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**Working Party on Private Pensions**

**NOTE ON ISSUES FOR THE REGULATION OF THE INVESTMENT OF PENSION FUND ASSETS**

*This document is circulated for discussion under item 6 of the agenda of the meeting to be held on 24 - 26 November 2003. Delegates are invited to comment on the questions following paragraphs 23, 25, 28, 31, 35 and 38.*

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## **NOTE ON ISSUES FOR THE REGULATION OF THE INVESTMENT OF PENSION FUND ASSETS**

1. This note addresses issues for the regulation of the investment of pension fund assets. It is provided as background to the discussion and presentations on investment that will be presented at the Working Party on Private Pensions on 24-25 November 2003, including the presentation of draft guidelines for the Working Party's consideration.

2. The Working Party has considered the issue of pension fund investment on previous occasions. Most notably, the investment regulation of pension funds is addressed in the Basic Principles For the Regulation of Private Occupational Pensions Schemes, DAFPE/AS/PEN/WD(1999)18REV3, at Principle No. 11<sup>1</sup> and in the Occupational Pensions Core Principles and Methodology, DAFPE/AS/PEN/WD (2001)12/REV6, commonly referred to as the "Template," at Core Principle 5. It has also been addressed in numerous background documents, primarily focused on the quantitative limits used to regulate investment and the prudent person approach to regulation.<sup>2</sup>

3. This note lays out the following issues, which have not yet been explicitly discussed by the Working Party:

- Investment risk in funded pensions: the bonds-equity debate for retirement savings
- The impact of valuation rules on volatility and investment management
- Further exploration of the prudent person standard and quantitative portfolio limits in light of the issue of investment risk

### **I. Investment Risk in Funded Pensions: the Bonds-Equity Debate for Retirement Savings**

4. The overwhelming risk in retirement savings is that asset values may fall below what is needed to pay pension promises or otherwise meet a household's retirement timing needs. There are numerous risk

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<sup>1</sup> Basic Principle No. 11 also references the "Selected Principles for the Regulation of Investments by Insurance Companies and Pension Funds," which were approved by the OECD Insurance Committee, and appends them to the text.

<sup>2</sup> The OECD Secretariat has provided numerous other background materials on pension fund investment regulation to the Working Party over a several year period including a survey of quantitative limitations applied in OECD countries, which was recently updated (DAFFE/AS/PEN/WD(2003)7/REV1); "Prudent Person Rule" Standard for the Investment of Pension Fund Assets (DAFFE/AS/PEN/WD(2001)15/REV1); Processes of Investment Management For Pension Fund Governing Bodies (DAFFE/AS/PEN/WD(2002)7); and Portfolio Regulation of Life Insurance Companies and Pension Funds (DAFFE/AS/PEN/WD(2000)17/REV1). Additionally, the Working Party has been informed of relevant developments within the European Union ("European Parliament legislative resolution on the Council common position for adopting a European Parliament and Council directive on the activities and supervision of institutions for occupational retirement provision"(DAFFE/AS/PEN/WD(2003)8).

factors that might contribute to this shortfall risk. One key factor is investment risk, which is the risk that the financial vehicles in which pension fund assets have been invested may not provide anticipated investment returns. One important source of this risk is asset price volatility, which is defined as the fluctuation of asset values around expected values (the variance or standard deviation in statistical parlance). An important source of investment risk are “fat tails” in frequency distributions of returns, that is, the possibility of infrequent but large investment losses (and gains). There are two main concerns arising from investment risk. First, one might inappropriately time the implementation of investment strategies (buy high, sell low). Second, there might be downward movements in asset values at the time when pension promises must be satisfied. In a worst case scenario, a worker about to retire may find herself with a high level of investment in equities at a time of a large stock market crash. The possibility of a crash may not be captured in standard measures of volatility, but needs to be considered when making investment decisions.

5. The global shift toward defined contribution arrangements (of different types) has sharpened awareness of these risks among policy makers and citizens alike, especially in the wake of the 1990s bubble and the last three years of adjustment. Downsizing in public (mostly pay-as-you-go) pensions has further highlighted the fact that households in many countries are being asked to directly manage investment risk that before was the burden of “someone else.” But investment risk is not a new issue: sponsors of defined benefit plans have had to wrestle with the risk/reward trade-off for years, as have managers of closely akin collective defined contribution arrangements (and insurance companies).

