 3.25 per cent p.a. or higher

The funding system of the occupational benefit plans clearly differs from the old age insurance. First, there is no intergenerational transfer. Second, there is also no transfer from high to low incomes. All contributions of an employee are added to a personal account and this account forms the basis for the future pension payments.

A strength of the different funding systems of the old age insurance and the occupational benefit plans is that a disadvantageous development of one of these insurances does not jeopardize the whole provision system. Thus, the growing number of retired people relative to the active workforce is a strong threat to the old age insurance, but does not strongly affect the occupational benefit plans. The prolonged life expectancy, however, is a problem to occupational benefit plans as well. Given the intended absence of intergenerational transfers, the sum of pensions paid to a generation must equal the total balance of their occupational benefit plan accounts. In order to reach that equilibrium, the conversion rate, which transforms personal accounts into annual pension payments, must be adapted due to the increased life expectancy. In fact, the current conversion rate of 7.2 per cent is above the level that actuarial calculations would imply. In its proposal for a revision of the occupational benefit plan law, the Federal Government (2000b) thus recommends a conversion rate of 6.65 per cent instead.

One important feature of an occupational benefit plan is the accumulation of capital. As opposed to the current-income system of old age insurance, contributions are not used to cover the current expenses but to pay future pensions. These funds are invested in personal occupational benefit plan accounts. According to the Federal Social Insurance Office (2002a), the funds deposited in occupational benefit plans totalled almost SFr 475 billion in 2000. These funds are invested in bonds, real estate, and equities. The federal law demands that an annual interest of at least 3.25 per cent has to be added to each personal account, irrespective of the fund's actual performance. This minimum yield has recently been the subject of heated political debate. Having been set at 4.0 per cent in 1985, it has only recently been changed to the current rate (as of January 2003). Occupational benefit plans had called for this reduction, arguing that, due to low interest rates and bearish stock markets, it is currently not possible to generate a return on investment of 4.0 per cent without taking inappropriate risks.

Some occupational benefit plans are already in a troublesome state, as their assets are smaller than the obligations arising from the sum of all personal accounts. However, this is probably less the result of the difficulty in finding reasonable investments with a yield of 4.0 per cent, than the consequence of excessive stock market investments. Indeed, the law allows an investment of up to 50 per cent of an occupational benefit plan's total funds in equity. According to the Swiss Federal Statistical Office (2002), occupational benefit plans held equity investments of SFr 161 billion in 2000, accounting for one-third of their total portfolio.

In any case, it has now become very apparent that the financial risks can have a strong impact on the pensions that will be paid to individuals. A lowering of the minimum yield can reduce the expected pensions significantly. In the future, the legal minimum yield will be reconsidered every year by the Federal Social Insurance Office.

3.2.3 Age-related aspects

As with old age insurance, the age at which occupational benefit plan pensions can be drawn is legally set at 65 years for men, and 63 years for women. Women's retirement age is also planned to be raised to 64 years by 2005 and to 65 years by 2009.

Once again, however, occupational benefit plans enjoy a considerable degree of discretion. According to the Swiss Federal Statistical Office (2002), occupational benefit plans that represented 16 per cent of all insured men and 22 per cent of all insured women had defined regulatory retirement ages that differed from the legal retirement ages in 2000. Usually, the retirement age had been raised for women and lowered for men in these cases.

Most employees are insured in an occupational benefit plan that foresees a flexible retirement age, as shown in Table 3. This flexibility primarily allows for early retirement. Early retirement is often possible up to five years prior to the legal retirement age. At the same time, however, only few occupational benefit plans offer the option of a deferred retirement.

Credit Suisse (2003) makes the criticism that some occupational benefit plans might abuse the possibility of early retirements for reasons of company strategy. Although an occupational benefit plan has to be legally independent from the company whose employees it insures, there are often strong personal and organizational links between the two legal entities.

Table 3:
Proportion of insured employees who have access to flexible retirement options

	Women	**Men**
Flexible retirement age	92.5%	90.6%
Early retirement five years prior to age 62/65	79.7%	89.5%
Retirement later than age 62/65	23.0%	10.9%

Source: Swiss Federal Statistical Office (2002). Note that the data are for the year 2002, when the women's legal retirement age was still 62. This statistic does not include occupational benefit plans that specified a retirement age other than the legal retirement age.

