



International Association for the  
Study of Insurance Economics

# Études et Dossiers

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Extract from

## Études et Dossiers No. 302

**World Risk and Insurance  
Economics Congress**

**Inaugural Conference**

7 – 11 August 2005  
Salt Lake City, Utah, USA

November 2005

**Working Paper Series of  
The Geneva Association**

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Layout & Distribution: Valéria Kozakova

## **Pension Reforms and Capital Market Developments in India**

**R. Vaidyanathan**  
**Professor of Finance and Control &**  
**UTI Chair Professor**  
**Indian Institute of Management**  
**Bangalore-560076**  
**India**  
**E-mail: [vaidya@iimb.ernet.in](mailto:vaidya@iimb.ernet.in)**

**Phone: 91-80-2699-3086**  
**91-80-2699-2450 [extn 3086]**

**Fax: 91-80-2658-4050**

## Pension Reforms and Capital Market Developments in India

### Abstract:

Indian capital Markets have seen significant reforms in the last decade in terms of institutions/ instruments and regulation. The trading has moved from an out cry system to a screen based order driven single national book based system. Clearing and Settlement is completely computerized and more than three fourth of the stocks traded [in value] are held in a De-mat form. The segmented market with 23 independent stock exchanges has moved into a consolidation phase of two major national exchanges. The settlement cycle has become T+2 from an earlier batch-wise settlement of more than a fortnight. The margining system and the circuit breakers for volatility in the market have introduced orderliness in the market. The introduction of derivative products like options and futures [both on individual stocks and on indexes] has provided hedging facilities between cash market and derivative market. The opening up of Mutual Funds market in the mid nineties for private players both domestic and international has enlarged the operations and the market for MF products. The insurance market has seen major changes after the opening up of the sector. The private players have captured a good portion of the premium in the market and also entered in to rural areas. The Banking scenario has also seen major developments like networked banks and there has been huge expansion in net-based transactions. In such a context the proposed reforms in the pension sector both of the government and those of the mandated schemes will go a long way in enhancing the availability of different schemes to investors. The decline in the joint family system coupled with increased longevity makes it imperative that India opts for a viable and sustainable contributory system backed by rigorous regulation. We argue that the investor interests should be the primary focus even though social goals may also be balanced. The proposed pension Funds Regulatory and Development Authority [PFRDA] has its task cut out for formulating the framework wherein pension products would be part of the larger financial markets and which could also facilitate investments in the infrastructure sector.

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## **Pension Reforms and Capital Market Developments in India**

### **1. Introduction**

Indian capital Markets have seen significant reforms in the last decade in terms of institutions/ instruments and regulation. The trading has moved from an out cry system to a screen based order driven single national book based system. Clearing and Settlement is completely computerized and more than three fourth of the stocks traded [in value] are held in a De-mat form. The segmented market with 23 independent stock exchanges has moved into a consolidation phase of two major national exchanges. The settlement cycle has become T+2 from an earlier batch-wise settlement of more than a fortnight. The margining system and the circuit breakers for volatility in the market have introduced orderliness in the market. The introduction of derivative products like options and futures [both on individual stocks and on indexes] has provided hedging facilities between cash market and derivative market. The opening up of Mutual Funds market in the mid nineties for private players both domestic and international has enlarged the operations and the market for MF products. From One fund situation in the early nineties we have today more than 350 schemes operated by more than thirty funds. The insurance market has seen major changes after the opening up of the sector. From one life and four non-life state owned companies in 2000, to-day India has thirteen non-life and twelve life companies. The private players have captured a good portion of the premium in the market and also entered in to rural areas. The Banking scenario has also seen major developments like networked banks and there has been huge expansion in net-based transactions.

The paper discusses in section two the current status of the market, the developments in the past few years and the role of institutional investors. In section three we focus on the pension scenario and the changes brought in the regulatory and operational framework. In section four we argue that the pension funds are an important category of long-term investors who are not present in the market today. We stress that the reforms in this sector must balance between investor interests and broader social goals, with focus on the former. It also argues that integrating pension products into the broader framework of

financial markets will facilitate scale economics and provide wider choice of investment avenues for the individual investors.

## **2. Current status of the Capital markets**

### **2.1 Market Capitalisations and Turnover**

We find from table 2.1 that the turnover and market capitalization has increased significantly in the last five years. Daily trading volume in the equity markets has increased from Rs 37 billion in 1998-99 to Rs.71 billion in 2003-2004. In the Debt market it is of the order of Rs 40 Bn in 2003-2004, which was only Rs.4 Bn in the earlier period. The derivative markets, which started only in 2001, have shown phenomenal growth to reach a daily turnover of Rs 84 Bn in a span of three years. The market capitalization has grown from Rs.5740 Bn in 1998-99 to Rs. 12012 Bn in 2003-2004, which is more than doubling in this period. The growth is also reflected by the increase in the price –earnings multiplier from around 15 to nearly 19 in the span of four years. The number of companies listed is more than 5500 as of 2004 and the scrips listed is more than 7000. The number of stock exchanges is 23, but only two exchanges namely National stock exchange [NSE] and Bombay stock exchange [BSE] are important and it is expected that all other exchanges will in some form get affiliated or merged with either of these two exchanges. In other words this is a period of consolidation of the markets compared to the eighties when exchanges were started in different states of the country. The number of investors has also shown significant increase between the eighties and the late nineties and a survey reveals that there were nearly 20 million participants in the stock market during the year 2000. Of course this is relatively smaller in comparison to the more than a billion population.

We find from table 2.1 that the activities of the capital markets namely share, bond and derivative segments have shown significant increase during the last five years and this growth has come about due to major reform measures undertaken by the Government and the regulator and this has also facilitated the growth of the corporate sector. We will focus on these reforms in the later sections.

**Table -2.1**  
**Stock Markets in India: Key Parameters**

	1980-81	1998-99	2003-04
Daily Trading Volume-Equity (Rs.Bn) <sup>1</sup>	Neg	37	71
Daily Traded Value—Debt [Rs. Bn] <sup>2</sup>	N/A	4	40
Daily Traded Value—Derivatives [Rs Bn] <sup>2</sup>	N/A	4 <sup>3</sup>	84
No. of Investors (Millions)	2	16	19 <sup>4</sup>
No. of Stock exchanges	9	23	23
No. of Listed Companies <sup>5</sup>	992	5848	5528
No. of Scrips listed <sup>5</sup>	1674	6969	7264
Market Value (Rs. Bn) <sup>5</sup>	54	5740	12012
P/E Multiplier <sup>5</sup> (month end values)	6	14.81	18.55

**Note:** 1. Both Bombay Stock Exchange [BSE] and National Stock Exchange [NSE] for the week ended March of the respective years. 2.Pertains to NSE. 3. For 2001-2002. 4. As per estimate of Security Exchange Board [SEBI] —National Council of Applied Economic Research [NCAER] survey for 2000. 5.Pertains to Bombay Stock Exchange (BSE—Sensex-Index)

**Source:** (1) SEBI Annual Reports (2) Indian Securities Market: A Review [2003]—NSE,  
(3) BSE Annual Reports—Key Statistics

## 2.2 Liquidity in the Market

Even though there has been a significant increase in the number of scrips listed and daily turnover, there is skewness in the market reflecting in lack of breath in the market. We find from table 2.2 that large portion of shares are squared off in a day compared to the shares traded and ten securities constitute nearly half of the turnover. Also, large number of scrips are rarely or infrequently traded and to that extent the liquidity in the market is affected. One of the reasons is the liberal attitude adopted in the early nineties in listing scrips on the stock exchanges leading to many companies which ought not to have been listed getting in to the stock market list. Hence there is a smaller group of active and productive companies which are more traded and talked about compared to the number listed.

