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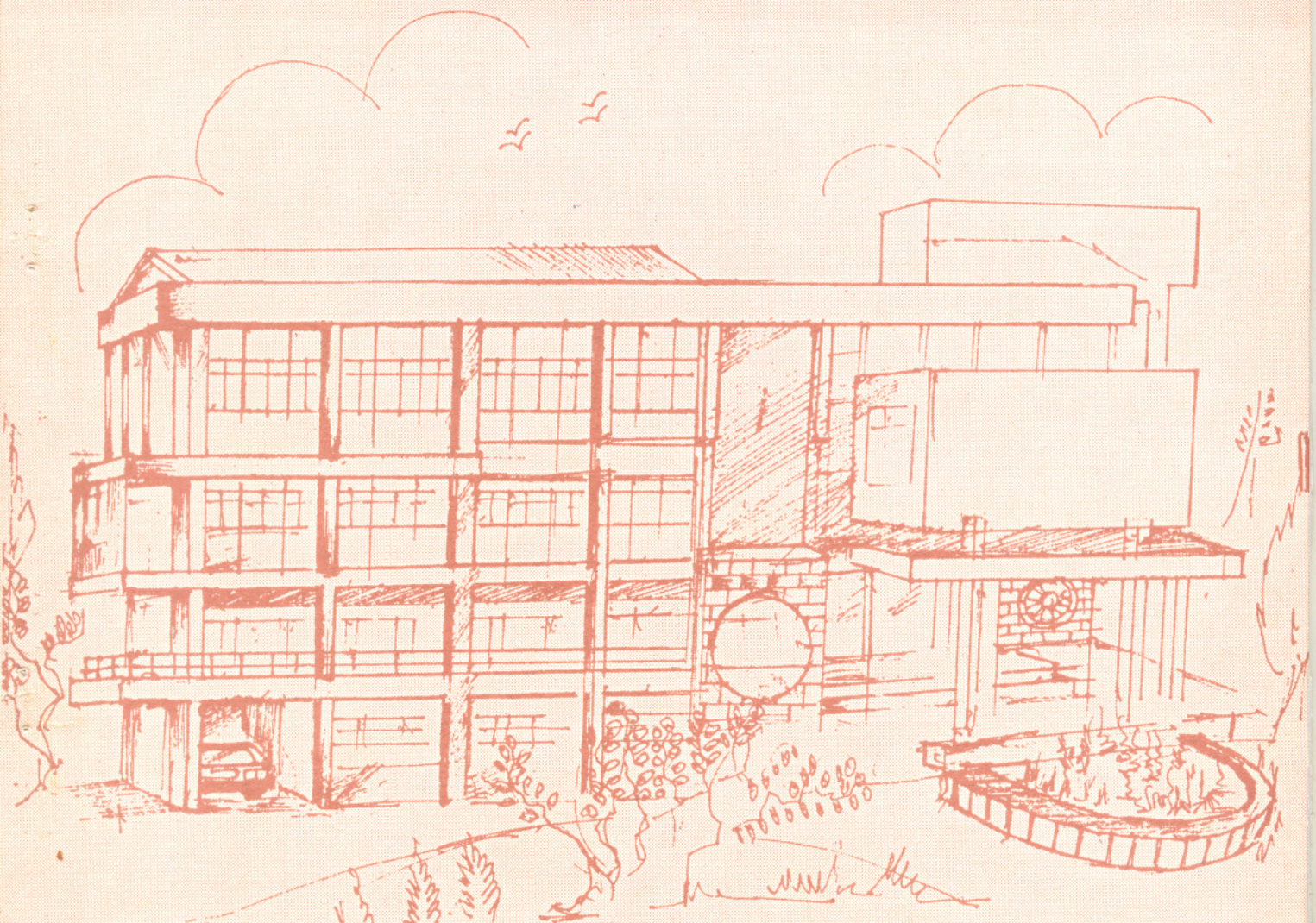
Issues in Old Age Social and Income Security in India



Issues in Old Age Social and Income Security in India

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Issues in Old Age Social and Income Security in India

Abstract : Though an age-old problem, old age social and income security (OASIS) issues were brought to focus in the 1990s, with the publication of a World Bank study. The developed, developing and the erstwhile socialist countries all face serious dilemmas in managing their OASIS. India is no exception.

This paper reviews this literature from an Indian perspective. The objectives are to:

- Highlight the important concerns of specific interest to India
- Discuss the available estimates to quantify such concerns
- Discuss suggested policy alternatives
- Identify potential topics of research interest to the author.

This paper represents only the beginning of a hopefully fulfilling personal research agenda of the author. It is a first attempt at reviewing the existing literature. The paper does not represent any original contributions. After introducing the topic in Section 1, the paper points out the reasons for the increasing importance of OASIS in Section 2. These include demographic changes, breakdown of traditional support systems, poor coverage under formal systems and their poor performance and prospects. Section 3 describes two proposals for systemic reform under current debate: one by the Committee on OASIS set up by GOI and an unpublished draft World Bank document. Section 4 outlines a research agenda of interest to the author. These include strategic bequests, impact of co-living with one's own children, need for suitable market instruments like inflation-indexed bonds and reverse mortgages for house property, viewing the elderly as potential assets rather than merely as a liability and the market potential for pension products in India.

By this paper the author seeks to network with other interested individuals and institutions working in this area.

1. Introduction

Though an age-old problem, old age social and income security (OASIS) issues were brought to focus in the 1990s, with the publication of a World Bank study [1]. The developed, developing and the erstwhile socialist countries all face serious dilemmas in managing their OASIS. India is no exception.

This paper reviews this literature from an Indian perspective. The objectives are to:

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2. Reasons for Increasing Importance

2.1 Demographic Changes

Almost all countries, especially the developed ones, face the problem of 'ageing' of their population. Increased life expectancy and declining birth rates are resulting in

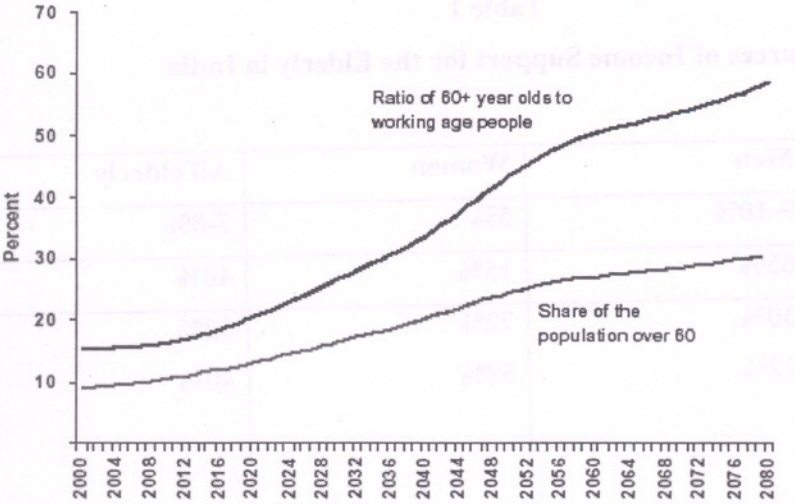
- Increasing proportion of their population in the age group of over 60 or 65
- Increasing dependency ratios, i.e., the ratio of retired people to working population

Most of the developed countries had OASIS systems with almost universal coverage through what are called 'defined benefit plans' (see section 2.3.1 below). These were financed through payroll taxes on the working population ('pay as you go' system). Naturally, the above too demographic trends are straining their public finances and raising inter-generational conflicts.