In this context, an occupational benefit plan might create financial incentives for early retirement if this suits the company. In doing so, an occupational benefit plan could very easily direct financial reserves (or yields above the legal minimum yield) to a specific age group (i.e., the age group currently going into retirement) rather than using these funds for all insured people.

A problematic feature of the occupational benefit plan law is the fact that contributions are age-dependent. More specifically, contribution rates increase with age, as shown in Table 4.

As at least half of the contributions have to be paid by the employers, this regulation results in considerably higher wage costs for older employees, thus possibly discouraging their employment. The tendency in some firms to pay seniority-based wages increases the cost of labour even more.

On the other hand, as the employer pays large contributions to the occupational benefit plan on top of the normal salary, older workers have a strong incentive to remain employed. For those older employees, who have not enjoyed the benefits of a second pillar throughout their whole working life, these age-dependent contributions may prove especially beneficial as they allow them to build-up a reasonably high balance on their personal accounts, despite having only contributed for a short period. However, with more and more employees having long contribution periods, this advantage is loosing importance. It is thus disappointing that the Federal Government (2000) has no intention of equalizing the contribution rates across all age groups – a reform that has already been realized by a large fraction of the occupational benefit plans. According to the Swiss Federal Statistical Office (2002), 32 per cent of all employees covered in the second pillar do not pay age-dependent contributions. In fact, and in order to compensate for the reduction of the conversion rate mentioned above, the government

Table 4:
Age-specific graduation of contributions to occupational benefit plans

Men	**Women**	**Annual contribution to occupational benefit plan (% of co-ordinated income)**
age 25–34	age 25–31	7.0 %
age 35–44	age 32–41	10.0 %
age 45–54	age 42–51	15.0 %
age 55–65	age 52–62	18.0 %

intends increasing the contribution rate, especially among workers aged 45 to 54. The new contribution rates for the four age groups in Table 4 would be 7 per cent, 11 per cent, 15 per cent, and 18 per cent, respectively.

Overall, it is difficult to judge the impact of occupational benefit plans on the employment of older people. Each occupational benefit plan has a substantial autonomy regarding the institutional design of such crucial issues as the regulation of early retirement. The fact that contributions increase with age is a problematic feature of the occupational benefit plan law as it might well discourage employers from employing older people.

3.3 Invalidity insurance

The invalidity insurance provides for the basic living expenses of persons who are not able to work due to a disability. If possible, it helps them to reintegrate into the labour market.

3.3.1 Benefits

Coverage in the invalidity insurance scheme is compulsory for all individuals who live or work in Switzerland. They all have access to the services of the insurance in case of invalidity, irrespective of whether or not it is caused by an accident, physical or mental illness, or a congenital disability.

Disabled people are only allowed to draw an invalidity insurance pension when rehabilitation efforts have proven unsuccessful or inappropriate. Normally, this is possible at the earliest as of 12 months after the health problems occurred. Although the eligibility of individuals is re-assessed periodically, many pensions are paid until a person reaches the legal retirement age. Thereafter, an old age insurance pension replaces the invalidity insurance pension.

The calculation of an invalidity insurance pension is carried out in very much the same way as for an old age insurance pension. A full invalidity insurance pension thus guarantees an annual income between SFr 12,660 and SFr 25,320, depending on the average annual income before the disability. If a disability only partially prevents a person from working, the invalidity insurance can pay half- or quarter-pensions. Whether a person is eligible for a full pension or only for a reduced one does not depend on medical criteria. Instead, a grade of invalidity is calculated that expresses the income reduction due to the disability. For instance, if a disability forces a person to take on employment that pays 45 per cent less than the work done before the disability, then this person has an invalidity grade of 45 per cent. As shown in Table 5, only a quarter-pension will be paid in this case, whereas an invalidity grade of at least 67 per cent would be needed to draw a full pension.

