Micro Pension Plan: Indian Perspective

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Abstract

The process of economic liberalization in India started in July 1991 and resulted in significant changes in the functioning of several sectors in the economy. Presently, the Indian economy is growing with the growth of national income and per capita income, while society is facing the problem of an increasing number of persons in old age and the gradual erosion of the joint family system. The existing social security schemes do not cover the large mass of the working population. Therefore, India needs micro-pension plans that cover the large segment of people from the unorganized sector. A small amount of contribution from each such member would generate a large chunk of funds that may be useful for the growth of the national economy, development of infrastructure and to reduce the volatility in the stock market. The accumulation of a large amount of funds will be consumed as the regular income to these working people when they attain the age of retirement. The most gratifying achievement would be that these people may be saved from the threat of poverty during their old age, although many of them are maintaining a satisfactory standard of living during their working life.

1. Introduction

The process of economic liberalization in India started in July 1991. It has resulted in significant changes in the functioning of the economic activities, especially the banking sector, insurance industry and other capital market participants such as mutual funds, merchant bankers, stock brokers, etc. Appointment of the Malhotra Committee (1994) and the passage of the IRDA Bill (December 1999) led to the reforms of the insurance sector.[1] Thereby, the Indian insurance industry was opened to the private players, both domestic and multinational, in order to bring growth and efficiency leading to better economic growth. Similarly, to reform the pension sector, the Dave committee has submitted the Project OASIS report (January 2000) and the pension regulator (PFRDA) has been appointed (March 2005) in order to regulate and develop the Indian pension sector.[2]

The size of the Indian economy has grown from Rs.14150.93 billion or US$336.37 billion (national income at current prices) in 1998-99 to Rs.28467.62 billion or US$643.05 billion in 2005-06. Per capita income has also gone up from Rs.5652.90 (US$134.37) to Rs.9964 (US$225.07) during the above period.[3] Consequently, the percentage of people lying below the poverty line (persons earning less than US$14 a month) decreased from 26.1 percent in the year 1999-00 to 21.8 percent in the year 2004-05. These indicate the improvement in the standard of living of the common masses that raised the expectations in relation to consumption and savings. However, the people lying below the poverty line cannot save an adequate amount to plan their postretirement days. On the other side, the people working in the unorganized sector do not have a suitable instrument to have sound retirement planning.

The Indian economy is experiencing three different trends.[4] The demography is gradually graying while the joint family system is gradually waning from the society. Lastly, the government was unable to continue the defined benefit pension schemes to its employees due to the increasing cost burden. Moreover, with the expected increase in the old dependency ratio from 13 percent in 2000 to 19.3 percent in 2025, intergenerational support may be burdensome.[5] A populist measure like a regular subsidy or grant will be very costly to the economy. Government support of even Rs.25 per head per day, a negligible sum, to the 10 percent of this population would cause a fiscal deficit of 4 percent of GDP, apart from the administrative expenses. Therefore, pension sector reform should be an integrated part of the second-generation reforms in India. Therefore, we need to have sustainable retirement plans

that are attractive like any other savings instruments—financial and commodity like gold. Such plans will ultimately lead to the development of the capital markets and debt markets as well as ensure the availability of long-term funds for the development of the infrastructure projects. However, India needs a suitable regulatory framework that encourages the design and development of long-term products.

2. Demographic Transitions and Labor Market Scenario

This section is divided into two subsections. The first one will highlight how Indian demography is gradually graying, and the second will show the segmentation of the Indian labor force.

2.1. Demographic Transition

Population aging is a universal phenomenon, and India is not an exception to the rule. India accommodates about 17 percent of the world population out of which 7.6 percent are elderly. The following table shows the changes in the salient features of the Indian population:

TABLE 1
Demographic Profile of India

Year	**1981**	**1991**	**Current**
Population Size (in million)	683.33	846.30	1027 (2001)
Crude Birth Rate per 1000 population	33.9	29.5	23.8 (2005)
Crude Death Rate per 1000 population	12.5	9.8	7.6 (2005)
Total Fertility Rate per woman	4.5	3.6	2.9 (2005)
Infant Mortality Rate per 1000 live births	110	80	58 (2005)
Life expectancy at Birth (in years)	54.4	60.3	65.4 (2001-06)
Literacy Rate (Percentage)	43.57	52.20	65.37 (2001)
Proportion of Children (0 – 6 years)	–	17.94	15.37 (2001)

(Source: Economic Survey 2006-07)

The above table shows how the Indian population is gradually graying owing to diminishing birth and death rates. Improvement in literacy led to better degree of awareness about health care and sanitation facilities, while innovations in medical science increased life expectancy. Moreover, the increasing participation of women in the workforce reduced the fertility rate. However, the higher proportion of children of the age group of 0–6 years makes India a younger nation as compared to 10.15 percent of the world average. The projections of Indian population of different age groups for selected years are given below:

TABLE 2
Indian Demography: Under Transition

Year	**2006**	**2011**	**2016**	**2021**	**2026**
< 15 years	357 (32.1)	347 (29.09)	340 (26.79)	337 (25.15)	327 (23.36)
15 – 64 years	699 (62.86)	780 (65.38)	851 (67.06)	908 (67.76)	957 (68.36)
> 65 years	56 (5.04)	66 (5.53)	78 (6.15)	95 (7.09)	116 (8.29)
Total	**1112**	**1193**	**1269**	**1340**	**1400**

(Source: Economic Survey 2006–07)

It may be observed that by the next two decades, the size of the Indian population will increase by 26 percent, while the population of more than 65 years will increase by 107 percent! In 2000, there were 8 million people aged more than 80 years (this group is growing annually at a rate of 4.4 percent as against 2.6 percent of world average); 29 million aged more than 70 years; while 77 million were more than 60 years. With the increasing longevity, these numbers will go up further. This age wave is expected to make the presence of one elderly person in every 12 Indians, thereby making India the second largest hub for the seniors in the world by the next two decades. According to the National Sample Survey, 64 percent of the elderly women and 46 percent of the elderly men are fully dependent—for food, clothing and health care requirements—on others. About 10 percent do not have anybody to take care of them, while 27 million are in ill health and need to be cared for. Census 2001 reports that 50 percent of elderly Indians suffer from at least one chronic disease that requires lifelong medication. About 50 percent are reported to have arthritis; 40 percent suffer from hypertension; 30 percent have hearing impairments; 40 percent have defective vision; 10 percent have diabetes; and 9 percent have psychiatric problems.[10] But, in India, unlike western countries, the elderly patients are treated generally along with the younger patients. The costs of utilizing health care facilities are increasing exponentially. Therefore, in order to survive for more than 20 years after a retirement age of 60 years, one needs to arrange adequate funds during the working life.[4]