#### Distributing Investment Risk in Retirement Savings.

6. Though defined contribution models of different sorts have come to the fore in recent years, in some OECD countries occupational defined benefit plans continue to play a significant role. Defined benefit plans, depending on scheme design, have their own risks, but common to the defined benefit models is the essential feature that the “sponsor” – generally the employer in an occupational scheme -- bears the investment risk. The employer, within the parameters of applicable funding rules, is the gyroscope that matches resources to promises – if assets in the dedicated pension fund decline under the funding ceiling (or interest rates fall, thereby increasing annuity costs), the employer in effect has to draw on shareholder equity to make up the shortfall. In exchange, countries allow pension fund assets to accumulate tax-free, which provides advantages to employers in the upside years.

7. Defined contribution programmes come in several types. For purposes of this discussion, insurance-style DC regimes such as those in Denmark and Switzerland aim to provide benefits akin to those defined benefit arrangements. The key difference is that the “gyroscope” is within a DC fiscal envelope – reserves have to be maintained to smooth volatility risk over cohorts. The employer’s obligation is limited to making contributions as stipulated in the arrangement, and the employer is not responsible for correcting imbalances between assets and liabilities. Participants, therefore, face DC-type risks in the form of changing parameters and even downward adjustments in benefits in order to keep liabilities in line with available assets.

8. In other defined contribution regimes, households bear the investment risk more directly. In some countries, households can choose among providers, but the rules of the game are such that there is little or no effective portfolio choice – this occurs in the “Latin American” model now being used in the mandatory funded second tiers in Hungary, Poland and other EU accession countries. An even more constraining model is found in occupational DC arrangements in Australia, Spain and Italy, where households have no portfolio choice and volatility smoothing is generally not attempted. Because of portfolio uniformity, market volatility affects households as a whole – that is, there is not much heterogeneity among households. There are unresolved principal-agent issues in these non-portfolio-choice models that

probably will cause them to evolve toward either more explicit smoothing (per above) or the placement of responsibility for portfolio choice more explicitly on households.

9. Finally there are DC regimes, such as in the United States, United Kingdom, Hong Kong and increasingly elsewhere, that provide a much broader range of investment portfolio choice to individuals. In practice, DC portfolios across households probably fluctuate with the market without too much dispersion among households. In theory, however, households have the option to choose among more or less volatile portfolios depending, in part, on their tolerance for risk.

10. In all cases, the bursting of the 1990s equity bubble has highlighted the risk associated with the investment management of pension assets. This recent performance of the equity markets has brought to the fore a longstanding debate among finance economists and others about the appropriateness of equity as a means to store value until retirement and even afterwards. The debate occurs in each of the programmatic contexts described above: (i) securing promises made by employers in DB plans and by some collective DC arrangements; (ii) the choices facing households in having to choose their portfolios in countries where the worker-choice DC model is pre-eminent; and additionally, (iii) the management of reserves or buffer funds within social insurance schemes. Discussion at the WPPP will explore the first and second context in more detail. The third context is included here only to raise some broader public policy.

#### Pension Fund Risk Management.

11. Regardless of the particular form of a pension programme, investment decisions need to be taken taking into account the retirement benefits that are guaranteed or targeted. In other words, the key task is to assure that at the end of the day assets (contributions plus investment returns) are adequate to pay for liabilities at the time they come due. In the case of a defined benefit plan or a collective DC scheme, the plan liabilities are defined by the obligations stipulated in the arrangement. In an individual DC scheme, on the other hand, each individual member of the plan must determine what his targeted benefit level is, and make investment decisions accordingly.

12. In all cases, a basic decision must to be made about how to allocate pension fund assets among the various asset categories and financial instruments available, both to assure sufficient investment return over time and to assure that unnecessary volatility does not result in a significant reduction in asset values at the time when the plan's need for liquidity increases. The goal of investment risk management is to address this concern.

