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CRISIL Insight



When India ages, whither pension for all?

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When India ages, whither pension for all?

Executive summary

There are nearly 100 million people aged 60 or more in India today, and that number will triple by 2050. Meaning, every fifth Indian will be a sexagenarian compared with one in twelve now. And most of them will be financially insecure in their sunset years if a social security net doesn't get built starting now.

And if a large number of the old end up having no pension by 2030, the government will have to bear the heavy fiscal burden of providing minimum sustenance to them. A multifold increase in pension coverage to the private sector workforce is, therefore, an imperative.

CRISIL has constructed two scenarios and estimated the fiscal cost of ageing under both:

SCENARIO 1 - FISCALLY BENIGN, WITH A LARGER ROLE FOR PRIVATE PENSION

- The best-case scenario is where coverage expands such that 70% of the private-sector retirees by 2030 will get a pension compared with just 8% now. To arrive there, private-sector retirement corpus will have to grow at 21% annually.
- This scenario assumes that the government has to provide pension to only 30% of the old who are needy, in addition to retired government employees. As a result, the government's pension bill will rise by 120 basis points, to 3.4% of GDP by 2030 from 2.2% currently.

SCENARIO 2 – FISCALLY BURDENSOME, WITH LOW COVERAGE THROUGH PRIVATE PENSION

- Under the worst case, if private coverage stays chronically low at its current level of 8% even by 2030, the government will have to formulate a pension scheme to support the entire population of the old, raising its fiscal burden to as high as 4.1% of GDP. For perspective, the central government today spends 3-3.4% of GDP on education and just over 1% of GDP on medical and public health, water supply and sanitation.
- While all old citizens will receive a pension under this scenario, the amount each one gets will be significantly lower because of the sheer number of people dependent on the government pension scheme. And if the government is to give pension matching the best-case scenario, its fiscal burden will surge to 6% of GDP by 2030.

What the government needs to do to ensure Scenario 1

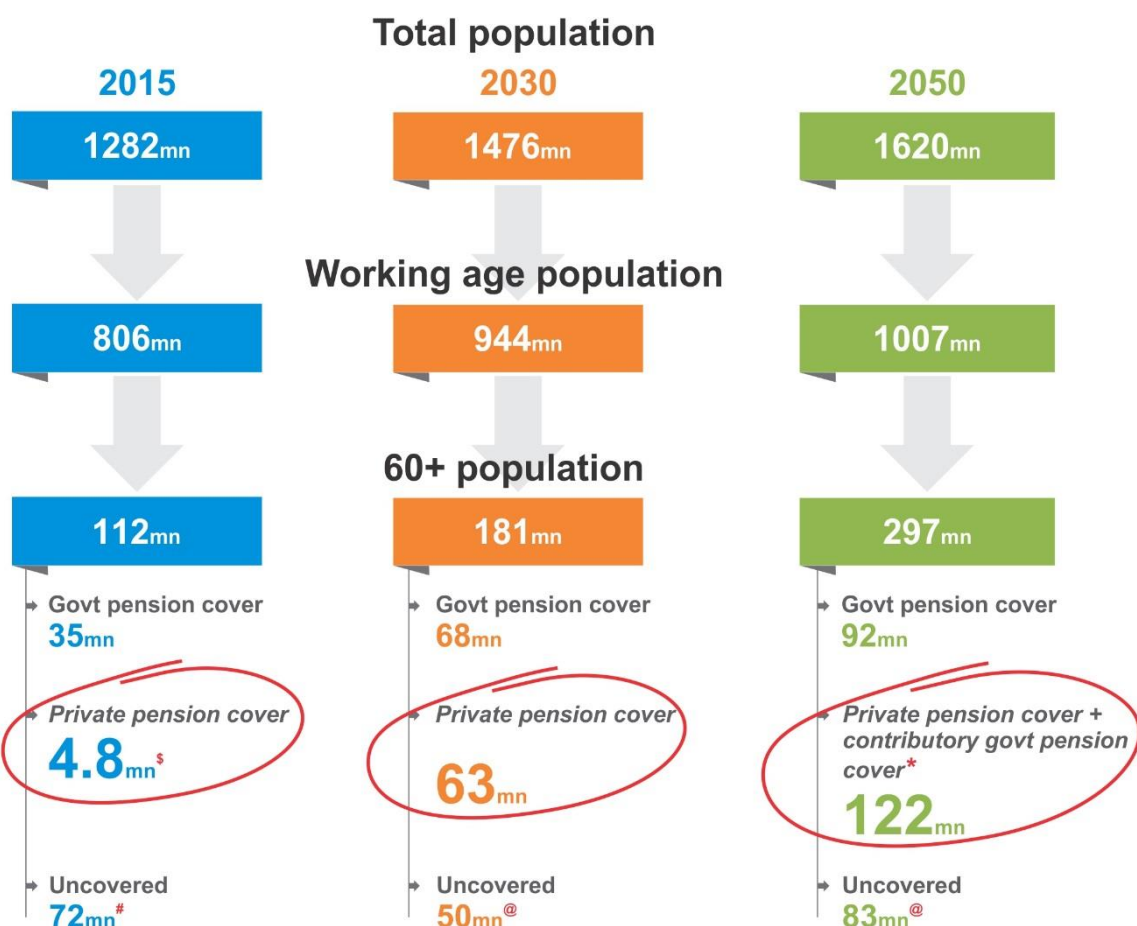
A massive, unprecedented increase in formal employment opportunities during the working years of a majority of the population is a *sine qua non* to facilitate access to private pension plans. This will have to be complemented by government push to incentivise retirement savings.