**Table-2.2**  
**Liquidity in the Market**

	<u>2003-2004</u>
1. Shares Traded [BSE] In Mn	----- 38875
2. Shares Delivered [BSE] in Mn	----- 14453[37%]
3. Shares Traded [NSE] in Mn	----- 71330
4. Shares Delivered [NSE] in Mn	----- 17454[25%]
5. Share of Top five securities *	----- 31%
6. Share of Top ten securities *	----- 45%
7. Share of Top 25 Members *	----- 30%
8. Share of Mumbai *	----- 46%
9. Number of stocks Traded Above 100 days <sup>@</sup>	----- 1960
10. Number of Stocks traded at least once in 2003-2004 <sup>@</sup>	-----2610

**Note:** \* Pertaining to NSE @ Pertaining to BSE

**Source:** 1) Items 1 to 4 Table 2.17, pp39; items 9 to 10 Table 2.20 pp 43, SEBI Annual Report 2003-2004

2) Items 5 to 8 Table-3, pp6, Sept-2004 NSE News.

### 2.3 Fund Mobilized by the market

We have provided in tables 2.3 and 2.4 the nature and quantum of funds mobilized in the last few years. We find that public issues have gone up substantially from Rs.50 Bn to Rs.223 Bn during 1998 to 2003. We also observe that funds generated by private placements are a significant portion of the total funds generated and to that extent private placement market particularly in the debt market segment is playing a large role in fund mobilized by corporates. We also find that Euro issues have gone up three fold during 1998-99 to 2003-04. We find from table 2.4 that the public sector has mobilized larger portion compared to the private sector particularly in 2003-2004. This is due to the disinvestments process undertaken by the Central Government in some of the large public sector enterprises.

**Table –2.3**  
**Resources [Debt and Equity] Raised from Capital Markets**  
**Distribution by Issue Type**

	(Rs.Bn)		
	1998-99	2002-03	2003-04
<b>Public</b>	<b>50</b>	<b>37</b>	<b>223</b>
<b>Rights</b>	<b>6</b>	<b>4</b>	<b>10</b>
<b>Subtotal</b>	<b>56</b>	<b>41</b>	<b>233</b>
<b>Private Placements</b> <b>[PPL]</b>	<b>497</b>	<b>670*</b>	<b>592*</b>
<b>Domestic Total</b>	<b>553</b>	<b>710</b>	<b>825</b>
<b>Overseas</b> <b>(Euro Issues)</b>	<b>12</b>	<b>34</b>	<b>31*</b>
<b>Total</b>	<b>564</b>	<b>744</b>	<b>856</b>

**Note:** \* Provisional

**Source:** (1) SEBI Annual Report 2003-2004 (2) For Col 1 and PPL and Euro Issues: Hand Book of Statistics on Indian Economy— Reserve Bank of India [RBI]—2003-2004

**Table –2.4**  
**Capital Raised in the Primary Market**  
**Public –Private Sector**

Year	2002-2003		2003-2004	
	No.	Amount	No.	Amount
<b>Private</b>	<b>17</b>	<b>19</b>	<b>41</b>	<b>38</b>
<b>Joint</b>	<b>1</b>	<b>--</b>	<b>1</b>	<b>10</b>
<b>Public</b>	<b>8</b>	<b>22</b>	<b>15</b>	<b>185</b>
<b>Total</b>	<b>26</b>	<b>41</b>	<b>56</b>	<b>233</b>

**Source:** Table 2.3, pp26, SEBI Annual Report 2003-2004

## 2.4 Institutional investors

We also observe that the role of institutional investors, both domestic and international have increased over period of time. We have provided data on the Mutual funds and other foreign institutional investors in table 2.5 to 2.8.

We find that the mutual fund industry which was liberalized in the late nineties and opened up for the private sector, both domestic and foreign is playing an increasingly importance role in the capital markets. There were in all more than 460 schemes available in 2004 compared to 40 or so in 1998. The funds mobilized [net of redemptions] have gone up from around Rs.40 Bn to Rs 470 Bn, which is twelve-fold increase in a span of six years.

**Table –2.5**  
**Resources mobilized by Mutual Funds for 1997-98 and 2003-04**

(Rs.Bn)

Sector	Resources mobilized [Net]		Schemes launched	
	1997-98	2003-04	1997-98	2003-04
Public Sector MFs	4	26	6	64
Private Sector MFs	8	426	10	362
UTI	29	17	11	41
<b>Total</b>	<b>41</b>	<b>469</b>	<b>27</b>	<b>467</b>

**Note:** Net assets of Rs. 9 Bn pertaining to Fund of fund Schemes are not included in the above data for April 2003 – March 2004

**Source:** (1) For column 1; table 72; pp 114 Hand Book of Statistics on Indian Economy—RBI—2003-2004 (2) For column 2, table 2.33; pp 58, SEBI Annual reports 2003-04 (3) For number of Schemes table 5.8; pp 88; RBI Annual Report 2003-2004.

The net asset position and transactions of the Mutual funds in the exchange have increased in the stock market and it was of the order of Rs 1400 Bn in net assets as of 2004 as given in table 2.6. The net purchase sales position was of the order of Rs. 240 Bn during the same period.

**Table-2.6**  
**Net asset Position and Transactions in Stock Exchange of MF's**  
**2003-2004[Rs. Bn]**

Category	Private sector	UTI	Public Sector	Total
Cum. position of Net assets as on 31-03-04	1071	206	119	1396
Transactions in SE's [2003-2004]	Equity	Debt	Total	
Gross Purchase	367	632	999	
Gross Sales	354	405	759	
Net Purchase/Sales	13	227	240	

**Source:** (1) For the first row—SEBI-Investment Management Department—Status of the MF schemes April 2003-March 2004 [from [www.sebi.gov.in](http://www.sebi.gov.in)] (2) For others, Table 2.34 pp59, SEBI Annual Report 2003-2004

In the case of Foreign Institutional investors, as seen from table 2.7 substantially increased post reforms in 1992, from a negligible amount to Rs 458 Bn. in 2003-2004. Actually in the recent past the FII inflows in to the market has further increased.

**Table – 2.7**  
**FII Investments in India**

Month	Net Investment at monthly exchange rate[Rs Bn]		
1992-93	Neg		
1993-94	51		
1994-95	48		
1995-96	69		
1996-97	86	of which	Equity 86 Debt neg
2003-04	458	of which	Equity 400.0 Debt 58.0
<b>Cumulative Net Investment till March 2004</b>		<b>USD 26 [Bn]</b>	
[At monthly exchange rates]			

**Source:** (1) Table 2.39; pp 65; SEBI Annual Report—2003-2004 (2) For debt and equity; Table 5.15; pp 89; RBI annual report 2003-2004 and Key statistics BSE 2003-2004

We also find from table 2.8 that the transactions of the Foreign Institutional Investors [FII] have a share of nearly 10 percent in the spot market during 2004 and 2.5 percent in the derivative market during the same time. But the activities of FII, are keenly followed by other market participants and to that extent one can say that Foreign Institutional Investors have come to occupy an important position in the Indian stock markets in the last few years. Government has liberalized the regulatory and tax systems to encourage the FII to play an active role in the stock and derivatives markets. The increasing role played by Mutual funds and FII's in the stock markets gives a clue to the possibility of global pension funds playing an active in the future in the markets.

