

# FINANCE DEPARTMENT, GoAP

## Civil Services Pension Reforms

September 2024

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# Overview of civil services pensions

1. The civil services pensions are kind of salary paid post retirement.
2. Civil servant pensions predates private pensions- in states pursuits of becoming model employer
3. Continues as separate scheme even after introduction of broad based social security schemes.
4. Since World War-II, generous civil services pension attracts severe criticism.

# Categorisation of civil services pension systems

## Defined Benefit

- ☐ Employer sponsored
- ☐ Pre fixed % of last drawn/  
average salary
- ☐ With/ Without Contribution

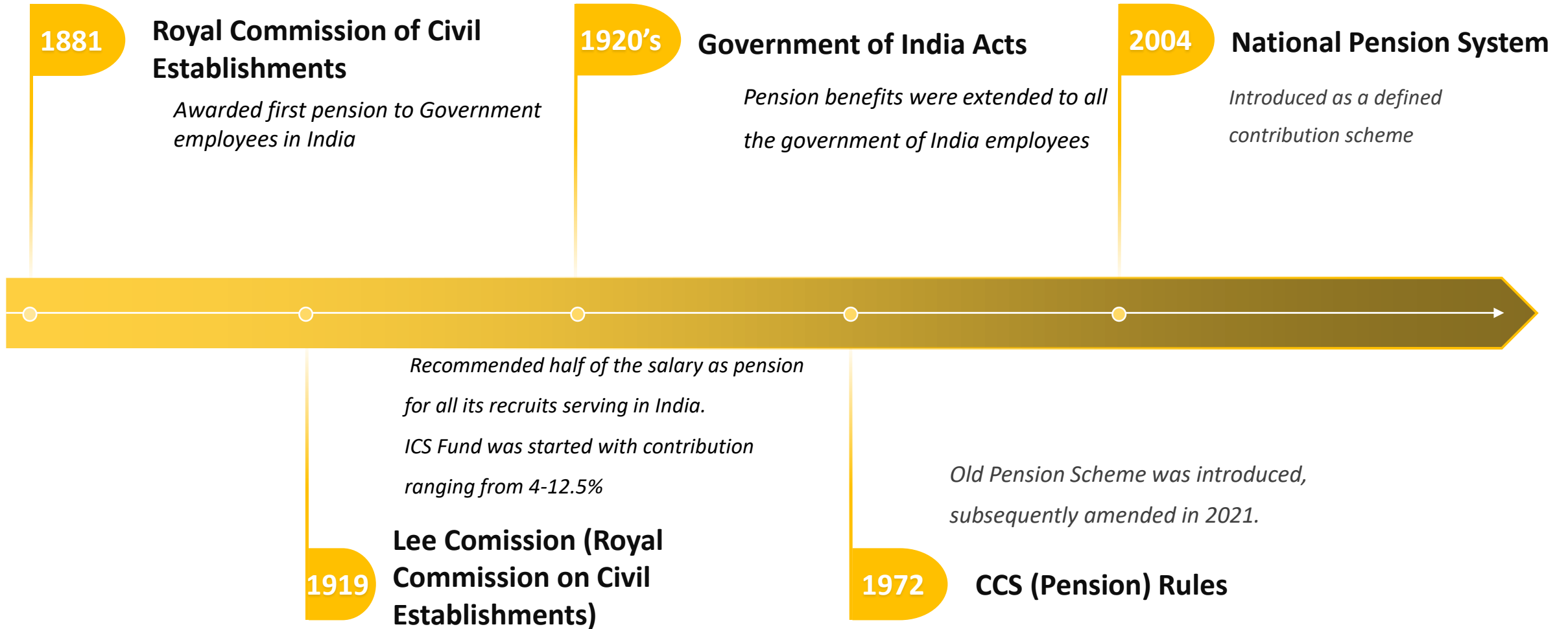


## Defined Contribution

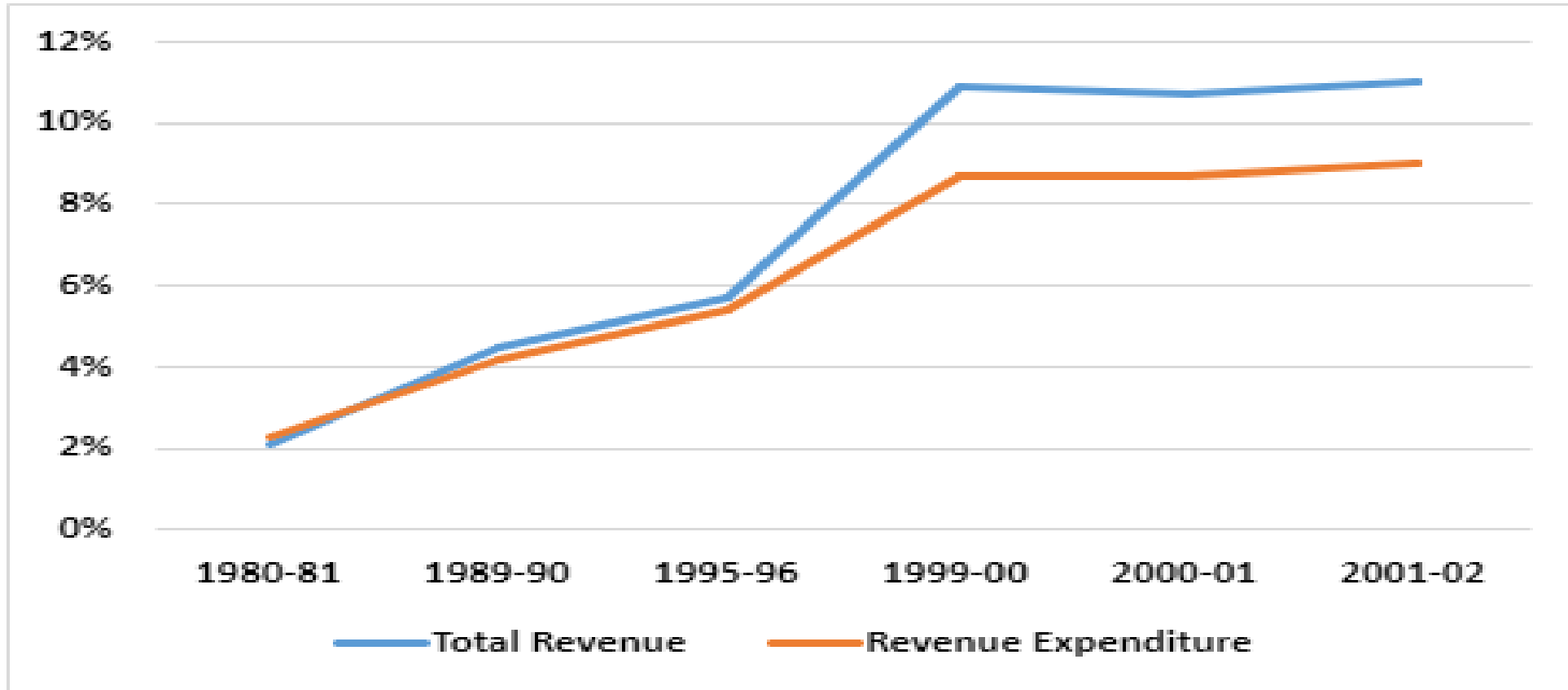
- ☐ Employee contribution
- ☐ Employer contribution
- ☐ Market based payout



# Evolution of civil service pensions in India



# Fiscal Implications of OPS



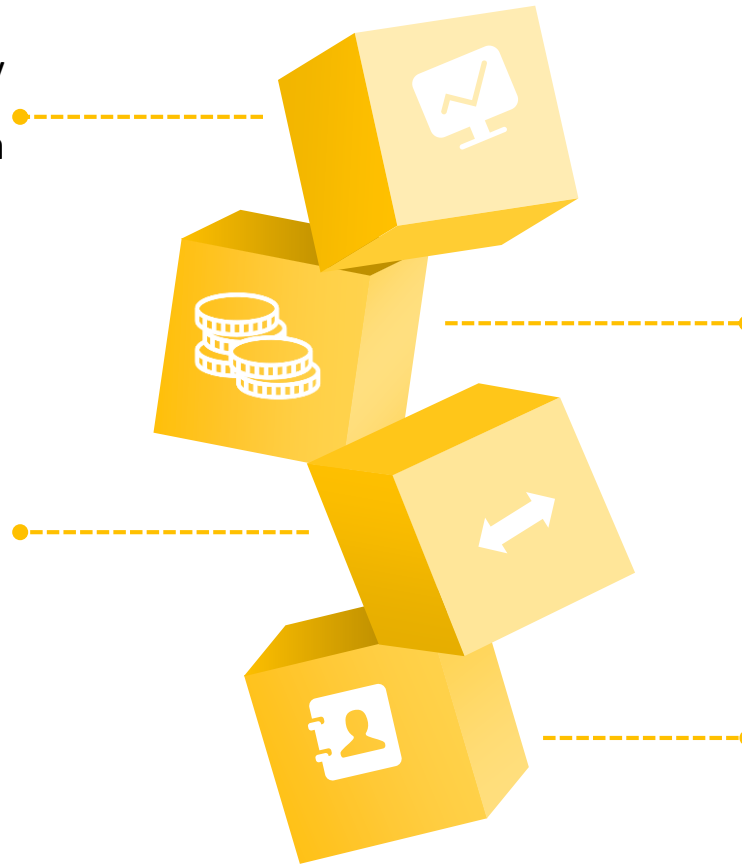
*Pension payments as a % of Total Revenue receipts and expenditure of the state governments*

Source:- Report of the Group to Study the Pension Liabilities of the State Governments chaired by B.K Bhattacharya report, Oct 2003

# Civil services pension reforms

Moving from unfunded to partially to fully funded pension requiring contribution from employers and employees

Integrating the civil services pension with the common social security schemes.



