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A NOTE ON BENEFIT SECURITY

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A NOTE ON BENEFIT SECURITY[1]

A reoccurring motif in pension literature and policy is the search for "benefit security" – that is, assurance to members of a pension regime that, at the end of the working career, they will get some reasonably predictable outcome, either as a pension (benefit stream) or a lump sum. The purpose of this note is to present a simple "thought experiment" to explore this matter and how market mechanisms might be brought more to bear.

In the main, this search for benefit security has been a preoccupation of private defined benefit arrangements, sponsored by an employer or group of employers. The term "defined benefit" (or DB) is not as clear cut as one might expect. Increasingly, however, for most purposes most of the time, international accounting standards have trumped with a definition along the following lines: in a defined benefit arrangement, a sponsor (employer or employers) makes a benefit promise (pension or lump sum) based on some function of work effort, and it is the obligation of the sponsor to make good on the promise at time of retirement or earlier withdrawal. Put another way, the sponsoring employer has a contingent liability for a deferred compensation promise that must be reflected in the income statement and on the balance sheet of the firm. The workers have become debt holders against the firm in the amount of the deferred compensation promise.

In contrast, in defined contribution (DC) plans, once the employer has paid the contractual contribution, the firm has no further contingent liability. Some defined contribution regimes, by how they announce and award accruing benefits, also try to manage outcomes to a pre-announced goal, but they lack the additional layers of protection traditionally associated with defined benefit plans. At the end of the day, if plan/fund managers cannot meet the plan's "internal promise", there is no legal recourse back to the past or present contributing employers to make up any deficiency. From the workers' perspective there is no lingering debt they can enforce against current or former employers.

This is not to say that defined benefit debts are all that well "defined." Depending on a country's public policy, a private sector defined benefit promise may be subject to various participation and vesting requirements. More importantly, and again depending on a country's public policy, the defined benefit contract may be conditional on sponsor's discretion to modify the promise at the margin (accruals based on future work, indexation of current benefits), including the options to reduce or freeze the benefit formula or even to terminate the plan.

In addition, even if the plan's terms remain untouched, job mobility can add another random element to the defined benefit bargain. In the 1960s, in reaction to inflation, final pay plans became the leading and often dominant defined benefit plan type. Depending on the country's rules for adjusting (indexing)

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accrued rights after separating from a plan and/or after first withdrawal, movement from one job to another can impose some to considerable losses (relative to someone with a fixed tenure). The amount of any such losses also will depend on both the inflation and real wage environment, which means both employers and workers face somewhat uncertain, even capricious outcomes in the final pay DB bargain.

Thus, in most settings, a defined benefit can be described as offering benefit security only in a relatively narrow sense. Indeed, for many workers defined contribution arrangements can provide more predictable outcomes in terms of accrual patterns that are unaffected by job mobility or employer discretion. There exist, of course, types of defined benefit plan that have accrual patterns that resemble most defined contribution arrangements. These are primarily career indexed average and "cash balance" defined benefit plans.

In traditional career indexed average pension, a person's accrual rate is set at entrance, and the sponsor bears the consequences of increasing longevity from cohort to cohort. In a cash balance plan, in contrast, the participant's effective accrual rate is determined only at time of withdrawal (the effective annual accrual rate is the annual contribution rate divided by the mortality factor used to determine the annuity stream). In both instances, however, the sponsoring employer bears investment risk until time of withdrawal (and possibly beyond). Arguably, these plans are the "purest" defined benefits; the sponsor is solely guaranteeing an investment return unmixed with any other intended or untended factors that come into play with final pay or "flat benefit" plans.

Absent any other intervention, private defined benefit plans depend on an employer's long-term solvency for the promise, including the investment return guarantee, to be realised. Most countries with defined benefit plans that cover a large number of workers, especially below the ranks of top management, have enacted interventions to soften the consequences of employer insolvency. These measures are grounded in a concern that workers have to be protected – "diversified" – against the loss of both current income and deferred compensation should their employer go bankrupt (or, even in some countries, just terminate a plan with insufficient assets even if the employer is still solvent).