**Table 2.8**  
**Role of FII's in Equity Turnover in early 2004**

	FII [Two Way]		India [one Way]		FII Share [%]	
	Spot	Derivatives	Spot	Derivatives	Spot	Derivative
January	30,484	13,395	1,99,889	3,27,850	7.6	2.0
Feb	27,507	10,882	1,60,182	2,73,569	8.6	2.0
March	28,872	12,711	1,55,662	2,60,986	9.3	2.4

**Note:** FII turnover data is reported two ways [i.e. buys and sells are added together], while exchange turnover is reported one –way [i.e. each trade is counted once, even though there is one buyer and one seller]. Hence FII turnover has to be divided by twice the reported exchange turnover when computing the share in turnover.

**Source:** Table 4.11;pp81; Economic survey 2003-2004;MoF; GoI; New Delhi

### 2.5 Performance of the Market

We have given in table 2.9 the performance of various indexes during the last four years and find that during 2003-2004 the Indian markets have shown significant gains compared to the past few years. We find that the Bombay –30 share index namely Sensex has gained more than 80 percent during 2003-2004. Actually during the last few months in 2005 it has gained more and now the index has crossed the 7000 mark to scale historic height. In the case of 100-share index the growth was of the order of nearly 100 percent. If we look at the NSE indexes namely CNX Nifty [fifty share index] and CNX nifty junior we find that the increase during 2003 –04 has been much larger than earlier years. Again the increase was of the order of 80 percent and 170 percent during 2003-2004. The

increase has been kept up in the last few months of 2005 as in the case of BSE Sensex consisting of thirty active scrips.

**Table 2.9**  
**Movement of various share indices**

Index	BSE Sensex	BSE 100	S&P CNX Nifty	CNX Nifty Junior
31/03/01	3604.38	N.A	1148.2	N.A
28/03/02	3469.35	N.A	1129.55	N.A
31/03/03	3048.72	1500.72	978.20	1259.55
31/03/04	5590.60	2966.31	1771.90	3392.05
<b>Variation over previous year</b>				
01/02	(3.7)	N.A	(1.6)	N.A
02/03	(12.1)	N.A	(13.4)	N.A
03/04	83.4	97.7	81.1	169.3

**Note:** (1) BSE Sensex Base is 1978-79=100 (2) S&PCNX Nifty base is 03-11-1995=1000 (3) S&P CNX Nifty Junior base is 03-11-1996=1000

**Source:** SEBI Annual Reports 2001-02, 2002-03, and 2003-04

## 2.6 International Comparisons

We have provided in table 2.10 to 2.12 comparisons with international markets. We find from table 2.10 that the trading Intensity measured by number of trades in 2003 reveals that Indian stock markets are next only to that of NASDAQ and NYSE. The number of trades at 336 million in the National Stock Exchange is higher than that of Shanghai, Korea and Taiwan. We also observe from table 2.11 that the return on the Indian Markets, measured by percentage change in the index is higher than all other markets during 2003-2004. The risk measured by volatility is also higher but much less in proportion to the nature of return. In other words the risk adjusted return seems to be relatively higher in the case of Indian markets during the period 2003-2004.

We have provided the volatility and correlations between Indian indexes and other indexes like S&P 500 and Kospi in table 2.12 for a longer period and last two years. We find that the volatility of the Indian Indexes is lower than that of Kospi in both the

periods. We also observe that the correlation between Indian indexes and S&P 500 are still lower and offer opportunities for diversification by the US investors.

**Table-2.10****Trading Intensity in the World Markets****(No. of trades in millions) (2003)**

	Country	Exchange	Number of trades
1	USA	NASDAQ	733
2	USA	NYSE	723
3	India	NSE	336
4	China	Shanghai	206
5	India	BSE	180
6	Taiwan	Taiwan	164
7	Korea	Korea	139
8	China	Shenzhen	132
9	Germany	Deutsche Borse	75
10	Many	Euronext	71

Source: Table 4.5, pp 69, Economic Survey 2003-2004, MoF, GoI, New Delhi

**Table-2.11****International Comparison**

Country	Number of Co's [Dec 2003]	Index	Market Cap.Bn [USD-- Dec 2003]	P/E [End March 2004]	% Change in Index [2003-2004]	Annualised Volatility
USA	2308	Dow Jones	11329	20.1	29.60	13.1
USA	3294	NASDAQ Comp	2844	26.0	48.69	19.9
U.K	2692	FTSE 100	2460	39.3	21.38	13.7
Australia	1471	AS 30	585	21.7	19.94	7.46
Hong Kong	1037	Hang Seng	715	17.8	46.87	16.7
Taiwan	674	TaiwanWted	379	42.3	50.93	20.7
Malaysia	902	KL Comp.	161	17.9	41.86	11.5
Singapore	551	STI	149	27.1	46.62	16.3
Thailand	418	SET	119	15.2	77.56	22.9
China	780	Shanghai A	360	38.7	15.56	17.6
India	5644	BSE Sensex	279	16.2	83.38	21.4
India	911	NIFTY	253	20.7	81.14	22.7

Note: (1) Number of Companies and Mkt Cap end calendar 2003 (2) P/E end March 2004 (3) Volatility is computed as the Standard Deviation of daily returns on indices for the period April 2003 and March 2004.

Source: (1) Table 2.32, pp56, and for last column 2.31 pp54 Annual Report SEBI— 2004;(2) For number of companies and Market Cap; World Federation of SE's [Net] 2003.

**Table-2.12**  
**Volatility and Correlations for Equities**

	<b>Long Period</b> <b>Oct 1995-May2000</b>	<b>Last Two Years-</b> <b>June 2002-May 2004</b>
<b>Volatility of</b>		
<b>Indian Indexes</b>		
Nifty [top 50]	<b>3.622</b>	<b>3.134</b>
BSE Sensex [top 30]	<b>3.710</b>	<b>2.912</b>
Nifty junior [next 50]	<b>4.393</b>	<b>3.701</b>
<b>International indexes</b>		
S&P 500 [US]	<b>2.508</b>	<b>2.382</b>
Kospi [Korea]	<b>5.101</b>	<b>4.008</b>
<b>Correlation between indexes</b>		
Nifty and S&P 500	<b>0.225</b>	<b>0.290</b>
Nifty and Kospi	<b>0.286</b>	<b>0.406</b>
Nifty Junior and S&P 500	<b>0.104</b>	<b>0.218</b>
Kospi and S&P 500	<b>0.315</b>	<b>0.436</b>

Source: Table 4.2, pp 67, Economic Survey 2003-2004, MoF, GoI, New Delhi.