Moving from Defined Benefit to Defined Contribution

Introducing higher retirement age, or longer service periods, increasing employee contribution rates



# Steps taken to reform OPS

01

Gol appointed “**OASIS- Old Age Social & Income Security Committee**” in 1999.

02

The committee then recommended to introduce defined contribution scheme in the place of defined benefit scheme and named the system “**New Pension System**”

03

The recommendation of the OASIS committee was reiterated by the Report of High Level Expert Group on New Pension System, Government of India- 2002 and finally by **B.K. Bhattacharya Committee**.



# Key benefits under OPS & NPS (1/2)

S.No	Benefit	Old Pension Scheme	National Pension System
1.	Pension	Government funded based on defined benefit	Funded by defined contributions
2.	Quantum of Pension	@50% of the emoluments/ average emoluments	Based on the contributions, and returns on corpus.
3.	Dearness Relief	Allowed	Not Allowed
4.	Gratuity	Allowed	Allowed
5.	Partial withdrawals	Allowed for GPF	Allowed on employee's contribution
6.	Commutation of Pension	(upto 40% of Service Pension) x 12 x Multiplying Factor. Proportionate reduction in service pension for 15 years.	Lumpsum withdrawal @60% of the corpus. Proportionate reduction in annuity.
7.	Family Pension	Allowed	Annuity is provided to the spouse upon opting for joint life annuity
8.	Additional quantum of pension	Allowed	Not Allowed



# Key benefits under OPS & NPS (1/2)



S.No	Benefit	Old Pension Scheme	National Pension System
9.	Additional Weightage (5 years)	Allowed	Not Allowed
10.	IT Exemptions	GPF Exemption under 10(a)	60% of pension wealth = 40% exempted and 20% Taxed
11.	IT on withdrawals	Exempted	Partially Exempted
12.	Minimum Pension	₹10,000/-	No minimum pension
13.	GPF	Employee contributes to GPF	Not Applicable



# Financial impact of NPS on the civil servants when they retire

Rate of replacement of last drawn pay (OPS pays 50% of last drawn pay subject to certain conditions)

Age of Entry (Years) (Service)	Contribution Rate (Govt: Employee)	Life After Retirement (Years)	Replacement Rate with Family Pension (NPS / OPS)
25 (35)	24 (14:10)	20	32% (64%)
25 (35)	20 (10:10)	20	26% (52%)
25 (35)	20 (10:10)	25	23% (46%)
30 (30)	20 (10:10)	20	23% (46%)
30 (30)	20 (10:10)	25	20% (40%)
30 (30)	20 (14:10)	25	24% (48%)

Table showing the impact of DA and pay commission awards on the pensioners

Years After Retirement	1	3	6	9	12	15	18	20
Pension at nth Year (%)	100%	108%	129%	152%	160%	189%	200%	232%

Present Values of total benefits received by the OPS and NPS pensioners

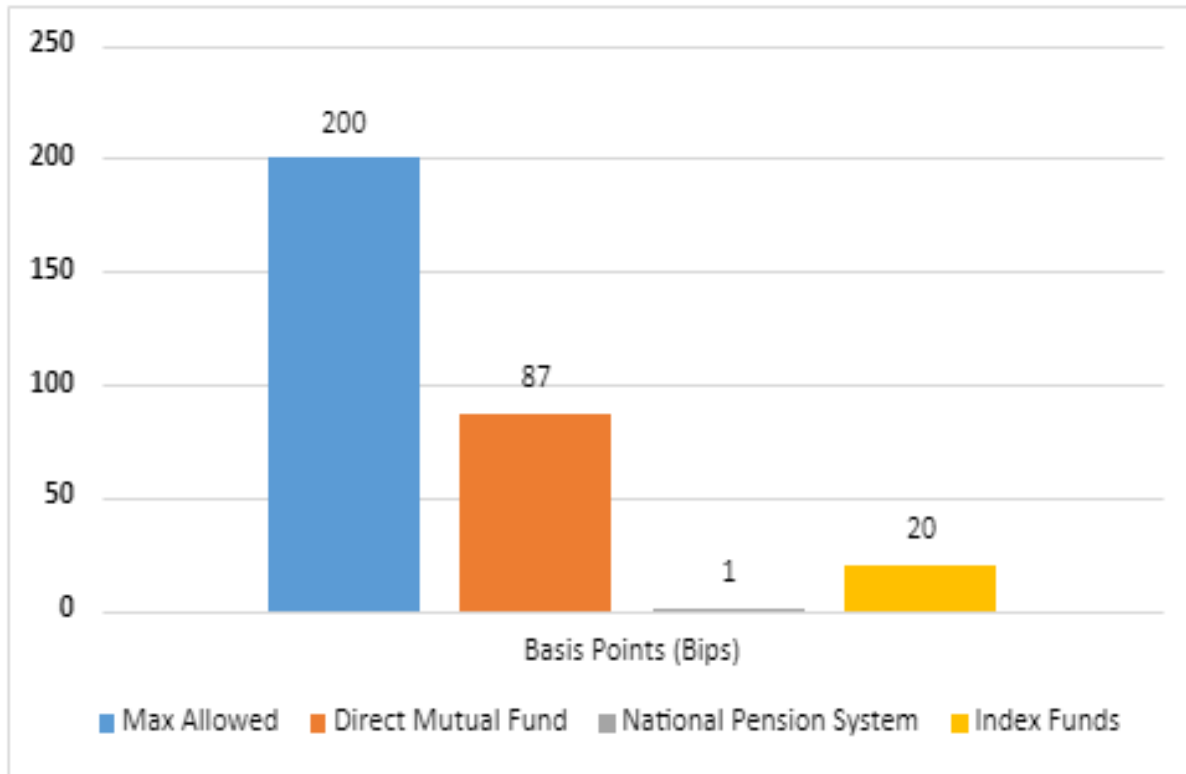
Age of Entry (Years) (Service)	Contribution Rate (Govt: Employee)	PV of All the Receivables at Retirement Under OPS	PV of All the Receivables at Retirement Under NPS	Replacement Rate in Case of DA and Pay Commission Awards Annuity
25 (35)	24 (14:10)	100%	42%	21%
25 (35)	20 (10:10)	100%	35%	17.50%
27 (33)	20 (10:10)	100%	30%	15%
30 (30)	20 (10:10)	100%	23%	11.50%
30 (30)	20 (14:10)	100%	28%	14%

The actual 20th pension currently are reaching more than 400% of initial pensions.

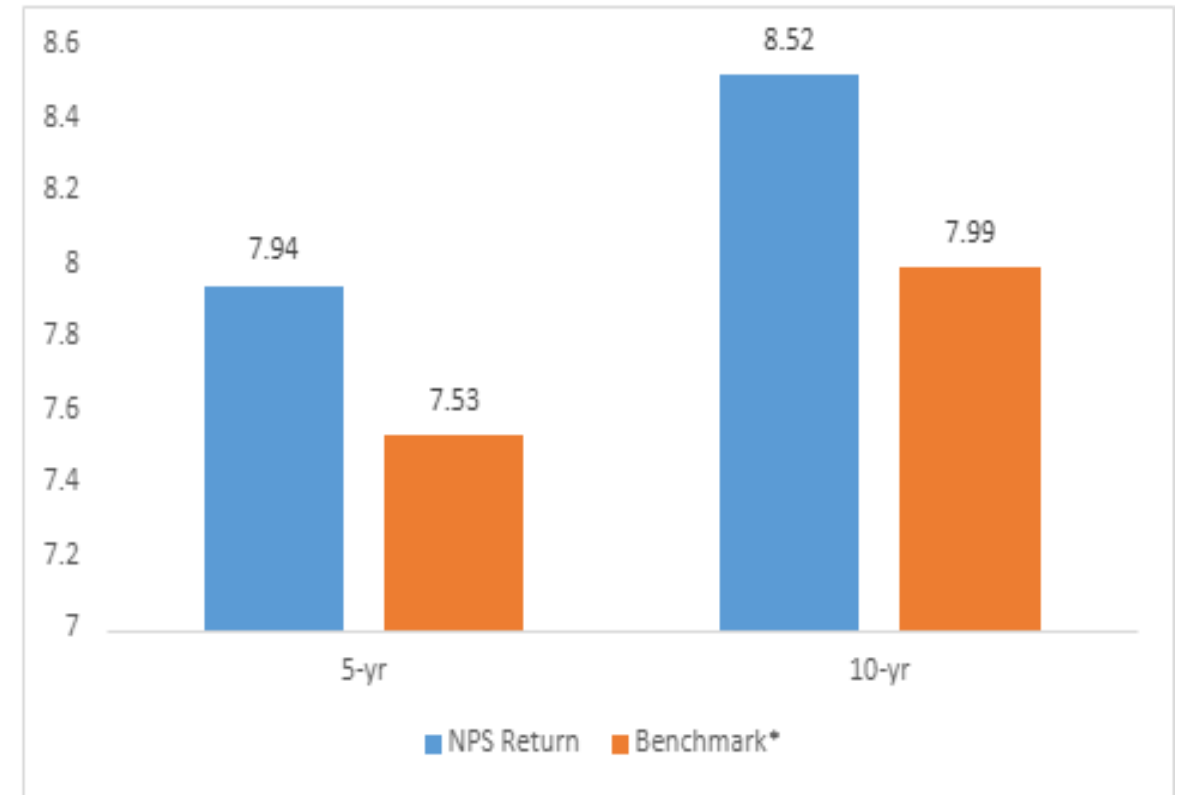
Assumptions for Table & Table are listed in Annexure- 1