2.2 Labor Market Scenarios

India is one of the biggest emerging labor markets in the near future. The Planning Commission of India has noted that the size of the Indian labor force is increasing consistently as follows:

TABLE 3
Labor Market in India: Increasing Activism

Year	**1993–94**	**1999–00**	**2004–05**
Total Labor Force	381.94	406.05	428.38
Total Employment	374.45	397.00	415.27
Unorganized Sector	**347.08**	**368.89**	**388.82**
Organized Sector	**27.37**	**28.11**	**26.45**
Public Sector	19.44	19.41	18.20
Private Sector	7.93	8.70	8.25
Areawise Break Up:			
Agriculture Sector	242.5	237.6	244.1
Manufacturing Sector	58.2	69.2	75.3
Services Sector	73.8	90.3	95.9

(Figures are in millions) **(Source: Planning Commission of India)**

Employment opportunities are growing in India at a rapid pace in the unorganized sector while shrinking in the organized sector. This growth has been accelerated to 2.6 percent per annum during 1999–2005. The increase in agricultural employment is less than the growth in population, while the manufacturing and service sectors have registered robust growth in employment opportunities. However, the Planning Commission of India estimated that the labor force would increase by about 65 million by 2011. Correspondingly, the process of generation of employment has been started in the services and manufacturing sectors. But the stark reality is that only the people from the organized sector enjoy proper social security measures, not the people from the unorganized sector.

It has been observed that in the year 2000, one-third of the population was below 15 years, while about 20 percent of the population was in the age group of 15–24 years. The number of persons in the age group of 15-24 is increasing consistently from 175 million in the year 1995 to 190 million in 2000 and 210 million in 2005. This trend is highly significant as the dependency ratio is gradually decreasing. Therefore, the working Indians will be producing more than the total consumption. The above surplus may be invested productively for the growth and development of the economy. Therefore, in order to motivate the people from the unorganized sector for the growth and development of the Indian economy, the government has to adopt proper measures to utilize their savings.

3. Existing System—Issues and Concerns

The existing social security plans are only available to the workers of the organized sector, hardly comprising 6.5 percent of the working population. However, these plans may be broadly classified as Traditional Civil Servants' Pension Plan (TCSP) and Employees' Provident Fund (EPF).

3.1 Traditional Civil Servants' Pension Plan

Only the employees of the Union Government who joined before Jan. 1, 2004 were eligible for these benefits. It was a non-contributory and defined benefit plan indexed to inflation. The scheme was functioning on a pay-as-you-go basis. The following table shows the amount of pension outflows from the government exchequer:

TABLE 4
Pension Payments: Increasingly Burdensome

	Amount in Rs. million			Percentage of GDP		
Year	**Center**	**State**	**Total**	**Center**	**State**	**Total**
1990–91	32,720	31,310	64,030	0.75	0.71	1.46
2004–05	273,200	383,700	656,900	0.96	1.35	2.31

(Source: Ajay Shah 2005)

The employees of central government are comprised of the employees of the civil ministries, railways, post and telegraph, defense, etc. In the year 2004–05, the size was estimated as 4.5 million, excluding 3.4 million pensioners from the autonomous bodies and grant-in-aid institutions. The size of the state pensioners was 7.4 million during the same year, apart from 10.4 million pensioners from the local bodies and grant-in-aid institutions. It has been observed that during the above 14 years, the nominal GDP has increased by 14 percent p.a. while the central pension payments grew by 16.37 percent p.a. and the state pension burden increased by 19.6 percent p.a. As a result, the combined pension burden has increased from 1.46 percent to 2.31 percent of GDP. According to India Pension Research Foundation, the implied debt on pension in 2004 was Rs.2003 billion, about 64.5 percent of GDP. The high potential liability justifies the rationality of stopping the pension facilities for the new recruits.[13] Considering this incremental burden, the Government of India was forced to start New Pension Scheme for its employees joining from Jan. 1, 2004. In this case, each employee and the government will contribute 10 percent of salary in every month. Moving from unfunded defined benefit scheme to solely funded defined contribution system may be considered as a major step in the reform process. The same has been implemented by many state governments.

3.2 Employees Provident Funds

The Employees' Provident Funds organization manages two schemes simultaneously—Employees' Provident Funds (EPF) and Employees' Pension Scheme (EPS). These are statutorily required for the workers engaged in the organizations, employing 20 or more persons in 180 specified industries. According to the EPFO, as of March 31, 2006, 444,464 establishments were covered engaging 43 million workers. The figures given in Table 5 show that the average amount of contributions in EPF were Rs.31,423 during 2004–05 and Rs.38,595 during 2005–-06, while the same for EPS was Rs.20,905 and 20,640 during the above two years. On the other hand, the average amount of terminal payments were Rs.24,332 and Rs.27,107 during the above two years respectively. While the average amount of pension disbursed during the above two years was Rs.12,276 and 15,132 respectively. EPFO charges 4.4 percent as fund management charges, the highest in amount as compared to just 2.25 percent for the mutual funds in India.

A study among the 39.5 million EPF members showed that the balance amount was below Rs.20,000 for 84.58 percent of members as of March 2003—that makes an average balance of Rs.3,133 per member. Only 8.3 percent of members (out of 39.5 million) maintained up to Rs.50,000 as a balance amount leading to an average balance of Rs.40,468 per member. Therefore, 92.88 percent of members maintained an average balance of Rs.6,469. A high amount of contribution of 24 percent of wages leads to a distress situation, as it results in a lesser amount of money to be saved to meet other needs. But the rate of return, as administered by the government of India, has come down from 12 percent in 2000 to 8.5 percent in 2005–06 as decided by the Union Government in consulting with Central Board of Trustees (CBT) of EPFO. Poor return on investment and liberal withdrawal policies are the main factors that defeat the very purpose of old age income security. It has been observed that the insurance industry in India has issued just 60 million policies in a country of 1.1 billion population.[20] Due to less insurance coverage (about 0.56 percent as against the world average of 3.43 percent in 2001), whenever any contingency arises, people withdraw EPF money lavishly to get out of the problem. Unlike earlier days, adequate new opportunities are emerging in the Indian job markets and people are accepting the challenges. But it is not easy to transfer the EPF balance with the new employer, considering the official formalities. Therefore, 90 percent of withdrawal cases were due to resignation owing to the change in employer, not due to superannuation.[5] All these facts mean that only about 7 percent of rich participants are enjoying these benefits.

