Pension Funds in France : Still a Dead End?

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Abstract:

The French Presidential elections of 2002 have exacerbated the debate on the future of the pension system. This debate started about 20 years ago, and has been paved with numerous reports, books, and contributions that have not been followed by significant political decisions. Only one reform, the Balladur reform (after the name of the conservative Prime Minister in place at that time, Edouard Balladur) has been enacted in 1993. Surprisingly, the Balladur reform was inspired by the White Book issued in 1991 and ordered by Michel Rocard when he was the Prime Minister of a socialist Government. The first pillar of the pension system, i.e. the pay-as-you-go basic scheme was the only concern of the Balladur reform. The other pillars, i.e. complementary PAYG or funded schemes, were not affected. In March 1997, the Parliament enacted the Thomas Act (after the name of the conservative deputy who wrote the proposal) that introduced retirement savings plan (*Plans d'épargne retraite*), but the law has never been enforced because of the political switch in June 1997 and has been formally abrogated in 2002.

Today there still lack a consensus on pension funds in France. The only issue that seems not to be debatable is the willingness to maintain a PAYG public scheme for the basic and complementary pension schemes. The debate concerns the introduction of pension funds as a third pillar. We show in this paper that, even if pension funds hardly exist in France, they have close, but imperfect, substitutes such as life insurance and employee-saving schemes. The difficulty is that these saving instruments are not specifically designed for retirement purposes. There is thus a risk of insufficient saving at old-age. We advocate the introduction of pension-oriented schemes, but not as designed by the Thomas Act, since there is an insufficient protection of wage-earners against financial risks. The first section is devoted to an institutional overview of the French pension system, and presents basic statistics. The second section gives some details on the supplementary occupational funded schemes. In section 3, we argue that funding does exist in France, through personal savings. In section 4 we show that the last reforms did not pave the way to pension funds. Section 5 concludes.

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The French Presidential elections of 2002 have exacerbated the debate on the future of the pension system. This debate started about 20 years ago, and has been paved with numerous reports, books, and contributions that have not been followed by significant political decisions. Only one reform, the Balladur reform (after the name of the conservative Prime Minister in place at that time, Edouard Balladur) has been enacted in 1993. Surprisingly, the Balladur reform was inspired by the White Book issued in 1991 and ordered by Michel Rocard when he was the Prime Minister of a socialist Government. The first pillar of the pension system, i.e. the pay-as-you-go basic scheme was the only concern of the Balladur reform. The other pillars, i.e. complementary PAYG or funded schemes, were not affected. In March 1997, the Parliament enacted the Thomas Act (after the name of the conservative deputy who wrote the proposal) that introduced retirement savings plan (*Plans d'épargne retraite*), but the law has never been enforced because of the political switch in June 1997 and has been formally abrogated in 2002.

Today there still lack a consensus on pension funds in France. The only issue that seems not to be debatable is the willingness to maintain a PAYG public scheme for the basic and complementary pension schemes. The debate concerns the introduction of pension funds as a third pillar. The lack of consensus, on the political scene and among French economists, has several explanations:

- there are doubts on the magnitude of the pension problem: some argue that many demographic and economic assumptions are too pessimistic, and that ageing of the French population can be coped with better economic growth;
- therefore, many actors of the French pension system only advocate changes in the first two pillars (changing contribution rates, replacement rates, or age of retirement); others are prone to the implementation of some funding on top of the existing PAYG pillar;
- even on the side of the funding proponents, there are divergences on the methods to introduce funding: should the Government foster personal savings (life insurance, for example), pensions plans, employee saving schemes, or the accumulation of reserves in the PAYG system?

The first section is devoted to an institutional overview of the French pension system, and presents basic statistics. The second section gives some details on the supplementary occupational funded schemes. In section 3, we argue that funding does exist in France, through personal savings. In section 4 we show that the last reforms did not pave the way to pension funds.

1. The first two pillars: institutional overview and facts

The French pension system has three main characteristics. First, it relies on a pay-as-you-go basis, with a negligible accumulation of reserves (less than 6 month of benefits). Second it is a mosaic of peculiar schemes added up since the end of World War II. Third, it is rather generous compared to those of other developed countries.

1.1. The first two pillars: an institutional overview

1.1.1. Pension schemes in the private sector

For workers in the private sector, representing two third of the labour force, the pension system relies on two pillars, the basic general scheme and the complementary earnings-related schemes, both compulsory and financed on a pay-as-you-go basis.

- The basic general scheme (*Régime général* managed by the *Caisse Nationale d'Assurance Vieilliesse des Travailleurs Salariés*)

The general regime was enforced after the second World War, and has been modified in 1982 and 1993. As of today, the contributions (workers' and employers') are based on the fraction of wages under the Social Security ceiling (which is equal to EUR 28 224 per year as of April 2002). To be entitled to full benefits, both men and women must be 60 years old (since 1983), and have to contribute during 40 years [2]. The pension is proportional to the number of years they have contributed, and a reference wage which is an average of the best 25 years of career [3]:

$$\text{(1)} \qquad \text{Pension (general regime)} = \alpha . w_r Min\left(1, \frac{d}{150}\right)$$

where d denotes the number of quarters of contribution, w_r the average wage computed on the best 25 years under the social security ceiling and indexed on prices (with a *clause de rendez vous* if there is an excessive increase of average wages compared to inflation), and α is a coefficient that depends on d (for d equal to 160 quarters, α amounts to 50%, and decreases as d decreases with a minimum equal to 25%), according to the following formula:

$$\text{(2)} \qquad \alpha = 50\% - 1.25\% Max[0, Min(4.(65-a), 160-d))]$$

with a the age at pension liquidation. At the maximum, the replacement rate of the general regime is equal to 50%.

- The complementary compulsory schemes

The complementary schemes are computed on a notional basis, known as *régimes en points.* They are compulsory since 1972, and have not been affected by the 1993 reform of the general regime. Points are accumulated during wage-earners' career in proportion of their contributions (the whole career is taken into account). The contribution rate is fixed. The benefits are then equal to the number of cumulated points multiplied by the value of the point according to the following formula:

$$\text{(3)} \qquad \text{Pension (complementary regime) at time } t = V(t) . \sum_{s=s_0}^{s_1} \frac{\tau(s) w(s)}{rw(s)}$$

[2] The Balladur reform has increased the length of contribution by one quarter per year (starting from 150 quarters) between 1994 and 2003, starting from the 1934 cohort. The 1943 cohort will be the first cohort to experience the new conditions in 2003.

[3] Before the Balladur reform, the reference wage was computed on the best 10 years of career.

Where s_0 and s_1 are the beginning and the end of career respectively, $\tau(s)$ and $w(s)$ denote the contribution rate and the earner's wage at time s, $rw(s)$ the reference wage at time s, and $V(t)$ is the value of the point at time t.