Scenario 1: Fiscally benign, with a larger role for private pension

Fiscal cost = 2.2% of GDP in 2015, 3.4% in 2030 and 2.6% in 2050

Private pension = 8% coverage of private sector retirees in 2015, 70% coverage by 2030 and 2050

Growth of private retirement corpus = 21% per year by 2030, 17% per year by 2050



Notes for Scenarios 1 & 2:

Population numbers are UN estimates

[§] The number of total pensioners are calculated based on Employees' Provident Fund Organisation data as of March, 2013; the Coal Mines Provident Fund Organisation data as of December 2012; and the Assam Tea Plantation Provident Fund and Pension Fund data as of March 2012.

* These are government-sector retirees who will be covered under the contributory pension scheme (NPS) and other schemes

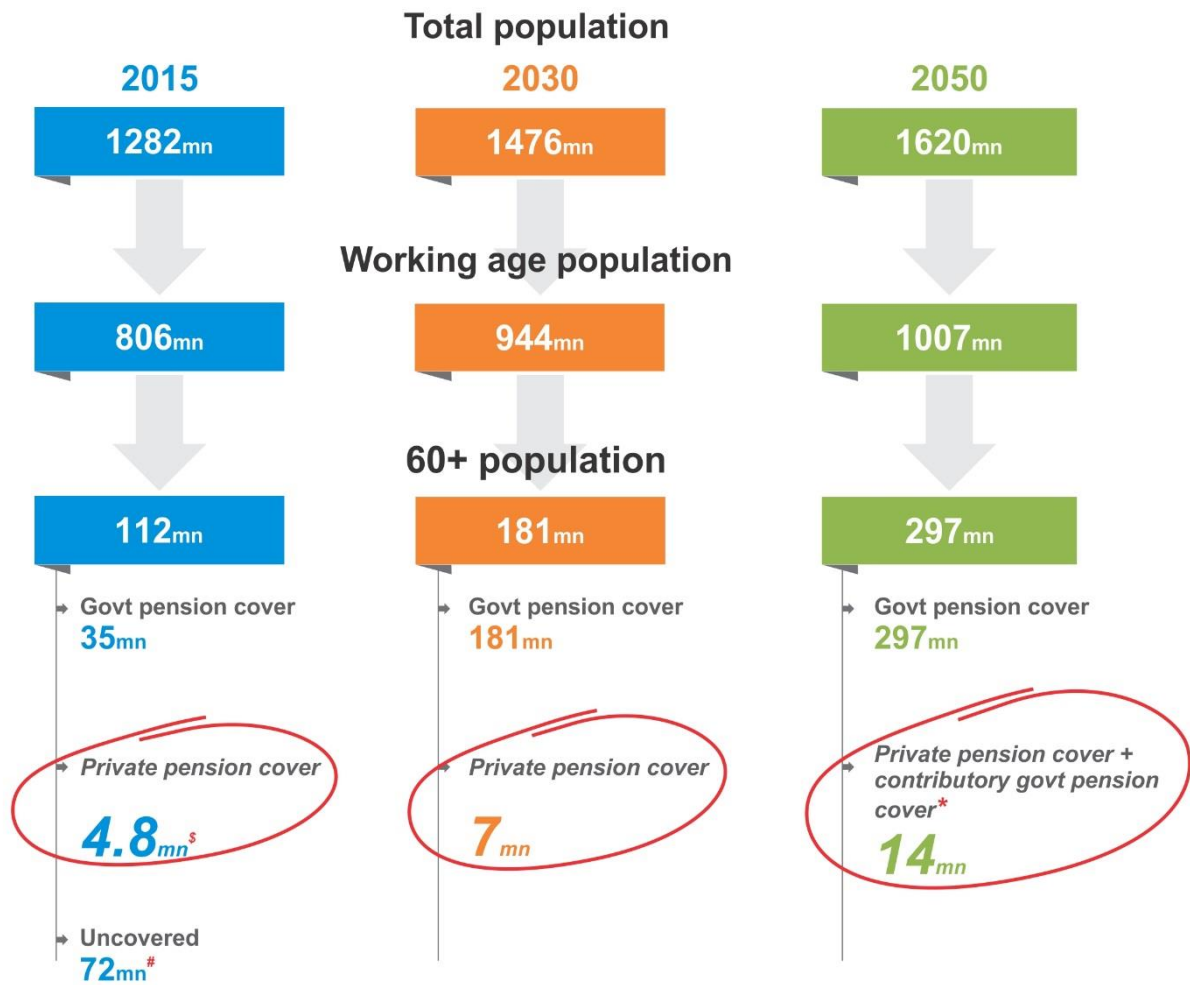
Unemployed plus those employed but without a pension.