# Efficiency and effectiveness of NPS

*Expense ratio of various funds*

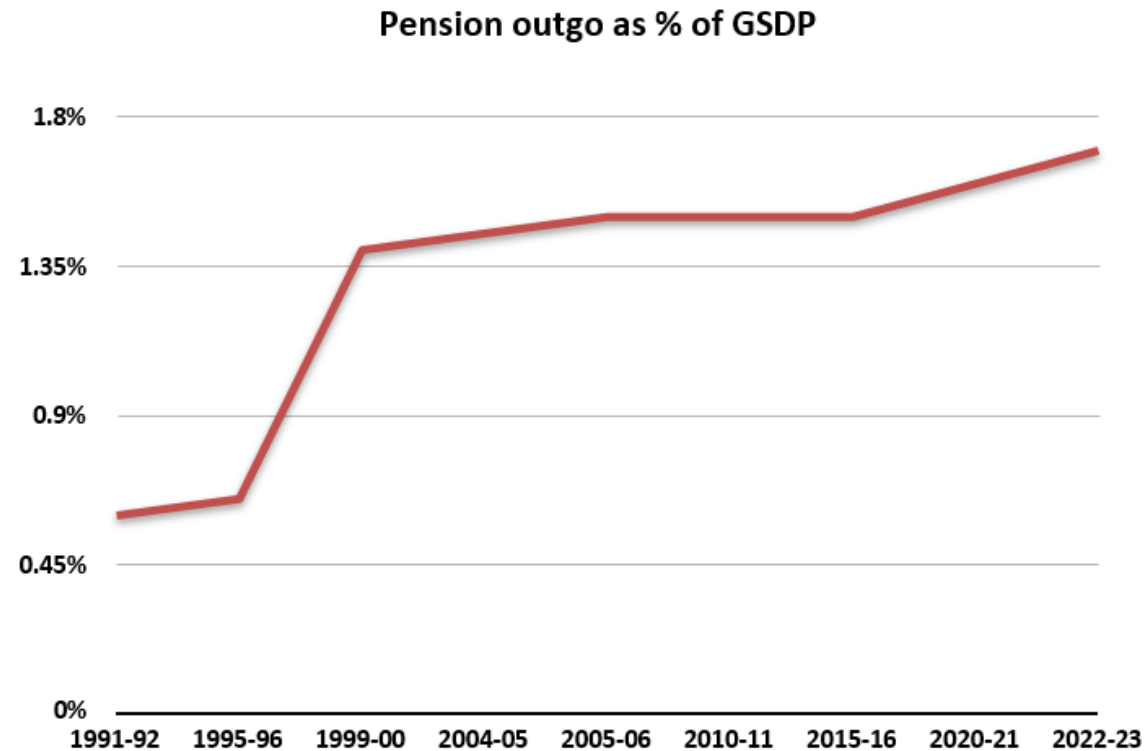


*Showing gross return on benchmark and NPS on similar mix of securities (80% G-sec and 20% state development loans)*



# Fiscal Implications of NPS vis-à-vis OPS

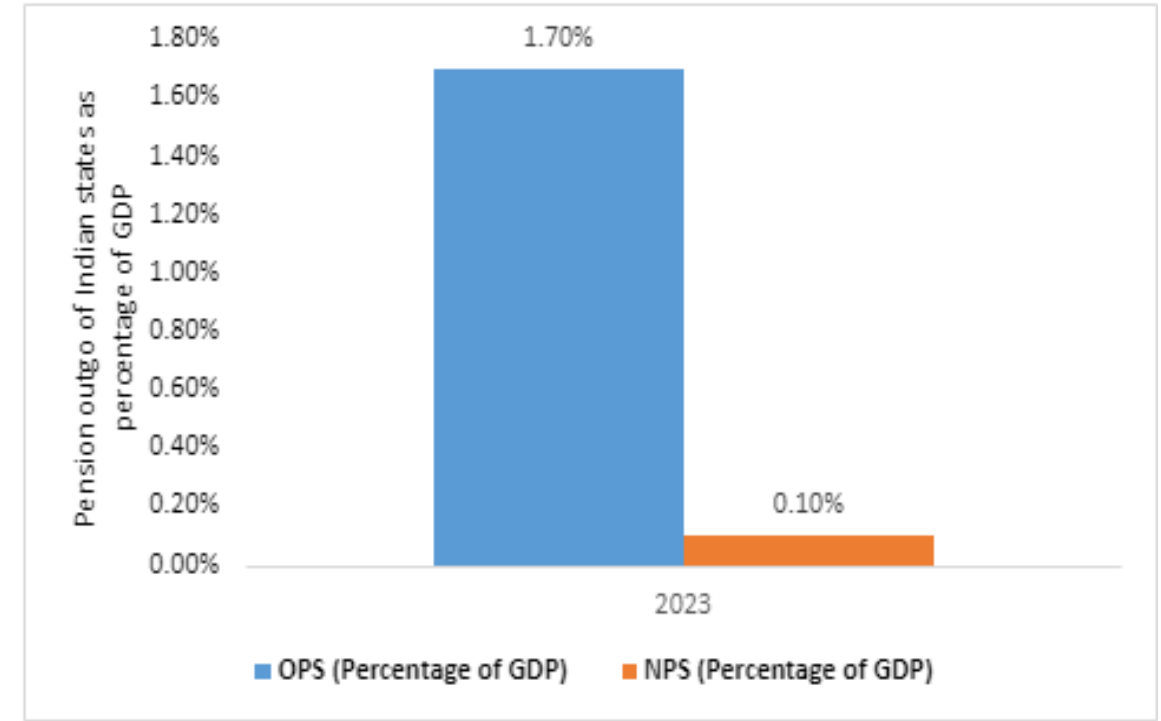
Showing Indian states pension outgo as a percentage of GSDP



Source: RBI Report

**Double Burden** (OPS outgo and NPS contributions) led to the increase of cost to the government by 0.1% of GDP.

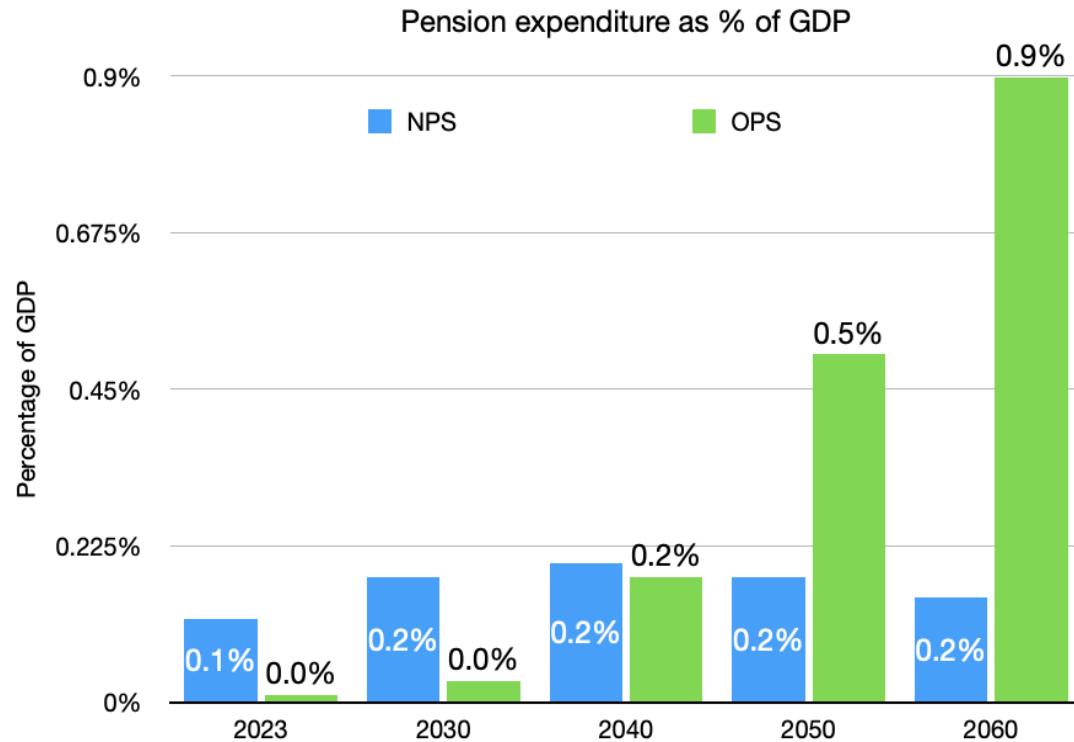
Image 5 : Double burden for states under OPS and NPS



