Flash

Economic research

22 February 2004 | No. 2004 - 80

What changes are to be expected for US pension funds?

The US retirement system is currently holding centre stage in debates not only because of George W. Bush's determination to privatise partly the Social Security system but also because of the wave of liquidations of major airlines —US Airways and United Airlines — that severely hurt the financial situation of the pension guarantee fund (PBGC) in 2004.

Faced with the noticeable deterioration in the situation of private pension funds and the PBGC, the Bush administration has reacted by presenting a package of proposals aimed at improving their solvency. These measures, if they were effectively voted, could have an impact on the markets but it will remain limited.

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The US pension system

The US retirement system is based on three pillars: a public pay-as-you-go pension system, i.e. Social Security, a private system of funded pension funds, and IRAs, or Individual Retirement Accounts, which benefit from a specific tax status.

Pension funds include private and public pension funds. In the remainder of this study, we focus exclusively on private pension funds.

Outstanding financial assets managed by the various pension funds (in USD bn)

	At end-2003
Private pension funds	4,025.4
o/w defined benefit funds	1,680.0
o/w defined contribution funds	2,345.4
Pension funds of public authorities (state and local government)	1,966.8
Federal state pension fund	959.0
IRAs	2,979.0

Source: Flow of Funds

Private pension funds

Within the funded, and not compulsory, system proposed by employers, there are several types of pension funds: defined benefit funds (defined benefits: DB) and defined contribution funds (defined contributions: DC). Companies can have a single type of fund or combine the two systems.

- In the case of defined benefit funds, the company pays into the fund and undertakes to ensure benefits will be paid. The pensions received by retirees depend on their age of retirement and the level of their last wage. The risk is shouldered by the company. The company carries out an actuarial calculation to determine the amount of contributions it needs to pay into the fund.

- In the case of defined contribution funds, employees (and the company optionally) make payments into the fund. Pension benefits depend on the return of the fund and the capital paid into it. There is no guarantee and the risk is therefore entirely borne by the employee.

Defined benefit funds dominated in the 1970s but their weight has tended to decline in the last two decades. In terms of managed assets, DC funds overtook DB funds in 1996 **(Chart 1)**.

Private pension funds are significantly invested in risky assets. They show strong sensitivity to moves in the stock markets. For equities held directly represented about 37% of assets in 2004 **(Chart 2)**. Moreover, they invest up to 25% in mutual funds that are themselves 65% invested in equities. In other words, more than half of the assets of pension funds depends on trends in the stock market.

Chart 1
US: Private Pension funds and IRA's assets (USD bn)

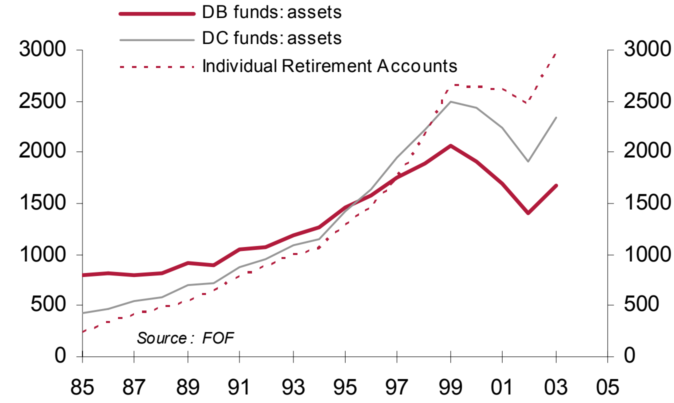
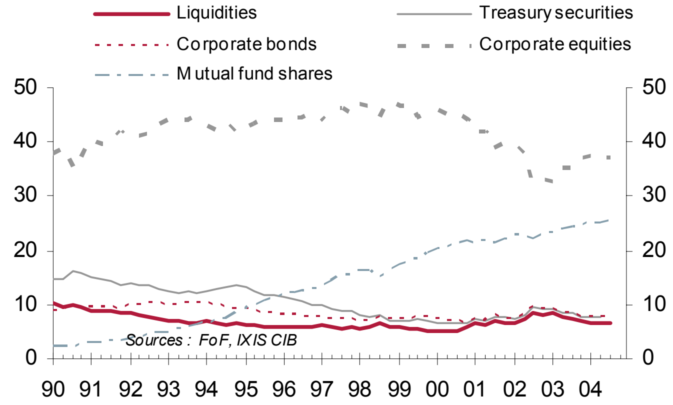