13. A 'fundamental' principle of risk management is that benefit security is maximized when the maturity and unit of account of assets are completely matched to deliver promised or targeted pension benefits. In the case of defined benefit plans, however, the value of the plan's liabilities is subject to much uncertainty. Assumptions need to be made not only about actuarial and behavioural variables such as mortality, retirement patterns, and employment turnover rates, but also economic variables such as discount rates, investment returns, and salary growth. However, the degree of uncertainty is reduced as the plan matures and the number of retirees increases as a percentage of total members. A mature defined benefit plan that is closed to new members, for example, faces only one major source of uncertainty on its liabilities: mortality rates. For such plans, efficient risk management may require investment in assets that provide a good match for its bond-like liabilities. On the other hand, a relatively young plan with a high ratio of active to total members (including active, deferred and passive members), is faced with a much more difficult task in pinning down the value of its liabilities. Pension funds may not find any natural asset class that can match the plan's liabilities.

14. Moreover, even if the value of liabilities is known with relative certainty, sponsoring employers and households may wish to take on the risk of asset-liability mismatching in order to aim at higher expected returns over the relatively long horizon of the pension plan. Higher returns can be obtained only by taking on higher risk, which requires a deviation from the matching principle. Given a deviation from this principle, asset managers of DB and collective DC pension funds and households in individual DC schemes have to adopt risk management systems that carefully define the investment risks in relation to the expected liabilities of the pension plans. Presumably as pension plans become more mature, the first approach becomes more preferable than the latter. The issue can be looked at in terms of the equity premium and bond-equity debate.

#### The Equity Premium and the Bond-Equity Debate.

15. A popular view holds that pension strategies in which equity has been a key component have paid off over time – in effect, generating higher returns for the same contribution or lower contributions for the same promise – provided one takes a long-term perspective and rides out market perturbations. Furthermore, equity advocates hold, bonds are no less risky once inflation risk is taken into account; indeed, equity values are more likely to track inflation – and wage growth that may be accounted for in pension formulas.

16. Advocates of bond immunisation argue “funding” can be put on something close to automatic pilot by buying bonds with durations that match the promises under their schemes, accepting a relatively low real, but not volatile, rate of return, and not trying to actively “beat the market” by investing in equity or lower grade bonds. Those holding this view argue that most pension fund managers will not, and indeed, by definition, cannot do better than something close to the risk-less rate of return. That is, if equity risk has any meaning, there must be winners and losers. Not everyone can be “above average.”

17. To try to reconcile these contrary views, it is useful to keep two points in mind. The first is the difference between the “equity premium” and the “equity premium paradox.” The latter is the observation that equity returns have exceeded what analysts have estimated as the compensation investors want for taking on greater risk. Several explanations have been advanced to explain this paradox: (i) it has taken time for analysts to fully value the underlying assets of firms – there’s been a 50 year catch-up; (ii) the past 50 to 60 years have been remarkably kind to equity markets (no major wars, depressions) and, from a historical perspective, quite unusual (e.g., the first fifty years of the 20<sup>th</sup> century were not good for equity, and save for the UK and the US, no bourses have survived for long periods); and (iii) individuals have been too risk averse with respect to equity, sometimes by inclination and sometimes because of institutional constraints.<sup>3</sup> Arguably, the high returns to equity have only reflected better and better valuations, markets getting used to unusual stability, and individuals slowly overcoming (perhaps too much so) aversion to equity. Eventually, however, the “paradox” must go away and one is left with just a core equity premium – that is, the amount of additional, potential return investors demand for putting their money at risk rather than buying government bonds.

18. The second issue relates to inflation. On its face it makes theoretical sense that equity values should increase over time with inflation. That is, nominal asset values perforce track nominal income values. However true this may be in the long run, it is also the case that bursts of unexpected inflation have not always been accompanied by parallel catch-up increases in share prices. In fact, the general experience has

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<sup>3</sup> A related discussion is whether the anticipated changes in the age structure of the population across OECD countries will lead to a downward trend in equity prices, as the shift may correspond to an overall switch to investment strategies that are less concerned with capturing the equity premium and more concerned with avoiding the volatility risk associated with it. See the document Ageing and Financial Markets, DAFPE/CMF(2003)21.

been quite to the contrary. For example, the 1970s were a period of negative returns in the market, and only as inflation came down through rigorous monetary policy did equity values increase back to 1960 levels and beyond. In addition, now that indexed government bonds are more available, bondholders do not have to run the risk that unexpected inflation will cause the nominal price of bonds to decline more than the nominal price of liabilities.