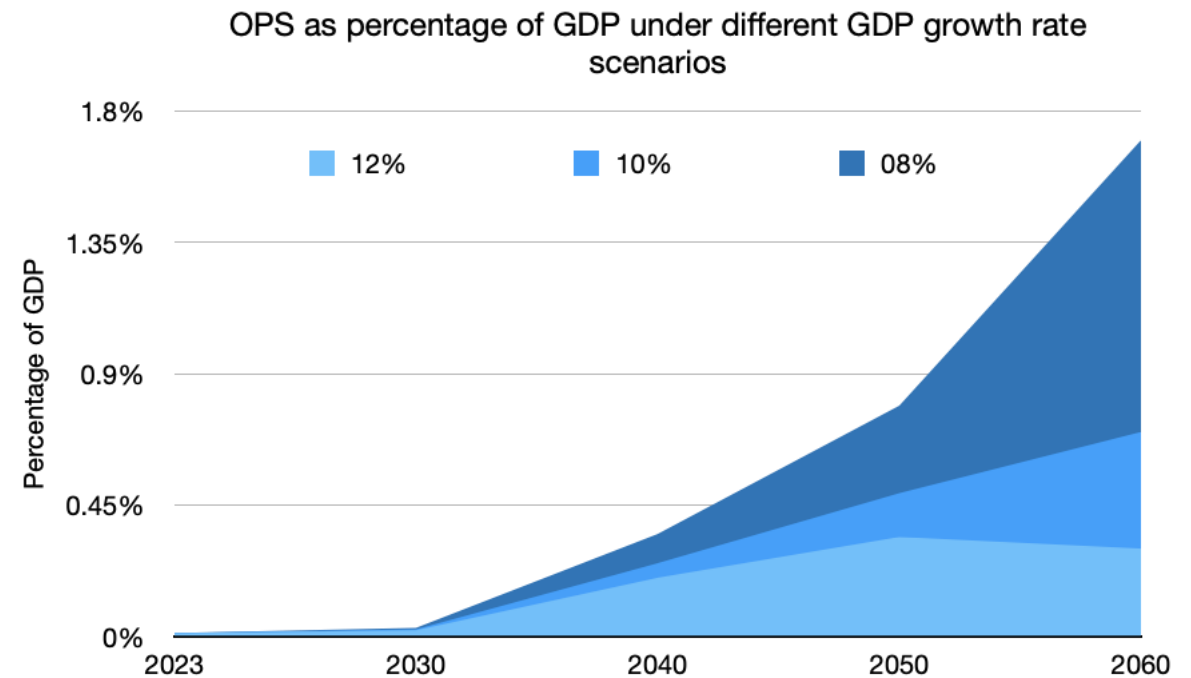


# Affordability of OPS (1/2)

*Pension Expenditure as % of GDP in OPS and NPS scenarios for employees who are currently under NPS. (CAGR Nominal GDP growth rate assumed as 10%)*



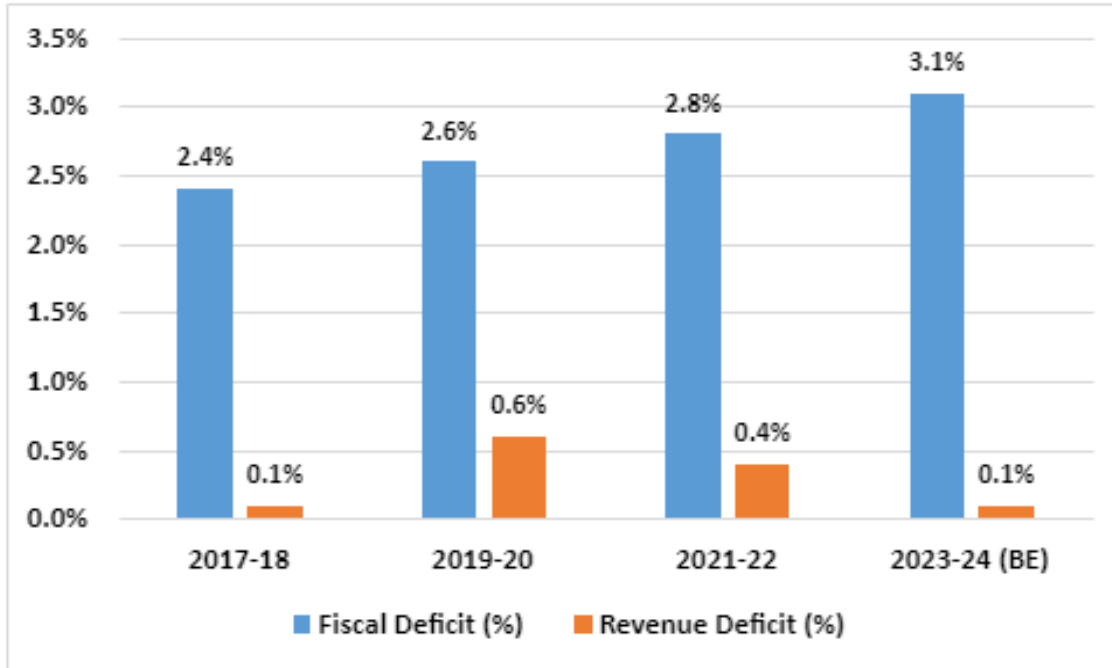
*Showing the OPS burden of states if they revert to OPS scheme from NPS scheme under different GDP growth rate scenarios*



If accounting for central employees, the pension burden would increase by 30-35%.

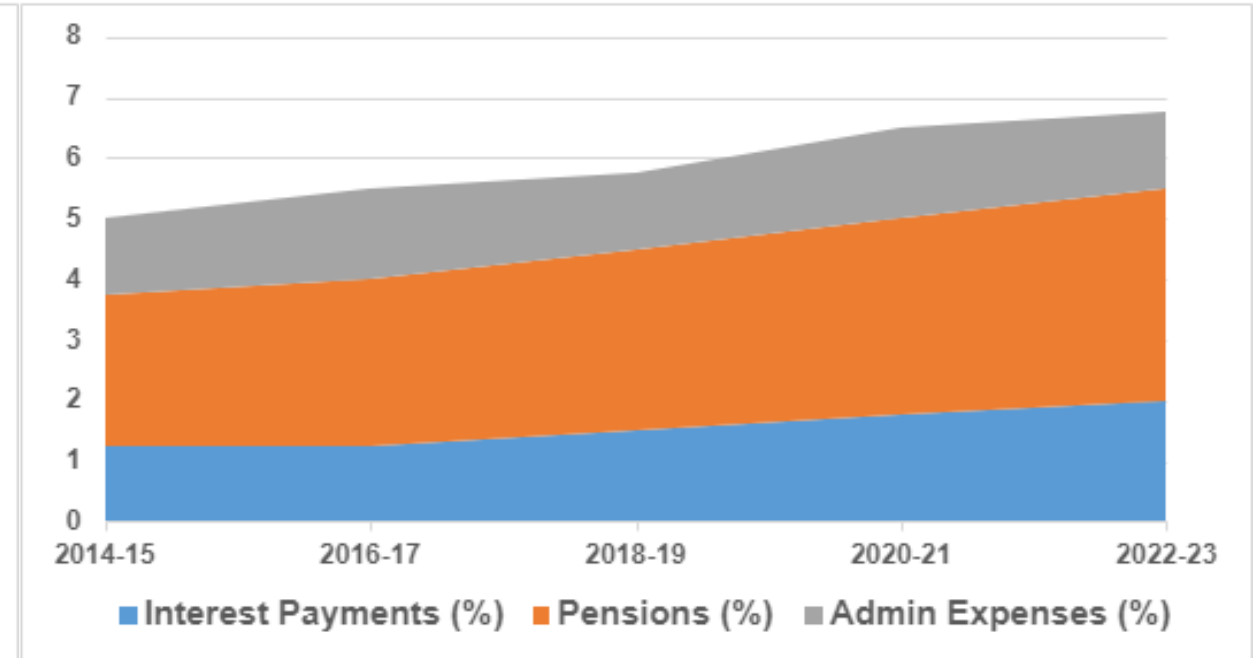
# Affordability of OPS (2/2)

*Fiscal deficits and Revenue Deficits of Indian states as % of GSDP*



The states are having limited fiscal maneuverability as the states are operating on the brink of 3% fiscal deficit targets and 0% Revenue deficit targets.

*Committed Expenditure of the states as % of GSDP over the years*



*(Source: RBI State of finances report 2023-24)*

With elimination or drastic reduction in the pension payments, these committed expenses would come down to 2% to 3% of GSDP.