There are two different complementary schemes, one for the non-executive workers and the other for executives, all being co-managed by trade unions and employers. For non-executives, the contributions are proportional to the wage up to three social security ceilings (i.e. the wage is truncated to EUR 84 672 per year as of April 2002), and collected by ARRCO (*Association des Régimes de Retraites COmplémentaires, non cadres*). For executives, the contributions under the social security ceiling are collected by ARRCO, and by AGIRC (*Association des Institutions des Retraites des Cadres*) for the fraction of wage between one and eight ceilings.

1.1.2. Other pension schemes

- The public sector

In the public sector, there are many special pension schemes for public servants, workers of the public transportation services, and other organisation such as *Banque de France*, *Opera, Comédie française*, public utilities… All these schemes have been created before 1945, and have preserved their autonomy. They encompass both the basic and the complementary regimes in a unique scheme.

For the civil servants, the legal retirement age is 60. The affiliated is entitled to a full pension, if he (she) has contributed for 37,5 years. The benefits are equal to 75 % of the last six-month wage.

- Self employed workers

At the end of World War II, the self-employed workers refused to join the general regime. The 1948 Act has created four autonomous regimes for craftsmen, shopkeepers and manufacturers, professionals and lawyers. These schemes are compulsory, and have two pillars: the first pillar is the general regime of wage earners, the second one being specific to each profession.

1.1.3. Old-age benefits (*Minimum vieillesse*)

Apart from occupational pension schemes, there is a minimum old-age pension scheme open to those who have never contributed because they did not work at all, or those who get a too small pension because the length of contribution period has been to short and/or the revenues were too weak. These persons are entitled to benefit from a non contributory benefit (if their pension is inferior to a limit). This is the first tier of the minimum old-age pension; it amounts to EUR 6 832.58 per year for a single (as of 1st January 2002) which represents two third of the legal minimum wage. The second tier is a benefit from the *Fonds de solidarité vieillesse* which is given under resource conditions, and which depends on recipient's matrimonial situation. In 1998, 760 300 retirees perceived the second tier benefit; since its creation in 1956, the number of recipients has dramatically decrease (-26% between 1993 and 1998).

1.2. Some statistics

This section presents basic statistics on the demographic and economic context of the pension debate in France.

- Demography

The total population amounts to 59 million inhabitants in 2001: 25.4 % are under 20, the 20-64 age group represents 58.5 %, and 16.1 % are over 65 (see table 1). Life expectancy at birth is 75.5 years for men, and 83.0 years for women. At 60, life expectancy is 20.2 and 25.3 years respectively (see table 2). The *Conseil d'Orientation des retraites* (2002) has computed a "retirement expectancy" which is the product of the life expectancy at 60 by the probability of reaching 60. Calculated on the labour force aged 20 to 59, the "retirement expectancy" is 18.2 years for men, and 24.5 years for women (see table 3). These last figures are crucial for the financial sustainability of pension schemes.

Labour force represents 24 million workers (see table 4). Women's share is 46.3 %, and the contribution of the age group "55 and over" to labour force is 13.4. The employment rate of the 55-64 age group is equal to 37.2 %, which is fairly low compared to other European countries (see table 5). It is expected by the *Conseil d'Orientation des retraites* to increase to 44.3 % in 2010 (with the suppression of pre-retirement schemes, and the progressive increase in retirement age).

There are about 9.7 million pensioners in the general regime. Women represent 55.4 % of the total number of pensioners. The average pensioner's age is 73.3, slightly above for women (see table 6). When all regimes are taken into account, the number of pensioners culminates at 19.4 million. Wage-earners represent 79.8 % of the total, self-employed 20.2% (see table 8).

- Contribution rates

In the general regime, the contribution rate amounts to 6.55 % of the wage under the social security ceiling for employees. For employers, there are two contribution rates: 8.2 % of the wage under the social security ceiling plus 1.6 % of total wage for employers. The total contribution rate is thus roughly equal to 16%. It has not changed since 1991 (see table 9). In other regimes, contribution rates may differ (see table 10: they are the same for independent workers (craftsmen), slightly higher for shopkeepers, much higher in the railways publicly-owned monopoly (36.29%).

- Dependency ratios

In 1960, the dependency ratio in the general regime was equal to 4.14, and is now equal to 1.59 (table 12). In some other regimes, the situation is worse: the ratio is equal to 0.7 in the railways monopoly for example (see table 12). On the other hand, the situation is better in the second pillar PAYG complementary schemes: the dependency ratios are 1.7 for *ARRCO* and 2.4 for *AGIRC* (see table 13). Table 14 et 15 give a detailed description of *ARRCO* and *AGIRC* regimes.

- Pensions

Table 16 exhibits the replacement rates (pension benefits of the first two pillars over the last wage) for the 1930 cohort: replacement rates range from 100% for minimum monthly net wage to 59 % for a wage above EUR 3 048 in the private sector. This shows that the PAYG pension scheme is fairly redistributive. The average replacement rate is 84 % in the private sector, and 77 % in the public sector (the variance being lower in the latter case).

- Aggregate statistics

In France, public retirement spending represents 12.1% of GDP in 2000, and is expected to culminate at 16.0% in 2030 according to the Current policy scenario of the Ecofin Economic Policy Committee. Total spending for retirement in 2000 represent EUR 168,78 billion.

Even if there are debates on the consequences of these demographic trends on pension system, there is now a widely shared opinion that the sustainability of the PAYG pension system is not guaranteed if the contribution rates, the replacement rates and the retirement age are held constant.

2. The third pillar: supplementary occupational funded schemes

As will be shown in section 4, pension funds hardly exist in France. Nevertheless, there exist optional funded schemes, known as supplementary regimes (*régimes supplémentaires,* or *régimes sur-complémentaires)*. This section gives a brief description of these supplementary optional schemes.

2.1. The weakness of supplementary optional schemes

The public pension schemes being rather generous, contributions collected and pensions served by the funded supplementary schemes represent a negligible amount compared to those of the public pension scheme, and compared to personal savings through life insurance contracts and close substitutes (see section 3). Unfortunately, there are not comprehensive statistics on supplementary schemes, each being managed on a firm or inter-firm basis. On a rough estimation, total contributions amount to EUR 5.6 billion, 25 % being managed by supplementary pension institutions (*institutions de retraite supplémentaire, IRS)* created by firms or self-employed professional groups, and 75 % being collected by insurance companies through group contracts (not including in-firm pension schemes which are negligible). Survey data by *INSEE* in 1998 showed that only 9,4% of households had contributed to a supplementary pension scheme. According to survey data by INSEE in 2000, 12 % of French household have voluntary retirement savings through complementary collective pension schemes. The possession mainly concerns self-employed [4], and individuals aged 40 to 49 (with an holding rate of 21.6 %).

[4] The Madelin Act of 1994 has fostered self-employed pension schemes.

2.2. The different legal schemes

The supplementary funded schemes are characterised by an extreme heterogeneity and a complexity due to the piling up different legal provisions enacted through time.