@ Unemployed plus those employed but without a pension. These don't comprise 30% of the old

For all calculation assumptions, refer to Annexures 1,3 and 4

Scenario 2: Fiscally burdensome, with low coverage of private pension

Fiscal cost = 2.2% of GDP in 2015, 4.1% in 2030 and 3.9% in 2050
 Private pension = 8% coverage of private sector retirees in 2015, remains unchanged by 2030
 Growth of private retirement corpus = 7% per year by 2030, 10% per year by 2050



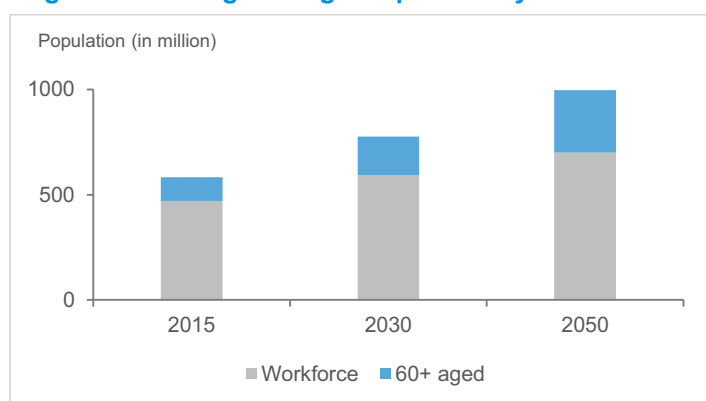
Data source for Scenarios 1 & 2 :
 United Nations Population Division, 6th Pay Commission report, Ministry of Finance, Ministry of Rural Development, World Bank, Bhardwaj and Dave(2006), Pension Fund Regulatory Development Authority, Department of Financial Services, CRISIL Research

Part A: When a young India ages

A good 100 million people in India, or a little less than 9% of its population, are over 60 years of age today. As per estimates by the United Nations Population Division, this number will climb to 180 million (over 12% of population) by 2030 and nearly 300 million (over 18%) by 2050.

Mark the import: In the next 35 years, the number of people aged 60 or more will multiply 2.6 times, while that of those in the working-age bracket of 15-59 will rise by less than half of that. This means there will be only 3.3 workers per old person in 2030 from 4.2 today. The number gets crunched further to 2.4 workers by 2050.

Figure 1: Rising old-age dependency



Note: Workforce refers to people within the working age population who are looking for jobs and have found employment. CRISIL Research expects labour force participation to rise to about 71% by 2050, from 58.3% in fiscal 2012, while unemployment rate is assumed to remain unchanged at 2.2%.

Source: United Nations Population Division, National Sample Survey Organisation, CRISIL Research

Sure, India isn't the only country that's set to witness a steep increase in old-age dependency (Table 1). Globally, ageing population is a big worry. A Standard & Poor's report (*Global Aging 2013: Rising to the challenge*) finds that several sovereigns might need to take unpopular steps to cut their budgets to accommodate pension support to the ageing population. The analysis suggested that the need to alter demographically driven budget trajectories is equally pressing for both, the advanced economies, as well as some emerging market sovereigns. Indeed, the proportion of India's old people is less than those of several countries and also below the world average. But the rise from where we stand today will be steep—hence the need to act fast.