The salient features of the two schemes are as follows:

TABLE 5

EPF vs. EPS: Benefits to the Organized Sector

Scheme	**EPF**		**EPS**	
Benefits	It is a defined contribution scheme. Accumulation plus interest is paid against resignation/retirement or death.		It is defined contribution and defined benefit scheme. Regular monthly pension is given on superannuation or death.	
	Partial withdrawals are allowed to meet the specific expenses like, marriage and higher education of the children, house construction, illness, etc.		Amount of pension is function of the years of service and the average monthly salary during the last 12 months of service.	
Contribution	Employee 12.00% and Employer 3.67%		Employer 8.33% and Government 1.16%	
Coverage	**2004–05**	**2005–06**	**2004–05**	**2005–06**
Members	41.11 million	42.95 million	31.15 million	32.39 million
Establishments	408,831	444,464	408,831	444,464
Contribution				
Current	Rs.129.18 billion	Rs.165.77 billion	Rs.65.12 billion	Rs.66.86 billion
Progressive	Rs.13,37.84 billion	Rs.13,88.88 billion	Rs.638.06 billion	Rs.706.91 billion
No. of Claims	2.41 million	2.24 million	2.14 million	1.97 million
Amount Claimed	Rs.58.64 billion	Rs.60.72 billion	Rs.26.27 billion	Rs.29.81 billion

(Source: Employees' Provident Funds Organization)

The pension liabilities of the government under the EPS 1995 scheme are actuarially unsound. Despite falling interest rates from 13.4 percent to 5.1 percent, the benefits from EPS were not changed during 1997 to 2003,[2] hence the risk of increasing funding requirements to meet the gap as the government has bailed out Unit Trust of India, Indian Bank, etc. All these will create an extra burden to the government exchequer apart from the regular contribution to this scheme. Therefore, the government should consider unwinding this scheme and returning back the premiums to the respective account holders.[18] Poor people are likely to die sooner than the rich. Therefore, the benefits are favorable to the high-earning long-lived rich people at the cost of the poor. Moreover, EPFO performs the dual roles of the regulator as well as the administrator of the funds that are conflicting in nature. In the presence of PFRDA, EPFO should concentrate only on fund management in order to generate hefty returns for its members at low cost. The EPF funds have to be invested in notified securities, irrespective of the financial health of the issuer. As the financial health of many state governments is waning, the EPFO should consider this issue critically.[18] The return on special deposit scheme is

decided by the Ministry of Finance, while the Ministry of Labor mandates the administered rate of interest.

4. Role of the Unorganized Sector in the Generation of National Income and National Savings

In India, the unorganized sector plays more important role than the organized one in terms of the generation of employment vis-à-vis national income as well as contributing to the national savings. Our Honorable Finance Minister, in the union budget 2006, has raised the old age pension to the destitutes from Rs.75 to Rs.200 per month.[14] But this increase will only increase the fiscal deficit, as it is too low to meet the requirements of any person. These are discussed in the following subsections 4.1 through 4.3:

4.1 Generation of National Income

GDP at factor cost is growing from Rs.18, 647.73 billion in 2000–01 to Rs.26, 045.32 billion in the year 2005–06 at 1999–00 prices. The average growth rate during the above period was 6.5 percent where the agricultural sector has registered the lowest average growth rate with the highest degree of variation. It may be due to the usage of outdated technology, decrease in size of the arable land and increasing migration of the rural folks to the urban areas. It may be observed from the rapid urbanization in the Indian economy. The urban population increased from 159.5 million in 1981 to 284.5 million in 2001.[5] The fluctuation may be due to the fluctuating amount of rainfall as most of the arable lands do not get irrigation facilities. On the other hand, the industry and service sectors grew rapidly during the above period. In manufacturing and construction activities, the small-scale industries are generating the highest number of employment opportunities against every rupee invested. The major types of services are trade, hotels, transport, communications, real estate, etc., comprised of the partnership and proprietorship firms (i.e., non-corporate entities). The contribution to this sector is gradually increasing, while that of the government sector is decreasing. Hence, these areas may be termed as the prime movers of the growth and development of the Indian economy. But the employees of these areas do not enjoy any social security for their postretirement life.

TABLE 6
Sectoral Contribution and Growth of Indian GDP

Year	**2000–01**	**2001–02**	**2002–03**	**2003–04**	**2004–05**	**2005–06**
Agriculture and allied activities	0.0 percent **4881.83** ***(26%)***	5.9 percent **5168.65** ***(26.2)***	– 5.9 percent **4864.89** ***(23.76)***	9.3 percent **5319** ***(23.93)***	0.6 percent **5353.30** ***(22.40)***	5.8 percent **5662.75** ***(21.74)***
Industry i.e. Manufacturing, Construction, Electricity, Gas and water supply	6.8 percent **438,372** ***(23.51)***	2.8 percent **4507.23** ***(22.85)***	6.9 percent **4817.58** ***(23.53)***	7.8 percent **5193.23** ***(23.37)***	10.0 percent **5710.77** ***(23.90)***	10.1 percent **6289** ***(24.15)***
Trade, hotels, Transport, Communication	7.3 percent **4156.65** ***(22.29)***	9.1 percent **4535.91** ***(23.00)***	9.2 percent **4954.94** ***(24.20)***	12.1 percent **5553.03** ***(24.98)***	10.9 percent **6160.24** ***(25.78)***	10.4 percent **6802.37** ***(26.12)***
Financing, Insurance, Real Estate and Business Services	4.1 percent **2430.87** ***(13.04)***	7.3 percent ***2607.91*** ***(13.22)***	8.0 percent **2816.11** ***(13.75)***	5.6 percent **2973.26** ***(13.38)***	8.7 percent **3231.87** ***(13.52)***	10.9 percent **3585.35** ***(13.77)***
Government Services	4.8 percent **2794.65** ***(15)***	4.1 percent **2909.42** ***(16.23)***	3.9 percent **3023.81** ***(14.77)***	5.4 percent **3187.39** ***(14.34)***	7.9 percent **3440.42** ***(14.40)***	7.1 percent **3705.85** ***(14.23)***
Total	4.4 percent **18647.73**	5.8 percent **19729.12**	3.8 percent **20477.33**	8.5 percent **22225.91**	7.5 percent **23896.60**	9.0 percent **26045.32**

(Source: Economic Survey of India 2006–07 Table nos. 12 and 13)

Note: The first figure in every cell represent the growth rate of the earnings of that sector in that year; the second figure shows the amount of contribution to GDP at Factor Cost in terms of Rs. Billions; and the last figure gives the percentage contribution of that sector in GDP of that year.