Chart 2
US: structure of assets held by private pension funds (as % of the total)



Inset
Link between the pension fund and the company

Pension funds (Trust Funds and Retirement Plans) are created by companies (sponsors) but are separate legal entities from the company. They are managed by the company and their trustees (Directors). The company can create either a DB fund, or a DC fund, or both types of fund. The pension fund is headed by a Board of Directors.

- The DB pension fund and the company are not really distinct since the company is the only contributor to the fund. The sums paid into the DB fund belong to the company.
- Conversely, in the case of DC funds, employees make payments into the fund and, consequently, they own them.

Differences in terms of management according to the type of fund

Asset management is very different according to the type of fund. DC funds are characterised by riskier management than DB funds: while they hold more or less the same proportion of equities (about 37%), DC funds are far more invested in mutual funds than DB funds (34% against 11%) **(Charts 3** and **4)**. However, as mentioned previously, the latter are significantly invested in equities (about 65%). DC funds are therefore more exposed to moves in the stock markets than DB funds. By contrast, DB funds hold more liquidity but especially far more bonds **(Charts 5** and **6)**.

Companies manage DB funds whereas employees determine investment choices of DC funds. It can therefore seem strange that employees implement a riskier management while they are, theoretically, characterised by greater risk aversion than companies.

This difference in the extent of risk run by pension fund can be explained by the fact that DB funds have a commitment towards employees and prefer a less risky and more diversified type of asset management while DC funds, as they have no commitment about pensions, seek to maximise the expected return by running greater risks. Moreover, companies in reality play a relatively large role in the management of DC funds.

Chart 3
Structure of assets held by DB pension funds
(as % of the total)

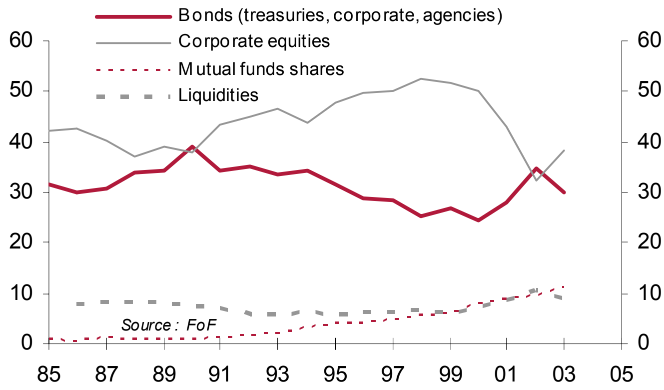


Chart 4
Structure of assets held by DC pension funds
(as % of the total)

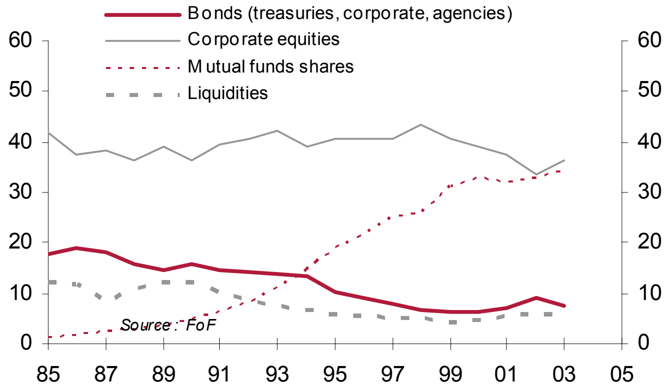


Chart 5
Structure of assets held by DB pension funds
(as % of the total)