#### Defined Benefit and Collective DC Schemes.

19. In the context of DB schemes and collective DC schemes, advocates of bond immunisation make some additional arguments. They ask why should shareholders of firms with significant DB schemes have the value of their shares determined almost as much by what is occurring in the schemes' portfolios as by the firms' underlying operations. For example, does one buy (or sell) IBM because of its business strategy as an IT manufacturer and service provider or because of the success (or lack thereof) of its pension fund managers? Collateral to this argument is the suggestion that more active and aggressive pension investment policies only serve to distract boards of directors and management (especially CFOs) from their core business concerns and consume unnecessary real resources in pension advisors and asset management.

20. An additional issue is whether the share prices of firms that sponsor DB plans have reflected asset volatility in their pension funds. Until accounting rules changed to record a firm's net pension position on the corporate books, the volatility imposed by equity (or lower grade bonds) in the firm's pension portfolio could be ignored. In effect, save among financial analysts that scrubbed the footnotes, there was a general non-recognition of the volatility risks. More intense accounting protocols, abetted by tighter funding rules and, in some countries, government sponsored guaranty funds, have forced greater recognition – for the most part, unfortunately, at a time of market downturn (although the US and Canadian pension accounting rules go back to the 1980s). The upcoming years will tell us to what extent market investors factor into share evaluations the volatility risk of pension assets held by firms with DB plans. In theory, shareowners will come to appreciate that their share values, when they try to sell them in a down market, can be affected by what is happening in a firm's pension plan – that is, a downturn in the market could affect not only the market's valuation of the firm's core business but also the value of its pension portfolio – and the potential draw on the firm's immediate term income for increased contributions. It also possible that market analysts may regard the effects of fluctuations in pension portfolios as ephemeral and not affecting valuations of the core business. However, in this regard, it is worth noting that rating agencies already have warned that estimated deficits in company pension schemes are similar to debt, a determination that has led to rating downgrades of some companies.<sup>4</sup>

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<sup>4</sup> For example, in February 2003, one ratings agency warned that 10 big European companies faced downgrades because of pension shortfalls. One of them was downgraded to junk status because its unfunded pension liabilities were to be treated as debt. Elsewhere, for example in the United States, large pension fund deficits were also cited in the downgrading of some large companies' debt. Another rating agency has announced that unfunded pension liabilities have not yet led to any rating downgrade as of September 2003, but that rating outlooks may change if funding gaps persisted. It had previously been thought that credit ratings agencies regarded pensions as long-term liabilities with little negative liquidity implications, at least in the case of those jurisdictions where pensions rank along with non-preferred and unsecured debt in the event of insolvency. Across countries, there are differences in the status of pension creditors, but this status may be subject to change in some countries. For example, in the United Kingdom, there is a discussion about making the status of pension creditors "preferred" rather than "unsecured". Such a change is likely to affect ratings, particularly for companies where financial indebtedness is already high. Indeed, the Bank of England has recently reiterated its concerns about the relatively high indebtedness of UK companies (Bank of England, 2003). In any case, the discussion surrounding the issue of credit ratings highlights that external financing conditions of companies may be affected by the extent of under-funding of their pension schemes. See the document *Tour d'Horizon on Financial Markets*, DAF/CE/CMF(2003)15.

21. For defined benefit plans, the immunisation discussion is complicated by differences across countries regarding the definition of accrued rights. In the United States, with only a few exceptions, accumulated benefit obligations (ABO) in DB plans are based on nominal wages or salaries at the time of plan termination (or when a person leaves the firm before retirement). In the UK, at least some of the ABO liability has to be adjusted for inflation. Putting aside reinvestment risk, it is easy to match nominal-ABO liability with bonds, especially indexed bonds. Some argue that it is less obvious that indexed-ABO liability can be so easily matched. In addition, firms generally are funding to match an even greater ongoing liability target – projected benefit obligations (PBO) – which presumes nominal and real increases in wages. A valid question to ask is whether this can be done without some dollops of equity – at least for the difference between PBO and ABO?