4.2 Share in National Savings

The household sector in India contributes more than 80 percent (Economic Survey 2006–07, Table # 14) of our gross domestic savings (GDS). The amount of GDS as percentage of GDP has increased consistently from 23.4 percent in 2000–01 to 32.4 percent in 2005–06 (Economic Survey 2006–07, Table #10). It may be observed that most of these savings are invested in bank deposits and government securities. The growth of the financial assets is much higher in bank deposits and government securities than with the pension and provident funds. The other modes of savings are non-banking deposits and units of UTI. Both are decreasing due to the lesser amount of return in comparison to the inherent risk associated. The value of the life insurance funds are increasing

continuously, while the savings in shares and debentures are fluctuating depending upon the variations of the stock market indices.

TABLE 7
Changes in Financial Assets/Liabilities of the Household Sector (in billion Rs.)

Year	**2000–01**	**2001–02**	**2002–03**	**2003–04**	**2004–05**	**2005–06**
Currency	156.32	281.56	286.32	426.75	369.77	519.54
Bank Deposits	947.03	1129.36	1234.62	1419.67	1582.59	2746.41
Non-Banking Deposits	69.11	79.12	87.88	38.03	33.70	45.67
Life Insurance Funds	338.61	412.37	520.09	522.40	695.72	833.40
Provident and Pension Funds	478.82	466.09	484.41	516.55	563.54	586.15
Claims on Government	390.07	519.38	560.87	873.72	1064.20	867.55
Shares and Debentures	11.48	98.34	71.22	90.78	81.13	294.52
Units of UTI	–9.34	–18.57	–16.18	–85.86	–31.46	–4.44
Trade Debt (Net)	1.83	–1.83	–3.41	–1.14	–2.13	–2.22
Changes in Financial Assets	2483.94	2965.81	3225.83	3800.90	4357.06	5886.56
Changes in Financial Liabilities	317.79	517.27	603.05	707.32	1211.87	1825.39

(Source: RBI – Handbook of Statistics on Indian Economy, September 18, 2006)

It also emphasizes the necessity of having long-term to very long-term financial instruments in the Indian market. People should be in a position to choose the right product depending upon their return expectations and risk-bearing capabilities. According to a SEBI–NCAER survey in 2000, it was observed that about 19 million Indians are directly investing in the stock market while 23 million are holding the units of mutual funds. The number is increasing as stock indices are rising. Therefore, the market size is very much attractive even to the unit-linked pension schemes. Consequently, the Indian Income Tax Act 1961 has been amended with the introduction of under section 80C in the Financial Bill 2005. On the other side, the long-term savings may be profitably invested to reduce the volatility of the stock market where the foreign institutional investors play the most important role, to develop the bond market as well as to upgrade the quality of our lackluster infrastructure facilities.

4.3 Gold: An Attractive Savings Instrument

In India, gold is considered as the most important savings and investment instrument, since ancient times. The most attractive features are the liquidity, portability in the form of jewelries and the ease of transfer of ownership. The gold ornaments are generally purchased during the good times, preserved and accounted by the housewives of the family while they may be disposed off only during the tough times of the family, irrespective of the prevailing market prices. The *"superstitution"* of

preserving gold during the lifespan of the husband of a married woman was more “economic” than “religious.” Moreover, gold may also be used as collateral to get money from any money lender located even in the small villages. Therefore, gold may be considered as an insurance instrument to the poor and middle-income families in India.

TABLE 8
Gold Demand in Key Markets Worldwide (1996 - 2002) (in ton)

Country	1996	1997	1998	1999	2000	2001	2002
India	**507.8**	**688.0**	**774.4**	**730.7**	**723.0**	**726.7**	**575.7**
Pakistan	53.7	78.1	54.8	67.0	58.1	49.0	50.5
Greater China	374.4	529.6	367.3	308.7	292.6	269.7	237.8
Japan	152.2	109.0	109.6	160.5	105.1	113.0	141.5
S Korea		82.2	5.5	66.1	69.7	67.8	64.1
SE Asia	329.6	219.3	63.3	244.0	251.6	264.4	256.5
Saudi Arabia	184.9	249.6	194.8	173.2	173.8	165.8	143.0
Gulf States	118.0	118.7	135.9	149.3	154.2	157.4	145.7
Egypt	75.7	138.4	135.8	138.9	129.9	117.4	82.0
Turkey	153.0	169.9	160.4	113.9	177.4	119.1	128.4
Americas	431.7	461.8	528.3	554.4	473.1	510.8	496.0
Europe	273.0	273.3	263.4	208.9	142.2	275.4	239.3
Total	**2779.5**	**3770.1**	**3451.1**	**3510.7**	**3343.1**	**3413.2**	**3067.4**
Source: World Gold Council							

Due to those social practices, India is the highest consumer, with more than 20 percent of the world demand for gold. It may also be noted that the gold demand in the Middle East and the United States is very high where Indians are playing the most important role in the job markets among the migrated workers. Jewelry manufacturers use more than 90 percent of the imported gold while other industries use the rest. Due to a low amount of domestic production, India imported about 575.7 tons of gold from the international markets in the year 2002. Then, the average price of gold was Rs.400 per gram signifying an amount of investment of Rs.230 billion. The price of the gold has gone up to Rs. 900 per gram in 2007 implying an amount of price appreciation of 17.61 percent per annum almost twice the yield from bank deposits. Savings in the form of gold are treated as consumption for the estimation of national income. However, gold is an important globally accepted asset that offers an excellent hedge to beat inflation while the prices are less volatile in comparison to equity.

5. Objectives of the Pension Sector Reforms

In this section, first we shall analyze the salient features about the Indian settings. Based on these parameters, the objectives of the reform process will be set.