Besides providing individual benefits, the invalidity insurance also offers collective

Table 5:
Invalidity pension type depending on grade of invalidity

Grade of invalidity	Pension type	Annual pension range SFr
67–100%	Full pension	12,660–25,320
50–66%	Half pension	6,330–12,660
40–49%	Quarter pension	3,165–6,330
1–39%	No pension	–

benefits. These are direct contributions to institutions that support the integration of invalid people. Examples are homes, workshops, or special schools for disabled individuals.

3.3.2 Funding

The invalidity insurance is funded equally by the insured, their employers, and by the state (both federal and cantonal). Both employees and employers contribute 0.7 per cent of the employee's wage. Self-employed workers pay 1.4 per cent of their salary and people without working income contribute according to their financial wealth. The federation covers 37.5 per cent of the insurance's expenses, and the cantons 12.5 per cent.

The funding concept of the invalidity insurance is similar to that of the old age insurance. It is also based on a pay-as-you-go system, which can be severely affected by an ageing population – especially as the incident of invalidity is age-dependent. Table 6 shows that the probability of receiving an invalidity insurance service is clearly highest for people aged 50 years and older.

While an ageing population leads to an increasing number of people drawing invalidity pensions, Table 6 also illustrates that, between 1992 and 2000, a dramatic increase in the number of beneficiaries arose *in all age groups*. In fact, the Federal Government (2001a) attributes only 22 per cent of the insurance's expense growth to demographic shifts.

It is known that a large portion of this increase can be attributed to individuals with mental disabilities. While in 1985, already 24 per cent of all people drawing an invalidity pension suffered from a mental illness, this proportion had increased to 36 per cent by 1999. Psychiatric illnesses are now the most frequent reason for invalidity. Although (as the Federal Government acknowledges) the average workplace may be more demanding than in the past, a changing understanding, perception and acceptance of mental illness in society may also explain this development.

The current financial situation of the invalidity insurance is worrisome. The statistics provided by the Federal Social Insurance Office (2002e) state a deficit of one billion Swiss francs for the year 2001, with total debts amounting to SFr 3.3 billion. In a revision of the invalidity insurance law, the Federal Government (2001a) wants to stabilize the finances of the insurance. According to this plan, the value added tax would be increased by 1 per cent, and the tax income generated would be directed to the invalidity insurance. Moreover, a series of mostly administrative improvements should help to lower costs. The cantonal administrations that handle invalidity cases will be more closely supervised by the Federal Social Insurance Office, thus diminishing possible "generous practices" in certain cantons.

Table 6:
Percentage of persons receiving benefits from the invalidity insurance

	Age 0–9	**Age 10–19**	**Age 20–29**	**Age 30–39**	**Age 40–49**	**Age 50–59**	**A.60–61/64**	**Total**
1992	6.2	6.9	2.4	2.8	4.4	8.8	17.5	**5.4**
2000	7.1	8.2	2.9	3.9	6.4	11.2	20.5	**7.1**
Change	+15%	+19%	+21%	+39%	+45%	+27%	+17%	**+31%**

Source: Federal Social Insurance Office (2002a).

3.3.3 Age-related aspects

Unlike old age insurance and the occupational benefit plan analysed above, the invalidity insurance neither forms part of the system for old age provision nor does it define a retirement age. Still, the invalidity insurance plays a crucial part in the set of social insurances that influence the employment of older workers. As pointed out in sections 3.3.1 and 3.3.2, most invalidity pensions are drawn by older people and they are usually paid until the beneficiary reaches the legal retirement age. The invalidity insurance could thus potentially be used (or abused) to facilitate early retirement.

There is no evidence, however, that the invalidity insurance law is being used to promote early retirement. Nonetheless, some politicians have expressed the presumption that the law is being applied as an early retirement mechanism, especially for unemployed people.

The Federal Government (2001a) admits that there is a correlation between unemployment and invalidity. The expenses of the invalidity insurance have increased strongest in periods of low economic growth. However, this is not necessarily a result of unemployed people who "simulate" a disability. It seems probable that some people with latent disabilities only apply for an invalidity insurance pension after they have lost a job and not succeeded in finding a new one. Moreover, invalidity might even be caused by unemployment itself, especially by bringing out mental illness.

We can conclude that the invalidity insurance does not appear to *systematically* promote early retirement. Given the fact that invalidity pensions only cover the basic living expenses, there is no financial incentive to apply for such a pension as long as a person does not fail to find a job.