Though the Indian population is still comparatively 'young', India is also 'ageing'. Some demographic projections for India indicate that

- The number of elderly (>60 yrs) will increase to 113 mill by the year 2016, 179 mill by 2026 [2, p.5] and 218 mill by 2030 [3, p.8]. Their share in the total population is projected to be 8.9 % by 2016 and 13.3% by 2026. [2, p.5]. The dependency ratio is projected to rise from 15% as of now to about 40% in the next four decades [3, p.8]. (Insert Fig 2 from [3] here).

Figure 2. The ageing of the population in India



Source: World Bank population projections.

- The percentage of >60 in the population of Tamil Nadu and Kerala will reach about 15% by 2020 itself! [2. p.8]
- Life expectancy at age 60, which is around 17 yrs now, will increase to around 20 by 2020 [1. p.5]

Apart from the humanitarian need to care for the elderly, they will have more voting power and hence policy makers in any democratic society have to pay heed!

2.2 Informal Arrangements and Family Support

As of 1994, the estimated percentage among the elderly, dependent on various sources of income were as follows:

Table 1

Sources of Income Support for the Elderly in India

Source	Men	Women	All elderly
Pensions/Rent	9-10%	5%	7-8%
Work	65%	15%	40%
Transfers	30%	72%	52%
O/w, from Children	22%	58%	40%

Source: findings of [4], as read from a bar-chart in [3][1]:

In addition, as per a survey of the National Sample Survey Organization (NSSO) in 1994, less than 4% of the elderly live alone (as reported in [3, p.7]). A 1995-96 National sample Survey of the elderly reported that about 5% of them live alone, another 10% live with their spouses only and another 5% live with relatives/ non-relatives, other than their own children [12,p.614]. In other words, co-residence with children and other relatives is predominant.

Co-residence and family support are desirable as they cater to more than merely the financial needs of the elderly. However, the following aspects are worrisome:

- The extent and adequacy of support (intra-household allocation). Certain groups, especially widows, are very vulnerable [5,6]
- Vulnerability of such support to shocks to family income
- As incomes and life expectancy rose in the now developed countries, simultaneously there was a decline in co-residence rates and intergenerational support. What if it happens in India too?
- Strains due to demographic trends seem inevitable: fewer children must support parents for longer periods of time. In a recent survey covering 30 cities, 70% of the respondents did not expect their children to take care of them after retirement [7]

[1] Though the chart cited calls it 'percent of old receiving', since the total adds upto 100%, it may actually mean 'percent of income of the elderly derived from'. This is because it is hard to believe that incomes are not coming from multiple sources.

2.3 Formal OASIS in India

Even in these days of freedom of choice to individuals, there seems to be unanimity on the need for compulsion on individuals to save for old age. Several reasons have been offered:

- Myopic behaviour: Retirement seems too far off to bother when we are young; and, even after retirement, we tend to under-estimate our life expectancy.
- Moral hazard: if individuals feel that society will take care of them anyway, they will not save for old age, even if they can, unless compelled to do so.
- Replacement rate: Even after retirement, people expect a similar standard of living as when they were working, implying an income in retirement of a certain percentage of their average income prior to retirement (replacement rate). This expectation should not be met through transfer payments from government[2]; nor is it likely from family sources.

In the Indian context, it is not very easy to enforce such mandatory savings by the entire working population because

- Majority is too poor to save even for improving current productivity and meeting emergencies, let alone for old age. Thus, liquidity preference and hence discount rates are very high.
- They need to 'strategically' invest in (more?) children, as well as in their education etc., to improve the chance that they can be depended upon in old age.
- A majority of the working population are employed in agriculture and informal/ tiny sectors or self-employed. Any enforcement of saving for retirement will be impractical. If done, it might affect their competitive position and employment.

The formal old age income security schemes (civil pension, employee provident fund (EPF), employee pension fund (EPS), public provident fund (PPF) and employer sponsored superannuation schemes, old-age social assistance etc.) cover only about 11% of the estimated Indian working population. Therefore, it is not surprising that the elderly in India still rely very much on informal/ family support.

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[2] Both because of the heavy financial burden on the public and the implied regressive transfers biased in favour of those who earned more while working

2.3.1 Two Basic Types of Plans

There are two phases in any old age/ retirement savings plan. The first stage is the *accumulation* phase when a person is working and funds are contributed or paid into the plan. The second is the *payout* or *liquidation* phase when benefits are paid to the elderly/ retired.

Literature differentiates two basic types of plans [8]:

- Defined Benefit Plans
- Defined Contribution Plans

The distinction is not on the basis of who 'contributes' to the plan: on the face of it, it could be the employees, employers, government or any combination thereof. However, even if the employer contributes, ultimately the *incidence* may be on the employee. For example, salary levels in organizations, which pay a life long pension, may be lower than what it would be otherwise. Therefore, in effect, the employee is contributing to his pension by accepting a lower current salary.

Rather, the distinction is on the basis of who bears the risks involved in saving and investing for old age. There are several types of such risks:

Mortality/ Demographic Risk

This is the risk that a person will live longer than anticipated. Such risks at the individual level can be diversified away by forming annuity pools. However, there is a non-diversifiable component in that the average life expectancy of a group as a whole can be more than initially anticipated. (Due to better healthcare, advances in medicine etc)

Investment Risk

This is the risk that the purchasing power of the savings and returns thereof may change adversely, by the time benefits are to be received/paid. Part of this risk also can be diversified away by investing in a suitable portfolio of property, equity and debt securities, including

international diversification. However, there will still be a residual, non-diversifiable investment risk, consisting of three components: price risk, reinvestment risk and inflation risk.

Timing Risk

This is the risk of changing the exposure to any of the above risks at an unfavorable time. For example, just after a person converted his savings into an annuity, if interest rates go up he suffers an opportunity loss.

Expense Risk

This is not the risk that expenses in old age may be more than anticipated. Rather, it is the risk that the expenses incurred by the pension fund manager may be more than anticipated. Called *administrative charges*, these expenses are towards collection of contributions, record keeping, investment management and benefit payments.

