Defined Benefit, Defined Contribution and In-Betweens? Lessons for Asian Policy-Makers OECD/IOPS

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Oh sigh, DB vs. DC again; why discuss this topic once more?

- Lots of confusion about what these terms mean – even among some specialists
  - In fact, there are varients of Defined Benefit and Defined Contribution
- Useful for Asian region countries to better understand these variants before blindly accepting the “leading” DC model or blindly rejecting the DB concept entirely
- Useful for determining the degree to which any Provident Fund is going to run on a DB or DC basis

Form or Financing?

- One definitional approach – sometimes taken by those from social policy, social insurance background – is whether the retirement (etc.) scheme is expressed as:
  - benefit (annuity) amount – thus, DB, or
  - individual account (lump sum) – thus, DC.
- Other definitional perspective – taken by those from private pension background is whether the scheme is:
  - a “promise” with a “sponsor” bearing responsibility to finance the promise – in which case, DB, or
  - a financing commitment only to make regular deposits to an account with no liability to assure a promise – in which case, DC.

Problems with “form” approach

- There exist retirement arrangements (superannuation) in which sponsors make promises expressed as a lump sum, rather than annuity benefit
  - Some Australian superannuation schemes, especially in government sector
  - So-called “cash balance” plans in the United States
- Could lead to confusing and clumsy terminology –
  - as in “individual accounts with promises (or guarantees)” vs. “individual accounts without...”
  - as discussed later, possible to have DC with annuity-like qualities
- The accountants have it right:
  - DB if sponsor has full or contingent liability
  - DC if members bear investment risk, especially during accumulation stage

And don't get confused by whether contributory or not?

- Especially in public sector, traditionally DB plans were financed solely from employer side ("non-contributory"), but DB plans can be and are contributory. Worker contributions do not convert a DB promise into a DC plan.
- Whether contributory or not depends on:
  - Country specific tax incentives
  - Politics of public sector occupational plans (reinforce accrued rights in open economies vs. enforcing "rents" in pre-modern economies)

Also don’t get confused by “funding” vs. “book reserve” --

- DC plans have to be “funded” explicitly, but not necessarily exogenously of sponsor – e.g., stock-bonus and some profit-sharing DC plans in US are de facto book reserve.
- DB plans do not have to be funded via an exogenous trust (that is, can be book reserved or financed from current revenue). Question of risk diversification, including bankruptcy and insolvency insurance rules.

Types of Defined Benefit -1

- The “Traditional” Defined Benefit had two attributes
  – promise expressed as an annuity benefit
  – often (especially in occupational schemes) based on some measure of final pay

Types of Defined Benefit - 2

- Annuity benefit promises being abandoned in favor of lump sum promises (e.g., shift to cash balance in US occupational plans; “notional account” reforms in social insurance in Europe)
  - Both employers and societies are no longer willing to underwrite constantly increasing longevity.
  - Alternative is a difficult and depleting, constant renegotiation/increase of parameters – accrual rates, retirement ages – in order to keep costs constant as a percent of payroll.
  - Market volatility and greater accounting transparency in private pension plans have heighten sensitivity of both corporate stockholders and pension participants alike.

Types of Defined Benefit - 3

- Move from final pay base to indexed career average base is also common --
  - Indexed career average in social insurance context is (by most criteria) more equitable and has fewer less work disincentives for older workers.
  - Indexed career average in (private or public) occupational scheme context eliminates “portability” or job-mobility losses, and thus arguably fairer and economically more efficient.
- But with indexed career average base, DB ceases to be a means for employers to “lock-in” workers and recapture training costs and reward “loyal” long-term workers.
  - These objectives arguably are grounded in obsolete industrial economy paradigm
  - Employers have other means to attract and retain “long horizon” workers.

Defined Benefit Promises Accumulation Stage

- Annuity Benefit
  - Career Average
  - Final Pay
- Various formulas, but generally wage base * percent of unit of work = periodic amount

- Lump Sum
  - Career Average
  - Final Pay
  - Exogenous factor
    - general wage index
    - capital index
- Two methods
  - contributions * index = lump sum accumulation
  - wage base * percent per unit of work = lump sum

Defined Benefit Promises Payment Stage

- Annuity Benefit
  - Partial/full conversion to lump sum equivalent allowed at retirement (using what interest rate and mortality table)? Contingent liability ends if conversion.
  - No conversion allowed and liability continues.
  - What if annuities are purchased from insurance company?
- Lump Sum
  - Optional conversion to annuity equivalent possible (from what provider, using what interest rate and mortality table)?
  - Required conversion to annuity equivalent (from what provider, etc.?).