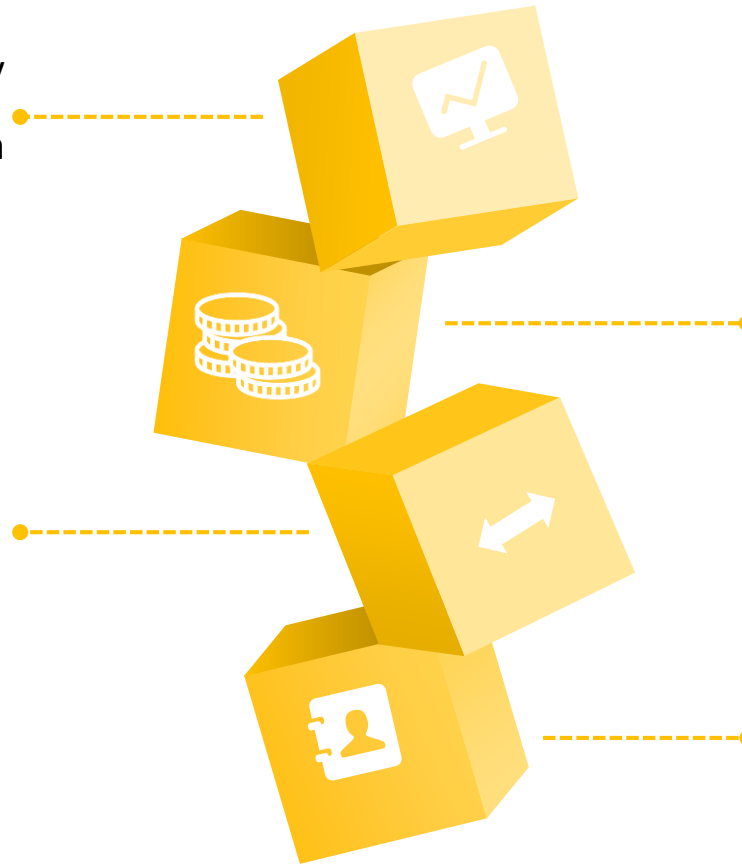
# Policy Implications

1. The road to OPS is laid with **un-sustainability risks**, components of OPS such as Dearness Relief, Fitment, Additional Quantum of Pension are more fiscally un-sustainable than others.
  2. Pension plan should be **contributory and funded**
  3. Addressing **vulnerabilities posed by NPS** to civil servants upon retirement-
    - a. The corpus is dependent on the market forces, especially if market crashes close to the year of retirement and remains so for some time
    - b. Sudden demise of the civil servants at the start of the career
    - c. Health emergency requiring huge sum after retirement
    - d. No Family pension.
  4. Addressing triple threats in pension sustainability faced by the states
    - a. Demography and life expectancy
    - b. Log term trend of falling return on Investment
    - c. Employer and Employees contribution: To ensure funded pensions
- Added- Unsustainable Pay Revision Commission raises- especially of states

# Civil services pension reforms

Moving from unfunded to partially to fully funded pension requiring contribution from employers and employees

Integrating the civil services pension with the common social security schemes.



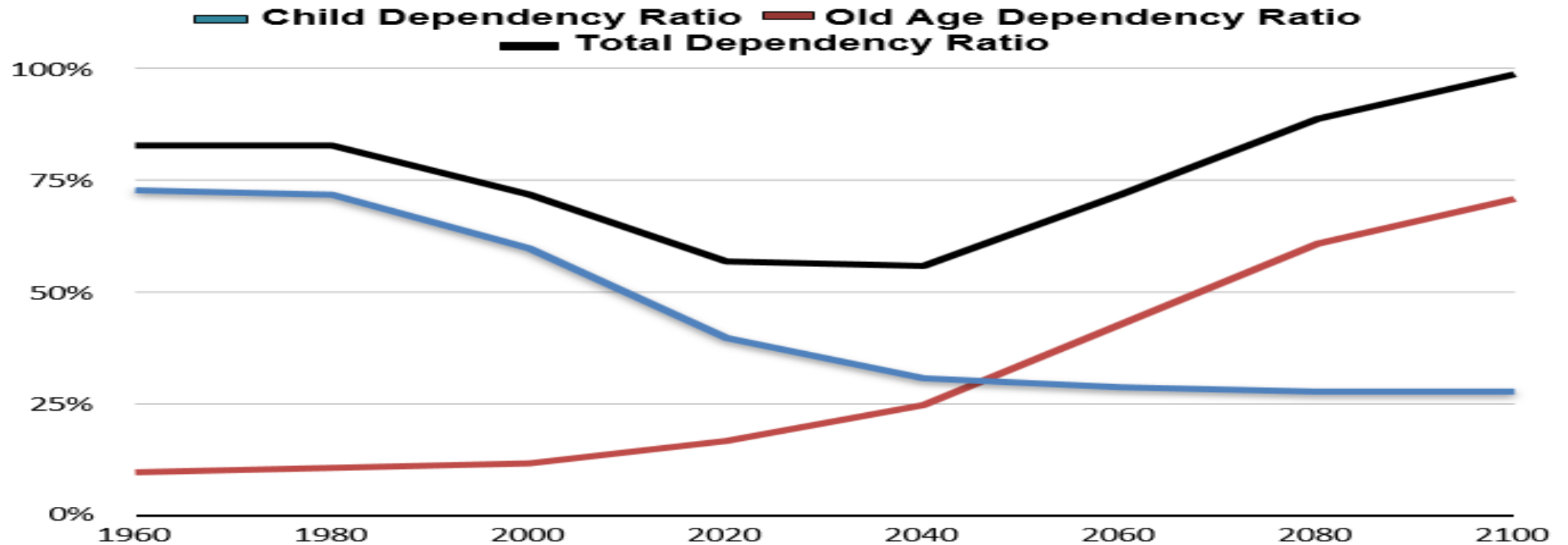
Moving from Defined Benefit to Defined Contribution

Introducing higher retirement age, or longer service periods, increasing employee contribution rates





# Alternate designs of pension systems to supplement the NPS (1/2)

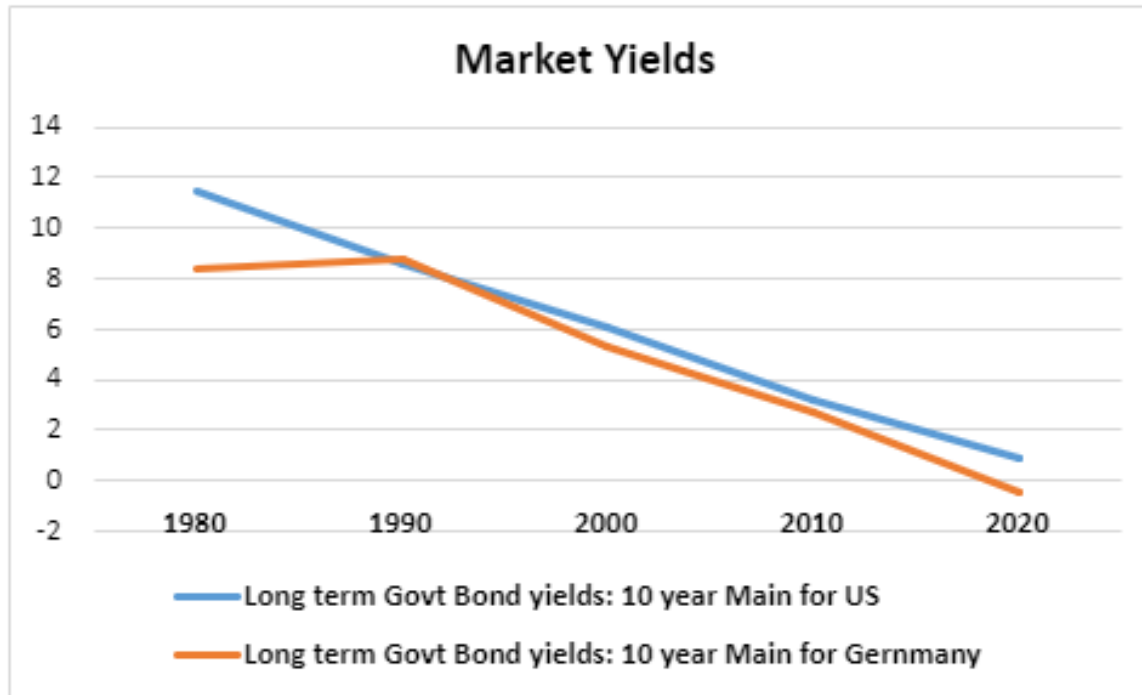


Source: [population.un.org/wpp/Graphs/Probabilistic/Ratios/TDR/0-14/60plus/15-59/356](https://population.un.org/wpp/Graphs/Probabilistic/Ratios/TDR/0-14/60plus/15-59/356)



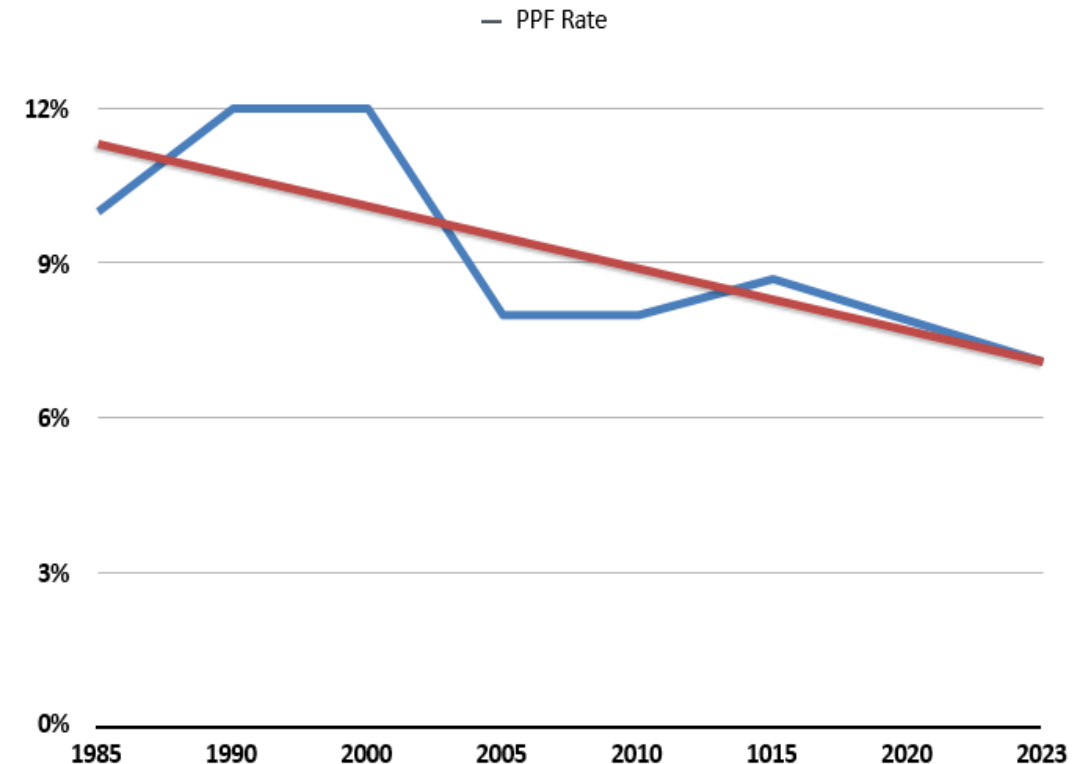
# Alternate designs of pension systems to supplement the NPS (2/2)