We have provided in table 2.13 the comparison of the turnover of equity spot and index derivatives for the year 2003 between different stock markets. We observe that the ratio of equity spot to derivatives is highest in Tokyo with a ratio of 41 and lowest in India with a ratio of 0.4. Of course this could be an understatement regarding the derivative segment in India since single stock derivatives are much more popular than index derivatives. Even with that caveat, this implies that the derivatives market needs to develop much more in the Indian context compared to other global markets.

**Table-2.13****Turnover: Equity spot versus index derivatives [Calendar 2003]****[Billion USD]**

Exchange	Equity Spot	Index Derivatives	Ratio
Tokyo	2131	86409	40.6
Osaka	113	2448	21.7
Taiwan	592	9328	15.7
Korea	459	2257	4.9
Euronext	1905	5243	2.8
Hong Kong	296	622	2.1
US [NYSE, NASDAQ, CBOE, CME]	16760	21406	1.3
NSE	196	73	0.4

Source: Table 4.8; pp72; Economic Survey 2003-2004, MoF, GoI—New Delhi

## 2.7 Trading, Settlement and Holding of Shares

The trading has moved from an out cry system to a screen based order driven single national book based system in the nineties. Clearing and Settlement is completely computerized and more than three fourth of the stocks traded [in value] are held in a De-mat form. It is to be noted that physical shares in paper form need to be dematerialized in case the investor wants to sell it in the market. In this process slowly most of the traded stock has been dematerialized and are held in electronic form.

The segmented market with 23 independent stock exchanges has moved into a consolidation phase of two major national exchanges. The settlement cycle has become T+2 from an earlier batch-wise settlement of more than a fortnight. The margining system and the circuit breakers for volatility in the market have introduced orderliness in the market.

The markets have been transformed in to technology driven orderly system compared to the earlier paper based system. De-Mutualisation of exchanges is taking place with National stock Exchange showing the way. Continuous real time monitoring of the market is taking place both by the exchange authorities and by the regulator namely the Security Exchange Board of India. These dramatic changes, which have been brought about after the stock scam of early nineties has made Indian, exchanges transparent and efficient.

This provides opportunities for long term investors like pension funds to play a meaningful role in the market. That would provide depth to the market, enhance availability of long-term instruments, provide appropriate return to the investors in their

old age and at the same time generate funds for infrastructure development in an emerging market like India.

The opportunities and constraints on this score will be discussed in the next section.

### **3. Pension Scenario and Prospects**

#### **3.1 Overview of Demography**

The population of India is 1073 million as per the census of 2003 with an average life expectancy at birth of 64 years. The annual growth rate of the population is 1.93 percent and the population of 0-6 years is around 15% and the density of population is around 320. The literacy rate is 65% as per 2001 census with the male literacy rate of around 76% and that of female at 54%. [Economic Survey 2002- 03, 2003-04& 2004-05]

The total population is expected to rise by 49 % between 1991 and 2016 and the number of elderly persons (aged 60 and above) is expected to increase to 113.0 million. In other words the share of aged in the total population will rise to nearly 9 % by the year 2016 and to 13.3 % (179 million) by the year 2026. [OASIS Committee Report].

Males and females in India at age 60 today are expected to live beyond 75 years of age. Thus on an average an Indian worker need to have adequate resources to support himself for nearly 15 years after retirement.

The per capita income was USD 460 in 2001. The saving rate has been around 22 percent in the decade of 90s. We find that the share of service sector consisting of transport, communication and trade, finance, insurance and real estate, community, social and personal services is nearly 50 % of the share of the economy in 2000-2001. In other words the service sector is playing a substantial role (around half of the national income) in the Indian economy. The GDP growth rates have been averaging at 5.4 % during the period 1997-2002. [Economic Survey 2001-2002 & 2002-2003]

The service sector consisting of trade, hotels, transport and communications, financial, real estate and business services have been growing at above 7 percent during the period which is much higher than that of industry and agriculture. It is to be noted that the service sector consists of predominantly partnership / proprietorship firms, which are non-corporate forms of organizations. Substantial numbers of these are not covered by any pensionary / retirement benefit schemes. We will revert to this issue later in our discussion.

### 3.2 Caring for the Aged

Caring for the aged is part of the Hindu tradition, going back to thousands of years. In the past, rich merchants and other donors used to construct “Old Age Homes” nearer to pilgrimage centres where old age people could spend their time in Godly pursuits. The traditional division of a human existence by Hindu scriptures suggests four stages consisting of *Bramacharya* or bachelorhood [period of education], *Grihasta* [married stage], *Vana Prastha* [retirement stage] and *Sanyas* [renunciation of all worldly things]. The explicit recognition of the “retirement stage” has given rise to actions by family and community to facilitate the same. Hence, caring for the aged is by and large taken care by the joint family and community. We observe that around one-eighth of the world’s elderly population live in India. Most of them are not covered by a pension system, and have to rely on family based arrangements or their own earnings. But with globalization and migration the joint family system is on the decline-- at least in the urban areas-- and to that extent the challenge of caring for the aged has become greater for the society and government. The traditional and informal methods of old age income security are not able to cope with the trends of increased life span and enhanced medical expenses during old age. Hence there is a very pressing need to re-examine the existing formal and informal systems available to tackle the challenge of the “Age Quake”

### 3.3 Current System

Pensions are expected to achieve the goals of minimizing poverty in old age, smoothening inter temporal life consumption which has significant fluctuations and ensuring that retirees do not outlive their pension benefits / incomes.

The three pillar structure suggested by the World Bank facilitate in this process

- The first pillar is made up of publicly funded schemes providing modest benefits, or social security schemes;
- The second pillar consists of occupational schemes sponsored by employers for the benefit of employees or private mandatory pension programmes;
- The third pillar consists of additional voluntary contributions to meet retirement needs.

We observe that, unlike other developed countries, the “first pillar” is not much prevalent in the Indian context. The “second pillar” is substantially wider in terms of

coverage; but as was seen earlier, the coverage is limited and does not fully include self-employed professionals and workers, casual laborers and other workers in the unorganised sector. This category of “unorganised” sector workers need to resort to the “third pillar” consisting of voluntary and informal retirement schemes.

The old age income security systems existing in India can be categorized under the following heads: -

- Schemes for government employees (both central and state) and employees of government departments and undertakings including public sector enterprises and those local bodies considered as part of State Governments.
- Mandated pension and provident fund schemes for private sector employees in industries governed by the Employees’ Provident Fund and Miscellaneous Provisions Act, 1952
- Employer Sponsored Pension Schemes for some private sector employees
- Voluntary Retirement Schemes
- Targeted Social Assistance Schemes and welfare funds
- Other informal arrangements

Taking into account the “three-pillar” structure proposed by the World Bank, it is observed that the second pillar is the mainstay of the Indian pension system.

The salient feature of the various categories of pension are discussed below:

### **3.4 Government Pension Schemes**

Central government employees, who joined service prior to 01-01-2004, are eligible for the following three retirement benefits.

(i) A **lump-sum gratuity** based upon number of years of service. This is governed by the payment of the Gratuity Act 1972. The gratuity is based upon the length of service rendered by an employee and the Last Pay Drawn (LPD); and is paid as a lump-sum amount on retirement/death, subject to a ceiling (the present ceiling being Rs 350,000).