The implicit public policy argument behind these interventions is that, absent the defined benefit arrangement, workers would have received higher current pay and could have banked the difference in retirement savings. In theory, workers should value a defined benefit promise backed only with the company's assets (future income) much like a would-be purchaser of an unsecured bond. An informed and inquisitive would-be worker would look at the firm's business plan and the amount and structure of its debt and probably discount the DB promise at the firm's credit rating (if it had one). A more plausible story is that if the worker is a member of organized labor, the union will be making this valuation and trade off in compensation bargaining.

But that supposes greater transparency and parity in bargaining power in labor market interactions than most policy makers believe now exist. In addition, despite the best efforts of market analysts, today's well rated and successful company can fall in the rankings on a couple of decades than was forecast by today's rating. Capital investors can diversify against this risk. Workers, even households, cannot so easily diversify their human capital. In addition, except for a minority of very simple defined benefit plans, defined benefit plans are complicated contracts. In the interests of reasonable reliance and transparency, uniformity in terms and usage has been imposed on DB contracts, and from this impulse measures have been adopted to collateralise DB promises. Where there do exist large and informed unions acting as agents, they are inclined to push for legislative intervention, rather than to have to perpetually negotiate, benefit security for at least older workers and retirees. Thus, public policy increasingly has attempted to disconnect defined benefit promises/debt from the company's other debts (and debt rating).

In the Anglo-American legal world (common law jurisdictions), the most common intervention has been "funding" – that is, the accumulation of assets in a segregated entity to match all or at least some of the accumulated liabilities of a defined benefit plan. Under most funding methods, accumulated liabilities include factors that have yet to occur, especially projected salary growth and to a more limited extent future years of work. Despite funding rules, however, defined benefit debts are not necessarily independent of the sponsoring companies. As the last few years have re-taught, there are periods in which plan assets will fall below promised benefits (even in the narrowest sense of termination or windup benefits). In addition, much contention exists about valuing both liabilities and assets.

In effect, workers enrolled in a defined benefit pension hold debts that depend on other peoples' decisions. In theory, any in-depth analysis by workers of their DB debts would take into account both the value of plan assets – including their likely price volatility relative to plan liabilities – and the value of the sponsoring company's assets – relative to its other debts – to make good on funding deficiencies over both the short and long term.

Because the funding model developed in an Anglo-American legal context, recourse was had to the use of the trust concept, as inherited from England's Chancery Court, to surround these segregated assets. Trusts can be seen as intermediary institutions, but more simply they can be seen as contracts with some automatic legal baggage. But fiduciary principles and legal separation of assets have not been viewed as legally sufficient to assure diversification in a meaningful economic sense in most all instances. If the trust holds primarily assets in the sponsoring firm(s), or even if in related industries or geographic areas, the legal trappings have only limited economic meaning. Accordingly, statutory funding and investment rules often go beyond a general fiduciary duty to invest prudently and prescribe limits on investment in the sponsoring firm(s) or related parties and avoid undue concentration in economic activities or localities closely correlated with the sponsor(s). As discussed later, however, prudence probably does not require diversification purely for the sake of diversification, if instead the DB promise is being immunised with government bonds.

But "funding" is not the only means to greater benefit security by collateralizing a firm's defined benefit debt. At least two other means exist that allow greater reliance on the firm's own assets to back the DB debt, although neither excludes also having funding rules. One option is to give bankruptcy priority to the DB promise against the firm's assets in the event of insolvency – optimally at the level of a secured creditor. The other option is to require participation in insolvency insurance. These two options are not mutually exclusive nor, as noted before, are they exclusive to funding requirements. It is common that, in addition to funding requirements, priority status in bankruptcy is given unpaid contributions (if not the full deficiency). In some countries, insolvency insurance exists as a backup to funding rules.