Declining trend of market yields on US and German Treasury Bonds



Source: <https://fred.stlouisfed.org/series/CAOSOC>

Declining trend of Public Provident Fund rates in India



Source: [http://dailytools.in/PPFCalculator/Article/PPF\\_KT\\_PPFIInterestRateHistory](http://dailytools.in/PPFCalculator/Article/PPF_KT_PPFIInterestRateHistory)

# Guaranteed Pension System of AP

- Andhra Pradesh was first and only state to conceptualize the hybrid model
- We identified the major components of the pension

Service phase	
Minimum number of years required for qualifying for the pension	Pay on which pension to be calculated
No of years of service for full pension	Minimum and maximum pension amount
Number of eligible years for full pension in case of voluntary retirement	Maximum pension commutation allowed and rate of discount on commutation
Pension in case of resignation	Allowances: Medical Allowances
Contribution by Employees and Govt	Pension escalation (DRA, fitment etc)
Rate of return on pension fund	Additional quantum of pensions
Loans out of corpus	Allowances- Death Relief Allowances
Retirement age	Family pensions including for children
	Family pension (untimely death) before retirement

# Overview of Guaranteed Pension System of AP

- For pension sustainability
  - Current contribution to continue, NPS architect to continue
  - No DR- only cost of living adjustments, No Fitment, No Additional Quantum
- For Employees sustenance
  - Some guaranteed pension- respite to civil servants
  - Annuity designed to ensure, 50% of service pension as family pension- respite to family of civil servants
  - Life Insurance policy for civil servants by governments, and in case of demise, pension from the life insurance claim amounts
  - Medical benefits on lines of current pensioners- respite to the civil servants and their dependent families

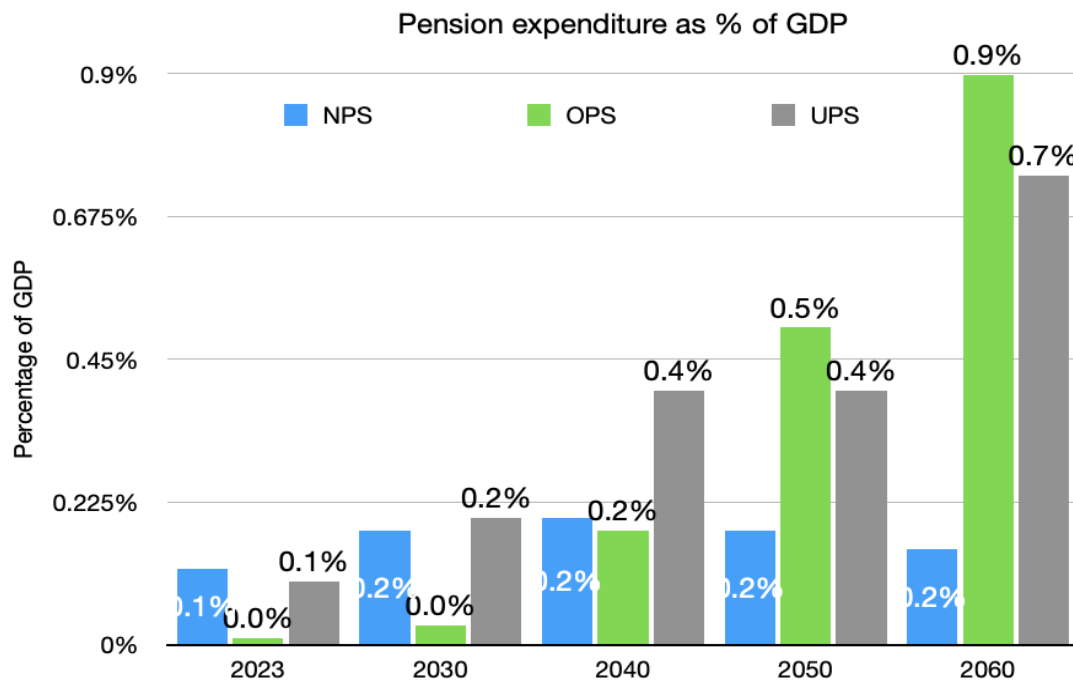
# United Pension Scheme of Government of India

- Union Cabinet has accorded approval for Unified Pension Scheme (UPS), in August 2024
  - Assured Pension of 50% of the average basic pay drawn over the last 12 months
  - Assured Family Pension at 60% of the employees pension
  - Minimum Pension of Rs 10,000
  - Inflation indexation- DR based as in case of serving employees
  - Lump sum payment of at 1/10th of monthly emoluments as on the date of superannuation

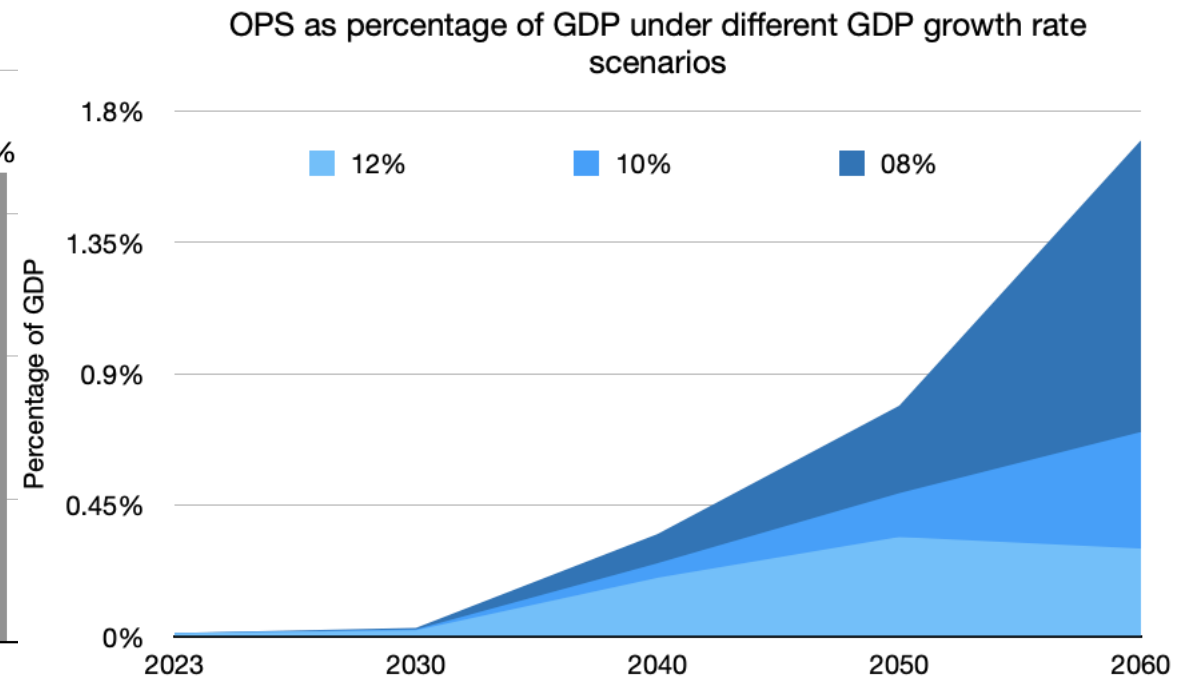


# Affordability of NPS, OPS, UPS (1/2)

*Pension Expenditure as % of GDP in OPS and NPS scenarios for employees who are currently under NPS. (CAGR Nominal GDP growth rate assumed as 10%)*