(ii) A **General provident Fund**, to which employees contribute, also provides for a lump-sum payment on retirement. This is a Defined Contribution (DC) scheme. Each government employee is required to contribute a minimum of 6% of the basic pay to the General Provident Fund (GPF) with no matching contributions from the government. The

amounts contributed by the employees are retained in governments cash balance and carry a rate of interest, which is fixed by the government from time to time.

(iii) An **un-funded defined benefit pension**, which is paid from current revenues. This is the most significant retirement benefit. The maximum ‘Replacement Rate’ (the ratio of income from retirement benefits to pre-retirement income, after mandatory deductions) is 50% of the average salary during last ten months of service. There is also a maximum limit on the absolute amount of pension, which is 50% of the highest pay in government. It is to be noted that up to 40% of the pension can be commuted into a lump-sum payment.

We have provided in Table 3.1 salient aspects of the Government Pension Scheme.

**Table 3.1**  
**Salient Features of the Government Pension Scheme**

Item	Characteristics
Type	Defined-Benefit
Coverage	All Government employees
Contribution	No contribution by employees: Un-funded
Vesting Period	20 years.*
Payout pattern	Monthly --annuity
Pension Formula	$\text{Pension} = 0.5 * \text{wage} * \min [t, 33] / 33$ where “t” is the service period
Minimum Benefit	Monthly Pension: Rs. 1275
Maximum Benefit	Monthly Pension: Rs. 15,000
Indexation	It is indexed to the Consumer Price Index [CPI]. The indexation benefit known as Dearness relief and is revised twice a year. The relief is payable in addition to the calculated amount shown above using the pension formula.
Commutation	Maximum commutation of 40% is permissible. The commuted portion is restored after 15 years of retirement.
Risk Coverage	Covers Longevity and inflation.

\* The period is 10 years for those retiring from service at the end of service. [Superannuating]

It is to be observed that these are for the employees of the Central Government but all the State Governments also follow similar pension schemes for their employees. There is no funding created by the government to meet its pension obligations. The pension benefits are paid out of government revenues. An important point to note is that the government pension system in India is not a *Pay as you Go* (PAYG) system as conventionally defined. In a true PAYG system, benefits to retirees are (at least partially) funded through contributions by existing employees and/or payroll taxes on those working.

Government employees in India do not contribute to the fund of their basic pension benefits, which are met solely from government's current revenues, even for Railways and Telecom, which are government owned commercial enterprises. As per present Government policy, pensions are indexed not only to inflation but also to changes in the salary structures of serving employees. In the recent past substantial pay increases (without corresponding reductions in number of employees or enhancement of productivity) have sharply increased the fiscal burden of pension payments at all levels of government. It is now more than 1% of the GDP as of 2000-01.

If the income flows to a pensioner from various sources such as General Provident Fund, Gratuity and Pensions are combined together, it is estimated that the replacement rate (ratio of pre-retirement income to post-retirement income) for government employees may be close to or even over 100 percent. A high figure, even by international standards. Taking into account the anticipated difficulties in meeting the pension obligation the Government of India is actively reforming the system.

For, all those joining service in the Central Government from 1-1-2004, a new system of defined contribution is applicable. The Government has constituted in May 2004, a Pension Fund Regulatory and Development Authority [PFRDA] that is expected to formulate the legal regulations after a bill has been passed in Parliament perhaps later this year.

### **3.5 Government Pensions: Concerns**

It is estimated, that there were 12 million employees, both centre and states, having a wage bill of nearly 5 % of the GDP and the pension bill of 1.30% as of 1997-98. [World Bank 2001] The Pension expenses of Central Government have gone up from Rs.33 Bn. to Rs. 224 Bn. INR during the decade of nineties exhibiting a CAGR of 21% [Bhattacharya-2002]. The implementation of the recommendations of the Fifth Central Pay Commission during 1998 onwards, has caused a steep hike in Central and State Government Pension Expenditure. Pension liabilities of the 29 states have increased by about three and a half times from Rs. 78.13 Bn in 1995-96 to Rs. 267.90 Bn in 2001-02 showing a CAGR of 23%. For instance the pension bill of the state of Bihar has gone up from Rs.5.5 Bn to Rs. 18 Bn and that of Tamil Nadu has gone up from Rs.8 Bn to Rs30 Bn. There has been a steep increase in the share of pension payments in relation to the

revenue expenditure of the state governments during the nineties, from around 4 percent to 9 percent. It is also to be noted that, that the total revenue has gone up by 14% while as pension payments have increased by 24% between 1980 and 2002. This has put a large strain on many of the state governments as already seen.

The increasing dependency ratio and escalating pension bill are of concerns to central and state governments and other government organisations. The problem is particularly acute in the case of the Railways where, the pension payment has witnessed a six fold increase from Rs 8.7 Bn. in 1990-91 to Rs 58 Bn. 2001-2002. [Pp 182-Bordia and Bharadwaj]. The share of pensions in the gross traffic receipts has increased from 8.0 % in 1990-91 to 15.4 % in 2001-2002 and expected to move to 45 % by 2019-20. [pp 183-Bordia and Bharadwaj].

The central Government has taken reform measures and moved to a defined contributory pension system for all those entering the service from 1-1-04. It would be 10% by the employee and an equal matching contribution by the Government This is a major reform in terms of moving away from an unfounded, defined-benefit system to a funded defined contributory system. The same need be extended to State Government employees.

### **3.6 Mandatory Schemes**

Employee Provident Fund Scheme. Is the most important mandatory retirement scheme applicable to large number of working people in India.

The Employees Provident Funds Act, 1952 [since renamed as the Employees Provident Funds & Misc. Provisions Act, 1952—(EPF &MP Act 1952)] was enacted by the parliament and the Employees Provident Funds Scheme, 1952 was notified by the Government effective from November 1952. The Employees Pension Scheme, 1995 brought in under the act, provides for comprehensive pensionary coverage to the member as old-age income security as also in the event of invalidity. So, also the survivorship benefit to the family made available upon death of the member. The Employee Pension Scheme, 1995 has been conceived and introduced as a benefit defined Social Insurance Scheme.

Hence the mandatory schemes, ensures compulsory provident fund, family pension fund and deposit linked insurance in factories and other establishments for the benefit of the employees Apart from factories, the Act also applies to other establishments wherein

twenty or more persons are employed and also that the Central Government has issued notification for the coverage of establishments under section 1(3) of the Act. The rate of contribution has been increased to 12% by an ordinance dated 22<sup>nd</sup> September 1997. Also infancy benefit as available for first three years for coverage of the new establishments/industries has also been withdrawn by the same ordinance. The wage ceiling for coverage of an employee under the Act has been enhanced from Rs. 5,000 to Rs. 6,500 per month w.e.f. June 2001. These schemes are managed by the

Employees Provident Fund Organization (EPFO), Coal-miner's Provident Funds, 1948 Assam Tea Plantation Provident Fund, 1955, Jammu & Kashmir Provident Fund, 1961 and Seamen Provident Fund, 1966.

### **3.7 Summary of the Mandatory Schemes**

In Table 3.2 we have provided a synoptic view of the schemes available as per the Employees Provident Funds and Miscellaneous Provisions act, 1952 [EPF & MP Act 1952] under the three schemes namely (1) Employees' Provident Funds Scheme, 1952 [EPF] (2) Employees Deposit Linked Insurance Scheme 1976[EDLI] and (3) Employees' pension Scheme, 1995[EPS] which are administered by the Employees Provident Fund Organization. [EPFO].