Table 1: Cross-country comparison of old-age dependency

	Old to total population, %			Old to working age population, %		
	2015	2030	2050	2015	2030	2050
India	8.8	12.3	18.3	13.9	19.2	29.5
China	14.9	23.8	32.8	22.3	39.4	62.6
US	20.6	25.6	27.0	35.8	46.2	49.2
Japan	33.2	37.5	42.7	61.5	74.5	95.2
Brazil	11.9	18.7	28.9	18.3	29.8	51.9
Indonesia	8.6	14.1	21.1	13.5	22.2	35.1
Germany	28.0	36.4	39.6	47.3	72.0	82.8
World	12.2	16.3	21.2	19.8	27.1	36.8

Source: United Nations Population Division, CRISIL Research

Part B: The fiscal cost of ageing

The fiscal cost of ageing (2.2% of GDP at present), or the cost the government incurs on those beyond the working age depends on the following factors:

1. *Number of pensioners:* Available estimates suggest that both central (except armed forces pensioners) and state government pensioners will continue to decline going ahead (see *Annexure 1*). The employment base of the public sector, which will eventually turn into retirees, has been falling in recent years as fresh recruitment has not kept pace with attrition, partly as a deliberate effort to downsize government employment.
2. *Nature of pension schemes (employee contributory or non-contributory):* The central government has introduced the National Pension System, or NPS, for all its employees (except armed forces) recruited after January 1, 2004. NPS requires employees to contribute towards their pension, unlike the previous scheme of defined benefit, which is non-contributory, unfunded and wage and inflation-indexed. This will ensure that government pension obligations towards employee pensions will decline after peaking in 2030s. By 2050, the central government will only be liable to make pension payments to armed forces' pensioners. At the state level, all states except West Bengal, Tripura and Telangana have adopted NPS.
3. *Growth rate of pension per person:* Pension per person grows because of dearness allowance granted as well as one-time rise due to revision in pay scales. Pay Commission revisions tend to raise pay scales to accommodate improvement in living standards, while dearness allowance is linked to inflation. Going ahead, inflation and GDP growth are expected to print lower, bringing down the extent of pension revisions announced by the Pay Commission.
4. *Pension for poor and needy old* – The government currently provides pension of roughly Rs 500 per month for nearly 19% of old under the Indira Gandhi National Old Age Pension Scheme (IGNOAPS). Among the pension schemes that are currently operational (*Annexure 2*), the IGNOAPS has the maximum coverage.

Our estimates on fiscal cost, exclude the pensioners of quasi-government and local bodies, and do not account for any potential shortfall in the retirement corpus of the private sector pension schemes that may have to be funded partly by the government in future. Detailed explanation of assumptions taken to project government sector pension liability is provided in *Annexure 1*.

Estimating future fiscal cost of ageing

Globally there are largely two pension models for government pension – one targeted only at the most needy, and the other universally available to all citizens above 60 – that India could adopt or build on. The model which is adopted will depend on the spread of private pension plans in future. As and when the new scheme is rolled out, all existing government pension schemes (*Annexure 2*) will cease to exist.

1) A targeted pension scheme

If the private pension coverage expands sufficiently, the government can provide income support for only the poorest 30% of old population – up from current 19% under the IGNOAPS. In addition, the income support could be significantly higher at Rs 2,000 per month in today's prices compared with what is provided currently under IGNOAPS. This is also double the targeted minimum pension for employees under the Employees' Provident Fund Organisation. An increase in pension of 12% per year, per person, up to 2030, and 10% from 2030 to 2050 is assumed to cover for inflation (which is estimated to be lower than in the past), and an improvement in living standards. The annual fiscal burden for this scheme will be around 1.1% of GDP in 2030.

Including pensions to be paid to former government employees (2.2% of GDP in 2030), **the total fiscal burden of ageing should peak to 3.4% of GDP in 2030, and decline thereafter to 2.6% of GDP in 2050** (Table 2). The decline in pension burden after 2030, despite a rising number of old people, is because of a sharp fall in obligations to government employees (except armed forces) after the contributory pension scheme was rolled out in 2004.