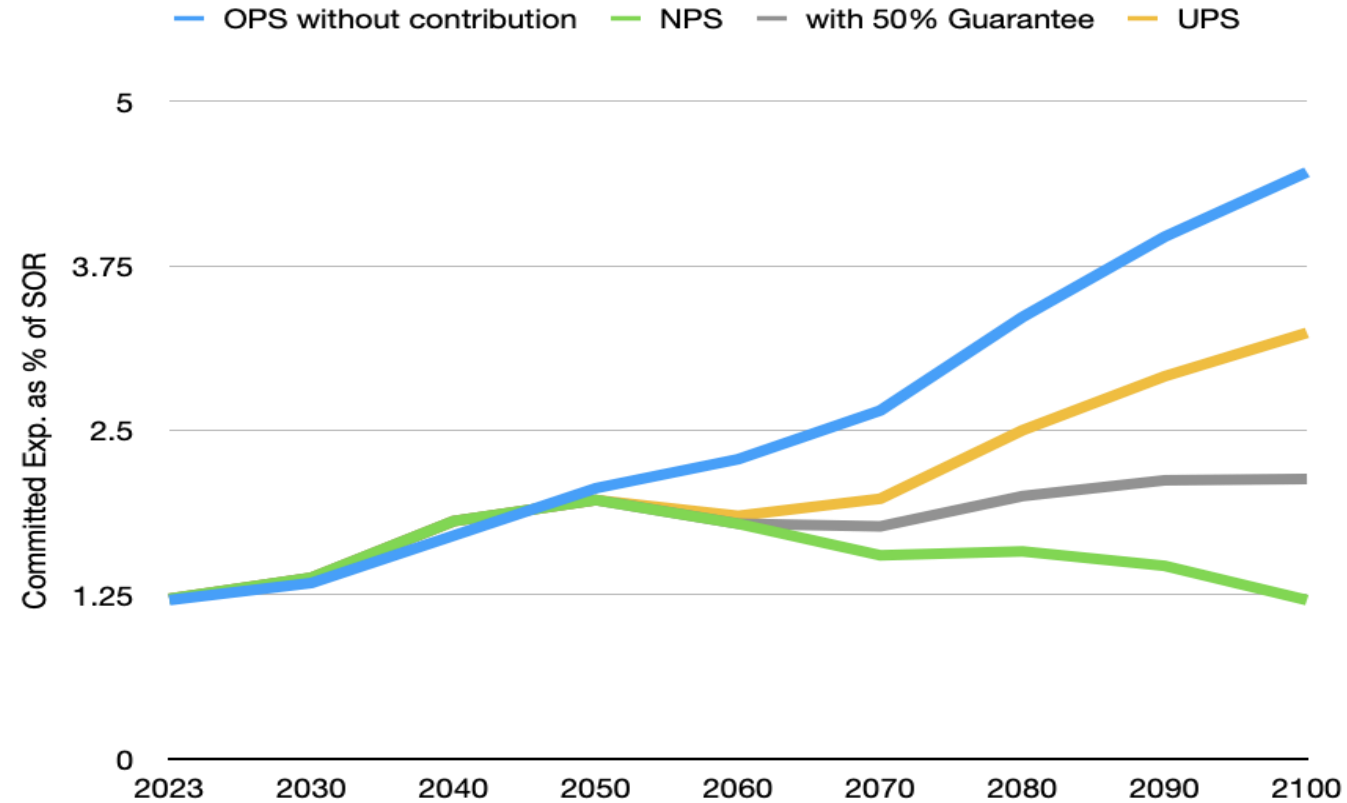
*Showing the OPS burden of states if they revert to OPS scheme from NPS scheme under different GDP growth rate scenarios*



If accounting for central employees, the pension burden would increase by 30-35%.



# Affordability of NPS, OPS, UPS (2/2)



Assumptions are listed in Annexure- 2

# Comparison of key features & benefits under APGPS & UPS (1/2)



S.No	Key features & benefits	APGPS, 2023	UPS (2024)
1.	Contribution	By employee: 10% of basic pay + DA By Government: Matching contribution @10%	By employee: 10% of basic pay + DA By Government: 18.5% (14% + 4.5% )
2.	Minimum Pension	₹10,000/-	₹10,000/-
3.	Top up Amount	To ensure a monthly Guaranteed Pension @50% of the last drawn basic pay	To ensure an assured annuity @ 50% of 12 monthly average basic pay immediately prior to superannuation
4.	Family Pension (Top-up)	To ensure 60% of the Guaranteed Pension payable to the subscriber is admissible to the spouse, subject to annuity.	To ensure 60% of the annuity admissible to the pensioner immediately before his/her demise will be assured to the legally wedded spouse, subject to annuity.
5.	Dearness Relief	Allowed (Cost of Living Adjustment)	Allowed
6.	Gratuity	Allowed	Allowed. Additionally a lump sum payment of 1/10 <sup>th</sup> of monthly emoluments, subject to service rendered, without reduction in the quantum of assured pension



# Comparison of key features & benefits under APGPS & UPS (2/2)



S.No	Key features & benefits	APGPS, 2023	UPS (2024)
7.	Partial withdrawals	Allowed as per PFRDA Regulations	Allowed as per PFRDA Regulations
8.	Lumpsum withdrawal	Allowed as per PFRDA Regulations	Allowed as per PFRDA Regulations
9.	Investment of Corpus	Pension corpus in maintained in a single fund.	Pension corpus to be divided into two funds <ul style="list-style-type: none"> <li>• PRAN based pension corpus with employee contribution,</li> <li>• a separate pool corpus with additional Government contribution alone.</li> </ul>
10.	Investment of accumulated pension corpus	As per the choice of the employee	<ul style="list-style-type: none"> <li>• Employee Contribution Fund- As per choice of the employee</li> <li>• Government Contribution Fund-As per the choice of the Government</li> </ul>

# Comparison of key features & benefits under OPS, NPS & UPS (1/2)



S.No	Benefit	OPS	NPS	UPS
1.	Pension	Funded by Government.	Funded by defined contributions from both the employee and the Government	Funded by defined contributions from both the employee and the Government.
2.	Quantum of Pension	Defined benefit @50% of the emoluments/average emoluments	Based on the contributions, interest rates and returns on corpus.	Defined benefit @50% of the average emoluments, based on the contributions.
3.	Minimum Pension	₹10,000/-	Not applicable	₹10,000/-
4.	Dearness Relief	Allowed	Not Allowed	Allowed
5.	Gratuity	Allowed	Allowed	Allowed
6.	Partial withdrawals	No pension corpus is available before retirement. Allowed for GPF	Allowed on employee's contribution.	Allowed

# Comparison of key features & benefits under OPS, NPS & UPS (2/2)



S.No	Benefit	OPS	NPS	UPS
7.	Family Pension	Allowed	Annuity is provided to the spouse upon opting for joint life annuity	Allowed but limited to legally wedded spouse at the time of superannuation.
8.	Commutation of Pension	Allowed	Not allowed	Lump sum payment of 1/10 <sup>th</sup> of monthly emoluments as on the date of superannuation for every completed six months of service.  Without any reduction in the quantum of assured pension
9.	Additional quantum of pension	Allowed	Not Allowed	Not Allowed

# United Pension Scheme- P & C on payouts

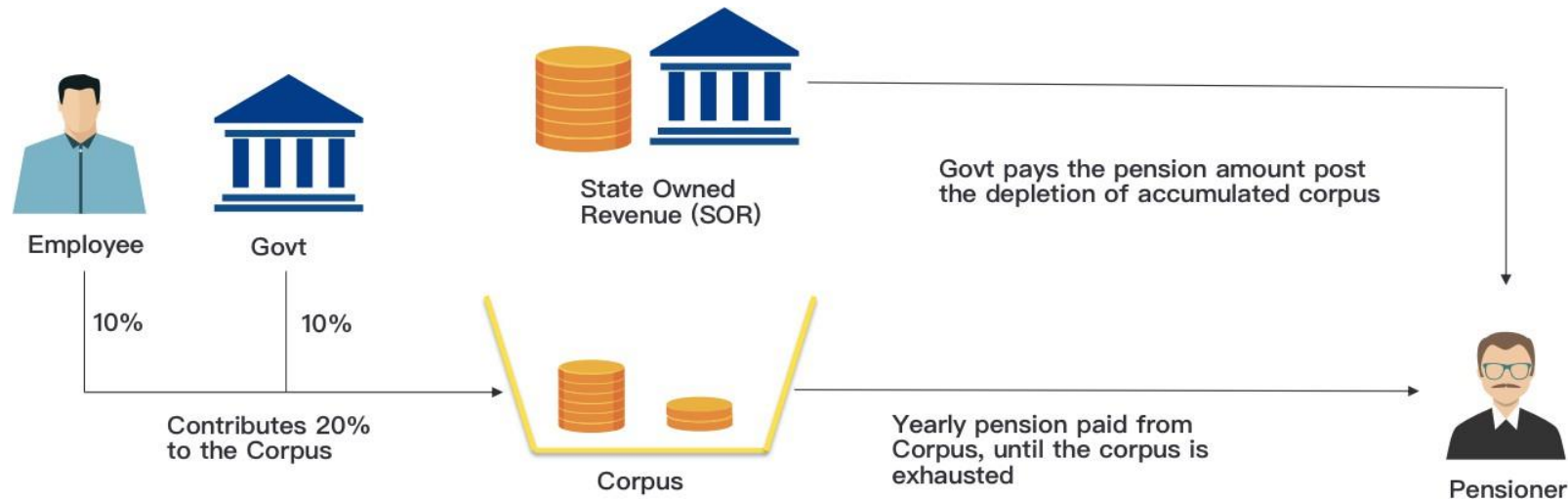
Age of Entry (Years) (Service)	Contribution Rate (Govt: Employee)	Replacement Rate (Best growth rate scenarios)	Replacement Rate (moderate growth rate scenarios)	Replacement Rate (low growth rate scenarios)
25 (35)	28.5 (18.5:10)	55%	50%	43%
30 (30)	28.5 (18.5:10)	47%	42%	39%
35 (25)	28.5 (18.5:10)	40%	38%	34%

Effect of different DA & Fitment on the pensions over the years

	First pension	10th	15th	20th	25th	30th
DA-6% with fitment	100%	203%	289%	412%	588%	837%
DA-4% with fitment	100%	176%	233%	308%	408%	541%
DA-4% without fitment	100%	144%	173%	207%	249%	299%