We find that the EPS schemes have the characteristics of a Defined Benefit scheme while as the EPF has the characteristics of a defined contribution scheme. The same organization is implementing both the schemes and to that extent the investment norms become important for the same. This we will revert to later.

It is also to be noted that despite extremely high contributions, [See table 3] and as a result of liberal withdrawals and poor returns, workers covered by the EPF are faced with highly inadequate terminal accumulations and potential destitution in their old age. For instance, the EPFO distributed average terminal accumulations of less than Rs 25,000 per member during 1997-98 on retirement. In the same year, EPFO allowed an average premature withdrawal of Rs.17, 000 per member. [OASIS 2000]. For the year 2003-2004 nearly 2.04 million EPF claims were settled with Rs 57729.9 million as amount disbursed which makes it an average terminal claims of Rs. 28,300 which is nearly four and half months pay at the highest coverage of Rs.6500.

**Table 3.2**  
**Overview of the Mandatory Schemes**

Items	EPF [1952]	EPS [1995]	EDLI'S [1976]
Benefits	Accumulation plus interest upon retirement, resignation, death.  Partial withdrawals allowed for specific expenses such as house construction, higher education, marriage, illness,	Monthly benefits for superannuation /retirement, disability, survivor, widow (er), children.  Amount of pension based on the average salary during the preceding twelve months from the date of exit and total years of employment.  Minimum pension on disablement  Past service benefit to participants of Family pension Schemes 1971	Provides lump sum benefit upon death while in service, equal to average balance in the EPF account during the preceding 12 months of death if average pf balance is less than Rs.35, 000.  In case of average balance exceed Rs. 35,000;amount paid will be Rs.35, 000 plus 25% of average balance in excess of Rs.35000 up to Rs. 60,000

**Note:** EPF—Employees' Provident Fund, EPS: Employees Pension Scheme, EDLI: Employees' Deposit Linked Insurance Scheme

**Source:** 51<sup>st</sup> annual Report EPFO 2003-2004, pp 8 Ministry of Labour, GoI, New Delhi.

During the same period an average of nearly Rs 40,000 was withdrawn by members as “partial withdrawal or advances”[EPFO Annual Report 2003-2004,pp 3]. In other words the EPF scheme is more like an investment / savings scheme rather a pension scheme.

### 3.8 Challenges faced by the Mandatory Schemes

Some of the major challenges facing the Government with regard to these schemes are pertaining to

- Coverage
- Exemption
- Contributions
- Meager Balances
- Returns
- Investments mandated

**Coverage**

- Establishments employing 20 or more persons and engaged in any of the 180 industries/Classes of Businesses specified.
- Co-operative Societies, employing 50 or more persons & working without the aid of power.
- Establishments not covered statutorily can come under the coverage of the Act voluntarily.
- An establishment continues to be covered under the Act, irrespective of the fall in the employment strength.
- Since the Act applies on its own force to the establishments, the employers are required to file the particulars in the specified format for registration and allotment of business number.

**Membership**

Every employee, other than an excluded employee, need be enrolled to the membership of the fund from the very day of employment. Membership is necessary for all categories of employees irrespective of their being permanent, temporary, casual, whole time, and part time or otherwise, and shall include the persons engaged by or through contractors, if any.

The number of industries/Classes of Establishments to which EPF & MP Act, 1952 applied as on 31-03-2004 was 180. We find that the total number of establishments is 370386 with 40.1 million members as on March 2004. We also observe that the total contribution in Provident Fund is Rs 124 billion and in Family Pension Fund is Rs. 59 billion.

Around 40 million members is still inadequate coverage taking into account the vast work force of the country running into more than 300 million even in the early nineties according to Oasis report. It points out that less than 11% of the working population has got old age income security, which include Government employees as well as those covered by mandatory schemes. The major challenge facing the EPF organisation is regarding enlarging the scope of the schemes to more sections of the working population. We have else where pointed out that there exists a large portion of unincorporated sector which is not covered by retirement schemes. [Vaidyanathan2004a]. In the context of declining nature of joint family system there is a crying need to provide pension products

to the self-employed groups. This could be done by modifying the existing definition for coverage. It should cover any activity undertaken by 20 or more people in any form of organisation. That is company form or partnership form or proprietorship form or cooperative form or trust form or society form .It should also cover all salary /wage income up to a ceiling limit of say Rs 6500 and leave the rest for other modes of old age security. But the coverage up to Rs 6500 [later can be revised to up to Rs 10,000] need be comprehensive. The type of exemptions given can be made applicable to only government [central and state] organisations. For the rest [in all activities] up to the ceiling level of say Rs 10,000 can be covered by EPFO and it need not consider covering those who are above that level even on a voluntary basis. Currently even some well to do sections park funds in EPFO for income substantially above Rs 6500 to derive tax benefits and more importantly the benefit of “ no tax” on the interest income from the schemes.

**Table 3.3**  
**Contributions to the Mandatory Schemes**

Items	EPF [1952]	EPS [1995] [	EDLIS [1976]	Total Contribution
Contributions: [% on wages]				
Employer	3.67 %	8.33 %	0.50 %	12.50 %
Employee	12.00 %	Nil	Nil	12.00 %
Government	Nil	1.16%	Nil	1.16 %
Total Funding	15.67%	9.49%	0.5%	25.66 %
Administrative charges by employer: un – exempted [% on wages]	1.10%	Paid out of the EPS fund	0.01%	
Inspection Charges by employer: exempted [% on wages]	0.18%	N/A	0.005%	

**Note:** Total contribution rates for five classes of industries like Jute, Beedi, Brick, Coir other than spinning sector, and Guar gum are 10% of wages for employees and 1.67 % for employers. EPF is Employees’ Provident Fund, EPS is Employees’ Pension Scheme and EDLI is Employees’ Deposit Linked Insurance Scheme

**Source:** 51<sup>st</sup> annual Report EPFO 2003-2004, pp 9, Ministry of Labour, GoI, New Delhi.

**Contribution**

In Table 3.3 we have provided the contributions to the EPF, EPS, and EDLI by employees, employers and government. We find that employer contribute 12.5 in almost all industries of which 8.33% is diverted to the pension scheme. The contribution of employees directly go into Provident Fund and Government provides a small portion of the Pension Fund. The total funding for the EPF scheme is 15.67% and for the EPS is 9.49 %. The aggregate contribution comes to 25.66% of the wages. The employer also bears administrative charges for the schemes while as Government or employees do not provide any portion of the administrative charges. In spite of the relatively high funding on the scheme, the balance at retirement is inadequate as already discussed, due to liberal withdrawal facilities.

**Interest Rate on EPF**

The rate of interest is fixed by the Central Government in consultation with the Central Board of Trustees (CBT), Employees' Provident Fund every year during March/April. The interest is credited to the members account on monthly running balance with effect from the last day in each year. The rate of interest for the year 1998-99 had been notified as 12%. The rate of interest for the year 1999-2000 w.e.f. 1.7.99 was 11% on monthly balances. For the year 2002-2003 CBT recommended 9.5%. For the years 2003 –04 it was 9.5 %. It is to be noted that 90 percent of the funds are to be invested in Government securities and to that extent the returns are decided by the interest on government securities.