5.1 Salient Features in India Settings

With the advent of the liberalization process, India is passing through a typical phase in relation to the old age income security. These features are as follows.

Traditionally, the young children used to take care of the old parents. But in search of better career opportunities, the geographical mobility of the labor force has increased dramatically. A UNFPA report noted that about 350 million Indians do not live in their places of birth. Therefore, the traditional machinery of joint family system is concerned to be breaking down to support the mammoth size of the old age population. About 22 percent of the population is below the poverty line and hence does not have any savings. Two-thirds of the total working population earn Rs.25,000 per annum, and these people can save 10 percent to plan for their postretirement days. If they are not encouraged to plan so, they may turn into old age destitute. Moreover, the Indian economy is growing by more than 9 percent, while the Planning Commission of India is targeted to achieve at least double digit growth during the Eleven Five (2007–12) Year Plan. This target may be achieved easily, considering the increase in domestic capital formation and improvement in the infrastructure facilities with the rise in per capita income and the emergence of the skilled workforce. Therefore, it may be forecast optimistically that all the working Indians will come above poverty line by 2012. However, poverty among the elderly Indians would then be the central issue.

A large amount of fiscal deficit is a persistent problem in the Indian economy. The combined fiscal deficit of the union and the state governments together is about 9 percent of GDP. Therefore, unlike the developed countries such as United States and Canada, India cannot afford subsidy in pension. Even a nominal amount may amplify this deficit to an uncontrollable level. Moreover, India does not have any formal system for the identification of her citizens. Cards such as EPIC (Election Photo Identity Card used at the times of voting) or PAN card (Permanent Account Number used to submit income tax return) are available, but these do not cover the entire population. However, with the vast network of post offices (about 155,516 as of March 2006 of which 89 percent are located in the rural areas) and banks (54,881 branches as of March 2006) may help the government for the collection of contributions and disbursement of pensions.

The Indian financial sector is developing at a rapid pace. Equity investors are the major gainers in recent years, as the stock indices are recording all-time high figures. However, the debt markets in India are yet to develop more in terms of institutional sophistication. During the last 28 years, BSE Sensex has moved from 100 points (1979) to 17,291 (as of Sept. 28, 2007), indicating a compounded annual growth rate of 20.19 percent per annum. Due to the robust amount of equity premium, the Indian market attracts a large amount of funds from the foreign institutional investors (FIIs). The market capitalizations of the Indian equity markets are about Rs.20 trillion while that of the debt market is Rs.10 trillion; summing these represents the GDP of the country. The amount of pension funds is just Rs.1.5 trillion, i.e., 5 percent of GDP. Therefore, the strong possibilities for the growth of the pension sector cannot be ruled out. Consequently, IRDA projected the size of the Indian pension market to grow from Rs.1166 billion in the year 2005 to Rs.4064 billion in the year 2025 (Pension Reforms Report presented by KPMG and FICCI on April 10, 2007). However, without reforms, this size will be limited to Rs.1808 billion.[17] This vast potential has to be tapped and may be invested to start the growth story of India Inc.

Lastly, a political consensus not yet reached in India is a very important issue in relation to pension sector reforms. The present pension system satisfies the needs of the few people working in the organized sector. In this reform process, the rightists prefer all types of investments at the discretion of the fund managers, depending upon the risk tolerance of the investors, while the leftists do not like any equity investment.

5.2 Objectives of the Pension Reform Process

The objectives of the reform process should lead to the overall development of the economy. The impact of the same should start at the micro level, and the consequence of the same should be observed at the macro level. Presently, the functioning of the retirement funds is seriously impacted with the stringent guidelines of the EPFO. But due to the presence of the large number of fragmented funds and the different types of guidelines for each of them, the quality of supervision is very poor. The transformation should transform the system from the over-regulation under-supervision to under-regulation over-supervision system with the formulation and implementation of uniform policies across all the funds. The reform issues must challenge the monopoly vs. competition rather than public vs. private.[18] Therefore, considering that the above aspects are typically applicable against the Indian scenario, the following objectives are to be achieved with this reform process.

The extent of coverage should be at least 90 percent of the total working population. These measures should be flexible enough so as to meet the requirements of the people ranging from the high earner corporate executives to the daily laborers. They should be convinced with more investor education, better positioning of the product, tax benefits, etc. These measures will lead to the expansion of the market that would reduce the risk to the pension providers. However, as we have noted, the sustainability of the Traditional Civil Services Pension Plans as well as the Employees' Pension Plans are very doubtful in the long run.

But the proposed system should be sustainable for the long run, avoiding any type of subsidies from the government, except to the poor. The Indian workers, like their western counterparts, also are changing jobs for a better career, so the portability of the funds should be carefully considered in order to ensure the continuity of accumulation till retirement. The amount of contribution and modes of investments should be designed so as to meet the needs of the common masses in terms of choice and flexibility. Simultaneously, allowing free competition, as observed in various sectors in India, would minimize the fund management costs in the long run. Apart from regulating, PFRDA should also play an important role in resolving conflicts among the Ministry of Finance, EPFO, Ministry of Labor, Central Board of Direct Taxes, Securities and Exchange of India, etc. for the greater interest of the working community.

Lastly, we have to choose the right points between the conflicting characteristics—defined contribution vs. defined benefits, mandatory vs. voluntary, funded vs. pay-as-you-go—so as to achieve the above objectives with support of a regulatory and development authority like PFRDA.[19] It must be a defined contribution and mandatory scheme for all the working members, otherwise the system will neither sustain for a long term nor will it achieve the required degree of coverage. However, an internal redistribution of assets from rich to poor will attract the masses to the new scheme.

6. Design of the New Pension Schemes

The following issues are to be considered in order to design the new pension system:

(a) Mandatory vs. Voluntary: Many European and Latin American countries introduced a mandatory system by taxing the younger generation to finance the pension program. This system is highly useful so long as the population configuration is of pyramid structure. But as it gradually

transforms to cylindrical and reverse pyramid shape, it becomes unsustainable, leading to an enormous political stress owing to macroeconomic imbalances. Moreover, India does not have administrative infrastructure to collect premiums from the 415 million workers. It may be evident from the fact that hardly 31.5 million workers pay income taxes as of March 2006.[22] Therefore, a system should be so designed that it should be mandatory for all the working people, but it should be flexible enough to receive any fluctuating amount of contributions as incomes vary.