Given that retirement savings are long-term savings, these administrative charges can eat up as much as 20-40% of the ultimate benefits accruing to the pensioner. However there are various methods of charging for such expenses whose impacts are not easy to fathom [9].

If an individual or group of pensioners are guaranteed against any of the above risks, than that plan is called 'defined benefit' in that risk dimension. If the individual / group has to bear that risk, then the plan becomes 'defined contribution' in that risk. Suppose a private pension fund manager has to provide such guarantees. He can do so by

- Diversification by forming large annuity pools to reduce demographic risks
- Investing in a diversified portfolio
- Transferring such risks by purchasing appropriate instruments in the financial markets (e.g., reinsurance, inflation indexed bonds etc)

For any residual risk, he has to put up some equity capital to back up such a guarantee. Ultimately, the cost of such risk transfers and risk capital has to be paid for by the pensioners. Therefore such guarantees come at a cost that may sometimes become very prohibitive.

There is also a via media between no guarantee at all and full guarantee. For example, the pension fund manager may constitute an 'independent' Board of trustees who would decide how such a risk is to be shared between the pensioners and the pension fund manager, based on actual developments (*ex-post* rather than *ex-ante*). This is called 'discretionary guarantee'. However, there are obvious problems of credibility and potential conflict of interests in such a 'discretionary guarantee'.

2.3.2 Formal OASIS in India: Coverage

The general global pattern of OASIS already is, or moving towards, a 'multi-pillar' or 'three-pillar' structure:

The first tier is a means-tested, threshold level of *social assistance*, funded through general taxes (pay as you go).

- In India, this is currently through the *National Old Age Pension Scheme* (NOAPS), *Annapurna*, and State level schemes on similar lines, providing a pension to the destitute elderly.

The second tier is mandatory savings for retirement; either defined benefit or defined contribution type. The intention here is to ensure a suitable replacement rate.

- In India, this is through the following
  - Employee Provident Fund (EPF)
  - Employee Pension Scheme (EPS)
  - Civil Service Pension (CSP)
  - Government Provident Fund (GPF)
  - Special Provident Fund (SPF- specific to J&K)

Out of the above, CSP is financed out of the general budget of the central and state governments ('unfunded' or pay as you go) and is inflation protected. Thus it is a Defined benefit type plan. The EPS is a (discretionary) defined benefit plan that is (supposed to be) fully funded. In contrast, the provident funds are fully funded, defined contribution plans.

Broadly the same groups of employees are also covered under the Gratuity act that entails them to 15 days of final wage as gratuity for every year of service (max of Rs. 350000).

They are also covered under the Employees Deposit Linked Insurance (EDLI). If a worker dies before retirement, his survivor is paid a benefit equal to the average EPF balance in the last 12 months upto Rs. 25000 plus 25% of the excess upto Rs. 60000.

The third tier is voluntary savings, often encouraged through tax-incentives.

- In India, this consists of
  - Public Provident Fund (PPF)- open to all citizens
  - Employer-sponsored Superannuation Schemes (SAS)
  - Personal Pension Plans (PPP) offered by LIC and other insurance companies

Table 2 below, from [3. p.14] with some additions, provides a summary of the coverage under the above schemes.

Table 2: OASIS in India: Coverage Under Formal Schemes

Programme/ Scheme	Legal Coverage	Effective Coverage	Financing
andatory			
EPF	Firms with more than 20 Employees	5.8% of labour force	Employee:12% of salary Employer[3] : 3.67% of maximum Rs 5000/month; 12% of excess above Rs 5000/month
EPS	More or less same as EPF[4]	5.4% of labour force	Employee: Nil Employer: 8.33% upto a maximum of Rs. 5000/month Government: 1.16% of salary upto Rs 5000/month
CSP	Central and State Government Employees	3.5% of labour force	State and Central Government Budgets
GPF	Same coverage as CSP	Same as CSP?	Employee: 6-8.33% (of Basic salary?)
SPF	Specific to J&K	0.5% of labour force	Employer and Employee Contributions (rates not clear)

[3] In addition, the employers must pay 1.1% of payroll to EPFO to cover administrative costs. 'Exempt funds' must pay an additional (?) 0.18% towards inspection costs.

[4] All employees covered under EPF are also eligible to be covered by EPS. However, if a person's salary is above Rs 5000/month, he can opt out of EPS. If he joins EPS, he will be treated as having a salary of only Rs 5000/- for pension benefits as well as mandatory contributions.

Voluntary			
PPF	All	0.8% of labour force	Contributions
SS	All employees	0.2% of labour force	Contributions
PPP	All	0.2% of labour force	Purchase by individuals
Social Assistance			
State Level	Varies by State	Varies by state	State Budget
NOAPS	Destitute >65 yrs	About 15-20% of population >65	Central Budget.

From Table 2, it is evident that only around 10% or so of the labour force is covered under some formal scheme of OASIS.

Therefore, without question, how to expand coverage of formal OASIS in a substantial manner is a major challenge for Indian society. Holzmann and Packard [10] propose an entire research agenda related to extending coverage under such multi-pillar OASIS. They found a positive correlation between coverage under OASIS and levels of per-capita income. The coverage in India is in line with their observed cross-country correlation.

Now we turn to the performance and prospects of some of the above formal schemes.

2.4 Indian OASIS: Performance and Prospects

2.4.1 EPF

This fund is managed by the Employee Provident Fund Organization (EPFO). EPFO is also the supervisor of EPF managed by some approved employers, called 'exempt funds'. The stated objective of EPF/ EPS is "some provision for the future of the industrial worker after he retires or his dependents in case of his early death"[3. p.17].

Several factors have reportedly prevented EPF from achieving its objective:

Slow expansion of coverage

Overall coverage, as a percentage of labour force, has increased by only about 1% per decade [3, p.17]. This increase is primarily in 'unexempt' funds, that is EPF managed by EPFO.

A wide range of premature withdrawal options leaves very little funds for retirement.