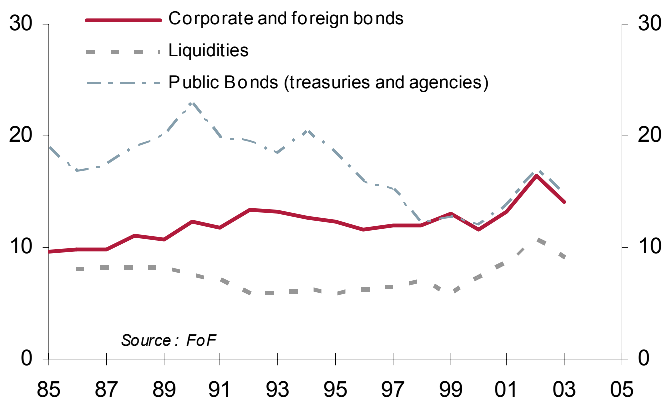
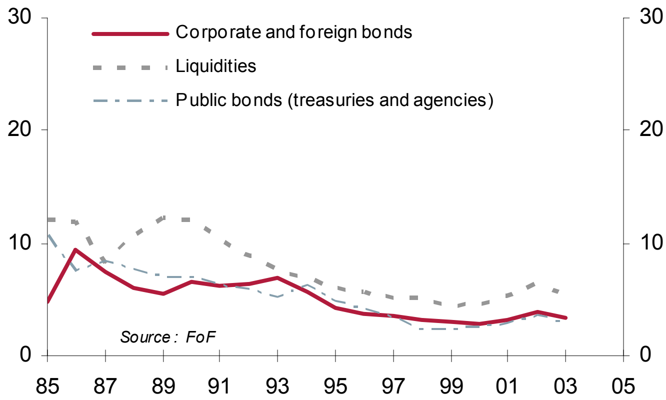


Chart 6
Structure of assets held by DC pension funds
(as % of the total)



DB pension funds can be under-funded if their assets do not cover their discounted liabilities. Conversely, **by definition, the problem of under-capitalisation does not arise for DC funds since there is no commitment about liabilities**.

DB funds take out insurance with the guarantee fund of pensions (i.e. PBGC Pension Benefit Guaranty Corporation) that was created in 1974 to cover the default risk of companies and thus protect employees in the event of bankruptcy. The PBGC currently insures 31,000 defined benefit funds representing 44 million wage earners. The income of the PBGC is made up by premiums paid by companies and by income from its investments. It does not receive any government assistance.

Very noticeable deterioration in the financial situation of DB pension funds...

The financial situation of DB funds has substantially deteriorated in recent years. Their under-capitalisation corresponds to the gap between discounted liabilities (generally calculated by drawing on an interest rate linked to the 30-year sovereign rate) and the value of assets.

The amount of non-provisioned pension plans (with a gap between assets and discounted liabilities) exceeded USD 450 bn in September 2004 (according to the PBGC), and therefore about 30% of commitments of pension funds are not provisioned.

The noticeable deterioration in the capitalisation of funds in the last few years is accounted for by:

- **the sharp stock market slump from 2000 onwards (Chart 7)** that has generated a drastic contraction in their assets;
- **the downward trend in interest rates (Chart 8)** that has generated a rise in the value of liabilities (via their discounting). The 30-year sovereign interest rate dropped from more than 6% at end-1999/2000 to less than 5% at end-2004.

On the request of pension funds, Congress has tolerated since 2002 the utilisation of interest rates ranging up to 120% of the 30-year rate rather than 105% as previously.

Moreover, Congress voted in April 2004 the *Pension Benefit Funding Equity Act of 2004* (PFEA) to help funds in 2004 and 2005. It notably allows funds to replace the rate based on the sovereign 30-year interest rate by a rate base on long-term corporate interest rates. Since the latter are higher than the sovereign rate, this enables funds to lower their liabilities.