- Management devices

The management of supplementary pension schemes is strictly regulated. The institutions entitled to manage pension contributions and benefits are insurance companies, mutual institutions (*sociétés d'assurance mutuelles*), and provident institutions (*institutions de prévoyance*). An employer may choose between three legal devices if he wants to set up a supplementary pension scheme.

The first solution consists of a direct payment of pensions by the employer. This solution is legal but never used: first it is generally refused by trade unions on prudential grounds, and second there are no fiscal incentives for the employer to do so.

The second solution is to subscribe to a group contract with an insurance company, a mutual institution or a social security institution. Two options are available: defined-contribution schemes (named "article 82" and "article 83" after the number of the tax code); defined-benefit (named "article 39"). The "article 83" pension schemes are the most popular. This solution has been adopted by the French insurance sector, with the creation of the first sector-related pension fund in 1995.

The last solution is to create a specific supplementary pension institution (*IRS)*, which has to be approved by the regulatory authority. This solution is widespread among large firms or institutions, with 100 to 150 existing *IRS*. Since 1994, these specific supplementary pension institutions have to be fully funded, and it is impossible to create new *IRS*.

- Typology of supplementary pension schemes

Supplementary pension schemes may be distinguished on three criteria.

- The nature of pension rights: defined-benefit vs. defined contribution schemes

  In the defined-contributions schemes, the employer undertakes to contribute on a contractual basis for each affiliated, the contribution being a fixed proportion of salary. The affiliated gets the right to perceive the full benefits (capital and returns on cumulated assets). In the defined-benefit schemes, the employer undertakes to pay the affiliated a benefit related to career earnings, subject to years of service. The contributions are solely borne by the employer, and are computed on an actuarial basis by the managing institution.

- Additive schemes and "top-hat" schemes

  Defined-contribution schemes are additive: they complete the first two pillars (general and complementary pay-as-you-go schemes). Defined-benefit schemes may be either additive (they pay a pension defined as a percentage of the last (end of career) salary whatever the first and second pillar benefits may be), or "top-hat". In the latter case, the "top-hat" pension is differential, and amounts to the difference between the

targeted pension (as a percentage of the last salary) and the benefits from the first two pillars.

- Vesting rules and portability

In random rights schemes (*régimes à droits aléatoires)*, seniority conditions are required to get supplementary benefits. It is generally the case in defined-benefit schemes: wage earners usually get nothing if they quit the firm before the legal retirement age. In certain rights schemes (*régimes à droits certains)*, the benefits are portable: this is the case in defined-contribution schemes in which the affiliated has an intangible right on the contribution whatever his situation at retirement.

- Examples: the *PREFON* and self-employed pension funds

PREFON is an optional defined-benefit pension fund created in 1967 for the French civil servants. The idea was to complete the pay-as-you-go benefits with fully funded benefits, because pay-as-you-go benefits are proportional to the net wage, that is wage minus premiums [5]. Only wage earners contribute, and portability in another fund is ruled out. The affiliated may choose between 11 classes of contributions: each contribution gives a number of points which decrease with the age of the contributor (see table 20). The contributions may be reduced, increased, stopped at any time. If the civil servant has not been employed by the State during his whole career, he can "buy back" the corresponding contributions (up to his 16 birthday). All contributions (normal, exceptional and "bought back") can be deduced from the taxable income without ceilings. Benefits are paid as annuities exclusively, and there is a vesting period up to the age of 55. Pension may be liquidated from the age of 55 until 70 (normal liquidation occurs at 60, the legal retirement age).

The performance of *PREFON* is fairly robust, compared to close substitutes such as life insurance (about 6 to 8 % at the age of 60, over the ten past years). The assets are managed by a consortium of private insurance companies, nearly 80 % of assets being invested in bonds, 10 % in shares and the rest in properties, mutual funds and other assets. Despite the performance, *PREFON* has a poor success since only 4 % of the concerned population is affiliated (230 000 affiliated, including 60 000 pensioners) [6].

Since the Madelin Act enacted in 1994, self-employed workers may contribute to optional supplementary schemes with fiscal exemptions. The contributions to the scheme can be deduced from the taxable income, with a ceiling equal to 19% of 8 social security ceilings (that is EUR 42 900). The Madelin Act concerns about 2 million self-employed and spouse, but its success is timid.

Table 17 and table 18 exhibit some statistics about these supplementary voluntary pension schemes.

- Are there incentive for an employer to create a supplementary pension scheme?

There is a strong fiscal incentive to create a supplementary pension scheme, since pension contribution are tax-exempted under different ceilings, depending on the nature of the

[5] Average premium is equal to 15 % of the salary, and premiums may reach 50 % of the salary.
[6] Two other schemes are available to civil servants (CEGOS for medical workers, and CREF), and suffer from the same disaffection.

tax (income tax or social security contribution). For example, if the employer's contribution amounts to 10% of the annual salary, there is full tax exemption for all annual salaries inferior to EUR 90 000. This is fairly generous for low incomes, but the incentive is nil for top executives.

On the opposite side, the incentive for the employee to join the employers' pension scheme (when it is optional) is not obvious. Annuities are not tax-exempted, and are heavily taxed compared to other savings instruments (see the following section).

3. Funding in France: the importance of personal savings

The French households' saving rate amounts to 16,4 % (as of march 2002). For the last 20 years, there has been a tremendous increase of personal financial savings through life insurance. Failing pension funds, French households have accumulated long term savings on a personal basis. After a brief description of households' current saving behaviour, this section will argue that individual saving is riskier than collective accumulation through pension funds, making individual saving a second best compared to pension funds.

3.1. Life insurance in French households' wealth

France has been experiencing a very high saving rate, above 15% of gross disposable income since the beginning of the 90s. Since the non-financial saving rate is stable, the relatively high, and still increasing, saving rate may be explained by the level of the financial saving rate, which may be in turn explained by a precautionary behaviour. Indeed, even if the unemployment rate has been reduced, the fear of unemployment is strong. Moreover, French households are worried by the long term soundness of the pay-as-you-go pension system, and accumulate precautionary savings accordingly.

Before the financial liberalisation, French households favoured liquid savings (current accounts, savings accounts…). For the last 20 years, there has been a tremendous infatuation for life insurance contracts. In 1980, the outstanding of policy insurance reserves represented EUR 14,8 billion, that is a share in households' financial wealth (unlisted securities excluded) equal to 4.3%. In 2000, the figures were EUR 650 billion and 33%, respectively. Since 1996, about 70% of saving flows are invested each year in insurance products. In 2000, the households' net saving flows amounted to EUR 100 billion, with 77% in life insurance. This evolution has several explanations: subscription of news contracts, increased payments on existing contracts, latent appreciation of assets, supply-side effects banks starting to sell life insurance in their networks, and the very attractive fiscal treatment of life insurance (Lavigne and Pardo, 2000).