3.4 Unemployment insurance

The unemployment insurance pays benefits to the unemployed and promotes their reintegration into the labour market.

3.4.1 Benefits

Although a first unemployment insurance law was passed in 1952, it was not until 1984 that the insurance became compulsory for all employees in Switzerland. Self-employed workers are still not insured.

An unemployed person living in Switzerland who has finished mandatory schooling and who has not yet reached the legal retirement age is entitled to receive unemployment benefits if this person has paid contributions to the unemployment insurance during at least one year within the preceding two years. Unemployment can be partial or full, where the former means that an unemployed person is only looking for a part-time job or a person with a part-time job wanting to work full-time. As a condition for receiving unemployment benefits, the unemployed have to register at the local labour office. They must prove their continuing efforts to find a job and they are obliged to take a job that is deemed acceptable by the labour office.

An unemployed person receives either 70 per cent or 80 per cent of the last monthly wage. Currently, the maximum period for drawing unemployment benefits is 520 working days, i.e., two years. However, as of July 2003, a revised version of the law that was accepted in a popular referendum in 2002 will come into effect. It limits the number of daily payments to 400. Only people older than 55 years and people receiving invalidity or accident insurance pensions will still receive up to 520 daily payments. The Federal Government (2001b) justifies this reduction with the improved placement services provided by the local labour offices. Moreover, unemployed persons should be forced to be more flexible with regard to salary as well as to geographical and professional mobility.

In addition to providing daily financial benefits, unemployment insurance offers active labour market measures, which include a variety of activities that improve the ability of an unemployed person to reintegrate into the labour market. For instance, the insurance pays for further education and offers programmes for professional training. If an unemployed person finds a new job that first requires on-the-job training at a reduced salary, the insurance can make up the difference between this reduced salary and the expected salary after the training for up to six months. An unemployed person who plans a company venture is exempt from the obligation to look for a job for three months, and can even receive some financial support from the insurance. The consent of the local labour office is always the condition for participating in a labour market-related measure.

3.4.2 Funding

Unemployment insurance is funded almost exclusively by the employees and the employers in a system of current-income funding. As of 2004, they will both contribute one per cent of the first SFr 106,800 of the employee's annual salary. The federation and the cantons pay less than 10 per cent of the insurance's total expenses.

During the early 1990s, unemployment in Switzerland increased at an unprecedented rate. Between 1990 and 1993, the unemployment rate jumped from 0.5 per cent to 4.5 per cent. As a consequence, the expenses of the unemployment insurance multiplied by a factor of 12 within these three years, as shown by statistics of the Federal Social Insurance Office (2002a). In 1993, the wage deduction to be paid to the insurance had to be increased dramatically from 0.4 per cent to 2.0 per cent of wages. As a transitory measure to reduce the debt of the insurance, this percentage has even been increased to 3.0 per cent for the period from 1995 to 2003, and a tax of 2.0 per cent is levied on that part of the annual income between SFr 106,800 and SFr 267,000 until 2003.

As of 2004, contributions to the unemployment insurance will be reduced to 2.0 per cent of the first SFr 106,800 of an employee's salary and to 1.0 per cent of the part of the annual income between SFr 106,800 and SFr 267000. This should allow for a stable long-term funding of the insurance. To be better prepared for a possible future unemployment shock, the revised law foresees a quick adaptation of these contributions, if the reserves of the insurance should again begin to deteriorate.

3.4.3 Age-related aspects

The revised version of the unemployment insurance law has modified several age-specific regulations of the insurance. While the maximum number of daily unemployment benefit payments is being reduced from 520 to 400 for most unemployed people, those older than 55 years will still receive a maximum of 520 days' payments. It is thereby taken into consideration that older people encounter more difficulties in finding a new job, as the Federal Government (2001b) explains.

However, the Federal Government will be given the power to increase the number of daily payments by 120 for unemployed people who are less than four years away from the legal retirement age. Before the revision of the law, this was only applicable to unemployed people less than two and a half years away from the official retirement age. The new regulation takes into account that finding a new job is especially difficult for older people who are already close to retirement.