Chart 7
US : Assets held by private pension funds (USD bn)

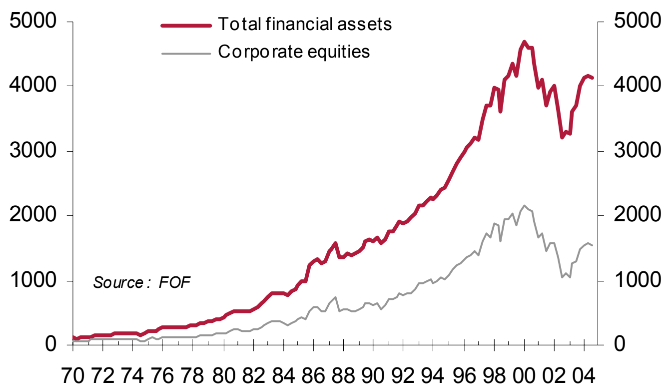
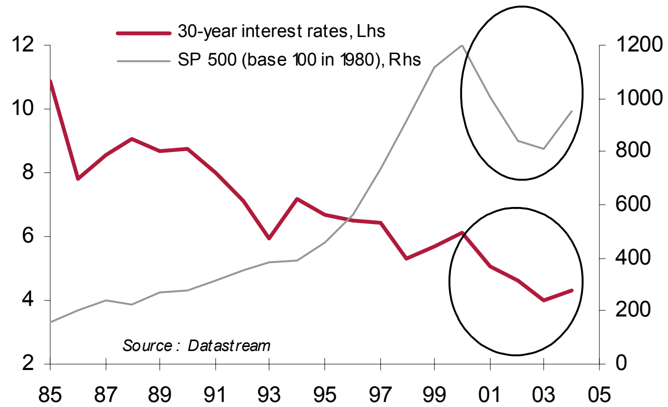


Chart 8
US: 30-year interest rate and SP500



...and the PBGC

The PBGC has suffered from a noticeable deterioration in its financial situation in recent years **(Chart 9)**, while it posted a surplus in 2000 (close to USD 9.7 bn). Its losses climbed to USD 12.1 bn in 2004, lifting the PBGC's net deficit to USD 23.3 bn (gap between its assets and discounted liabilities). The PBGC currently pays the pension benefits of 1.1 million retirees, i.e. at a cost of USD 3 bn. In early 2005, the situation has deteriorated further with the taking over of US Airways' pension fund whose under-capitalisation has risen to USD 2.5 bn (USD 1.7 bn in assets versus USD 4.2 bn liabilities).

This noticeable deterioration in the PBGC's net position is due to the combination of three factors:

- Major requests to assume commitments stemming from the filing for bankruptcy of steel companies: industries and airlines explain most of the increase in the liabilities shouldered by the PBGC. In the last few years and more specifically in 2004, these liabilities have ballooned and hurt its financial situation. For these defaulting companies have closed down their pension plans, switching the onus of paying pension benefits to the PBGC. The significant increase in requests to assume commitments is partly linked to the recession **(Chart 10)**, but also the negative effects on the civilian aircraft sector of the events of 11 September. One had already witnessed, but to a far smaller extent, a deterioration in the financial situation of the PBGC in 1991 during the previous recession. Despite the upturn in growth in 2003, its situation has deteriorated further.
- As with pension funds, the slump in share prices has had a negative influence on the PBGC's accounts by weighing on its assets.
- The decline in interest rates has also had a negative impact, by increasing the discounted value of its liabilities.

Chart 9
Net Position of the PBGC (difference between the value of assets and the discounted value of liabilities, USD bn)