These options include withdrawals for housing, marriages, children's education, loss of employment and even strikes. For example, in 1997-98, average terminal accumulations with EPFO per member were less than Rs. 25,000, whereas in the same year, average premature withdrawals per member were Rs 17000 [2, p.9]. During 1995-96, only 17.7% of the withdrawals were due to retirement/ invalidity or death. The remaining 82.3% were for 'other' purposes. [3, p.23]

Low rate of returns on EPF investments

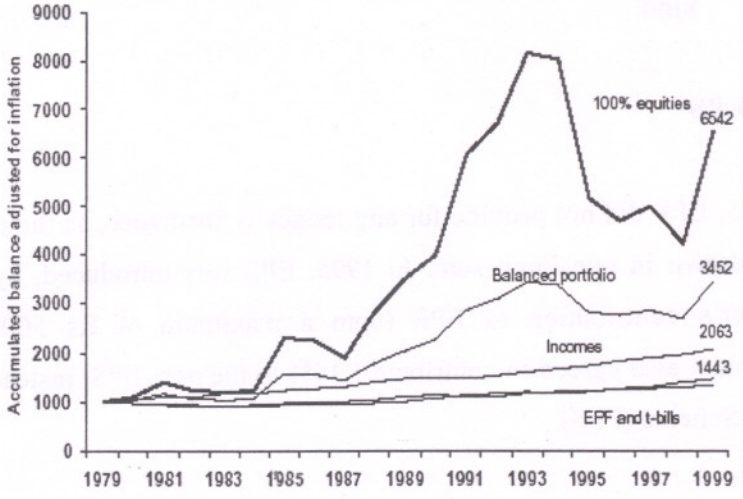
Though the restrictions on EPF investments have been relaxed somewhat recently, still a maximum of only 10% can be invested in private sector, that too in only in AAA corporate bonds and nothing on equity. As of 1998, 100% of EPF funds were invested in Central and State Government securities or special deposits or central / state government guaranteed public sector debt securities.

For a long time, EPF funds were treated as cheap sources of borrowing by the government and public sector, at rates unrelated to the market rates or inflation. It is in contrast with the current moves to bring the EPF returns 'in line with the market'.

The long-term impact on accumulations for retirement has been devastating. To illustrate, Rs. 1000 invested in EPF in 1970 would have accumulated to only Rs. 1443 by 1999, after adjusting for inflation (real return of only 1.3% per annum). This is more or less equivalent to investing in short-term t-bills! In contrast, real wages grew to Rs. 2063 in the same period. For ensuring a desired replacement rate, returns on EPF must grow faster than real wage growth.

In contrast, 100% investment in equity would have grown to Rs 6542 and a balanced portfolio (50% in equity and 50% in t-bills) would have grown to Rs.3452. Though both would be considered more risky, it is interesting to note that at no point in time, during this entire period, EPF accumulations, on a cumulative basis, outperformed either of the above portfolios[5]. {insert Fig. 3 from [3, p.21] here}.

Figure 3. Cumulative gross returns to EPF members' account versus a hypothetical diversified portfolio, 1979-1999



Source: IFC various years; IMF International Financial Statistics database; EPF Annual report various years; Bank staff calculations.

Of late, there are increasing concerns that some of the so called safe investments by EPF, especially in public sector financial institutions and state government guaranteed debt may not be safe at all [7, p.32-3]

Early withdrawals may be a symptom of poor design

i. A contribution rate of 24% (including EPS) is the highest in the world, except for erstwhile socialistic countries.

ii. The poor return in relation to market has made these withdrawals a cheap, fungible source for borrowing or for profitable investments in the market.

[5] Timing risk is diversified because investments are made regularly over a number of years. However, IRDA Chairman has recently cautioned against investments of pension funds in private sector securities through capital markets

iii. As per an estimate [3.p.24], if withdrawals were prohibited, a contribution of 11.66% would have been enough to ensure the same terminal accumulation as with maximum permissible withdrawals.

iv. It is also possible that resignations and job switches may be encouraged because the member can withdraw the entire balance in his account.

v. There is no compulsory annuitization on termination. Therefore, premature withdrawal may be viewed only as a matter of degree, rather than of a different kind.

2.4.2 EPS

Till 1995, EPF did not provide for any longevity insurance, as the entire accumulation could be withdrawn in one lump sum. In 1995, EPS was introduced, by diverting 8.33% of the Employer's contribution to EPF (upto a maximum of Rs 5000 monthly salary). The Government also agreed to contribute 1.16% to the new EPS, instead of the erstwhile Family Pension Scheme (FPS).

In return, EPS will payout a life long annuity to the retired member as per the following formula:

Monthly Pension[6] = {Final Year salary*(Number of years of srrvice+2)}/70.

If a member so chooses, he can 'commute' one third of his pension annuity value as a lump sum. For example, if he is entitled to Rs 600/ month as pension, he can take Rs 20000/- as a lump sum[7]. Then he will get a monthly pension of only Rs 400. While this lump sum is tax-free, pension annuity is taxable.

In effect, creation of EPS, by diverting some of the employer's contribution and that of the government, sought to achieve the following:

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[6] Final salary subject to the cap of Rs 5000 per month currently. The additional 2 years is applicable only after 20 yrs of service. Thus, if a person works for 33 years (25 to 58 yrs of age), he will get a pension equal to 50% of his final salary. This means an accrual rate of 1.43 to 1.52% per year of service. There are also subsequent survivor benefits to spouses and dependent children.

[7] The formula is 100*600/3. However, if the pensioner lives beyond a stipulated period after retirement (15 yrs), his full pension will be restored. Therefore commutation is a win-win option for the pensioner.

- From a purely defined contribution EPF, there was a partial shift to a Defined benefit scheme.
- Unlike EPF, EPS converts at least two-thirds of the accruals into a life annuity, providing a limited amount of longevity insurance.
- It also limits the amount of premature withdrawals from the EPF balances permissible in the earlier system

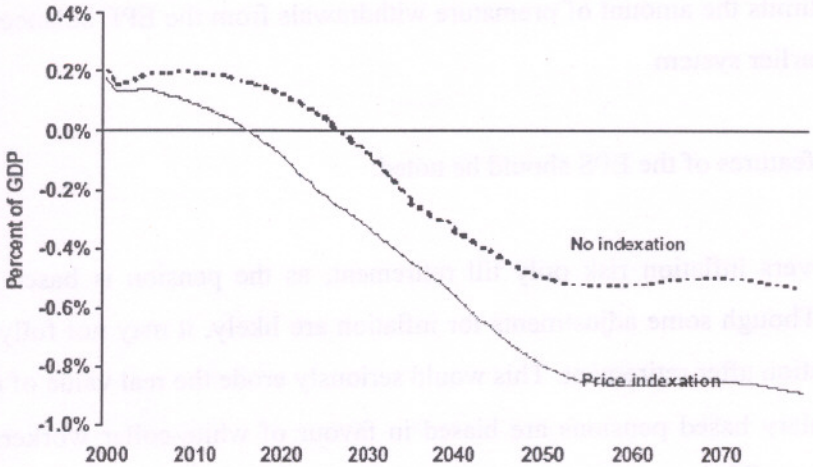
The following features of the EPS should be noted:

- EPS covers inflation risk only till retirement, as the pension is based on the final salary. Though some adjustments for inflation are likely, it may not fully compensate for inflation after retirement. This would seriously erode the real value of the pension.
- Final salary based pensions are biased in favour of white-collar workers and others with steep lifetime earning profiles. They discriminate against manual and other workers who have a flatter lifetime wage profile. In fact, some of them may suffer a reduction in salary in later years. There is also a temptation to artificially hike or over report final salaries to enjoy higher pensions. However, by limiting the maximum eligible salary for EPS at Rs 5000/-, such impacts will be limited.
- Compulsory annuitization may also discriminate against poorer workers, as their life expectancy at retirement might be lower than high earners[8].
- EPS allows early retirement at 50 with at least 20 years of service, with a penalty of 3% reduction in pension per year short. However this penalty is reportedly less than the actuarially fair 6% (given that early retirees will receive a pension for a longer period). This is an encouragement to early retirement.
- Available projections indicate that EPS, even if it does not pay inflation-indexed pensions, will run into deficits, by 2030 or so. With inflation-adjusted pension, it would run into deficits by 2015 itself [3. p.30-31]. The deficits are expected to stabilize at around 0.5% of GDP without indexation, and around 1% of GDP with indexation.

