Research Article

Supplementary Materials

Table S1: Investment

Financial year	NFCS (₹ crore, 2011–12)	Annual NFCS growth (%)	Baseline δ	Implied real investment (₹ crore)	Reported nominal GFCF (₹ crore)	GFCF status / note
2016–17	341783.893		0.05			Inherited benchmark
2017–18	355980	4.153533063	0.05	31285.30165		Not separately reported in the reviewed materials
2018–19	372650	4.682847351	0.05	34469	16429	Official current-price GFCF; separate from real PIM input
2019–20	389720	4.580705756	0.05	35702.5	9346	Official current-price GFCF; separate from real PIM input
2020–21	402880	3.376783332	0.05	32646	17534	Official current-price GFCF; separate from real PIM input
2021–22	424350	5.329130262	0.05	41614		Not separately reported in the reviewed materials
2022–23	449120	5.837162719	0.05	45987.5	35343	Official current-price GFCF; separate from real PIM input
2023–24	475850	5.95163876	0.05	49186	38986	Official current-price GFCF; separate from real PIM input
2024–25	502565.85	5.614342755	0.05	50508.35	34905	Official current-price GFCF; separate from real PIM input

Table S2: Assumptions

Item	Baseline / specification	Sensitivity / alternative	Purpose
Price base	2011–12 constant prices	Deflator stress: ±0.5 pp and ±1.0 pp annual differential	Assess endpoint-CAGR sensitivity
Initial stock	2016–17 aggregate NFCS = ₹3,41,783.89 crore	Historical initial-stock method inherited from Sinha & Sinha (2020)	Maintain historical comparability
Aggregate depreciation	5.0% reconciliation for updated benchmark	4.0% and 6.0% sensitivity	Make post-2017 PIM benchmark mechanically reproducible
Service lives	Not used in aggregate benchmark; asset-specific lives required for future capital-services work	Asset-specific schedules recommended	Avoid false precision
Scenario rates	4.5%, 6.0%, 8.0%	Continuous grid 3.0–9.0% in 0.5-point increments	Show compounding sensitivity
Scenario depreciation	5.0% for gross-investment consistency	4.0–6.0%	Translate net-stock path into implied gross investment
Capital-deepening weights	Equal weights, w1–w5=0.20 each (illustrative only)	Entropy/PCA/policy weights in future work	Transparent monitoring framework

Table S3: NFCS

Financial year	Primary	Secondary	Tertiary-I	Tertiary-II	Aggregate NFCS
2017–18	62380	84615	88965	120020	355980
2018–19	64430	87840	93520	126860	372650
2019–20	66540	91290	97980	133910	389720
2020–21	68130	94580	101420	138750	402880
2021–22	71520	99240	107840	145750	424350
2022–23	75820	104630	114580	154090	449120
2023–24	80180	110340	121860	163470	475850
2024–25	84960	116520	129920	171166	502565.85

Table: Sensitivity

Annual NFCS growth	2050 NFCS (₹ crore)	2050 NFCS (₹ lakh crore)
0.06	2156947.656	21.56947656
0.065	2426236.706	24.26236706
0.07	2727642.298	27.27642298
0.075	3064817.231	30.64817231
0.08	3441809.758	34.41809758
0.085	3863104.257	38.63104257
0.09	4333665.862	43.33665862
0.06	2156947.656	21.56947656
0.065	2426236.706	24.26236706
0.07	2727642.298	27.27642298
0.075	3064817.231	30.64817231
0.08	3441809.758	34.41809758
0.085	3863104.257	38.63104257
0.09	4333665.862	43.33665862

Table: Deflator-Stress

Annual deflator differential vs baseline	2024–25 NFCS (₹ crore)	2016–17 to 2024–25 CAGR (%)
-0.01	517290.3253	5.316846239
-0.005	509795.9206	5.124899948
0	502565.85	4.93736935
0.005	495588.9704	4.754154291
0.01	488854.6748	4.575156346