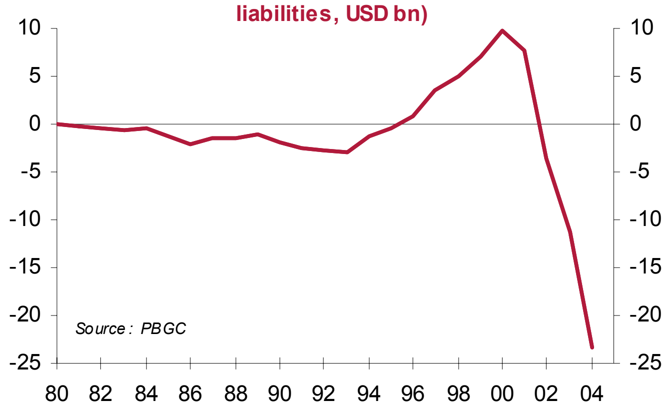
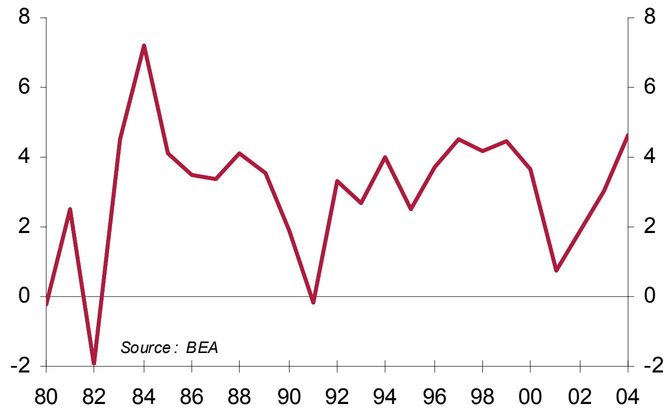


Chart 10
US: GDP (% yoy)



How serious is the risk?

While, for the time being, the PBGC is able to pay pension benefits, the surge in its liabilities — up from USD 45.2 bn to USD 62.3 bn — compared with its assets is worrisome.

Moreover, the PBGC estimated at USD 96 bn the amount of unfunded corporate pension benefits run up by companies faced with a significant default risk. This amount has grown since 2003 when it stood at USD 82 bn.

A bankruptcy of the PBGC would endanger many pensioners and give rise to the question of a possible intervention by the federal government. Theoretically, the PBGC does not enjoy any federal government guarantee but it is not certain that the Bush administration would leave a high number of pensioners without their complementary retirement benefits.

Measures aimed at improving the solvency of the PBGC and pension funds

Faced with this noticeable deterioration in the financial situation of PBGC and the extent of the under-capitalisation of DB funds, **the Bush administration has proposed a plan to guarantee the solvency of the PBGC and enable the capitalisation of pension funds to be improved**. These measures are organised around three guidelines:

- make the rules governing the provisioning of funds more stringent by simplifying them and ensuring they are better adapted to the fund's risk situation, in order to keep the risk of under-capitalisation in check;
- improve information about the financial situation of pension funds;
- reform the structure of the insurance premiums paid to the PBGC.

A noteworthy point is that the proposed measures are exclusively aimed at improving the capitalisation of funds but do not bear directly on their choices in terms of portfolio allocation, or on the say in which their results are booked in the company's profit and loss account. Moreover, these measures have yet to be approved by Congress.

Reforming the funding rules

Until now, pension funds could use various calculation methods and different discount rates to determine their level of funding. The goal of the Bush administration's proposals is to simplify and make more homogenous the valuation methods of assets and liabilities:

- The funding targets will depend on its financial health.
- If the discounted liabilities are higher than the assets, the difference will be amortised over 7 years. During this period, the minimal required contribution (paid by the company) will be the sum of the normal contribution for the current year and an additional contribution to recapitalise the fund.
- **The discounting of liabilities will be based on a corporate** (AA) zero-coupon **yield curve**. This yield curve will be published every month by the Treasury. The maturity chosen for the interest rate will depend on the age of the workers (a firm with a young labour force will be able to take a longer maturity, therefore a higher rate thereby reducing the discounted liabilities).
- In order to improve the funding, even when it is in good financial health, the company will be able to make tax-deductible contributions.
- Until now, the **pension funds could use a value of assets, smoothed over several years,** to determine the level of the fund's capitalisation. The smoothed value of the assets could diverge from market value but had to remain within a range of 80-120% of market value. **The proposal suggests using the market value of assets**.
- When the fund is significantly under-funded, it will have to apply restrictions on new benefit promises and on lump sum payments.