What are the expectations for the next 10 years? According to Boutillier et al. (2001), the outstanding of policy insurance reserves will amount to EUR 1 400 billion in 2010, with an annual flow of EUR 75 billion each year (see table 19). These estimations are based on the following economic assumptions: a 2.7% annual growth rate, a 8.3% unemployment rate, a 15% saving rate, a 10% annual rate of return on capital and a logistic curve for the diffusion of insurance contracts. Of course, these assumptions are crucial, especially the assumption of a non-decreasing return on capital. We might indeed expect a sharp decrease of this rate, as the numerous baby-boom generation retires and sells its assets to finance its retirement needs.

To assess whether ageing increases or decreases the propensity to save, further investigations have been made (El Mekkaoui et al., 2001, 2002). El Mekkaoui et al. (2002) show that households do not reduce their holdings in life insurance when they get older (up to 85 years old). This does not mean that older households are risk averse. In a companion paper, El Mekkaoui et al. (2001) showed that households have an increasing probability to hold securities as they get older. Our contention is that life insurance has multiple motives, including retirement, bequest, and covers precautionary needs at old age (long-term care). On the opposite, older households may take more financial risks, since their exposure to income risk is reduced. The relative weight of human capital is reduced when people get older: at the end of career the present value of uncertain labour income is low.

3.2. Pension funds vs. personal savings

Is there really a need for pension funds in France, since French households seem to have put up with personal life insurance to overcome the expected difficulties of the French pay-as-you-go pension system?

In the preceding paragraph, it was argued that there is a rationale for older individuals to hold risky assets, and to increase the share of risky asset in financial wealth as they become older. This behaviour may seem irrational since the life horizon is reduced when getting old. Indeed, a widespread advice given by newspapers is to invest in long-term assets when young, to turn to shorter-term assets when getting close to retirement. The underlying assumption is that if stocks outperform bonds in the long run, long-horizon investors may increase their financial risk exposure because they have more time to recoup transient losses. But, as Samuelson (1969) rightly argued, this conventional wisdom is a fallacious interpretation of the Law of Large Numbers: adding risks over a long period of time does not cause risk to wash out. In other words, time diversification operates through *dividing* and not *adding* risks. This is formally shown in intertemporel models of portfolio selection: the optimal share of risky asset does not depend on age (and thus on residual life horizon) if agents have a constant relative risk aversion (i.e. when relative risk aversion is independent of wealth). In this case, if the return of the risky asset follows a random walk, re-optimisation period by period leads to the same portfolio allocation as a long-term planning.

Of course, this independence of life horizon and portfolio selection does not hold under other assumptions, such as convex risk aversion, liquidity constraints and the existence of background risks (i.e. risks that cannot be insured, or traded on markets, divorce for example). In some cases, it may be optimal for an individual to *increase* risk taking when he gets older; on the opposite, a young individual facing large background risks has no incentive to financial risk exposure, and then forsake long-term rewarding opportunities on the financial markets.

Is this conclusion transposable to pension fund management? Empirically, in the United-Kingdom, the United States, Ireland and Australia, the share of risky assets is larger in pension funds portfolios than in households' wealth (Lavigne, 1998). On the opposite, investment in stocks is much more modes for pension funds and life insurance companies in Germany, Italy, Spain and Portugal.

On a theoretical ground, there are several arguments for a risky behaviour of pension funds [7]. First of all, time diversification is feasible for pension funds. An isolated individual is

[7] At least, a riskier behaviour compared to individuals' portfolio management.

exposed to liquidity constraints when he retires: he may incur a capital loss if he has to liquidate his assets to finance his consumption needs when there is a turndown on financial markets. As far as a pension fund has overlapping cohorts of pensioners, it may postpone (at least partially) its sales of assets until better times. In the second place, the maturity of the fund is crucial for investment in risky assets. Mature funds tend to overweight bonds in their liabilities, while immature funds invest a higher share in stocks. This difference explains why in all OECD countries the share of stocks in pension funds portfolio increased on the 1970-1990 period, except in the USA where it remained stable around 45% (Davis, 1992). The third argument deals with scale economies: an isolated individual is subject to a wealth constraint which is not the case for a pension fund. Pension funds may then diversify both financial risks (horizontal diversification) and time horizons (vertical diversification). For the same sake of argument, collective investment through pension funds reduce information costs and transaction costs.

Can we conclude that pension funds are, or should be, risk neutral? In an ideal perfect world, pension funds would be risk neutral [8]. In the real world, this property does not hold. First, pension funds management entails agency conflicts (El Mekkaoui and Lavigne, 2000). Investment decisions then depend on the relative bargaining power of the different stakeholders, especially for defined-benefit funds. In the USA, when the employees' representatives have the control of the fund, the invested share in risky assets is lower, the closer to retirement the representatives are. More generally, when the fund is managed with a parity between employers' and employees' representatives in the board of trustees as it is usually the case in continental Europe, risk aversion is higher, compared to situations where is an external management of the fund (as in the USA for example). The difference between defined-benefit and defined-contribution pension funds gives another argument for risk aversion or risk taking. Because in defined-contribution plans the risk is borne by the employee, pension funds managers display a more prudent strategy.

In this section, we have shown that pension funds may reduce the return volatility of retirement benefits, compared to individual saving, through a better diversification. Of course, in order for this reduction of risk to be effective, there must be a sound prudential regulation, concerning funding, diversification, sanctions of frauds… Moreover, on equity grounds, there is another argument for collective funding vs. individual saving: the life insurance boom has been supported by tax exemptions and tax reductions that favoured the wealthiest households.

4. Pension funds: still to come?

The French history has been plagued by the collapse of funded pension schemes in the 1930s due to economic recession and runaway inflation. Many French families still keep in mind this grievous episode, even if the persons who experienced it are less and less numerous. This may explain the reluctance of successive governments to implement pension funds in France (see in appendix 3, the quite impressive list of books, official reports, contributions on the reform of pension schemes since 1991).

In January 2002, the socialist Government has formally abrogated the Thomas Act of 1997 that designed a regulatory and fiscal frame for pension funds in France. This abrogation ends a series of reforms that were perceived by the socialist Government as close substitutes to the implementation of pension funds. The main two reforms were the creation of a reserve

[8] They would even not exist in a frictionless world.

fund *(Fonds de réserve des retraites)* that enables funding within the PAYG pension scheme, and the design of new employee saving schemes.

4.1. Accumulating reserves within the pay-as-you-go public pension system

The *Fonds de réserve des retraites* has been created in 1999 in order to smooth the expected deficit of the first two pillars of public pension schemes during the 2005-2015 decade. This solution was promoted by Martine Aubry, Minister of social affairs at that time (Davanne [9] and Pujol, 1997). The main resources of the reserve fund are expected to be incomes from privatisation, exceptional fiscal receipts, and incomes from UMTS spectrum auctions. The social partners are still dubious about the ability of the reserve fund to achieve its smoothing goal. On the employers' side (independent workers, small and large businesses), the reserve fund is expected to foster new increases in contribution rates, with correlative wage distortions and declining competitiveness. Employers also fear that the reserves will be invested in government bonds, instead of equities. On the trade-union side, the reserve fund is perceived as a disguised introduction of pension funds. Since many trade-unions are hostile to funding whatever its *modus operandi*, the reserve fund faces the opposition of left-wing trade-unions; only the reformist CFDT *(Confédération Française Démocratique du Travail)* and the CFTC *(Confédération Française des Travailleurs Chrétiens*, a moderate but marginal trade-union) are not opposed to the reserve fund, and to partial funded pension schemes.