In addition, not all countries have Anglo-American style funding requirements. Many countries have severance pay laws that impose a type of defined benefit on employers. In some instances (for example, Italy) severance pay is afforded priority status along with any other unpaid compensation. Germany allows internal "book reserve" financing of defined benefit promises (sometimes offset by assets that may or may not be subject to creditors), but it also requires participation in an insolvency guaranty arrangement. Sweden permits firms to forego contributions but only with the insolvency insurer's agreement and subject to its conditions. But the insolvency insurance regimes in the few countries that have them are not fully market priced (Sweden is the possible exception). In general, insolvency insurance works using post-hoc assessments or legislatively determined fees that do not cover realised and possible claims much less probable future claims. In the United States half-hearted efforts were made to introduce a variable premium based on exposure (under-funding), but this is not the same as market pricing. Sweden is the exception in that the insolvency insurer can be selective in what clients it chooses to insure for time-limited (although renewal) periods, and the insolvency insurer can take position against the insured's assets much like other creditors, which leads to at least some implicit pricing of the risk.

Policy makers are ambivalent about how far to push the objective of benefit security through funding. Funding rules are complicated – different "actuarial methods" for "ongoing plan" funding traditionally and managed by trustees and actuaries versus ever greater regulatory specification of what is owed (and to whom) upon plan termination (windup) and the achieving that target ("terminal funding"). While accounting rules have begun to impose more market based standards on how DB debts are valued, they too have flexibility in what is allowed for smoothing and how asset returns are forecast during the valuation period.

An alternative to these legislative and regulatory debates would be to use not just market-based valuation standards but also market-dependent measures to fully remove DB debts from the sponsoring firm(s). In other words, rather than legislative and accounting specialists trying to replicate market results through rules, the approach would be to more directly harness market players to price DB debts and the explicit and implicit assets backing it, including their volatility.

One possibility would be to assign priority or even secured creditor status to not just missed contributions but also to all under-funding deficiencies, whatever the source (including investment losses). Existing and potential creditors (and equity holders) then would care greatly about the size of the defined benefit debt and the value of both the explicit plan assets (and their potential volatility in price) as well as the company's ability to otherwise finance the debt over the short and long term. To some large extent, changes in accounting standards already are motivating the investor community along these lines.

The problem with this approach is that, unless applied only at the margin, it would be ruinously disruptive to existing covenants and expectations. In defined benefit funding, what is marginal and infra-marginal can easily devolve into actuarial and accounting hairsplitting. Political obstacles to any such change, even if phased in, likely would be formidable. Those concerned with enterprise finance are not likely to easily accept elevating the status of what is now, at worst, an unsecured debt (to the extent of under-funding) and, at best, "someone else's problem" because of insolvency insurance. Certainly in the United States this approach would be, and has been, dismissed as a non-starter.

Requiring insolvency insurance is the other possible way to harness market forces – but insolvency insurance that is market based and priced. Rather than a single governmental or non-profit guaranty fund to which defined benefit sponsors must subscribe, sponsors (or the trustees) would be able to go to commercial underwriters for cover. Potential insurers would take account of all factors. On the liability side of the ledger, they would ask how well defined are the promises – for example, are there hard-to-estimate contingent benefits for plant shutdowns; do long-term liabilities depend on periodic renegotiation of nominal amounts or are they based on forecasted wages and salaries; are those forecasts reasonable relative to inflation; are the personnel turnover and tenure longevity assumptions reasonable; how does the pension plan forecast in these matters mesh with the company's overall business plan in the context of its industry or service area?

Equally if not more important, a commercial insolvency insurer would ask: what is the investment strategy to match liabilities with assets? At the extreme, we can imagine government completely relaxing funding rules. If a firm wished to mortgage a significant fraction of its future earnings to buy pension annuities when due, that would be reflected in negotiated prices offered by insolvency insurers. It is unlikely, however, that any insurer would agree to be just an unsecured creditor. More likely, insurers would insist on priority position and/or a continuation of funding in a segregated trust – at least for much of the liabilities.