Provident Fund interest rates are one of few remaining administered interest rates in India. It is operated in an indirect way. Substantial portion of [nearly 80%] of the funds are invested in Special Deposit Scheme [SDS] operated by the central Government. The government decides the interest rates on SDS from year to year. Hence the EPF interest rate is decided based on that. The government has adopted a policy of fixing the same interest rate on the SDS, the Government Provident Fund [GPF], the public Provident Fund [PPF] as well as the government savings certificate that are sold through the post offices. But the EPFO scheme requires that the central board of trustees [CBT] of the EPFO determine the rate applicable to EPF schemes. Since the CBT would like to fix a

“higher rate”, there is a friction between the CBT, which is under labour ministry, and finance ministry, which administers the SDS. For the year 2002-2003, the rate declared by CBT, is 9.5% even though the Finance ministry wanted it to be 9%. For the year 2003-2004 the CBT has announced an interim rate of 8.5 %, has been revised later to 9.5 %. We have provided in table 3.5 the returns on provident funds in India and those on bank deposits and long-term government bond.

A comparison with other investment avenues like bank deposits and other savings certificated distributed through post offices, we find that PF returns matched or even exceeded the “returns” on these instruments.

We need to keep in mind the “administered nature” of these interest rates in the past. But the annual compound rate of return for the 1986-2000 period was 2.7 percent [11.7 percent nominal return less 9 percent annual inflation rate] as pointed out by Mukul Asher [2002b].

### **Investment Norms**

In table 3.4 we have provided the investment norms, which are specified for the EPF scheme. It is more of “prescriptive” in nature rather than “prudential”. We find from table 3.4 that up to 90% of the funds are to be invested in government or government organization issued securities. Given the fact of southward moving interest rates, it is going to be a marathon task for the EPFO to maintain return rates of even 9.5%.

The central banker offer a risk free rate of 6.5% for the investors and this brings us to the issue of easing of the investment norms of these schemes in the context of booming securities and debt markets, to earn better returns. But given the predominant share of government instruments, the returns from these schemes are much lesser than what would have been if some more portions was allowed to be invested in the stock markets particularly during boom years of early nineties. It is important to recognize the fact that a well developed pension market provide a larger push to the growth of the capital market since the asset liability structure of the pension funds are on the longer tenure side. Pension funds can be typically used to fund the requirement of infrastructure projects, which are having a longer pay back period. On the basis of these considerations the Government needs to have a re look at the prescriptive investment norms without sacrificing the interest of the customers.

**Table 3.4**  
**Investment Pattern to be followed for EPF**

Nb.	Category	% of Amount to be invested
(i)	Central Government Securities as defined in Section 2 of the Public Debt Act, 1944 (18 of 1944); and/ or units of such Mutual Funds which have been set up as dedicated funds for investment in Government securities and which have been approved by the securities Exchange Board of India [SEBI]	25%
(ii)	(a) Government Securities as defined in Section 2 of the Public Debt act 1944 (18 of 1944) created and issued by the state Government; and / or units of such Mutual Funds which have been set up as dedicated funds for investment in Government securities and which have been approved by the securities Exchange Board of India [ SEBI]; and / or (b) Any other negotiable securities the principal whereof and interest whereon is fully and unconditionally guaranteed by the central government or any state government except those covered under (iii) (a) below	15%
(iii)	(a) Bonds / Securities of "Public Financial Institutions" as specified under section 4(1) of the companies Act," public Sector Companies "as defined in Section 2(36-A) of the Income Tax Act, 1961,including public sector banks and /or (b) Short duration [less than a year] Term Deposit Receipts issued by public sector banks	30%
(iv)	To be invested in any of the above three categories as decided by the board of Trustees	30%
(v)	The board of Trustees, subject to their assessment of the risk-return prospects, may invest up to 1/3 <sup>rd</sup> of (iv) above, in private sector bonds/securities, which have an investment grade rating from at least two credit rating agencies.	

**Source:** 51<sup>st</sup> Annual Report of the Employees' Provident Fund Organization 2003-2004, pp28, Ministry of Labour, Government of India New Delhi

### 3.9. Voluntary Schemes and Role of Households

Workers in the unorganized and informal sectors have access only to a few voluntary schemes such as PPF, pension plans offered by LIC and other private life insurance companies etc. Organized sector employees can also participate in such schemes, to augment their retirement benefits. The employees of the organized sector use most of these voluntary schemes for tax shield purposes and since the ceiling for tax benefit is only Rs. 10,000, most of the investors choose up to that level as annual contributions which will provide only a meager benefit after vestment in the old age.

In spite of increasing pressures on the joint family system, the family continues to be the main support for the elderly in India. This is particularly true in the case of women. A substantial percentage of the elderly is also forced to continue working long past the retirement age, especially in the case of elderly rural males. It has been assessed that as of 1994, about 50% of Indians over age 60 depend on transfers out of whom 40% depend on transfers from children and family, and another 40% from work. [World Bank, 2001]

We find that a substantial portion of our self-employed category is not covered by any mandatory or universal schemes. But their share in the national savings is significant and they do have large income as revealed by tax statistics. They save in the form of gold as an insurance and pension product particularly for the woman of the household. It may be appropriate that voluntary pension providers tap this market by offering innovative products to convert some part of investment in gold for financial savings in pension schemes. In order to do that, they need to study the nuances of current behaviour of our households in a detailed fashion.

The Oasis committee report [Oasis 2000] indicates that substantial portion of the self-employed is not covered by any pension scheme based on the census data of 1991. They conclude that nearly 90 percent of the work force is not covered by any of the social security / pension schemes

### **3.10. Savings by Households**

We have given in table 3.5 the savings and its components in the Indian Economy. We find that the household sector is the largest saver. In the savings data, household sector includes both wage / salary earning consuming households and also partnership/ proprietorship firms [which are both consuming and producing entities]. In other words it consists of pure households and mixed households. Unfortunately there is no separate savings data available for wage holds and other households.

We find from table 3.5 that Gross Domestic Savings is of the order of 24% of the National Income during 2000-2001 and nearly 90% of the savings is due to household sector. Nearly half of the household sector saving [48%] was in the form of Financial Assets. Deposits in banks etc constituted the largest portion [35%] of the financial savings, followed by Provident and Pension Funds at 22%. Small savings [net claims on the Government] constituted 17% and Life Insurance Funds 15%. The proportion of shares and debentures in financial savings has come down from 17 % in 1990-91 to 3% in 2000-2001 to reach 5% in 2002-2003. We find that provident and pension funds constitute an important segment of the financial savings of the household sector. These are mostly mandatory savings under Employees Provident Fund / Pension schemes [EPF/EPS] and other occupational pension schemes of large corporate sector. The

financial savings of the household sector as of now is focused on bank deposits and small savings schemes for tax purposes.