22. The bond-equity debate is just as salient for DB plan sponsors in the public and non-profit sectors. In those cases, it is taxpayers and donors (and consumers) who are the holders of the volatility risk. Because governments and non-profits are only now beginning to develop balance sheets like those in the private sector, equity risk may not be appropriately reflected in the decision-making of sponsoring trustees (for example, politicians with short time horizons). In many jurisdictions, however, this hazard is often overcome with trustee (or comparable) boards that have worker and retiree representatives. Such mixed boards tend to be relatively conservative in their investment policies, which may be one of the reasons that some studies have shown that over some periods they have had lower returns than private sector pension plans. The lower returns may reflect less tolerance for risk, which for reasons discussed later, may be entirely appropriate.

23. The same considerations also hold for collective DC schemes and personal pension insurance products offered by insurance companies. In these cases, however, there is either no (or limited) call on outside sources – such as a DB company sponsor – to make up for any funding gap. The “buffering” has to be internal to the scheme. This fact argues possibly for even more immunisation, though each of these arrangements has institutions that are very country specific. Indeed, regulators of insurance impose solvency ratio and capital buffer requirements for precisely this reason. Similarly, pension regulators also may build in a preference for surplus in their regulations either requiring or permitting over-funding of obligations to some degree, as in the Netherlands and United States, to provide a buffer in market downturns. To some extent, shareholder equity in a commercial insurance company offers some buffering over a market cycle, as do guaranty funds or similar arrangements. The latter, however, may invite moral hazard. The interesting countries to watch in this context are Denmark and Switzerland as they adjust their parameters with their collective DC arrangements to meet evolving market conditions.

***Issues for discussion:***

*Should pension regulators be concerned that the asset allocation strategies of pension funds may reflect an employer sponsor's concern with the manner in which liabilities are reflected in the company's balance sheet, its ratings and share value – especially if the asset allocation strategy absent consideration for those concerns, would be materially different?*

*What is the relationship between accrued rights (ABO/PBO) and investment strategy? Should regulators take a more holistic view of the measurement of liabilities, funding rules and investment regulation? In doing so, is there a clear impact on the nature of investment regulation?*

*How should pension regulators of defined benefit plans and collective DC arrangements react in times of significant market volatility, which, on the one hand may reveal weaknesses in the regulatory*

*infrastructure that may need to be addressed and on the other hand, may cause regulators to overreact, act precipitously, and unnecessarily over-regulate?*

*Requiring defined benefit and collective DC arrangements to have surplus to buffer against market downturns may be a prudent regulatory strategy. How would an appropriate level of surplus be determined? Is there a downside to this approach to benefit security?*

*Do investment regulations require some form of asset-liability matching? Do mature plans tend to invest more in fixed income securities?*

#### Portfolio-Choice DC Schemes.

24. In a world of portfolio-choice DC schemes, the same immunisation debate re-emerges. In this context, however, there is no external sponsor or wider group over which to spread volatility risk. Each household has to determine its volatility risk tolerance.

25. Those who favour bonds argue that even if it were the case that longer holding periods diminish equity risk, this proposition ignores the fact that households have heterogeneous lifecycles that do not necessarily coincide with market cycles. In fact, unless a household can buy insurance against equity volatility (hedging), then timing is, in fact, everything. Hedging, of course, has a price and, absent some arbitrage opportunity, a perfectly hedged portfolio (full put option) would not return more than a risk-less return. Nor is there any solace in moving from equity to bonds over the lifecycle. The conversion may easily take place during a downturn in the market.

26. In this view, households would do well to calculate the minimum consumption level below which they do not want to fall and save for that level by using government indexed bonds as much as possible. While many individuals may understand this matter intuitively, a key question is whether most individuals are capable of carrying out an effective investment strategy in line with their intuition. This concern would suggest that where governments ask individuals to make such decisions, governments should correspondingly try to make sure that individuals have been provided the knowledge and tools to do so. Of course, if the government is running a fiscally credible pay-as-you-go social insurance system (and/or a budget financed citizens' pension tier), then some of that "government bond" savings already has been accomplished. To a large extent, this kind of "implicit government debt" is a substitute for savings in explicit government debt that is similarly indexed. A key question, however, is what is fiscally credible – that is, are length-of-service and/or retirement ages realistic in light of life expectancies, is the benefit promise tenable in light of fiscal projections, and so on.