Successful completion of projects such as Aadhaar, which aims to provide a unique identity to every resident Indian, will be crucial for implementation of targeted pension beneficiaries. The access to bank accounts will also be crucial. The recently launched Jan Dhan Yojana, if successfully implemented, can help fast-track financial inclusion. The scheme was announced on August 15, 2014, to ensure access to financial services – bank accounts, remittances, credit, pension and insurance -in an affordable manner.

Table 2: Fiscal burden under Scenario 1 of a targeted pension scheme

FISCALLY BENIGN WITH A LARGER ROLE FOR PRIVATE PENSION			
	2015	2030	2050
Number of needy old covered (30% of total) <i>in million</i>	-	54	89
Pension expenses to cover the needy old, (at Rs 2000 per month per person in today's prices) <i>in Rs trillion</i>	-	7	77
Pension expenses to cover the needy old <i>% of GDP</i>	-	1.1	1.9
Pension and retirement benefits to government employees <i>% of GDP</i>	2.2	2.2	0.7
Total fiscal burden <i>% of GDP</i>	2.2	3.4	2.6

Source: United Nations Population Division, 6th Pay Commission Report, Ministry of Finance for payment of pension and retirement benefits, Ministry of Rural Development for estimates on payment under Indira Gandhi National Old Age Pension Scheme, World Bank data on defence employment, Estimates made by Bhardwaj and Dave (2006), CRISIL Research

2) A universal pension scheme

The government may have to launch the universal pension scheme if the coverage of the retirement funds industry stays chronically low at its current level of 8% even by 2030. Under the scheme, every citizen aged 60 and above will get a pension of Rs 1,000 (at today's rupee value) per month, per person, lower than under the targeted pension scheme. That's because, under the universal scheme, the entire old population is to be given a pension.

In this scenario, despite the lower per-person pension, **per-year fiscal burden on the government is higher at 4.1% of GDP by 2030, which declines to 3.9% of GDP by 2050** (including pension payments to government retirees) because the entire population aged 60 and above is covered (*Table 3*). The higher fiscal burden will largely have to be funded by higher taxes if fiscal deficit needs to be controlled.

Under this scenario, if the government attempts to pay the same per person pension as in the targeted pension scheme, the fiscal burden will surge to 6% of GDP by 2030.

The higher cost of a Universal Pension Scheme as well as providing income support to all old people irrespective of income status will make its implementation challenging. If healthcare cost for the aged rises much faster and the government's pension schemes are unable to cover for it, then the fiscal cost of providing additional healthcare for the old will rise further.

Table 3: Fiscal burden under Scenario 2 of a universal pension scheme

FISCALLY BURDENSOME WITH LOW COVER FOR PRIVATE SECTOR PENSION			
	2015	2030	2050
Number of old <i>in million</i>	112	181	297
Pension expenses on universal pension scheme (at Rs 1,000 per month per person in today's prices) <i>in Rs trillion</i>	-	12	128
Pension expenses on universal pension scheme <i>% of GDP</i>	-	1.9	3.1
Pension and retirement benefits to government employees, <i>% of GDP</i>	2.2	2.2	0.7
Total fiscal burden <i>% of GDP</i>	2.2	4.1	3.9

Source: United Nations Population Division, 6th Pay Commission Report, Ministry of Finance for payment of pension and retirement benefits, Ministry of Rural Development for estimates on payment under Indira Gandhi National Old Age Pension Scheme, World Bank data on defence employment, Estimates made by Bhardwaj and Dave (2006), CRISIL Research

Part C: Scope for private retirement funds market in India

The provision of post-employment income in the form of pension and/or lump-sum wealth created through financial products is a necessity to ensure the well-being of ageing population.

Traditionally, joint family structures in India have provided for the old. But today, families are increasingly becoming nuclear – as per Census data, the average size of households in India fell to 4.9 in 2011 from 5.4 a decade ago, and as per National Sample Survey Organisation estimates, in fiscal 2012, nearly 40% of the urban households had 3 people or less. Given this rapid change in the social framework, it becomes imperative for the youth today to build a nest egg through savings and retirement schemes to meet post-employment expenditure, especially on healthcare.

Within the private sector, only about 8% of retirees receive a pension today¹. The clarion call for the retirement funds industry, therefore, is to considerably expand its coverage. **If 70% of private sector retirees are adequately covered by 2030², their retirement assets will rise to around 26% of GDP in 2030 from 7% today³ (pure pension corpus is about 2% of GDP today⁴).** And if the entire private sector workforce that will be over 60 in 2030 has an adequate retirement cover, then the size of the retirement corpus will rise to nearly Rs 276 trillion (or 38% of GDP) by 2030 and Rs 3,626 trillion (or 74% of GDP) by 2050 compared with Rs 7.21 trillion as of latest available data (*Table 4*). However, for the retirement fund industry to see such a superlative growth, significant rise in organised sector employment will be a pre-requisite.