In addition, the insurer would have to look at the portfolio mix in any dedicated trust. To the extent, the sponsor and the trustees choose to invest in instruments other than government bonds or private sector approximations of the appropriate maturity, the insurer would then additionally examine what is the capacity of the sponsoring firm to bear the volatility associated with most equity investment strategies and with what funding margins (or buffers) in the pension fund.

A long running dispute exists about pension financing. On one side, there are those that argue that corporate finance theory teaches that a bond immunization strategy is optimal from the vantage points of both the sponsoring firm's shareholders and the workers who hold the defined benefit debt. While forgoing the potential for higher returns (and thus lower contributions), the shareholders do not have to face the prospect that the firm's pension fund managers are not among the successful or the perturbations of investment cycles. Further it is argued that most shareholders should be investing in firms' core businesses, independent of how successful they are in hiring investment managers. By the same token, the defined benefit members are not exposed to more equity risk than fits their own preferences – including the equity risk of the sponsor-employer not being able to deal with under-funding coincident with problems in its own core business.

On the other side, the argument is made that equity, despite volatility, has historically exceeded all-bond strategies and that these higher returns have translated into some combination of higher shareholder value and higher compensation to workers. How much this historical pattern results from one-off (although prolonged) phenomena – better and better valuation of underlying assets and good will, decrease in risk aversion to equity investment – is unclear. Many argue that for reasons of dynamic inefficiency equity will always enjoy an edge that most investors can profit from within a manageable degree of volatility. Even most partisans of this view will concede that investment strategies that do involve large amounts of equity also require higher "buffer amounts" – relative to termination liability – than does immunisation with bonds.

Absent a market mechanism within which to contest and price these theories, neither policy makers nor pension fund sponsors will know what combination of external funding in what assets and reliance on the sponsor's internal resources offers the best trade-off, either for individual firms or in the aggregate. If, however, insolvency insurance were required from commercial insurers, the give and take in the market might begin to resolve what pension investment strategies make sense for sponsoring firms and their pension plans – and on a constantly evolving basis incorporating new information and events.

Traditionally, the argument has been made that the market cannot price all the contingencies associated with a defined benefit pension fund, particularly the simultaneous failure of a large sponsor and plan under-funding. While that might have been the case some decades ago when guaranty funds were first being enacted, innovations in options pricing, hedging and risk diversification (*e.g.*, catastrophe bonds) have eroded that argument. Indeed, the Pension Benefit Guaranty Corporation, the agency in the US Department of Labor that is the statutory mandated insolvency insurer in the United States, has developed a simulation model that largely does incorporate these variables.

Further objection is made that many firms in mature industries with even more mature pension plans would not be able to afford insolvency insurance from commercial insurers. Of course, what is "affordable" is a policy judgment, but it is surely the case that for some defined benefit plans and their sponsoring firms commercial insurers would charge an extremely high premium or even refuse coverage as non-insurable. But this result would only reveal the cross-subsidies that are imposed by a mandated monopoly insurer. For these cases, undoubtedly there has to be some kind of government-provided default insurance regime. Any such agency should have the power to impose remedial measures. For some there will never be enough time to prevent inevitable claims against the default insurer. But these are sunk costs that are partly the product of inattentive public policies going back decades, and should be more properly borne by all taxpayers than responsible sponsors (and their workers) of well-managed defined benefit plans.

In addition to providing back-up default insurance, government also would have to qualify the commercial insurers that would offer pension insolvency insurance and probably outline some basic rules of the game. This might include even specifying that certain kinds of highly contingent benefits were not insurable and, conversely, some limits on what co-insurance could be imposed on the workers. Unlike today, however, it could be left to market negotiation whether the insolvency insurance could go beyond the ceilings that often now exist.

As noted at the outset, there exist in some countries defined contribution regimes that are very collective in nature and operate much like defined benefit plans. But they do not have a call on employers for additional contributions to cover asset-promise mismatches and, a fortiori, no claim to employer assets in bankruptcy. It might be feasible, however, for governments to impose upon those entities the same kind of insolvency insurance just outlined. Such an imposition would bring clarity to the pension investment debate that affects their operations as well.