(Insert Fig 7 of 3, p.31 here)

[8] This provides another rationale why the poorer workers might prefer the maximum permissible lump sum commutation.

Figure 7. Baseline projections for EPS, with and without price indexation
Surplus or deficit as share of GDP



Source: Bank staff calculations using PROST model.

2.4.3 CPS / GPF

The estimated number of government employees, including railways and defence was 12.25 million as of 1998, out of which 7.6 million were State Government employees. CPS is a non-contributory, inflation indexed, final salary based, defined benefit scheme. The estimated number of pensioners was 7.3 million. The major issues in CPS are to do with their financial implications for the central and state budgets. In 1997-98, the wage bill was 4.86% of GDP while the pensions cost another 1.3% of GDP [3].

The important point to note is that these schemes are not 'funded', i.e., no funds are earmarked, set aside and invested now itself to meet anticipated payment obligations already accrued to the government employees. Rather, these obligations must be met out of future tax and other receipts of the government.

Though the financial burden as of 1998 itself was heavy, the projections for the future are downright scary:

- The dependency ratio, i.e. the ratio of the number of pensioners to number of current employees was 66% as of 1998[9].
- The pension bill of the central government, as a percentage of GDP, doubled between 1995 and 2000 (current estimate is 1% of GDP compared to 0.73% in 1997-98).
- At the state level, it is even worse: In U.P, it has trebled, from 0.4% to 1.2% of Gross State Domestic Product (GSDP) during 1990-2000; in Rajasthan, from 0.8% to 2.3% The bulge in recruitment by state governments till 1990 will make things worse in the next five years. The Chief Minister of Tamil Nadu says that pensions trebled between 1998 and 2001[10]
- Without any revision in real terms, it is projected that the pension burden (excluding defence services) will increase from 1% of GDP to about 2% of GDP by 2080. If pay commissions recommend any hikes in real pensions, this might exceed 2.5% of GDP by 2080.

The CSP benefits are as follows:

- Subject to a minimum of Rs.1275 per month and a maximum of Rs 15000 per month (inflation adjusted?), pension accrues at the rate of 1.5% per year of service multiplied by the final salary (last ten months). Full pension is payable after 20 yrs of service. There is automatic adjustment for price increases. Commutation of upto 40% of the pension as a lump sum at retirement is permitted[11].

In addition, the civil servants are also covered under the GPF. Though a defined contribution scheme like EPF, the government effectively operates the scheme on a 'pay as you go' basis.

In its 2001 Budget, the central government proposed to move over to a defined contribution CPS for all new entrants to civil service. However, for understandable reasons, it has been put in cold storage.

2.4.4 Voluntary Individual Plans

[9] In particular, the dependency ratio in the defence services was as much as 1.8, because of its substantial proportion of defence personnel who retire early.
[10] The Hindu, Oct 19, 2002
[11] Subject to restoration of full pension if the pensioner lives beyond a stipulated period.

The government encourages voluntary savings for old age through tax incentives. These schemes, like PPF, would be of interest to the self-employed and others not covered under EPF. In addition, employer sponsored superannuation schemes and pension plans offered by insurance companies are also given tax incentives.

Tax incentives could be for the employer or the employee or both, depending on who contributes to the scheme and how much. Taxes on income could be levied at the time of contributions, or when returns are earned on investments or when benefits are paid out. In principle, long-term savings out of current income should be taxed only once. If taxed only at the beginning (end), the tax system can be denoted as TEE (EET)[12]. For example an EEE system would mean that that there are no taxes on income at the contribution, investment earning or at the withdrawal or payout stage.

Public Provident Fund (PPF)

This is open to all citizens. Annual contributions in the range of Rs 100 (min) to Rs 60000 (max) are eligible for a 20% tax rebate under sec 88, along with other savings like Employee's contribution to EPF/ SAS/ life insurance premium/NSC etc. The minimum maturity period is 15 years; extendable at the option of the account holder upto 25 yrs. Partial withdrawals and loans are permitted. The interest earned and the withdrawals are totally exempt from taxes. Therefore this scheme is tEE[13]. Employers can also contribute to these PPF accounts upto a maximum of 15% of salary. Employer's contribution is EEE.

As of 1998, there were 2.76 million PPF accounts with a total accumulation of Rs 50 billion, at an average balance of Rs 18000 per account.

While the annual interest credited has come down from 12% to 9% in the last few years, there are increasing worries about the safety of investments as the bulk of PPF are on-lent by the center to respective state governments.

[12] 'T' stands taxed and 'E' for exempted. The three alphabets correspond to tax treatments at the stage of contribution, investment return and payout respectively.
[13] The lower case 't' may be taken as partially taxed, because of the Sec 88 benefits.

In addition, the liberal withdrawal provisions have made it easy for the PPF account holders to recycle withdrawals as fresh savings and claim repeated tax benefits under Sec 88. Thus, the cost to the government, including tax foregone, could be much higher.

Employer Sponsored Superannuation Plans

Employer's contribution upto 15% (27% including EPF) are treated as business expenses and thus the employer earns a tax shield. Employee's contributions get tax benefits under Sec 88 (subject to an overall total of Rs 60000). However, the employer has to establish an irrevocable trust fund, to be managed either by independent trustees or through LIC. One third of the accumulation can be commuted as a lump sum payment on retirement and is tax-free. The remaining payment has to be in the form of annuities, which are taxable. The investment income is tax free if managed by independent trustees. But for funds managed by LIC, LIC has to pay a corporate tax of 12.5% on investment income. Thus the tax on superannuation scheme is tEt (ttt), if managed by trustees (LIC). The investment restrictions on these funds are much less compared to EPF/ EPS funds. During 1992-98, these funds earned 1 to 2% higher returns compared to EPF [11, as quoted in 3, p.44].

As of 1998, about 6.7 lakh employees were covered by 4700 employers, under such superannuation schemes.