4.2. Developing employee saving schemes

As stressed by Blanchet and Legros (2000), "[…] there is a feeling that pension funds are less in favour. There are increasing doubts about the necessity to add a new instrument for retirement. This is partly the result of a relative demobilisation of professional lobbies which preferred going back to their traditional fields, especially life insurance […]".

The political strategy of the socialist government to bypass the trade-unions' opposition to pension funds has been to foster employee-saving schemes. The government expected that trade-unions would be sensitive to the argument that foreign ownership of French firms is a threat to French wage-earners. Indeed, about 40% of equities issued by French quoted firms are held by foreign investors. The development of employee-saving schemes is a means to obviate both the under-capitalisation of French firms, and their low ratio of domestic over non-resident ownership.

In 1999, about 5.4 million wage-earners, that is 37% of the labour force in non-agricultural firms, have benefited from an employee-rewarding scheme. Until recently, there were two different employee-saving schemes:

- *Participation*: it is a compulsory mechanism for firms with more than 50 employees; it enables wage-owners to benefit from a share of the annual profits (if any). The global amount, called *Reserve Spéciale de Participation*, is given by a legal formula:

  $$RSP = 0{,}5.(B - 0{,}05.C).\frac{S}{VA} \qquad (4)$$

  where B denotes the annual profit, C the capital, S the salaries, and VA the value added by the firm. The accrued rights to *participation* are vested during 5 years, except in a few legal cases (marriage, acquisition of main residence, dismissal…). The RSP may be

[9] Olivier Davanne was Martine Aubry's counsellor ; he is now a member of the *Conseil d'orientation des retraites*.

invested in different instruments: deposits on a frozen bank account; own equities of the firm; equities and shares in mutual funds; shares of *FCPE (Fonds Commun de Placement d'Entreprise)*, a mutual fund dedicated to wage-earners; contributions to a *PEE (Plan d'épargne d'entreprise)*.

- *Intéressement*: it is an optional mechanism for all firms; it enables a firm to share, for a three-year period, some performances or objectives (such as profits, or increasing productivity, or quality bonuses…) with the wage-earners. It is necessarily collective and must have a random component. The amount of *intéressement* may be paid immediately, or saved on a *PEE (Plan d'épargne d'entreprise)*. In the latter case, the sum is tax-exempted if it saved over five years or more. The amount of *intéressement* cannot exceed 20% of the total wage bill, and cannot exceed the social security ceiling for each employee.

The *Plan d'épargne d'entreprise* is a saving instrument created to back *participation* and *intéressement*. It enables the wage-earners to build up a collective portfolio of securities. The sums invested may come from *participation* and *intéressement*, from voluntary saving (up to 25% of annual wage), or complementary discretionary payments of the employer.

In 1998, firms distributed about EUR 6.9 billions, equally shared between *participation* and *intéressement*. Annual average payment to wage-earners amount to EUR 945, with great disparities among sectors and firms (smaller firms are more generous).

In February 2001, a new law *(Loi du 7 février 2001 sur l'épargne salariale)* has introduced two new saving instruments: the *Plan d'épargne interentreprise (PEI)* and the *Plan Partenarial d'Epargne Salariale Volontaire (PPESV)*. The *PEI* is designed to give incentives to small and medium firms to offer employee-saving schemes (only 3.5 % of firms were offering a *PEE* in 1998 – 46% of firms with 500 employees and over). With the *PEI*, several firms may implement a common employee-saving plan, on a sectoral or geographical basis. The *PPESV* is created to give a longer saving horizon than the *PEE*, 10 years instead of 5. This reform aims at introducing a retirement-like horizon to collective saving.

Even if employee-saving schemes are not exclusively pension-oriented schemes there are perceived as close substitutes for the moderate trade-unions and the socialist government that introduced the *PEI* and the *PPSV*. For left-wing trade-unions, the development of employee-saving schemes is no more than a Trojan Horse in the pension system reform.

4.3. Introducing pension funds: the Thomas Act revival?

In 1997, the French parliament adopted a law on pension funds (the Thomas Act). The details of this now abrogated law are given in appendix. The main characteristics were:
- an optional system;
- defined-contribution plans;
- exemption of social contributions (both employers and employees) and taxes;
- exit in annuities.

If the newly elected parliament is conservative, there may be a second life for the Thomas Act [10]. The main task for the government will be to create a consistent framework for long-term saving, namely consistent fiscal devices so that the new pension funds do not

[10] This text has been revised on the 10th of June 2002 before the results of French elections.

merely siphon other employee-saving or personal saving schemes. The specificity of saving for retirement has to be recognised: what is really needed in France is a risk-free long-term saving scheme.

5. Conclusion

We have shown in this paper that, even if pension funds hardly exist in France, they have close, but imperfect, substitutes such as life insurance and employee-saving schemes. The difficulty is that these saving instruments are not specifically designed for retirement purposes. There is thus a risk of insufficient saving at old-age. We advocate the introduction of pension-oriented schemes, but not as designed by the Thomas Act, since there is an insufficient protection of wage-earners against financial risks (in Thomas Act, pension plans are defined-contribution plans).

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http://www.cnav.fr/
http://www.prefon.asso.fr/
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http://www.fsv.fr/

Appendix 1 : Statistics

Table 1: The age structure of French population

Year	Total population (in thousands)	Under 20 (%)	20-64 (%)	65 and over (%)
1985	55 157.3	29.2	58.0	12.8
1990	56 577.0	27.8	58.3	13.9
1995	57 752.5	26.1	58.9	15.0
1998	58 299.0	25.8	58.5	15.7
1999	58 496.6	25.7	58.4	15.9
2000	58 748.7	25.6	58.4	16.0
2001(*)	59 037.2	25.4	58.5	16.1

Source : Inséé Première (2002) ; * : estimations.