The OECD Global Pension Statistics project report released in October 2013 noted that in developed markets such as Canada, the US, Australia and the UK, pension funds formed 64%, 72%, 93% and 96% of the GDP, respectively.

Annexure 3 details the assumptions used in the estimation of the retirement corpus required to adequately provide pension to all pensioners retired from the private sector by 2030 and all former private sector employees plus government employees excluding armed forces by 2050 have been detailed in *Annexure 3*.

Table 4: Scenario analysis for the retirement corpus of private sector retirees

Required growth in retirement corpus of workers* who will retire in 2030 and 2050				
Pension coverage ratio among private sector workers who will retire in 2030 and 2050	Growth per year till 2030 (%)	Growth per year till 2050 (%)	Pension assets as a percentage of GDP by 2030	Pension assets as a percentage of GDP by 2050
8% [#]	7	10	3	6
30%	15	14	11	22
50%	19	16	19	37
70%	21	17	26	52
100%	24	18	38	74

Note: [#]Current pension coverage, ^{*}Private sector workforce till 2030 and total workforce (private and public sector excluding armed forces employees) till 2050.

Source: United Nations Population Division, PFRDA, Department of Financial Services, 6th Pay Commission report, CRISIL Research.

¹Pensioner base in the Employees' Provident Fund Organisation, Coal Mines Provident Fund Organisation, Assam Tea Plantations Provident Fund and Pension Fund as per latest available data

²OECD 2013 – Coverage of mandatory pension schemes as a percentage of population aged 15 to 65 for: US = 71.4%, UK = 71.5%, Canada = 70%, Australia = 69.7%.

³Employees' Provident Fund Organisation data as of March 2013, National Pension System data as of March 2014, Coal Mines Provident Fund Organisation data as of March 2014, Seamen's Provident Fund data as of March 2013, Assam Tea Plantations Provident Fund and Pension Fund data as of March 2012).

⁴Assets under Employees' Pension Scheme of Employees' Provident Fund Organisation data as of March 2013, National Pension System data as of March 2014 and pension assets of Assam Tea Plantations Provident Fund and Pension Fund data as of March 2012

How the government can avoid a fiscal hump

The government will have to play a critical role in facilitating increased pension cover for people.

The retirement industry coverage will have to be increased significantly by 2030. Incentivising savings for retirement must be an urgent goal for the government, lest the potential fiscal cost will rise. This will require policy focus in a number of areas, such as:

- I. *Increasing the share of organised sector employment from around 7% of total employment today to nearly 40-50% by 2030:* This will bring a large section of the population into the ambit of Employees' Provident Fund. Providing job opportunities in labour-intensive sectors, for instance, will help draw people out of agriculture (where majority of unorganised employment lies). CRISIL Research's report, *What can a pro-jobs policy do for India?*, released in September 2014, detailed how a favourable policy push to labour-intensive non-agriculture sectors could potentially generate 69 million additional jobs by 2020 while enabling 10 million people to move out of agriculture.
- II. *Bringing down inflation and keeping it low to make room for savings:* Bank deposits account for nearly 55% of household financial savings in India. The share of provident and pension funds is around 15% today. The past few years have seen a sharp decline in household financial savings rates, mainly due to persistently high inflation. Consumer price inflation (CPI) averaged 10.2% during fiscal 2010 and 2015, eroding the real return on savings in bank deposits, provident and pension funds. On the other hand, high positive returns on investments in real estate and gold have ensured the savings have increasingly flown into these avenues. For this trend to reverse, inflation will have to decline so that the real return on financial savings rises.
- III. *Target policy towards increasing investor awareness:* Such a policy will have to consider the level of education, language skills and current financial behaviour of people.
- IV. *Developing adequate administrative infrastructure and an effective distribution network:* This will require sizeable initial investment in administration. This will help increase the reach and efficacy of products and services.
- V. *Taxation:* Increase coverage by providing tax incentives for the investments in retirement products e.g. NPS can be moved from EET (exempt-exempt-tax) to EEE (exempt-exempt-exempt) structure.