#### ***Issues for discussion:***

*How can regulators help individuals with substantial portfolio choice make appropriate decisions about asset allocation in light of the immunisation debate? How to promote further financial education? Are there particular financial instruments suitable for individual investors in pension markets, the development of which might be encouraged?*

#### Government Reserve and Buffer Funds.

27. Ironically, at the same time as some finance economists are calling for government to offer more indexed bonds in order to deliver retirement security to DB sponsors and households with DC portfolios, governments are building up reserves or buffer funds to smooth out contribution demands in retirement systems that are mostly pay-as-you-go financed, which reserves are invested back into the private sector. Should government be taking on volatility risk that DB plans, collective DC plans and households are trying to shed? Since volatility is one of the risk factors (along with default risk) that goes into the pricing

of equity, are equity markets distorted if national governments – the institution with potentially the longest holding period – hold too much equity? Does it matter if these equity holdings are indirect via shares in broad index funds, or does that merely increase the corporate governance power of those investors who are willing to actively trade in equity?

28. Some countries, notably the United States, hold their social insurance reserve funds solely in government bonds, which arguably creates another set of problems. Save for a few years in the 1990s, the US OASDI trust fund was not used to diminish total debt – whether held by the public or by government agencies (especially OASDI). While the proposition can never be proved, most analysts conclude that OASDI reserves were therefore used to support increased government spending. A second-order question is how much of that increased spending was consumption (e.g., grants to state and local governments) vs. investment, and if investment, over what payoff period?

29. A solution to these dilemmas might be for governments to invest their social insurance reserves in each other's bonds, but that would entail major changes in investment philosophies. As the EU matures into one unified market, however, we may see countries buying each other's bonds to diversify country risk.

***Issues for discussion:***

*What are the current impediments to countries buying each other's bonds to diversify country risk in pension buffer funds and other government reserve funds?*

Limits on Government Paper.

30. One possible, even probable, limit to a bond immunisation strategy for retirement savings is whether sufficient indexed government bonds exist to match the potential demand. A simple comparison of pension fund liabilities to government debt suggests that demand outstrips current supply. Roughly 8 percent of pension assets in the United States are invested in government debt, suggesting that a major readjustment in holdings would have to occur to accommodate an upsurge in demand for indexed government debt to match today's DB liabilities and DC holdings. Among other things, non-US investors would have to be willing to massively swap their holdings in US government bonds.

31. The scarcity in most major markets of fixed-income assets that would enable institutions to match long-term assets and liabilities has received considerable attention. In order to provide a useful long-term asset to match pension liabilities, there should be a large supply of long-term high-quality paper that is highly liquid and, possibly also, inflation-indexed. When fiscal positions in many OECD countries strengthened, it appeared that the overall supply of debt might contract significantly, although the possibility that this might occur now appears much less likely given rising fiscal deficits in many OECD countries. Some other securities may be relatively close substitutes to government bonds. In the United States, a large stock of "agency paper", which is perceived as having a high degree of official support, complements government paper, and thus to some degree can serve as a benchmark. However, similar assets are not available in many other markets. Some assets, such as mortgage bonds or mortgage-backed securities are found in some European markets, but supply is not growing rapidly. Overall, most countries in continental Europe have a relatively low volume of non-governmental high quality bonds and fixed-income markets are extremely thin in Asia, the one exception being the Japanese government bond market.<sup>5</sup>

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<sup>5</sup> See the document Ageing and Financial Markets, DAFFE/CMF(2003)21.

32. These limits remind us why pay-as-you-go schemes exist – to supply some implicit indexed government debt beyond the amount that government debt markets would normally provide. They also suggest that any large move toward restructured government debt to provide non-volatile instruments for risk-adverse pension sponsors and managers and – most especially – for households in a world of increasingly self-managed retirement savings probably requires more deliberate public policy attention and debate than has occurred to date. A final question is whether it will be possible for private financial sector intermediaries, through portfolio diversification and hedging, to provide the equivalent of indexed government bonds to satisfy the potential demand.

***Issues for discussion:***

*Are sufficient quantities of financial instruments available, particularly at the long end of the maturity spectrum?*

**II. The Impact of Valuation Rules on Volatility and Investment Management**

33. Regulators have sometimes tried to address the volatility in financial markets via asset valuation techniques. Valuation of pension fund assets is a crucial matter and may have a substantial impact on a pension plan, its funding and its investments. For regulators, establishing appropriate valuation methodologies is for these reasons one of the initial steps in regulating pension investment. Indeed, the proposed guidelines on investment, DAFFE/AS/PEN/WD(2003)15, give primacy to the issue, proposing that valuation be the topic of one of the first guidelines in the document.