Personal Pension Plans (PPP)

These are tax preferred individual retirement / pension plans offered by insurance companies (till recently only LIC). An individual can purchase a pension plan by making a single premium payment or accumulate over a longer period. He can choose to receive annuities beginning either immediately (immediate annuity) or some time later (deferred annuity). There is also an option to commute one-third of the accumulation in a deferred annuity into a tax-free lump sum payment. But the annuities are taxable. Thus the tax treatment is tEt or ttt[14].

[14] There is some confusion on differential tax treatment of LIC vis-à-vis other private sector insurers. This needs to be clarified.

Ideally, annuities should also payout the principal gradually. However, because of the taxes on annuities, most of the plans pay out the principal at death. These are defined benefit schemes nevertheless, as the undiversifiable mortality risk is borne by the pension manager.

As of 1998, about 6.7 lakh individuals were covered under such plans. This is likely to increase sharply with the entry of several private sector insurance companies as pension managers.

2.4.5 National Old Age Pension Scheme (NOAPS) and similar State Level Schemes (Based on [12])

NOAPS is a 100% centrally funded scheme, granting Rs 75/month to the destitute elderly (>65 yrs). The entitlement ceiling for each state is estimated based on the following formula:

A State's entitlement = Total Population* Proportion>65*Poverty ratio*0.5*75*12

The above formula assumes that roughly 50% of the >65 age group below the poverty line will qualify for NOAPS. The identification of the recipients and disbursement has been delegated to the respective state governments.

As of 1999-2000, as against the total ceiling of 68.81 lakhs for the entire country, 63.11 lakh elderly (91.72%) have been reportedly covered. Claims by state governments totaled Rs 447 Cr. Of course there are obvious questions about leakages and actual effectiveness on the ground.

Individual states have modified the scheme through their own additional funding. The highest reported pension was Rs 300 in W. Bengal [12, p.615]. Though the estimated national average amount of Rs. 150 looks small, combined with the subsidized supply of essential commodities through the PDS, this can substantially meet the entire expenditure of such poor elderly on essential food items.

In March 1999, another 100% centrally funded *Annapurna* scheme was launched. Under *Annapurna*, the beneficiaries under NOAPS were also entitled to 10 Kg of either wheat or rice per month, entirely free of cost. The budget allocation for the first year was Rs 100 Cr.

It is interesting to note that the financial burden on the central government because of its 1.16% contribution to EPS, may be twice that due to NOAPS and *Annapurna*.

3. The Indian Reform Debate

The Government has reportedly set up a high-powered working group on reforming CPS and no recommendations have been made public as yet. However the report of the OASIS Committee [2], the draft document by the World Bank [3], and some studies on Old Age Social assistance [12, 13] have suggested several reform measures. We discuss here various reform issues.

3.1 'Elderly': Who are they?

This is not a rhetorical question. If the definition of 'elderly' is to be on the basis of lack of physical and/or mental capabilities to contribute and earn through productive work, the definition based purely on biological age is likely to overestimate the magnitude of the problem. The reasons are:

- The improving heath status of the general population and the improvement in life expectancy. One suggestion is to define 'elderly' on the basis of a specified number of years of life expectancy.
- The changing occupational composition towards more white-collar jobs, making possible a higher retirement age.

3.2 Who are the 'poor' among the Elderly?

This empirical question is of importance to the projected financial burden and feasibility of social assistance schemes like NOAPS and *Annapurna*. For example, Irudaya Rajan [12,

2001-02] points out that the OASIS report's projected funds required for NOAPS for 2025 (Rs 21000 Cr) is highly exaggerated.

3.3 Are the Elderly an Asset or a Liability?

If only we can change our mindset into viewing the elderly as an asset, the whole problem can be turned on its head into asking how best to use the resources available from the elderly. Such a mindset would also reduce the reported non-economic and psychological problems of the elderly: lack of respect from the young, sense of being useless etc.

For example, the dependency ratio, as currently defined is misleading. The working population among the elderly (including household work) must be counted in the denominator rather than in the numerator!

It has also been pointed out [12, p.2339], that even young couples need the assistance of the elderly, especially at particular stages of their life cycles, e.g., child rearing age. Therefore, we need to understand the stage of the life cycle in which the elderly are in least demand.

Going beyond paid work and household activities within the immediate family, there is the whole potential of encouraging the elderly to participate in developmental activities for nation building. This can be at a fraction of the cost and of a much superior quality compared to employing a full-scale developmental bureaucracy.

3.4 Family Support or Formal OASIS?

Should India also follow the path of the now developed countries? India may land up in the same mess- not just in terms of financial burden on the exchequer!
First is the question of feasibility. Can India, given its low GDP per capita, afford welfare expenditures of countries like Japan or Sweden, already at 20% of GDP?

Secondly, should Indian policy encourage the observed trend of declining family support seen in the developed countries? Such trends sacrifice several benefits of joint families:

economies in housing and consumption of durables, limited risk pooling, physical and emotional care of the old, child care and so on.

Thirdly, if the current working population has to save for their old age, can they afford to support investments in higher education of their children? After all, this will be a triple burden on the transitory working generation: they have to take care of their old parents, save for their own old age as well as educate their children!

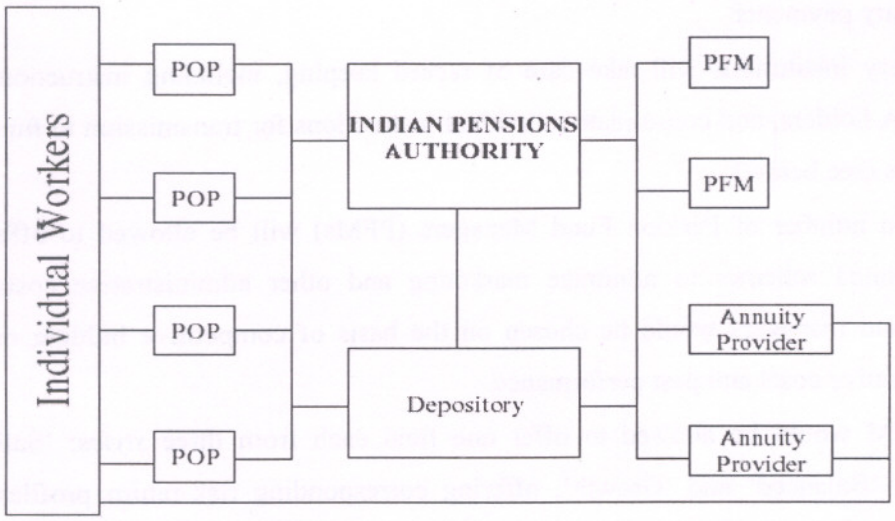
3.5 Universal Access to OASIS?