Table 2: Life expectancy at various ages

Year	Men					Women				
	0	1	20	40	60	0	1	20	40	60
1985	71.2	70.0	52.5	34.0	17.9	79.4	79.0	60.4	41.1	23.0
1990	72.7	70.9	53.9	35.5	19.0	81.0	80.5	61.8	42.5	24.2
1995	73.9	72.4	54.7	36.3	19.7	81.9	81.3	62.6	43.3	24.9
1998	74.8	74.2	55.5	36.8	20.0	82.4	81.8	63.0	43.6	25.3
1999	75.0	74.4	55.7	37.0	20.2	82.5	81.8	63.1	43.7	25.3
2000	75.2	na	na	na	na	82.7	na	na	na	na
2001(*)	75.5	na	na	na	na	83.0	na	na	na	na

Source : Inséé Première (2002a) ; * : estimations ; na : not available

Table 3: Life expectancy and retirement expectancy

Year	Men			Women		
		Working population (20-59 years)			Working population (20-59 years)	
	Life expectancy at 60 (A)	Probability of reaching 60 (B)	Retirement expectancy (C=A*B)	Life expectancy at 60 (A)	Probability of reaching 60 (B)	Retirement expectancy (C=A*B)
1950	15.4	82 %	12.6	18.4	89 %	16.4
1960	15.7	84 %	13.2	19.5	92 %	17.9
1970	16.2	85 %	13.9	20.8	93 %	19.4
1980	17.3	86 %	14.9	22.4	94 %	21.1
1990	19.0	88 %	16.8	24.2	95 %	23.0
2000	20.2	90 %	18.2	25.6	96 %	24.5

Source : Conseil d'orientation des retraites (2002)

Table 4: Labour force: structure of working population

Year	Total labour force (thousands)	Women share (%)	15-24 (%)	25-54 (%)	55 and over (%)	Employment rate for 60 and over
1991	24 994	43.5	11.5	78.9	9.6	2.3
2001	26 426	45.5	8.8	82.3	8.9	2.2
2006	26 895	46.0	8.4	79.9	11.7	2.1
2011	26 751	46.4	8.3	79.5	12.2	1.8
2020	26 141	46.5	8.2	78.6	13.1	1.5
2050	24 095	46.3	8.1	78.5	13.4	1.1

Source : Inséé Première (2002b) ; * : estimations.

Table 5: Labour force: current and projected employment rate

Age group	Employment rate (%)		Working population (Thousands)		Variation
	2000	2010*	2000	2010	2000-2010
15-24	29.5	38.0	2 290	2 980	690
25-54	86.2	87.8	22 000	21 700	-300
55-64	37.2	44.3	2 050	3 540	1 490
15-64	67.9	69.6	26 340	28 220	1 880
65 and over	1.3	1.0	130	110	-20
Total			26 470	28 330	1 860

Source: Conseil d'Orientation des retraites (2002); *: projections.

Table 6: Pensioners of the general regime in 2000 (first pillar, wage-earners of the private sector)

Age group	Men	Women	Total
55-59	3 254	90 376	96 630
60-64	952 175	771 613	1 723 788
65-69	1 175 835	1 231 701	2 407 536
70-74	977 658	1 142 771	2 120 429
75-79	697 321	988 375	4 685 696
80-84	311 092	535 927	847 019
85-89	176 523	414 513	591 036
90 and over	67 262	236 808	304 070
Total	4 361 120	5 412 114	9 773 234
Average age	70.82	73.09	72.08

Source : http://cnav.fr

Table 7: Pensioners of the general regime in 2000, in proportion of total population of the same age group (in %)

Age group	Men	Women	Total
55 and over	66.60	64.03	65.15
60 and over	84.66	75.68	79.47
65 and over	88.12	80.48	83.59
75 and over	80.32	77.37	78.42
85 and over	72.60	73.60	73.32

Source : http://cnav.fr

Table 8: Pensioners of all regimes in 2000

Regimes	Number	Share (%)
Wage-earners		
- general regime	9 700 735	49.9
- farmers	2 268 453	11.7
- civil servants	1 714 806	8.2
- others (mine, railways, public sector…)	1 831 505	10.0
- total wage-earners	15 515 499	79.8
Self-employed		
- farmers	2 054 460	10.6
- salesmen	927 424	4.8
- craftsmen	712 584	3.7
- others (physician, lawyers…)	235 786	1.1
- total self-employed	3 930 254	20.2
Total	19 445 753	100.0

Source : http://cnav.fr ; note: the same person may receive benefits from various regimes.

Table 9: Contribution rates in the general regime (employees and employers)

Since	Employees (on wage under the Social Security ceiling)	Employers		Total	
		On wage under SS ceiling	On total wage	On wage under SS ceiling	On total wage
1 Jan 1982	4.70	8.2	0.0	12.90	0.0
1 Jan 1984	5.70	8.2	0.0	13.90	0.0
1 Aug 1986	6.40	8.2	0.0	14.60	0.0
1 Jan 1989	7.60	8.2	0.0	15.80	0.0
1 Feb 1991	6.55	8.2	1.6	14.75	1.6

Source : http://cnav.fr

Table 10: Contribution rates in various regimes in 2001 (employees and employers)

Regime	Employees (on wage under the Social Security ceiling)	Employers		Total	
		On wage under SS ceiling	On total wage	On wage under SS ceiling	On total wage
General regime	6.55	8.2	1.6	14.75	1.6
Craftsmen	16.35 (under the social security ceiling)				
Salesmen	16.35 + reversion contribution equal to 2.5% of the annual income whatever the matrimonial situation under 1/3 of the social security ceiling and to 3.95 over and up to the social security ceiling				
Civil servants	7.85	General budget			
Railways (SNCF)	7.85	28.44	-	36.29	

Source : Observatoire des retraites (2002)

Table 11: General regime: dependency ratio
(number of contributors/number of pensioners)

Year	Contributors	Pensioners	Contributors/pensioners
1960	9 700 000	2 344 492	4.14
1970	12 610 000	3 321 504	3.80
1980	13 353 800	4 988 827	2.68
1985	12 944 159	5 860 530	2.21
1990	13 724 032	7 315 716	1.88
1995	14 052 655	8 750 331	1.61
2000	15 413 792	9 700 735	1.59

Source : http://cnav.fr

Table 12: Various regimes (first pillar): dependency ratio in 2000
(number of contributors/number of pensioners)

Regime	Contributors	Pensioners	Contributors/pensioners
General regime	15 413 792	9 700 735	1.6
Civil servants	2 500 000	1 600 000	1.6
Railways (SNCF)	178 000	263 000	0.7
Craftsmen	494 000	600 000	0.8
Salesmen	643 400	933 078	0.7

Source : Observatoire des retraites (2002)

Table 13: Complementary regimes (second pillar): dependency ratio in 2000
(number of contributors/number of pensioners)

Regime	Contributors	Pensioners	Contributors/pensioners
ARRCO (non-executives)	15 000 000	8 700 000	1.7
AGIRC (executives)	3 200 000	1 310 000	2.4

Source : Observatoire des retraites (2002)

Table 14: ARRCO regime in 2000 (non-executives)

Number of pensioners	9 535 000
Number of contributors	18 700 000
Number of affiliated firms	5 700 000
Contributions	27,0 (EUR bn)
Pension benefits	26.5 (EUR bn)
Value of the point (as of 1st April 2002)	1.0530
Reference wage as of 2002	11.8949

Source : http://agirc.fr

Table 15: AGIRC regime in 2000 (executives)