**Table 3.5**  
**Composition of House Hold Savings 1980 to 2000 [%]**

Item	1980-81	1990-91	2000-01	2002-2003
Rate of Savings [GDS to GDP]	18.9	23.1	23.7	24.2
House hold Savings [HS] to GDS	73	84	92	94
Physical Savings [PS] to HS	57	55	52	55
Financial Savings [FS] to HS	43	45	48	45
Currency to FS	19	13	8	12
Net Deposits to FS	34	22	35	25
Shares and Bonds to FS	5	17	3	5
Net Claims on Govt. to FS	7	15	17	23
Life Insurance to FS	10	11	15	16
PF and Pensions to FS	25	22	22	19
Total FS	100	100	100	100

**Source:** Calculated by us from various issues of National Accounts Statistics [NAS] Central statistical Organization.

### 3.11 Gold as an Insurance and Pension Product

A natural question, which arises in the mind of planners, is regarding the present arrangements by households to meet their insurance and pension requirements in the absence of universal social security system and undeveloped voluntary market. Joint family system could provide part of the answer. The purchase of gold has been a hoary tradition among Indian households. That is considered as insurance particularly if the husband passes away for women who are housewives. The “superstition” regarding not disposing of gold ornaments during the life span of the husband is more to do with economics than religion. There are significant attractions regarding gold in our context. We have provided in table 3.6 the demand for gold for Jewellery purposes in the last five years. We find that India buys nearly 20% of the global Jewellery sales.

**Table-3.6**  
**World Gold Consumption: Gold Jewellery Demand (tonnes)**

Countries	1998	1999	2000	2001	2002
India	658.2	629.7	620	614.7	490.2
China	243.3	215.3	205.6	203.2	199.6
Japan	53.9	51.9	49.8	50.6	46.5
S Korea	39	55.7	61.8	63.5	60.7
SE Asia	101.1	199.5	195.5	206	194.9
Middle East	445.6	445.9	448.2	429.3	358
Turkey	139.6	91.9	147.7	92.4	97.9
USA	349.8	373.9	387.3	389.3	388
Europe	281.7	272	264.7	265.3	248.1
Total—including others	3181.5	3151	3186.6	3064	2726.7
<b>Gold Price [\$ /oz]</b>	294.1	278.6	279.1	271.1	309.7

**Note:** 1) 90 percent of Indian demand is for private consumption (jewellery) and less than 10 percent for industry purposes. 2) 1 Tonne=32,151 troy oz of fine gold

**Source:** World Gold Council [WGC]--Gold Demand Trends No.42-2003

It is highly liquid unlike shares and divisible unlike real estate. One could get cash against gold in any village in the country from the moneylenders who could be called ATM's [all time money]. Also bequeathing of gold is much easier since possession is ownership in this case. It is not required to register the transfer by a sale deed nor needed to get income tax clearance unlike real estate.

Not only that the demand in the middle east is mainly due to people of Indian origin and it can be expected to come to India after a lag of a year or so. This makes the Indian purchases nearly one third of the world market. India does not produce much except a few tonnes.

If we use an average price of Rs 4000 per ten grams for the 2002 data of 490 tonnes we get a figure of nearly Rs.200 Bn. as purchases of gold jewellery by households. The earlier year it would be around Rs. 220 Bn at Rs 3,500 per ten grams. In our statistics the purchase of gold is not treated as savings but as consumption. But households buy gold from the point of view of savings particularly as an insurance or pension product.

The voluntary pension providers need to look at this market and evolve schemes to cannibalize this segment. It would be possible since at least in urban areas among younger lot the glamour for gold is declining and also due to safety etc it is not an exclusive instrument. It is also possible for the voluntary pension provider to look at innovative instruments like reverse mortgage for gold and other such products, which would facilitate an annuity stream of income to households holding gold or wanting to acquire gold.

#### **4. Conclusions**

The pension system of Government [Centre/State and local bodies] is under stress and hence it is required for state Governments to move to a defined contribution scheme as already initiated by the Central government for all those who join the service after 01-01-04. It is also required to fund the current liabilities based on an actuarial evaluation on an incremental basis so that the aggregate burden is smoothed out over period of time. The new system, which is funded and contributory in nature, will enhance inflows in to the stock market and facilitate the activities in the market. The schemes to be offered will facilitate different type of funds and schemes suitable for different age cohorts. In other words choice can be given to investors to choose between growth and income type funds. In the case of the Mandatory schemes like EPF, the separation between fund management and regulation is important. The aspect of portability and accurate account keeping needs to be stressed to become customer friendly organization. The interest rates provided on the EPF should be related to the earnings of the fund, given the prescriptive norms. It may be appropriate to consider reforms in the mandated schemes by encouraging professional fund managers to provide their services to EPF. The pension funds have traditionally given a boost to the capital markets due to their long liability structure and facilitated the funding of infrastructure projects. In the case of voluntary schemes, we find that the focus is on the tax exemption limit and to that extent the tax incentives can be enhanced to cover large sections of self-employed groups. The limit can be actuarially computed to sustain the self employed after his ‘retirement’ for a decent standard of living.

It is also needed to enhance the Pension Literacy among the middle class, so that the aging population with the decline in joint family system can be sustained without

government support. It is also needed to focus on health care needs of the aged along with pension products. Currently substantial amounts are invested in Gold as a saving and pension instrument since it has the attraction of liquidity and divisibility and ease of bequeathing. It should be possible for pension providers to evolve attractive pension schemes to wean a portion of the investment from gold.

The government has recently in December 2004, constituted a Pension Fund Regulatory and Development Authority [PFRDA} and has taken the following important decisions All the Government employees who joined service after January 2004 are covered by the new defined contributory pension scheme compared to the current defined benefit scheme. More than 40,000 new employees of Central Government sector are part of the scheme and many State Governments have notified about going in for the new scheme for its employees. Private Pension funds providers would be encouraged to manage the corpus of this scheme. Even other category of work force like self-employed and employees of private sector can join the schemes as an additional benefit over and above their current schemes. There is also a move to have a central registry and a common identification number for the participants. This would facilitate portability across regions and sectors. It is also to be noted that India needs substantial investments in the infrastructure sector most of which are long duration in nature in terms of pay back periods. In that context Pension funds constitute one of the important vehicles given the nature of asset liability match to enhance the availability of funds for such long duration projects. Increasing domestic and global pension funds are looking at India as an investment destination given the valuation in the stock markets.

The Indian Capital Market has seen substantial changes in the last fifteen years and the current reforms contemplated in the Pension sector will deepen the market in terms of instruments, institutions and regulations. We feel that the pension reforms must be focused on investor /consumer interests and not just the larger social goals, like enhancing Government revenue or reducing fiscal deficit. It should also be stressed that the development of pension products should be integrated into the overall development of financial products/markets. We suggest for liberalizing investment regulations pertaining to pension ad provident fund sector since we feel it would increase the returns to investors and also enhance the capital market depth. We looked at the market for Gold in

India, one of the largest in the world, and indicated possibilities of introducing reverse mortgage on gold held by households to increase consumption of pension products. The proposed regulatory authority namely Pension Funds Regulatory and Development Authority [PFRDA] should facilitate policy formulations pertaining to investment regulations in the pension sector, which should enhance the participation of pension funds in the capital markets. It should also delineate the map by which the mandatory schemes are brought under the PFRDA. The flow of financial savings in the pension funds would help the development of infrastructure financing in a developing country like India due to ALM of the pension business. The type of long term papers, which will be needed in the capital market, as investment vehicles for the pension funds will also be elaborated. The ageing population combined with declining joint family system calls for necessary reforms in the pension business so that individuals do not become a large burden on the meager social security net available currently.

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