One of the major problems addressed by the OASIS committee report [2] is expanding coverage through voluntary savings, especially for persons not earning any 'regular monthly salary'. This report points out that the key ingredients for a meaningful pension system are regular contributions to such long-term savings and wise investment thereof.

OASIS report recommends a 'New Pension System' on the following lines:

[Insert Fig 14, p.48 from 3 here]

Figure 14. Schematic of the OASIS proposal for a new pension system



Source: The Project OASIS Report

- Based on Individual Retirement Account (IRA)

  An individual will create this account; will have a passbook; control how his savings are invested; IRA will be completely portable as the individual

changes location/ job /status; obtain benefits after retirement for life from his IRA. Such features will eliminate free rider problems and political risks.

- Contributions could be of any pattern, subject to a minimum of Rs 100/- per transaction and Rs 500 per year (similar to the feature of PPF, but without any upper limit)
- Micro-credit facility for loans upto Rs 5000/- against the collateral of pension savings (if >10000) would be available. Subsequent contributions would be first adjusted against repayment. The IRA holder has to make Rs 500 fresh contribution per year over and above the repayments. Only one loan would be permitted at a time.
- The transaction costs of the entire system will be minimized by exploiting existing institutions and exploiting IT[15]:

  Access to the system will be through myriad Points of Presence (POPs), including post offices and banks. Through any of these POPs, using ATM like facilities, an IRA holder can open an IRA, deposit contributions, get account statements, transmit instructions to pension fund managers on how to invest among available options, make (permitted) partial withdrawals and collect annuity payments.
- Depository institutions will take care of record keeping, including instructions from IRA holders, and consolidate individual instructions for transmission to fund managers (see below)
- A limited number of Pension Fund Managers (PFMs) will be allowed to offer some limited schemes to minimize marketing and other administrative costs. These fund managers would be chosen on the basis of competitive bidding on administrative costs and past performance.
- Each PFM would be allowed to offer one fund each from three *styles*: 'Safe Income', 'Balanced' and 'Growth', offering corresponding risk-return profiles. However, in the initial years, even in equity investments there will be no 'active fund management'. Equity investments by PFMs, including international equity, would be restricted to index funds only. Investments in corporate debt would be restricted to investment grade, liquid debt (defined by impact cost)

[15] Based on the experience of reforms in the stock market since 1991, the committee feels that the total costs could be kept below 0.25% of pension assets per year

- To protect individuals who are incapable of exercising such choices, there would be a 'default allocation' of their funds to the 'safe income style' fund of the best performing PFM in the last one year.
- For 'safe income style', PFMs have to provide a guarantee of utmost 2% less return compared to the weighted average of all PFMs' safe income funds[16].
- Government would provide an additional safety net, through a suitable insurance, that the final pension accumulations of an IRA would not be less than sum total of all contributions.
- Prior to retirement, a maximum of 33% of the excess above Rs 200,000 can be withdrawn for specified purposes, subject to a 10% withdrawal tax. On retirement, a minimum amount of Rs 200,000 of the accumulated funds in IRAs would have to be converted to annuities through one of the approved annuity providers. The IRA holder should be free to dispose of the excess in any way he deems fit.
- A sound regulatory process is essential for the entire system to work. An Independent Pension Authority (IPA) will have the regulatory powers.
- Subject to the above, the committee has not recommended any fresh tax incentives. Contributions to IRA should be eligible for tax rebate under Sec 88 and the income earned by PFMs on the pension fund should be exempt from tax.
- The OASIS report has also recommended the following for the EPF/EPS
    - Members should have the option of having their contributions directed into the proposed IRA system, instead of leaving the management to EPFO.
    - 'Exempt funds' under EPF should also be subsumed under the proposed IRA system
    - Premature withdrawals should be permitted only in case of permanent disability or death
    - The EPS funds should be 'professionally' managed and not by EPFO

- The OASIS report has also recommended that contributions to the existing PPF should cease. Instead, a new PPF with tighter norms for premature withdrawals and more professional fund management should be introduced.[17]

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[16] There is a criticism that that this will encourage 'herd behaviour' amongst portfolio managers of such funds

[17] However, it is not clear how the new proposed PPF will differ in concept from the IRA and indeed why it should exist after introduction of IRA.

On the face of it, the New Pension System suggested by the OASIS report is a revolutionary change, called a 'systemic reform' in pension reform jargon. However, there are some inevitable question marks:

- Will it result in substantial increase in coverage?
- Are the promised low administrative costs actually realizable?
- Understandably, the suggestions on EPF have not gone down well with the EPFO, as they are seen as cutting into their turf.
- There is also a debate on whether there is a need for an Independent Pension Authority (IPA) or the existing Insurance Regulation and Development Authority (IRDA) could regulate even the accumulation phase of IRA.

3.6 Status of Government Finances vis-à-vis CSP/ EPS

As stated earlier, the projected burden of the existing pay as you go CSP and the defined benefit EPS is worrying. However, all these projections are very sensitive to modeling assumptions on several parameters: Growth rate of wages, Inflation rates, investment returns, administrative charges, mortality rates and so on.

There are reported moves by the Government to move over to either a defined contribution system or a funded defined benefit system.

Any move towards a defined contribution system for CPS will face strong opposition from civil service employees. However, a funded defined benefit system is not politically expedient, as the current government in power has to not only provide for a one –time fund for accrued benefits but also make provisions from the current budget for fresh accruals. A conservative estimate of the current 'implicit' pension debt[18] on CPS (excluding defence and state enterprises) is 25% of GDP [3, p.39].

3.7 Two Illustrative Alternatives by World Bank Draft Study [3]

[18] This represents the present value (PV) of all pension rights already accrued.

In contrast to OASIS report, the draft World Bank study has suggested two illustrative cases for further exploration and debate [3, 52-72]. We highlight only the important and new features:

- Perhaps because of the sensitivity of the issues related to CSP reform, this document surprisingly makes only a short two-para reference to CSP reforms: Shift 'younger civil servants and at least new entrants' to the one system to be eventually chosen out of the two proposed alternatives[19]
- The reforms of EPF/ EPS is the corner stone of recommendations The focus is on the following:
    - Reducing overall contribution rates
    - Eliminating *unintended* intragenerational redistribution
    - Redistributing to workers with low lifetime incomes
    - A reasonable replacement rate, payable till death and protected against inflation risk
    - Minimizing labour market distortions, subject to meeting the above
- **Case 1: Basic Pension plus funded individual account**
    - The 'basic pension' is set at 30% of the average wage in the year of retirement for a worker with 30 yrs of contribution.
    - Target replacement rate is 60% for a worker with average wage, i.e, an additional 30% over the basic pension, for a contribution of 30 yrs, in the form of a price-indexed annuity
    - A maximum cap on the earnings covered under the second tier 30% replacement rate is fixed at three times the average wage. This implies a maximum pension of 120% of average wage.