Number of pensioners	1 800 000
Number of contributors	3 300 000
Number of affiliated firms	530 000
Contributions	11.5 (EUR bn)
Pension benefits	11.6 (EUR bn)
Value of the point (as of 1st April 2002)	0.3737
Reference wage as of 2002	4.1494

Source : http://agirc.fr

Table 16: Replacement rates for the 1930 cohort (pension benefits over last wage)

Monthly net wage (full time job) in EUR	Public sector (%)	Private sector (general and complementary regimes, %)
Less than 1 143	-	100
1 143 ≤ w < 1 524	-	91
1 524 ≤ w < 1 905	80	84
1 905 ≤ w < 2 286	77	76
2 286 ≤ w < 3 048	79	72
More than 3 048	69	59
Average	77	84

Source: Conseil d'Orientation des Retraites (2002)

Table 17: Contributions to supplementary funded pensions schemes in 2000

Pension scheme	Contributions (EUR Million)				Share (%)			
	1997	1998	1999	2000	1997	1998	1999	2000
'Top-hat' contracts (article 82)	107	183	183	110	4,3	6,0	4,5	2,0
Defined-contribution schemes (article 83)	899	1 006	1 128	2 810	36,4	33,0	27,8	50,1
Defined-benefits schemes (article 39)	869	838	1 631	1 300	35,2	27,5	40,2	23,2
IRS (article 411-1)	259	396	442	500	10,5	13,0	10,9	8,9
Self-employed (Loi Madelin)	335	442	534	700	13,6	14,5	13,2	12,5
Farmers' pension scheme		183	137	200	0,0	6,0	3,4	3,6
Total	2 470	3 049	4 055	5 610	100,0	100,0	100,0	100,0

Source: Observatoire des retraites (2002)

Table 18: Holding rates of supplementary voluntary pension savings by age in 2000

Age group	%
Less than 30	5.8
30 to 39	15.6
40 to 49	21.6
50 to 59	16.4
60 to 69	6.7
70 and over	2.1

Source: Observatoire des retraites (2002)

Table 19: Forecasts of policy insurance reserves and premiums (EUR bn)

Year	Outstanding of policy insurance reserves	Net flow of policy insurance reserves	Premiums
2000	647,9	67,1	91,7
2001	711,1	63,2	84,7
2002	788,7	77,5	102,3
2003	869,6	81,0	108,9
2004	946,4	76,7	107,7
2005	1 017,0	70,6	104,5
2006	1 089,1	72,1	108,9
2007	1 162,3	73,1	112,9
2008	1 234,5	72,2	114,9
2009	1 314,5	80,0	125,8
2010	1 398,8	84,4	133,5
Average 2000-2010		75,1	110,4

Source: Boutillier et al. (2001)

Table 20: The PREFON pension scheme

Class of contribution	Annual contribution (in euros)				Number of points corresponding to each age group, and each class of contribution									
		Per sem-ester	Per quarter	Per month	before 26 (2,1)	from 26 to 30 (1,8)	from 31 to 35 (1,6)	from 36 to 40 (1,4)	from 41 to 45 (1,2)	from 46 to 50 (1,1)	from 51 to 55 (1)	from 56 to 60 (0,9)	from 61 to 65 (0,8)	from 66 (0,7)
O1	185,53	92,77	46,38	15,46	325 P	278 P	247 P	216 P	186 P	170 P	155 P	139 P	124 P	108 P
03 (01 X 2)	371,06	185,53	92,77	30,92	649 P	557 P	495 P	433 P	371 P	340 P	309 P	278 P	247 P	216 P
05 (01 X 3)	556,59	278,30	139,15	46,38	974 P	835 P	742 P	649 P	557 P	510 P	464 P	417 P	371 P	325 P
06 (01 X 4)	742,12	371,06	185,53	61,84	1 299 P	1 113 P	989 P	866 P	742 P	680 P	618 P	557 P	495 P	433 P
07 (01 X 5)	927,65	463,83	231,91	77,30	1 623 P	1 391 P	1 237 P	1 082 P	928 P	850 P	773 P	696 P	618 P	541 P
08 (01 X 6)	1 113,18	556,59	278,30	92,77	1 948 P	1 670 P	1 484 P	1 299 P	1 113 P	1 020 P	928 P	835 P	742 P	649 P
09 (01 X 8)	1 484,24	742,12	371,06	123,69	2 597 P	2 226 P	1 979 P	1 732 P	1 484 P	1 361 P	1 237 P	1 113 P	989 P	866 P
10 (01 X 10)	1 855,30	927,65	463,83	154,61	3 247 P	2 783 P	2 474 P	2 165 P	1 855 P	1 701 P	1 546 P	1 391 P	1 237 P	1 082 P
12 (01 X 12)	2 226,36	1 113,18	556,59	185,53	3 896 P	3 340 P	2 968 P	2 597 P	2 226 P	2 041 P	1 855 P	1 670 P	1 484 P	1 299 P
15 (01 X 15)	2 782,95	1 391,48	695,74	231,91	4 870 P	4 174 P	3 711 P	3 247 P	2 783 P	2 551 P	2 319 P	2 087 P	1 855 P	1 623 P
18 (01 X 18)	3 339,54	1 669,77	834,89	278,30	5 844 P	5 009 P	4 453 P	3 896 P	3 340 P	3 061 P	2 783 P	2 505 P	2 226 P	1 948 P

Contribution value of the point 2002 = 1,20 euro – Pension value of the point = 0,0840 euro

The number of points is calculated according to the following formula : $n = \frac{annual\ contribution}{value\ of\ the\ point}.coefficient\ of\ the\ class$. Example : for a contributor aged under 26, n = 185,53 euro / 1,20 x 2,10 = 325 points. The annual pension is calculated by multiplying the pension value of the point by the number of points.

Appendix 2: The Thomas Act on pension funds (1997)

The Thomas Act has been adopted on the 25th March 1997 , but never applied, and formally abrogated on the 17th January 2002. A first section is devoted to the analysis of the Retirement Savings Plans *(Plans d'épargne retraite)*, while the second one describes the functioning of the Retirement Savings Funds *(Fonds d'épargne retraite).*

1. Retirement Savings Plans *(Plans d'épargne retraite)*

First of all, there is a group contract *(contrat de groupe)* concluded between a firm and a pension fund. This contract is called retirement savings plan *(Plan d'épargne retraite)*, and is aimed to provide a pension for workers of this firm (and possibly workers of other firms) that freely agree to adhere to this group contract. The retirement savings plans sets the contractual agreement on contributions and provisions. Then the law defines the retirement savings fund *(fonds d'épargne retraite)* that collects the contributions, invests the accrued funds and serves the pensions to retirees.

• the underwriting of *PER*

The *PER* is a contract concluded between an employer, or a group of employers, and a financial intermediary. The contract can be agreed on a firm or an occupational basis, at a local, regional or national level. The agreement may be reached through a collective bargaining including workers' representatives, or may result from an unilateral decision if no collective agreement has been reached within a six months' notice. After the contract has been signed, it is proposed for adhesion to the concerned workers (wage earners of the firm or of the sector) who are free to join the *PER* or not.