(b) Defined Benefit vs. Defined Contribution: The government may raise benefits and/or reduce contribution rates, thereby stressing the fiscal status of the country. Therefore, the inherent political risk in the functioning of any defined benefit scheme cannot be ruled out. The union government of India had to stop TCSP (a defined benefit scheme) owing to fiscal pressure; thereafter many state governments followed the same path. Therefore, a defined contribution system has to be considered in the Indian scenario. However, issues relating to corporate governance and the functioning of the system must have to be taken care off by PFRDA in the absence of government guarantee to protect the interest of the savers. Any small mistake in the management of assets or liabilities will result in severe fiscal implications, as the government has to bail out the ailing funds as it has done for Unit Trust of India, Indian Bank, etc., in order to avoid public grievances.

(c) Separating Fund Management and Annuity Distribution: In any pension system, assets are accumulated during the working life while annuities are distributed during the post-retirement days. Many researchers suggested that these two activities should be decoupled for the greater interest of the participants, otherwise the annuity provider will assume conservative estimates regarding the growth of assets at the rate of government bonds and highly pessimistic projections about the declining future mortality. Hence, it will make the system more expensive to the subscribers. So, one should be encouraged to save as much as possible during the working life where the terminal value of contribution will depend upon the contribution rate and the quality of asset management. This wealth should be used to purchase an annuity on retirement depending upon the prevailing mortality projections and the interest rate. As the two functions are separated, the fund managers will be compelled to generate more returns while under competition, the insurance companies will offer a higher amount of pension.

(d) System with Individual Account: As we have opted for the defined contribution system, the participants must be given a choice regarding the nature of risk and the quality of fund manager. Large amounts of investment in the equity market, from the small contributions, will build up a significant amount of assets in the long term. That may be useful to eradicate poverty during old age. However, the poor and the illiterate people are unlikely to take equity exposure due to high volatility in the short term. Choosing the most efficient fund manager may be another problem for these people as even the researchers with econometric models found it difficult. However, competition must be encouraged to enhance the performance of the fund managers and the curtailment of the fees and expenses. The Project OASIS committee recommended the fund managers with lowest fees and to follow the index funds in order to minimize the cost of fund management. According to James et al. (1999), the costs may be contained with a passive portfolio management strategy and reducing the selling expenses. As the account balances appreciates, the wealth of the individuals also increases. This should be reported in every quarter to motivate higher savings in order to have a better retirement life. It will also lead to better corporate governance at reduced political risk. It may be observed in the functioning of the private mutual funds in India.

(e) Complexity of Administration and the Costs of Transactions: The Indian pension system has to handle a large volume of small contributions. In terms of the number of trades, India's leading exchanges—Bombay Stock Exchange (BSE) and National Stock Exchange (NSE)—ranked third in the world, while the dollar value of turnover is measurably low. So, issues like complexity in the administration process and costs of transactions are to be addressed carefully, or else the accumulation process will be decelerated. Therefore, the extensive use of information technology is warranted. We may use the systems such as ECS, RTGS, etc., as adopted by many western countries earlier. With the experiences of Mexico, Sweden, etc., the Project OASIS committee also suggested the centralization of maintaining records through the Centralized Recordkeeping Agency (CRA) and simplification of product offerings. Both actions will reduce the transaction cost significantly. The CRA would arrange the public infrastructure for the collection of contributions and disbursements of benefits. It will maintain all records about the participants regarding the contributions and fund position from time to time. Moreover, it will also act as a nodal agency (as a means of communications between the savers and the fund managers and vice versa) as the investor switches

over from one scheme to another or as one wishes to change the fund manager. Thereby, strong competition among the fund managers will benefit the subscribers ultimately.

(f) Premature Withdrawal and Mandatory Annuitization: In the functioning of the EPF schemes, it has been noted that pension wealth has been indiscriminately used to meet the life contingencies. Therefore, the basic objective of achieving old age income security has been defeated as many participants do not posses ready cash. However, if the assets are made illiquid and inaccessible prior to retirement, that would be very unattractive to many who cannot access credits readily. Therefore, a certain amount of assets should be allowed for premature withdrawals. However, such withdrawals should be taxed under Section 80C of the Indian Income Tax Act 1961, discouraging the continuation of the practices like the EPF withdrawals. The remaining amount must be subjected to mandatory annuitization. The higher the amount, the more the monthly benefits would be and the better the care from their dependent children would be. Moreover, due to the lesser number of participants, the Indian pension market lacks a sound experience or sophistication in dealing with the problems of adverse selection. Mandatory annuitization can help to develop the required knowledge and expertise.

6.1 Design of the Proposed System

The proposed system should have the following features:

- Everyone should have a personalized account as identified by social security number.
- It must be defined contribution system.
- Pension fund managers must maximize the wealth accumulation.
- Annuity provider should be preferably a life insurance company.
- It must be supervised by an independent regulatory and development authority like PFRDA.
- Contribution and growth of accumulation should not be dependent upon the nature and place of work of the subscribers.
- Account holders will be free to choose any scheme as well as fund manager.
- Availability of several investment choices ranging from highest risk (equity) to highest safety (government securities).
- Permission for international diversification to reduce the asset price volatilities.

- Proper IT enabled infrastructure for the CRA to achieve reduction in transaction costs.
- Permission for limited premature withdrawals and thereafter mandatory annuitization.
- Continuation of 'EET' (exemption-exemption-tax) treatment under Section 80C of the Indian Income Tax Act 1961.

In pension payment, the life span of any scheme has two distinct phases—accumulation phase (where regular monthly contributions lead to the accumulation of pension funds during the working life) and benefit phase (where the accumulated wealth is annuitized to regular monthly pensions). In India, the average retirement age is 60 years. That may be increased to 65 years in the near future with the increase in longevity, while the average starting age of working life is 25 years and life expectancy may increased to 85 years. Therefore, a young man would get 40 years to build up adequate pension wealth to sustain 20 years of retired life.