34. It is of course important that pension programmes that include individual accounts have assets that are accurately and timely valued. In cases of these types of plans, especially where member-directed, presumably the underlying assets in the portfolio will be valued at current market price or fair market value.

35. Similarly, it is expected that defined benefit arrangements also generally will value assets at current market price or fair market value. Some regulatory regimes, however, permit the use of various methods of "smoothing" asset values over time in order to reduce the impact of short-term market volatility on asset valuations and, hence, on funding requirements. For instance, assets may be measured as multi-year averages rather than current values. These methods are often used in the context of actuarial and funding determinations for defined benefit pension plans. In effect, smoothing reduces the impact of abrupt market downturns on plan asset values, arguably resulting in the understating of the gap between assets and liabilities.

36. In recent years, there has been substantial debate regarding the appropriateness of using these smoothing techniques. On the one hand, smoothing may mask significant underlying concerns regarding the overall asset allocation of a pension fund portfolio or the performance of any specific investments or asset classification. Moreover, it has been argued by some that pension funding levels may only be appropriately set if both asset and liability measures are current and accurate. In this view, rather than reduce volatility, smoothing techniques may contribute to it.<sup>6</sup> On the other hand, smoothing may better align both pension plan funding and investment activities with the long-term nature of pensions – and reduce the incentive for pension fund investment managers to unnecessarily shorten their investment time horizons and thereby overreact to the short-term volatility of investments in their portfolios. A similar

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<sup>6</sup> See, e.g., Testimony of the Honorable Peter R. Fisher, Under Secretary for Domestic Finance, U.S. Department of the Treasury before the Subcommittee on Financial Management, the Budget, and International Security, of the Committee on Government Affairs, United States Senate, September 15, 2003.

effect, however, can be obtained by permitting plans to spread actuarial and net experience gains or losses over time.

***Issues for discussion:***

*In light of the pros and cons regarding the smoothing of asset values, how should the matter be addressed in Working Party guidance? Are the pros and cons with respect to the smoothing of liabilities rather than assets different or substantially similar?*

*What issues arise where different valuation rules (including the use of smoothing techniques) are used for accounting, investment, actuarial and funding purposes? Is there a need for regulators to address possible inconsistencies?*

**III. Further Exploration of the Prudent Person Standard and Quantitative Portfolio Limits in Light of the Issue of Volatility Risk**

37. The consideration of the issue of managing investment portfolio volatility inevitably brings us back to the two primary regulatory approaches used to regulate pension fund asset management: the prudent person standard and quantitative portfolio limitations. How does the consideration of volatility risk affect investment activity under these regulatory approaches?

38. Under a prudent person standard, the pension fund's governing body or another responsible party is given broad authority to invest the pension assets in a prudent fashion in light of the particular needs of the plan or fund. This standard would require those managing pension fund assets to give due credence to the volatility risks of security markets when making investment portfolio decisions – especially broad decisions regarding strategic asset allocation. To the extent that there are, perhaps, varied views among experts regarding the extent to which investment risk would require the use of a bond-based investment portfolio rather than a broadly diversified portfolio with significant portions invested in equities, the prudent person standard would require a sound exploration of both options and a reasoned decision about which investment approach to embrace. For pension programmes with member-directed accounts, the prudent person may want to make sure that individuals are afforded the opportunity to opt for a bond-based investment strategy.

39. Under a portfolio limitations approach to the regulation of pension assets, regulators explicitly restrict the range of asset allocation strategies available to those charged with pension fund asset management responsibilities, generally by limiting the portion of an investment portfolio that can be placed in any one asset class. While this approach to regulation can be an effective way of forcing pension fund assets to be invested in a broadly diversified portfolio, this sort of regulation could prevent pension fund asset managers from implementing a bond-based portfolio aimed at addressing concerns about volatility risk.

***Issues for discussion:***

*How does the consideration of volatility risk affect investment activity under these regulatory approaches? How might regulators need to adjust their investment regulations in light of the need/desire of certain pension asset managers to address concerns regarding market volatility by moving to a heavily bond-based investment strategy?*

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