Defined Contribution Models

- Old fashioned ‘money purchase pension’ plans:
  - Typically with built-in option (even mandatory) for annuity conversion – hence, called “pensions”
  - Risk adverse portfolio or took the form of deferred annuity contract with insurer – looks DB-ish but no axiomatic recourse to sponsor
- US-style “investor choice/risk” plans – workers choose portfolio, usually (but not always) coupled with explicit worker contribution requirements. Many, many variants.
- Group occupational plans that operate like deferred annuity contract plans (mutual insurance paradigm)

Defined Contribution Financing Options

- Contribution rates can be relatively constant across work life – 5, 10, 15 percent for each year. In this case, the DC accumulation resembles a DB career average plan – ignoring DC investment market volatility
- But there exist “back loaded” DC plans with contribution rates that increase with age. These resemble effective accrual rates in DB final pay plans but without the job mobility losses of latter.

Are “Insurance” Schemes DB or DC? Something in-between?

- At least three variants:
  - Individual contracts maintained by employer for workers (white-collar typically)
  - Annuities purchased by DB plan, DC plan
  - Group contracts/funds/foundations for occupational groups
- From employer’s (accounting) perspective, definitely DC – once money is transferred, liability is ended.

Are “Insurance” Schemes DB or DC? Something in-between?

- But DB-like promises. Investment and mortality risks are borne by insurer or shared within and by the “group.”
  - But promise is no better than solvency of insurer or (if any) government-industry guarantee of insurer – so member bears the potential of a loss, however remote.
  - Very unclear how risk is, or should be, allocated across cohorts in group scheme. Same issues as with DB plan with insufficient assets and insolvent sponsor.
  - The in-between model works well in countries with long traditions of social solidarity working to common results through iterative consensus, and when groups are relatively homogeneous – exportable?

Defined Benefit Risks

- Contrary to labeling, DB plans are not completely free from risk to participants.
  - Job mobility losses in final pay plans when companies downsize;
  - Depending on how country defines accrued rights, plan termination risk:
    - Closed only to new entrants? Least disruptive to expectations.
    - Closed to new entrants and no new accruals but existing accruals are adjusted for price/wage growth?
    - Closed to new entrants, no new accruals and no post-termination adjustments. Most disruptive to expectations.
- UK practice is some blend of first two possibilities; US practice generally the third except when powerful union or civil service lobby – then layers of plans by entry date.
  - Also in US, plan termination effects have become subject to sometimes successful age discrimination suits.

Defined Benefit Risks

- Plan termination risks are exacerbated if sponsor is bankrupt – priority is typically given to retirees and near retirees. Younger workers get pro rata share of remaining plan assets (if any) and bankruptcy recovery.
  - Value of bankruptcy recovery depends on priority. Some worker claims are given high priority – losses due to missed contributions. But losses due to bad investment experience usually have only general creditor status.
- Insolvency insurance has been enacted in some countries to mitigate these losses, but too often the remedy has been worse than the original wrong (but that's a topic for another day…).

Relevance for Asian policy-makers

- First lesson – you do not have to abandon the Provident Fund structure, but you should clarify how much it operates on defined benefit vs. defined contribution principles.
  - If DB, have clear and consistent interest rate crediting policy, calculate contingent liability realistically and have appropriate investment policies. Unfair to impose on workers termination-like DB risks because of thoughtless investment policy.
  - If DC, then worker investment choice becomes inescapable. Is that kind of choice realistic in all countries for all groups? If not, then maybe DB responsibilities for the government are inescapable.

Relevance for Asian policy-makers

- Second lesson – changing the structure does not change the policy choices.
  - Going to a US/Hong Kong style portfolio choice model does not avoid the key issue – is the economy, internally and externally, ready to offer portfolio choice, and are the <u>all</u> affected populations ready to make risk/reward choices. That is, Provident Fund – individual account lump sums – by another name does not change anything

Relevance for Asian policy-makers

- Second lesson – declaring that the Provident Fund is within a DC envelope but can make DB-like promises just increases the challenge.
  - No advantage from homogenous groups – unless limited, as now in many countries, to the favored few.
  - Thus, same investment decisions and same rate-of-return promise decisions as with DB vs. DC model choice indicated before.

Relevance for Asian policy-makers

- Third lesson – mandatory annuity policy is linked mostly to poverty prevention rather than consumption smoothing.
  - Lump sum tradition in Asian region and Australia. Not necessarily bad if other policy mechanisms compensate. Such is the case in Australia (so far).
  - Changes in region toward some mandatory annuities from mandatory accumulations.
  - For mandatory annuities to function, State has to become either provider or guarantor. Not clear which is the better choice.

Relevance for Asian policy-makers

- Are any of the “organized sector” pension policies relevant for rural sector and unorganized urban sector?
  - Strictly earnings-related schemes, DB or DC, do nothing for low-income population.
  - Social insurance in OECD countries embodies internal and/or has accompanying redistribution for low-income. Some of these OECD practices more exportable than others.
    - few countries – explicit citizens’ pensions
    - most countries – implicit or hidden citizens’ pensions.
- Key question for Asian policy makers – but not given sufficient attention by regional policy-makers and (until recently) various donors.
  - What is the meaning of “contribution”?