6.2 How Much Pension from Saving Rs.250 a Month?

The PFRDA Bill proposed to have defined investment regulations for the pension fund managers, ranging from 100 percent equity to 100 percent Government of India bonds. In order to simulate the future outcomes, the following assumptions are made:

- The calculations are made in real terms of 2007 prices.
- The amount of contributions would be Rs.250 per month excluding fees and other expenses starting at an age of 25 years that will grow at 6 percent per year in real terms—due to the normal rise in salary with increasing demand in the labor market with the growth of the economy and increase in experience.
- The present price of annuity product from Life Insurance Corporation of India (the largest life insurer in India) requires Rs.100,000 in lump sum to generate a life annuity with return of purchase price at the rate of a monthly pension of Rs.520 per month.
- The 75 percent of the accumulated wealth will be annuitized, and the remaining 25 percent will be used to meet contingencies.
- In every pension scheme, switchover from one scheme to another is allowed as, during the tenure of 40 years, the economy may experience a number of cycles.

The amount of accumulated wealth vis-à-vis the amount of pension receivable per month is shown in the following table:

TABLE 9
Wealth Generation during the Working Life

	Accumulated Wealth at 65 years		
Set of Assumptions	**I**	**II**	**III**
GoI Bonds	122,108	135,900	151,650
OASIS Safe Income	145,103	169,650	213,818
OASIS Balanced	165,870	211,298	288,968
OASIS Growth	199,283	278,550	449,190
100 percent Equity	271,800	449,150	995,828

(Source: Self-calculation based on the assumptions)

The above calculations are based on the three different types of assumptions—pessimistic, normal and optimistic rates of return in real terms at the prevailing WPI (as considered by the Reserve Bank of India) of 5 percent.

TABLE 10
Assumptions of Real Yield from the Assets

Asset Class	Set of Assumptions		
	I	II	III
GoI Bonds	1.5 percent	2 percent	2.5 percent
Corporate Bonds	3.0 percent	4.0 percent	5 percent
Equity	5 percent	7 percent	10 percent

(Source: Self-assumption)

Asset allocation under Project OASIS recommendations were as follows:

TABLE 11
Project OASIS Recommendation: Asset Allocation

Asset Allocations	**GoI Bonds**	**Corporate Bonds**	**Equity**
Safe Investments	60 percent	30 percent	10 percent
Balanced Investments	40 percent	35 percent	25 percent
Equity	20 percent	30 percent	50 percent

(Source: Project OASIS Report)

TABLE 12
Expected Monthly Pension at 65 years

	Monthly Pension as per LICI			As per Senior Citizens' Scheme		
Set of Assumptions	**I**	**II**	**III**	**I**	**II**	**III**
GoI Bonds	635	707	789	916	1019	1137
OASIS Safe Income	755	882	1112	1088	1272	1604
OASIS Balanced	863	1099	1503	1244	1585	2167
OASIS Growth	1036	1448	2336	1495	2089	3369
100 percent Equity	1413	2336	5178	2039	3369	7469

(Source: Self-calculation based on the assumptions)

As the Indian economy is growing rapidly and the same is expected to be maintained in the long run, the possibility of the optimistic situation may be assumed to be about 50 percent; normal is at 30 percent; while the chance of pessimistic return would be about 20 percent. Under that condition, a person will get a minimum pension of Rs.734 (Rs.1057 under senior citizens' scheme) while that may go to a maximum level of Rs.3572 (Rs.5153 under senior citizens' pension plan). Therefore, with equity investment during the working life, one may develop a large amount of accumulated wealth that may be used to purchase a pension plan at the time of retirement.

The sum of all the services in the pension industry may be classified into four distinct components, namely front-end services (to collect the contributions and for the disbursements of benefits). record keeping agencies (to record all types of transactions), fund managers (to ensure a satisfactory accumulation of wealth) and annuity provider (to offer the regular monthly pension against superannuation). In order to achieve cost reduction and transparency in operations, the specialized agencies are to be entrusted to excel their performance in each of the above roles with their knowledge and expertise as well as with their infrastructure facilities. For example, the vast networks of the banks, post offices and the insurance companies may be used for the front-end services in order to reach every corner of the country. The existing commercial banks, merchant bankers and depository participants may undertake the job of the CRA. The investment analysts may be entrusted for fund management activities, while the life insurers may use their knowledge and skill for the estimation of annuities after retirement. Considering the size of the pension assets, a significant amount of employment generation will also be possible with this reform.

7. Regulatory Framework

India needs a sound regulatory framework to encourage the design and development of the above types of portable pension plans that will fulfill the requirement of the large pool of working people. The following jobs are to be performed by the regulatory authority:

- To formulate the policies regarding the functioning of the above four functionaries in relation to the nature of job, the extent of liabilities to the participants, the nature of compensation should be a percentage of contributions received, etc.
- To supervise the functioning of each agency, to ensure the regulatory compliance, etc.
- To coordinate between the government payroll process and the CRAs, thereby ensuring smooth flow of contributions to the fund managers.

- To select the fund managers and CRAs carefully with a judicious trade-off between cost vs. quality of services.
- To ensure the process of annuitization with the insurance companies.
- To arrange health and long-term care insurance for the pensioners, as India is seriously lacking in these areas.
- To encourage the self-help groups and the NGOs to maximize the level of coverage
- To ensure consumer education about the possible threat of the age wave and the limited capacity of the government to subsidize such a development over the long term.

8. Conclusion

From the above discussions, it may be observed that India is virtually sitting on an age bomb. This bomb may jeopardize the economic growth if the government does not address this problem in the near future. At this time, a large number of youths of both sexes are entering the workforce. Therefore, the required framework as discussed has to be built up as soon as possible, as every day lost will lead to a loss of a substantial amount of contributions as well as growth of accumulations. With the existing pool of skilled fund managers and qualified actuaries, India can develop required institutional framework satisfactorily. This will help to mobilize a large amount of money that may be invested suitably for the construction of the infrastructure facilities, development of the debt markets and to reduce volatility in the stock markets in India. The most gratifying aspect of the successful reform of the pension system will be assuring a better standard of living for today's young workers when they retire.