This case aims at a relatively high replacement rate and a relatively high basic pension. There is a significant redistribution from higher to lower income earners. The required contribution (payroll tax) is estimated to be 6% for the basic pension, and another 10-12% for the additional 30% replacement rate over 30 yrs.

[19] This meek remark is in contrast to the detailed discussion on the problems of CPS in the same report. The vested interest amongst civil servants to protect their nests is discussed by Joseph [14]

- **Case 2: Defined Contribution and redistribution limited to social assistance**

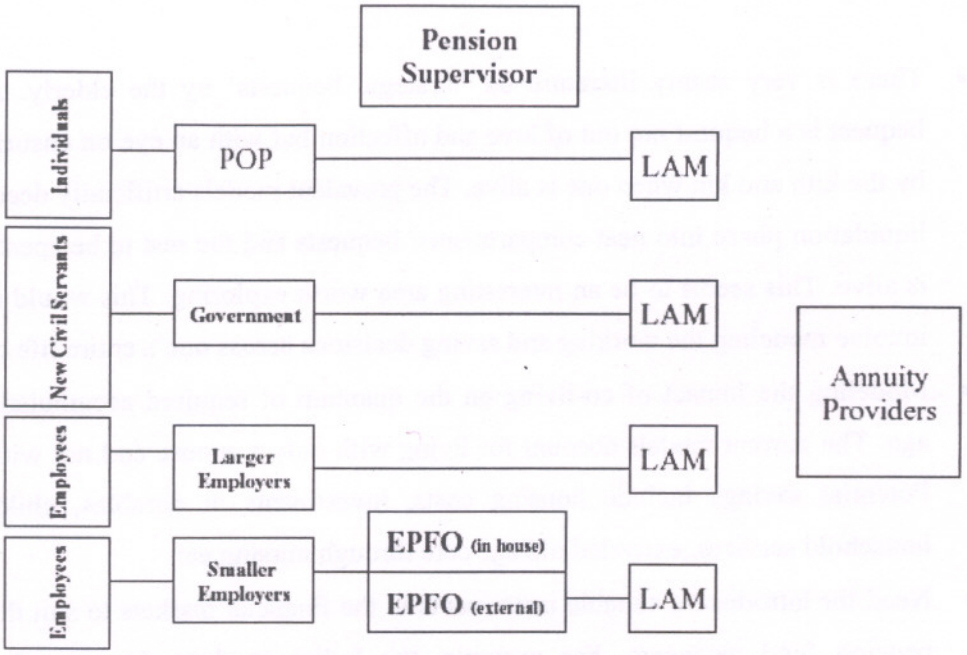
  - The redistributive component is only through social assistance, to be financed out of the general budget.
  - The target replacement rate in this totally defined contribution system is 30% for the average worker. Again there is a cap of three times the average wage for coverage of incomes.

The contribution rate for this case will be 12% only, or half of the current level of contribution to EPF of 24%

- The recommendations of this study on withdrawals, tax treatment and improving investment returns are similar to those of the OASIS report.
- However, the World Bank is not so confident about the New Pension System and its administrative arrangements visualized by the OASIS report. A tradeoff is posed between higher administrative costs and better investment returns through better management spurred by competition. Perhaps this study wants to steer clear of 'turf wars' between the PFMs under the new system and EPFO. The report also makes the point that perhaps only the defined benefit part of the pensions should be regulated by IRDA. It also doubts whether the IRDA would have sufficient resources to shoulder such a responsibility.

- Instead, this study suggests a less radical reform to the existing system of managing EPF (insert Fig 18, p.70 of [3] here).

Figure 18. Schematic based on the systemic reform illustration in this report



Source: own elaboration.

- There are no depository services envisaged. Individuals will directly deal with 'licensed asset managers' (LAMs).
- Government will act as the conduit for managing PF of government employees, but through professionally managed private LAMs
- The rules for designating PF funds as 'exempt funds' will be liberalized and such funds will act as conduits to LAMs
- Considerable expansion of coverage of employees working in small companies etc is envisaged through the 'unexempt funds'. EPFO would continue to be the conduit for collection and record keeping. But asset management would be partially contracted out by EPFO to private LAMs and partly done in-house.

4. Proposed Research Agenda

This section list outs those issues of research interest to me. Therefore, they do not imply any judgment on their overall importance. Nor have they been organized yet into cohesive chunks or focus areas. I am yet to survey the literature on all these issues.

- There is very scanty literature on 'strategic bequests' by the elderly. A strategic bequest is a bequest not out of love and affection but with an eye on ensuring support by the kith and kin when one is alive. The prevalent models artificially decompose the liquidation phase into neat compartments: bequests and the rest to be spent when one is alive. This seems to be an interesting area worth exploring. This would necessarily involve modeling the working and saving decisions across one's entire life cycle
- Modeling the impact of co-living on the quantum of required accumulation for old age. The current models account for living with only a spouse and not with children. Potential savings include housing costs, investments in durables, child-care and household services, extended old age care through nursing etc.
- Need for introducing suitable instruments in the financial markets to suit the needs of pension fund managers. For example, the Indian markets do not offer treasury securities beyond 10-20 yrs. Similarly, there are no treasury securities offering inflation adjusted 'real' returns to hedge inflation risk [15].
- There are interesting suggestions / innovations of relevance to OASIS. One is 'reverse mortgage' on housing assets owned by the elderly who would rather consume it in their lifetime rather than bequeathing it. In return for such a house property on their death, insurance companies can pay a life annuity to them, even while permitting them to stay in that house till death. This turns the whole concept of insurance on its head: benefits are paid first in anticipation of an assured future premium! Housing is perhaps the single largest chunk of investment by an average wage earner. If housing investment can be encashed for OASIS, there is no apparent tradeoff between housing investment and saving for old age.
- There are hardly any publicly available mortality tables on the elderly, as estimated by neutral bodies. The annuity market was so far very thin in India with the monopoly position of LIC. There is a need for assessing whether annuity buyers are receiving a fair deal, even from the new private entrants. Private insurance companies can offer segment specific annuities which are actuarially fair and avoid cross-subsidizing high risk (in this case healthy!) groups. For example, the poorer persons deserve higher annuities for the same price, as their life expectancy is likely to be less.
- There are suggestions on how market based instruments like derivatives can be used to manage investment risks of social security funds [16]. These open up several

opportunities for risk transfer as well as several Pandora's boxes. For example one such idea that I consider very dangerous is the issue of put options by companies on their own stock!

- It is expected that there will be a boom in the Indian market for retirement related financial and other products. What are the business opportunities?
- Purely as a prospective elderly, how I can contribute to the welfare of my generation when we grow old? What should we guard against? How can we harness our voting muzzle against being short-changed by political expediency? [17, 18]

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