A further age-relevant change introduced by the revised version of the unemployment insurance law is the *abolition* of an Article that explicitly allowed the Federal Government to set up early retirement plans for industries or regions that were especially badly affected by unemployment. The Federal Government (2001b) had hardly ever made use of this possibility. Instead, the government can now allow an extra 120 daily payments not only for people close to retirement, but also for a region with high unemployment.

The Federal Government has shown that it is not willing to use unemployment insurance as a means for promoting early retirement. Even when it had the direct competence to introduce early retirement plans, it hardly ever did so. Certainly, some unemployed older people might take advantage of the favourable treatment by unemployment insurance in order to bridge the gap between the last employment and retirement. However, the payment of unemployment benefits is always conditioned by ongoing job-search efforts and limited to a maximum period of two and a half years.

4. Other factors contributing to the high employment rate of older Swiss

One can argue that the Swiss social security system *in general* does not provide strong incentives for early retirement. This contrasts sharply with social security systems in other European countries that have used early retirement as a way to combat unemployment. Needless to say, the fact that the Swiss system has not developed such negative incentives is an attractive characteristic, which has contributed substantially to the high employment rate among older Swiss. Other reasons, however, must also be mentioned.

Low unemployment levels: Switzerland has for most of the past decades experienced very few problems with unemployment. Even during Switzerland's worst recession since the 1930s, namely in the 1990s, unemployment levels peaked only at 5.2 per cent (in 1997). It follows that Switzerland never had the pressures of other European countries to combat unemployment by stimulating early retirement.

Shortage of skilled labour: In a similar train of thought, Switzerland has continually in the past faced a shortage of skilled labour. The pool of older workers has thus served as a source of high-skilled labour. In this context it is also interesting to note that a substantially large degree of training among older workers takes place in Switzerland. In fact, the inclination to receive (employer-funded) training among individuals aged 50 to 60 years is as high as that of individuals aged 30 to 40 years (Sousa-Poza and Henneberger, 2002b).

Loose employment protection legislation: According to the OECD (1999), Switzerland has the lowest levels of employment protection legislation among continental European countries. One could argue that this allows for a certain amount of flexibility among employers for the employment of older workers.

5. Summary and conclusions

Switzerland has one of the highest employment rates of older workers among industrialized countries. One main reason for this favourable situation can be attributed to the characteristics of the Swiss social security system. The aim of this paper has been to discuss the Swiss social security system with special emphasis being placed on the age-dependent issues of the main social security systems, namely the public old age insurance, the occupational benefit plan, the invalidity insurance, and the unemployment insurance. In general (and especially in comparison to other European countries) these Swiss systems do not provide strong incentives for early retirement. This is in our opinion the main reason for the high employment rate of older workers in Switzerland. The current revision of the Swiss pension scheme aims at introducing more flexibility with regard to retirement age and retirement benefits. More specifically, it is the Swiss Federal Government's intention to allow workers to retire at any time between the ages of 59 and 70. Early withdrawal or the deferment of pension benefits will be made possible. Also, individuals in this age category can choose to have a part of their pension paid out, thus improving the possibility of part-time employment. The attractiveness of the Swiss system will depend largely on the introduction of these flexibility measures. Other reasons for the high employment rates among older Swiss include the low levels of unemployment, the general shortage of skilled labour experienced in the past decades, and loose employment protection legislation.

Whether or not Switzerland will be able to maintain such relatively high employment rates among older workers remains to be seen, and will depend largely on the extent to which the trend towards early retirement can be reversed. This trend has come about in the past decade and can be primarily attributed to the severe recession that Switzerland faced in the 1990s. It has become very apparent that the attractive design of the Swiss social security system (i.e. the fact that few incentives for early retirement exist) is primarily attributable to the very favourable labour-market conditions that Switzerland faced in the past. There are, however, a few indications that the extremely low unemployment levels experienced in the pre-1990s will no longer be achieved.[6] Reversing the trend toward early retirement will therefore imply that new strategies for integrating older people into the labour market are adopted. In this context, the issue of information, communication, and public debate on the value of employment in old age, both for society as well as for the individual, is of great importance (Reday-Mulvey, 2003). One can fairly say that such an open debate still needs to be launched in Switzerland.

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[6] This is primarily due to the change in migration policy.

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