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Appendix I

Jeevan Akshay (lifetime pension plan of Life Insurance Corporation of India, the largest and oldest life insurance company in India): This is an Immediate Annuity plan, which can be purchased through lump sum payment as Single Premium. The plan provides for annuity payments that are available throughout the lifetime of an annuitant. The salient features of this scheme are as follows:

- Premium is to be paid in a lump sum.
- Minimum purchase price: Rs.50,000/= or such amount which may secure a minimum annuity of Rs.3,000/- p.a.
- No medical examination is required under the plan.
- No maximum limits for purchase price, annuity, etc.
- Minimum age 40 years last birthday, Maximum age 79 years last birthday.
- Age proof necessary.
- One may return the policy after 15 days, if the terms are not acceptable.
- The policy neither has any paid up value, nor has any surrender value while no loan is possible from the policy.
- The annuity may be payable monthly, quarterly, half-yearly or yearly as chosen by the annuitant

Type of Annuity:

- Regular annuity for life.
- Annuity payable for 5, 10, 15 or 20 years certain and thereafter as long as the annuitant is alive.
- Annuity for life with return of purchase price on death of the annuitant **(most popular scheme in the Indian context).**
- Annuity increasing at simple rate of 3 percent p.a.
- Annuity for life with a provision of 50 percent of the annuity to spouse for life on death of the annuitant.
- Annuity for life with a provision of 100 percent of the annuity to spouse for life on death of the annuitant. (Source: www.licindia.com)

Appendix II

A new savings scheme called “Senior Citizens Savings Scheme” has been notified with effect from Aug. 2, 2004. The Scheme is for the benefit of senior citizens and maturity period of the deposit will be five years, extendable by another three years. Initially the scheme will be available through designated post offices throughout the country. The minimum investment is 1000Rs and in multiples of Rs.1000 subject to a maximum of Rs.1.50 million. Citizens of 60 years of age and above are eligible to invest. Single or joint account (with spouse only) can be opened. Citizens who have retired under a voluntary or a special voluntary retirement scheme and have attained the age of 55 years are also eligible, subject to specified conditions.

The deposit will carry an interest of 9 percent per annum (taxable). The maturity period of the deposit will be five years, extendable by another three years. Therefore, an amount of investment of Rs.100,000 will fetch a monthly income of Rs.2250.

Premature withdrawal after a period of one year will be allowed, subject to some deductions. The investments in the scheme will be non-tradable and non-transferable. However, nomination facility will be available.

Non-Resident Indians and Hindu Undivided Families are not eligible to invest in the scheme.

Advantages

This Scheme is most beneficial to senior citizens. Although the interest on the deposit is taxable, the deposits themselves are tax-free. As the post office is a department of the government of India, it is a safe investment. The principal amount is assured.

(www.webindia123.com)

Glossary

1. **Unorganized Sector:** It is equivalent to non-corporate sector in the developed countries. It consists of the small proprietorship and partnership firms employing at most 20 people. These are engaged in the trading, transportation, construction, hotels, restaurants, etc. where the capital requirement is substantially low. It also includes self-employed professionals like doctors, lawyers, architects, accountants, etc. According to the Employees' Provident Funds Act 1952, the owners/management of these entities are not bound to offer any old age income security to their employees.

2. **Joint Family System:** Since India has grown primarily as an agrarian economy, people used to stay in the rural areas in a society. In this system, all the married brothers of the family reside in the same house along with their wives and children (even married children too) and unmarried sisters to look after the family business. It is the collective responsibility of the sons and their wives to ensure a happy and peaceful retired life of the old parents. On the other hand, if any brother dies early during the working life, other brothers take care of his wife and children. In this way, the joint family system ensures income security against the risks of premature death and excessive longevity.

3. **Old dependency ratio:** It is the ratio between the size of the old age population to the size of the working population.

4. **Autonomous Bodies and Grant-in Aid Institutions:** These are government—State and Union—aided organizations engaged in teaching, research and developmental activities, e.g., Indian Institute of Technology, Indian Institute of Management, Council of Scientific and Industrial Research, various schools, colleges, universities, etc. These organizations are financially supported by the government for normal functioning and are entrusted with adequate autonomy to formulate their respective operational policies. Since independence of India in 1947, these organizations have played the most important role in developing skilled and knowledgeable manpower, achieving many technological breakthroughs, etc.

5. **BSE Sensex:** The Stock Exchange, Bombay, (popularly known as Bombay Stock Exchange) started compiling and publishing a sensitive index number of equity prices from January 1986. It is known as "The Stock Exchange Sensitive Index of Equity Prices," popularly known as **Sensex.** It covers the equity shares of 30 companies covering all the major sectors in the economy. The method of compilation is the same as used by Standards and Poors, United States in the construction of their share price indices, considering the financial year 1978–79 as the base year.

6. **Local Bodies:** These organizations are comprised of municipal corporations in every town and city as well as the developmental authorities. The developmental bodies are responsible for promoting and controlling developmental activities around any town and city by providing suitable environment and by framing suitable rules and regulations.

7. **Notified Securities:** These securities are notified by the Commissioner of the Employees' Provident Fund Organization (EPFO) where a fund manager of EPF can invest the

contributions of the EPFO members. These securities are mainly the debt instruments, issued by the government of India, many state governments and the public sector enterprises, etc.

8. **Under Section 80C of the Indian Income Tax Act:** It has been inserted from the assessment year (the year in which income is reported) 2006–07 onwards. It provides deduction in respect of specified qualifying amounts paid or deposited by the assessee during the previous year (the year in which income was earned). The salient features are as follows:

    - Under Section 80C, deduction available from the gross total income to the individuals or Hindu Undivided Family, i.e., Joint Family.
    - Deductions are available on the basis of specified qualifying investments/contributions/deposits/payments made by the tax payer during the previous year out of taxable income up to a maximum amount of Rs.100,000 (US$2500).
    - The qualifying investments/contributions/deposits/payments include the following list as: life insurance premium; non-commutable deferred annuity; contribution towards statutory provident funds, recognized provident funds and public provident funds; contribution towards superannuation funds, subscription of National savings certificates; contribution for participating in any unit-linked Insurance Plan; etc.
    - After claiming deductions, if any amount is withdrawn, it is taxable under the head "Income from Other Sources."

9. **Claims on Government:** The outstanding amount of principal and interest accrued that the government is liable to pay to the individuals who have purchased the government securities.

10. **IRDA :** Insurance Regulatory and Development Authority.

11. **Project OASIS** was a project of the Ministry of Social Welfare, Government of India to study the Old Age Social and Income Security (OASIS) performed under the Chairmanship of Dr. S.A. Dave. The committee submitted the final report on January 2000.

12. **PFRDA** stands for Pension Fund Regulatory and Development Authority.

13. **GDP at Factor Cost:** It is defined as the sum total of the cost of the goods and services produced by the various sectors in the economy like agriculture and allied activities, manufacturing and related activities, services like trade, hotels, transport, etc., as mentioned in Table 6 in the paper.