Reforming the structure of the insurance premiums paid to the PBGC

This proposal seeks to reform the structure of the insurance premiums paid to the PBGC so that they reflect risk to a better extent. The pension fund pays a premium to the PBGC that is to be broken down into a flat-rate premium and a variable-rate premium that will depend on the fund's risk.

- The flat-rate premium is currently USD 19 per member and has not been raised since 1991. The proposal suggests increasing this premium to USD 30 per member in 2005.
- Some under-capitalised funds must also pay a variable (risk) premium according to the pension fund's under-capitalisation. This variable premium stood at USD 9 per USD 1,000 of under-capitalisation. All under-capitalised companies will be liable to the payment of this variable premium that will depend on the company's financial health.

What consequences?

With regard to the PBGC, these measures should improve its solvency by increasing its funds via the hike in premiums. Moreover, the PBGC has already adopted a new investment policy in order to reduce the volatility of its balance sheet by increasing its investment in bonds reflecting its liabilities and by reducing the weight of equities. Nevertheless, this reallocation has remained limited since assets in equities declined from USD 12.6 bn in September 2003 to USD 11.1 bn in September 2004 (according to the PBGC's balance sheet).

With regard to pension funds, the standardisation of valuation methods and the tightening of provisioning rules should lead to an improvement in the capitalisation of funds. While no measure bears on asset allocation, the afore-mentioned measures could nonetheless have an impact on the allocation made by DB funds.

- **The fact that funds will have to book their assets at market price (mark-to-market)** and no longer by smoothing their value over several years will generate higher volatility in the value of their assets. To curb this volatility, **they could be tempted to switch into less risky assets by preferring bonds**.
- **The fact that funds must improve the "matching' of their assets and liabilities points to increased demand for long-dated paper (30 years or inflation-indexed securities).** As supply of this type of securities is limited, since the Treasury has no longer issued 30-year bonds for several years, the consequence could be a flattening of the curve on the long segment (10Y/30Y). The recent flattening of the curve has remained limited **(Chart 11)**, reflecting to a greater extent expectation of a rise in demand among pension funds than a real reallocation carried out by the latter. So far, the US Treasury has not given its opinion about the possibility of adapting to this potential increase in such demand for very long-dated paper. It may be considering the idea of issuing this type of paper once more if structural demand were to emerge.

Nonetheless, **several factors suggest that the portfolio reallocation move will remain limited**:

- Pension funds are seeking relatively large returns. Apparently, therefore, they are unlikely to change significantly their allocation in favour of bonds.
- Moreover, bonds currently seem very expensive.
- The proposed measures do not affect the manner in which companies book the results of their fund in their income statement (they can smooth the provision in various ways).

Lastly, the tightening of the rules governing DB funds could fuel the wave of closures of these funds and the creation of DC plans. However, as DC plans are more invested in equities, this could contribute at first sight to a rise in demand for equities.

Chart 11
10-30 years slope (bp)

Favourable cyclical factors

The combination of solid economic growth, a rise in interest rates and a stock market rally will positively influence the PBGC's accounts and should allow it to absorb automatically part of the under-capitalisation of private pension funds. Moreover, the tax measure voted in last October aimed at encouraging capital repatriation with a very low tax rate (5.25% vs. 35% usually) could also have a favourable influence since this capital could be used to recapitalise pension funds.

Summary

The Bush administration's proposals to cope with the deterioration in the situation of private pension funds and the PBGC could have an impact on the markets but it will remain limited.

To improve the "matching" between their assets and their liabilities, DB funds could be tempted to allocate a greater part of their assets in long-dated securities, i.e. bonds with a long maturity or inflation-indexed bonds. Demand for this type of securities should therefore increase, although in the near term the supply-side policy will not be modified, helping sustain the bond market on the long segment.

However, we believe that this move will remain limited insofar as the pension funds need a higher return on investment than provided by investing in bonds.