If an employer has chosen not to subscribe a *PER* in a one year notice from the promulgation of the law (that is to say before March 25 1998), the wage-earners of the firm are allowed to join an existing *PER*. If the firm proposes a *PER* afterwards, the wage-earners may choose to have their rights transferred to this new plan without penalties.

• only wage-earners of private companies can join a *PER*

Only wage-earners of private companies, affiliated to old age social security and complementary pay-as-you-go pension schemes, are eligible to become participants to a *PER*. The number of potential members is about 13,8 million. This excludes self-employed workers, civil servants workers depending on (numerous) special pay-as-you-go pension schemes.

The *PER* may define different homogenous categories of wage-earners (for example, blue collars and white collars) and conditions of affiliation accordingly.

• contributions: employers' and employees' sharing, social-security and tax exemptions

Employers' and employees' contributions are optional. The employer's annual contribution cannot exceed four times the employee's contribution.

As in many countries, the fiscal benefits of the *PERs* rest on a EET regime, which means that contributions and interest earnings are tax free, while retirement benefits are subject to income taxation. Some fiscal incentives have been enacted both for the employees and employers.

For the employee, the fiscal incentive amounts to an income reduction: the employee can deduce his (her) own contribution as well as the employer's one off his (her) taxable income up to a limit equal to Max(5%•Y; 20%•C), where Y denotes the overall gross income of the wage-earner, and C the social security ceiling. If the fiscal advantage (that is to say the difference between the upper limit and the contributions) has not been fully used in a given year, it can be carried forward in any of the three following years. This fiscal incentive differs from what is observed for the individual insurance contracts, where the tax exemption concerns the pension benefits received at the end of the contract.

The employers' pension contributions are not subjected to social-security contributions up to 85% of the social security ceiling.

• the defined-contribution plans: annuities or lump-sum benefits; survivor benefits

The *PERs* cannot be defined-benefit plans.

The *PERs* entitle their participants to perceive an annuity when they definitely terminate their employment, and, at the earliest, at the legal retirement age. Since employees cannot perceive their accrued rights before this legal age, no vesting provisions have been enacted. This provision clearly introduces a locking-in aspect in *PERs* .

Although the annuity is the rule, some exceptions have been provided for by the law:

- at the retirement date, the employees can opt for a lump-sum benefit up to 20% of the accrued liabilities (the remaining 80% being annuities), as long as this lump-sum is less than 75% of the Social security ceiling;
- if the accrued benefits are less than a limit (set by decree), they are liquidated in a lump-sum payment.

The affiliated can choose to have his(her) accrued benefits being transferred to the surviving widow/widower, or minor, disabled or incapable children, after his(her) death. Although the law is not explicit, it should be understand that this possibility is offered when the death occurs *after* retirement, i.e. in the compensation phase of the *PER*.

• portability of accrued rights

In case of breach of the labour contract, the affiliated may choose to remain in the initial plan. He(she) may ask for the full transfer of his (her) accrued rights to another *PER* with no financial penalties.

When no interruption of the labour contract occurs, the affiliated may ask for the portability of his (her) accrued rights to another *PER*, with a vesting period of 10 years. This option can be exerted only once.

2. The Retirement Savings Funds *(Fonds d'épargne retraite)*

The Retirement Savings Fund *(FER)* is a financial intermediary. As a a legal entity, its sole objective is to fulfil the commitments taken within a *PER*.

• external management

The list of the financial intermediaries entitled to manage pension funds is restrictive: insurance companies (public or mutual) that are under the supervision of the *Code des assurances* and provident societies *(institutions de prévoyance)* that are under the supervision of the *Code de la sécurité sociale*. This means that a bank cannot enter the pension funds market unless it creates an insurance subsidiary.

The choice of a denominated *FER* can be written down in the *PER* agreement. In this case, the *PER* includes a clause that specifies the conditions under which the sponsor may choose another *FER* . When the sponsor decides to choose another *FER,* the assets and provisions of the former *FER* are transferred to the new one at no cost.

The *FER* may operate only after receiving the legal agreement of the relevant Ministry (finance, or finance and social affairs). This agreement is delivered under considerations such as technical and financial means of the *FER*, manager's honour and ability, capital adequacy…

The *FER* may delegate the management of its assets to an investment company *(entreprise d'investissement)*.

• Portfolio regulation, regulation of funding and ownership of surpluses

The *FER* are subjected to funding, accountancy and ownership of surpluses regulations that will be specified in a decree.

The *FER* will not be entitled to invest more than 65 % of their assets in bonds and shares of mutual funds. In the preliminary debates at the Parliament, it had been suggested to impose a minimum of 35 % investment in equities; this rule has been rejected since it overrides the European directives.

Other portfolio diversification rules have been enacted. First of all, no more than 5 % of the assets of a *FER* can be invested in shares of a given company (or of a given mutual fund). Secondly, a *FER* cannot invest more than 10 % of its assets in non listed shares as a whole, and no more than 0,5 % in shares of a given non listed company.

• prudential issues

The law includes many detailed articles devoted to prudential issues. Only the substantial provisions will be mentioned hereafter. As soon as a *PER* is adopted, the employer is enforced to implement a supervisory board *(Comité de surveillance).* At least half of this supervisory board consists of employee representatives. The supervisory board defines the broad orientations of the *PER* and the *FER* management. The state control is exerted by a joint committee made of representatives of the *Commission de contrôle des assurances* and of the supervision committee of social security institutions. This *ad hoc* committee makes sure that the *FERs* respect the regulations, fulfil their commitments and acts in the interests of the employees and the pensioners.

Conclusion

The newly elected French president advocates the implementation of pension funds in France. The reform which is on the top of his political agenda could be close to the Thomas Act, since it was proposed under the Juppé government.

Appendix 3

List of official books, reports, and contributions on the reform of the French pension system since 1990:

Date	Author(s)	Title	Ordered by
1991	Commissariat Général au Plan	Le livre blanc des retraites	Michel Rocard, Prime Minister
1995	Commissariat Général au Plan	Le “livre noir” (actualisation of the preceding report)	Michel Rocard, Prime Minister
1998	Conseil d’Analyse économique (Davanne, Lorenzi, Morin, eds)	Retraites et épargne	Lionel Jospin, Prime Minister
1999	Jean-Michel Charpin	L’avenir de nos retraites	Lionel Jospin, Prime Minister
2000	René Teulade	L’avenir des systèmes de retraite	Conseil économique et social
2002	Conseil d’Orientation des retraites	Retraites: renouveler le contrat social entre les générations	Statutory report to the Prime minister
2002	Conseil d’Analyse économique (Aglietta, Blanchet, Héran, eds)	Démographie et économie	Lionel Jospin, Prime Minister