Annexure 1: Detailed explanation of assumptions made to project government sector pension liability:

- (i) Data on pension and retirement benefits paid by central and state governments are from Indian Public Finance Statistics, Ministry of Finance. The latest data available are till fiscal 2014.
- (ii) Number of pensioners for 2008 is taken from the Sixth Pay Commission Report. Accordingly, average pension (Rs 7,000 for central government pensioners and Rs 5,000 for state government pensioners, per month in 2008-09) is estimated. This number is extrapolated in future using the following assumptions;
 - a. Central civil pensioners (railways, telecom, posts and other civil departments) are estimated to fall 1.6% per year, based on estimates by Bhardwaj and Dave (2006)⁵, between 2011 and 2031. The decline in civil pensioners is due to adoption of NPS, and the fact that between fiscal 1996 and fiscal 2008, there has been significant downsizing in public sector employment through attrition.
 - b. Growth in defence pensioners at 1.3% per year is based on the growth rate in armed forces' employment between 2001 and 2012. While the burden on account of central civil pensioners declines rapidly post 2030 and becomes 'nil' by 2050, pension burden on account of armed forces' pensioners continues.
 - c. State government pensioners are estimated to fall 0.5% per year, again based on estimates by Bhardwaj and Dave.
 - d. Pension for quasi and local bodies has not been accounted due to lack of adequate information to derive per pension payments to pensioners.
- (iii) Per-person pension is assumed to increase at 12% a year till 2030 for central and state government pensioners, and by 10% from 2030 to 2050 for defence alone. This is assumed to cover inflation (lower than in the past) and an improvement in living standards. Nominal GDP is assumed to grow at the same rate.
- (iv) Pension payment on IGNOAPS is derived based upon number of beneficiaries taken from Ministry of Rural Development Annual Report, while pension payment is an average paid under the scheme across states and taken from the Press Information Bureau release.

⁵Bhardwaj G. and Dave S. 2006, 'Towards estimating India's implicit pension debt on account of civil service employees'

Annexure 2: Current government pension schemes for needy old

The government has in place some old-age pension schemes for needy sections currently. For instance, the NPS-Lite (Swavalamban) scheme, introduced in July 2010 to encourage people from the unorganised sector to voluntarily save for retirement, had only 2.8 million of the 450 million people employed in the unorganised sector enrolled in it as on March 31, 2014.

The IGNOAPS, on its part, covered 21 million of the 100 million people over 60. This scheme, which is the largest of its kind today, covers almost 19% of old, but pays a paltry Rs 500 per month on average.

Old-age pension schemes currently offered by the government

Name of Scheme	Details	Number of beneficiaries (in million) as of March 2014
The Indira Gandhi National Old Age Pension Scheme, 2007	Central government provides Rs 200 per month (plus state contribution between Rs 60 and Rs 300 per month) to people aged 60 or more and belonging to below poverty line (BPL) families. Rs 500 per month is paid to those aged 80 or more.	20.8
The Indira Gandhi National Widow Pension Scheme, 2009	Rs 300 per month is provided to widows aged 49 to 64 years. Upon reaching 80 years, the beneficiary is shifted to IGNOAPS.	4.9
The Indira Gandhi National Disability Pension Scheme, 2009	Rs 300 per month is provided to those in the 18-64 age bracket. Upon reaching the age of 80, the beneficiary is shifted to IGNOAPS.	0.98
NPS Lite (Swavalamban) Scheme, 2010	Under NPS, the government contributes Rs 1,000 per year to each account till fiscal 2017, while the subscriber contributes anywhere between Rs 1,000 and Rs 12,000 per year. Under NPS Lite, the minimum contribution has been lowered to Rs 100 per month, but it must add up to at least Rs 1,000 in a year in order to qualify for the Rs 1,000 contribution from the government.	2.8
Varishtha Pension Bima Yojana	The scheme, introduced by the NDA government in 2003-04, has been revived for the period from August 15, 2014 to August 14, 2015. It provides a monthly income to people aged 60 or more, at a rate of 9.39% per year, on their deposits.	-

Source: Ministry of Rural Development, Department of Financial Services, Press Information Bureau releases, Pension Fund Regulatory and Development Authority (PFRDA), CRISIL Research



Annexure 3 – Estimation of the retirement corpus

For estimation of the retirement corpus required to adequately provide pension to all pensioners retired from the private sector by 2030 and all former private sector employees plus government employees excluding armed forces by 2050, we assume:

- Average pension of about Rs 3,500 per month (at 2013 rupee value) is paid to people who were employed in the private sector during their working age. This is the pension currently paid out to the government employees in grade 1 to 4 (Ministry of Personnel, PG & Pensions, Department of Pension & Pensioners' Welfare, Government of India, January 2013). Increase in pension requirement is kept at 12% per year up to 2030, and 10% from 2030 to 2050.
- To arrive at pension corpus estimates for the private sector, a real return of 1% is considered during the post-retirement period. Life expectancy after 60 is 20 years – that's the number of years pension needs to be given for. Population above 60 years of age is assumed to be evenly distributed between 60 and 80.
- Estimated labour force participation rate for those to turn 60 in 2030 and 2050 is taken at 57% and 59.8% respectively. These therefore are the labour force participation rates 35 years prior to the respective retirement year. For 2030, the expected public sector pensioners (including armed forces) are removed and for 2050, the expected armed forces' pensioners are removed to arrive at pensioners dependent on private pensions.

Annexure 4 – Summary of findings and assumptions

Scenario 1: Targeted Pension Scheme

(In million)	2015	2030	2050	Remarks / Assumptions
Total population	1,282	1,476	1,620	UN estimates.
Working age population (15 to 59 age)	806	944	1,007	UN estimates.
60+ population	112	181	297	UN estimates.
Government-sector pensioners / Those receiving pension under a government scheme	35	68	92	CRISIL Research estimates.
				(i) Government's targeted pension scheme covers only 30% of old who are needy in 2030 and 2050.
				(ii) Per person pension under the scheme is estimated to be Rs 2000 per month in today's prices.
				(iii) Central civil pensioners estimated to fall 1.6% per year up to 2030 and nil by 2050.
				(iv) Armed forces' pensioners estimated to increase by 1.3% per year.
				(v) State government pensioners estimated to fall by 0.5% per year up to 2030, and nil by 2050.
				(vi) Per person pension estimated to increase by 12% per year up to 2030 and by 10% up to 2050.
Private-sector pensioners	4.8	63	122	CRISIL Research estimates.
				(i) 70% of the private-sector retirees are presumed to be covered under private pension schemes by 2030, up from 8% today.
				(ii) Labour force participation rate is estimated to increase to 64.4% by 2030, and 71.2% by 2050 from 58.3% in 2010 as per CSO data.
				(iii) Average pension of about Rs 3,500 per month (at 2013 rupee value) is paid to people who were employed in the private sector during their working age.
				(iv) Per-person pension estimated to increase by 12% annually up to 2030, and then by 10% up to 2050
				(v) To arrive at pension corpus estimates for the private sector, a real return of 1% is considered during the post-retirement period. Life expectancy after 60 is 20 years – that's the number of years pension needs to be given for. Population above 60 years of age is assumed to be evenly distributed between 60 and 80.
Uncovered	72	50	83	CRISIL estimates of unemployed and those without a pension cover

Scenario 2: Universal Pension Scheme

(In million)	2015	2030	2050	Remarks / Assumptions
Total population	1,282	1,476	1,620	UN estimates.
Working age population (15 to 59 age)	806	944	1,007	UN estimates.
60+ population	112	181	297	UN estimates.
Government-sector pensioners / Those receiving pension under a government scheme	35	181	297	CRISIL Research estimates.
				(i) Government's pension scheme covers entire 60+ aged population.
				(ii) Per person pension under the scheme estimated to be Rs 1,000 per month.
				(iii) Central civil pensioners estimated to fall 1.6% per year up to 2030 and nil by 2050.
				(iv) Armed forces' pensioners estimated to increase by 1.3% per year.
				(v) State government pensioners estimated to fall by 0.5% per year up to 2030.
				(vi) Per person pension estimated to increase by 12% per year up to 2030 and by 10% up to 2050.
Private-sector pensioners	4.8	7	14	CRISIL Research estimates
				(i) Pension coverage remains at the same rate - 8% of private sector receives a pension – today.
				(ii) Labour force participation rate estimated to increase to 64.4% by 2030, and 71.2% of 2050, from 58.3% in 2010.
				(iii) Average pension of about Rs 3,500 per month (at 2013 rupee value) is paid to people who were employed in the private sector during their working age.
				(iv) Per-person pension estimated to increase by 12% annually up to 2030, and then by 10% up to 2050.
(v) To arrive at pension corpus estimates for the private sector, a real return of 1% is considered during the post-retirement period. Life expectancy after 60 is 20 years – that's the number of years pension needs to be given for. Population above 60 years of age is assumed to be evenly distributed between 60 and 80.				
Uncovered	72	-	-	CRISIL estimates of unemployed and those without a pension cover.

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