

# Towards estimating India's IPD on account of civil service employees

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# Outline

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## Scope of our IPD Estimates

- At present, no IPD estimates for the Indian State exist.
- We have estimated the IPD for only two of these seven components – central and state government employees.
- Our estimates are only a part of the overall IPD of the State.

# Methodology

- Demographic characteristics of government employees.
- All computations at 2004 Rupees.
- Actuarial aspects embedded in LIC's annuity prices.
- Future pension payments are outsourced.
- All existing employees will continue till age 60.
- All government employees come under NPS on 01 January 2005.
- Future evolution of wages:
  - Wage-experience profile of workers,
  - Future pay commissions.
- Discounting future purchase of annuities.

# Our Conservative Assumptions

- Fresh flows of addition to the IPD freeze on 01 January 2005.
- Modest impact of future Pay Commissions at 2% per annum.
- Use of *nominal* LIC annuity prices.
- LIC annuity prices offer only 25% survivor pension.
- Annuity prices stay constant over time



## NPV of Central Government IPD

- IPD estimates are based on 5,285,523 workers.
- The FV of IPD for central (civil) employees is Rs.583,364 crore.
- The NPV of IPD for central (civil) employees is Rs.406,092 crore.

## IPD: State Government Employees

Year of retirement	Number retiring	2004 wage (Rs.)	Predicted pension (Rs.)	Annuity price (Rs.)	Total cost - FV (Rs.crore)
2006	1,340,895	84,000	45,427	649,888	87,143
2011	2,643,722	84,000	55,269	790,688	209,036
2016	3,181,843	78,000	62,440	893,279	284,228
2021	3,265,364	72,907	71,007	1,015,841	331,709
2026	3,356,840	72,000	85,317	1,220,599	409,722
2031	2,372,499	62,000	89,384	1,278,747	303,382
2036	1,570,199	56,029	98,276	1,405,958	220,763
2041	706,949	41,244	88,016	1,259,174	89,017

# NPV of State Government IPD

- IPD estimates are based on 18,438,515 workers.
- The FV of IPD for state government employees is Rs.1,935,000 crore crore.
- The NPV of IPD for state government employees is Rs.1,329,435 crore.

## Summary Estimates

Component	Implicit Pension Debt	
	Rs.crore	As % of GDP
1. Central civil employees	406,092	13.07
2. Central civil pensioners		
3. Central defence employees		
4. Central defence pensioners		
5. State civil employees	1,329,435	42.81
6. State civil pensioners		
7. Funding gap in EPS		
Total		

## Conclusion

- We have obtained IPD estimates for only two of the seven components.
- The NPV of these adds up to an IPD of Rs.1,735,527 crore.
- This is 55.88% of GDP (2004-05).
- The explicit internal public debt of GOI is 84.86% of GDP (2004-05).