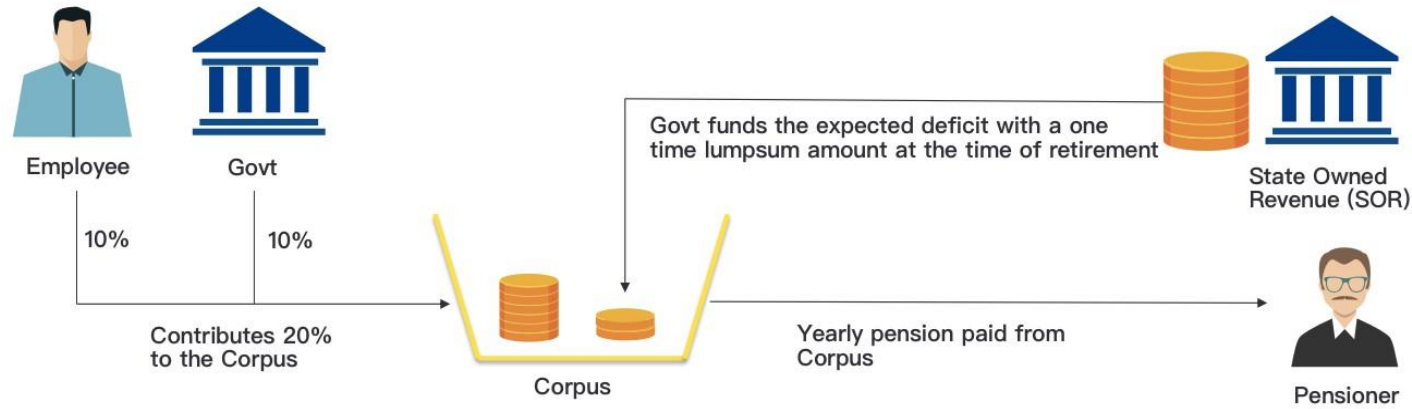
# Possible Administration Guidelines (1/2)

1. At the time of retirement, **if the annuity from the accumulated corpus comes out more than the guaranteed pension**, the civil servants would go ahead with the market based product.
2. **If the annuity from the corpus comes as lower than the guaranteed pension**, the Government would bridge the deficit by following any of the three models
  - a. **Pay-as-you go model** of financing the deficit

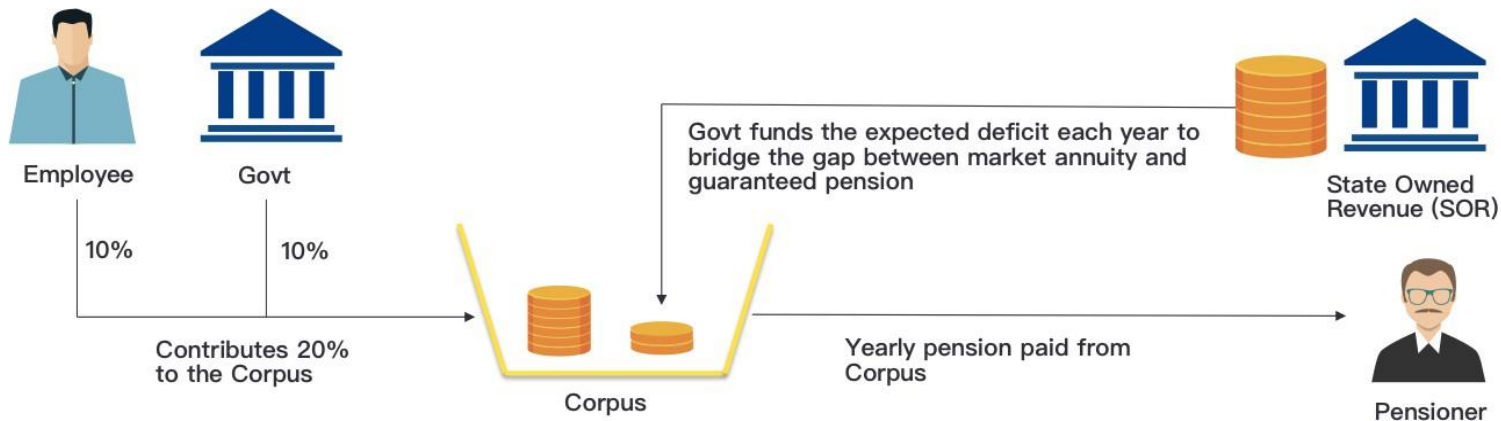


## Possible Administration Guidelines (2/2)

**b. Fully Funded approach-** one time lump sum payment at the time of retirement of the civil servants to finance the deficit



**c. Yearly Funded Approach** – Additional Contribution each year to bridge the gap between market annuity and guaranteed pension





# Fiscal Implications for some components (1/2)

S.No	Pension component	Impact on finances (Scenario wise)
1.	Minimum pension	<ol style="list-style-type: none"><li>1. Minimum ₹10,000/- (-0.16%)</li><li>2. Minimum ₹6,500 (Negligible)</li><li>3. Minimum 75% of Minimum basic pay (-1.20%)</li><li>4. Minimum 100% of Minimum basic pay (-2.14%)</li></ol>
2.	Pension calculation	<ol style="list-style-type: none"><li>1. Last pay drawn (No effect)</li><li>2. Average of last 5 years basic pay (+8.35%)</li><li>3. Flat 50% of last drawn salary for first 16th grade pay, 40% for next 16 grade pay (+14.70%)</li><li>4. 50% of last drawn salary for first 16th grade pay, 40% for next 16 grade pay-Slab-wise calculation (+10.43%)</li></ol>
3.	Additional Quantum of Pension (20% of basic pension for 80+ years, 100% of basic pension for 100+ years)	<ol style="list-style-type: none"><li>1. Ranges from 10% for 80 years, 50% for 100+ years then ( +1.40%)</li><li>2. NIL ( +2.80%)</li></ol>



## Fiscal Implications for some components (2/2)

S.No	Pension component	Impact on Finances (Scenario wise)
4.	Pension escalation (Pay Commission + DRA)	<ol style="list-style-type: none"><li>1. DA + Fitment (NA)</li><li>2. DA + 50% fitment (+20%)</li><li>3. DA + 75% fitment (+10.43%)</li><li>4. DA + 90% fitment( +4.17%)</li><li>5. No Increase (+57%)</li></ol>
5.	Medical Allowance (₹300 pm paid to pensioners and deducted for (EHS (Employees Health Scheme))	<ol style="list-style-type: none"><li>1. NIL (+2%)</li><li>2. ₹ 500 (0)</li><li>3. Medical Insurance (+1.00%)</li></ol>
6.	Maximum limit on pension (GoI - ₹1,25,000)	<ol style="list-style-type: none"><li>1. ₹1,25,000 (Negligible)</li><li>2. Max- ₹65,000 (+1.64%)</li><li>3. Max 250% of Minimum basic pay (+3.53%)</li></ol>



# Annexure- I: Assumptions for calculating replacement rate

Table below is the assumptions for calculating the rate of replacement of last drawn pay (OPS pays 50% of last drawn pay subject

	Fitment	Yearly growth	DA / inflation	Promotion Growth	Corpus growth*
<b>2022-2031</b>	12.50%	2.70%	4.00%	5.40%	6.00%
<b>2032-2041</b>	12.50%	2.50%	3.00%	5.00%	5.00%
<b>2042-2051</b>	12.50%	2.20%	3.00%	4.40%	5.00%
<b>2052-2061</b>	12.50%	2.00%	2.00%	4.00%	4.00%
<b>2062-2071</b>	12.50%	2.00%	2.00%	4.00%	4.00%
<b>2072-2081</b>	12.50%	2.00%	2.00%	4.00%	4.00%
<b>2082-2091</b>	12.50%	2.00%	2.00%	4.00%	4.00%
<b>2092-2101</b>	12.50%	2.00%	2.00%	4.00%	4.00%

\*Real rate of return assumed to be 2% Explanations-

1. Fitment factor is the multiplication factor given during the pay revision after subsuming the DA (Accumulated inflation). For example- Basic pay- 100, DA at the time of pay revision-50 and fitment at 10% means Revised salary after pay fixation would be  $=(100+50)*1.1=165$ . It is assumed that pay commission comes every five year (Model made specifically for Andhra Pradesh state of India)
2. Yearly growth is the yearly increment. As per 7th pay-commission it is 2.7% yearly growth
3. DA / Inflation- government declares every six months. Since RBI is targeting 4% inflation, therefore it is being assumed that the DA would hover around 4% and would reduce gradually as the economy matures
4. Promotion growth is the pay increment in the year of promotion. Generally every 6th year an employee gets promotion

# Annexure- 2: Assumptions for calculating replacement rate

## Assumptions

- Pension fixed at 50% of last drawn pay for OPS
- Earnings rate for corpus assumed at 4%\*
- State Owned revenues growing at 4% for various scenarios\*
- Number of recruitments at 50% of number of retirements in the same year
- Annual Salary growth including DA and fitment assumed to be 10%
- Mortality rate as per Indian Assured Lives Mortality (used by pension firms)

Years Assumed	Rate
2023-25	7.50%
2026-30	7.00%
2031-35	6.50%
2036-40	6.00%
2041-45	5.50%
2046-50	5.00%
2051-55	4.50%
2056-60	4.00%
2061-65	3.50%
2066-70	3.00%
2071-80 2.50%	2.5%
2081-2100 2.00	2.00%
2023-2100 (Effective rate)	4.00%

**THANK YOU.**