Aggregate Savings in India: Where Do We Go From Here?

Prachi Mishra[1] and Aditi Singh[2]

[1]Ashoka University
[2]CAFRAL

Abstract

The savings rate in the Indian economy has declined sharply since 2007 and approached a low of 29% of GDP in 2020. In this paper, we take a closer look at the historical evolution of aggregate savings in India, as well as its different components. We use a simple framework that seeks to explain the time variation in savings over the sample period. We find that increased prosperity more than explains the decline in savings of Indian households, while the decline in old age dependency was a major offset. Our baseline forecast implies a roughly 2 percentage point decline in household savings as a fraction of GDP over the next five years. We build some medium term scenarios to understand the trade-offs going forward.

Keywords: Saving, Macroeconomics, Macroeconomy, Aggregate Investment
JEL codes: E20, E21

1. Introduction

Figure 1 depicts the aggregate gross savings rate for the Indian economy since 1980. India's savings were on an upward trend since the 1980s, reaching a peak of 37% of GDP in 2007. Since then, however, savings have steadily declined, reaching a low of 29% in 2020, with some modest recovery thereafter. This has raised concerns that a lower savings rate would weigh on public and private investment, and hurt growth going forward. In this chapter, we take a closer look at the historical evolution of aggregate savings in India, as well as its different components. Then, we analyze what the savings behavior implies for consumer spending outlook and growth going forward.

We find that increased prosperity more than explains the decline in savings of Indian households, while the decline in old dependency was a major offset. Our model implies a further decline in savings and, therefore, a more positive outlook for consumption.

Will decline in savings hurt investment and growth? The answer is it depends. We build some simple medium term scenarios to understand the tradeoffs going forward.

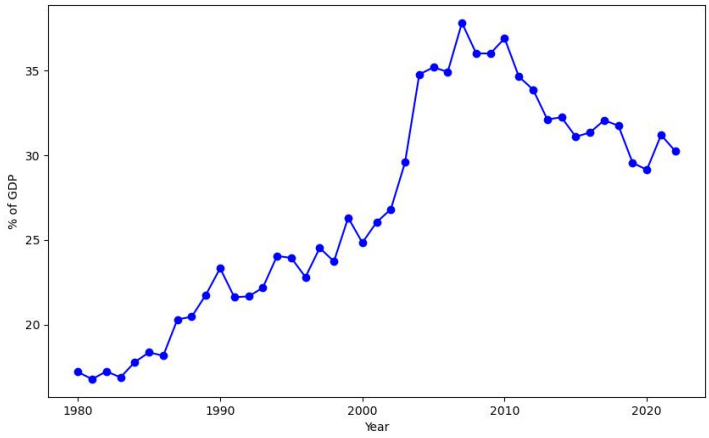

Figure 1: The Evolution of Aggregate Savings in India

2. Trends in Savings

We will start by examining different components of savings in an attempt to figure out what is driving the decline[1]. Let us begin by decomposing the total gross savings rate into public, private, and household savings. Figure 2 shows that household savings are the largest component of gross savings. In fact, it was the increase in household savings that drove the increase in gross savings in the initial part of our sample. The decline in

[1]All data for this part is sourced from the Ministry of Statistics and Programme Implementation (MoSPI).

gross savings was initially driven by the public sector as a consequence of the fiscal stimulus provided after the Global Financial Crisis of 2008. Since 2009, however, household savings started steadily declining, pulling down the gross savings rate. Savings of private corporations increased sharply in 2004 and have remained stable since.

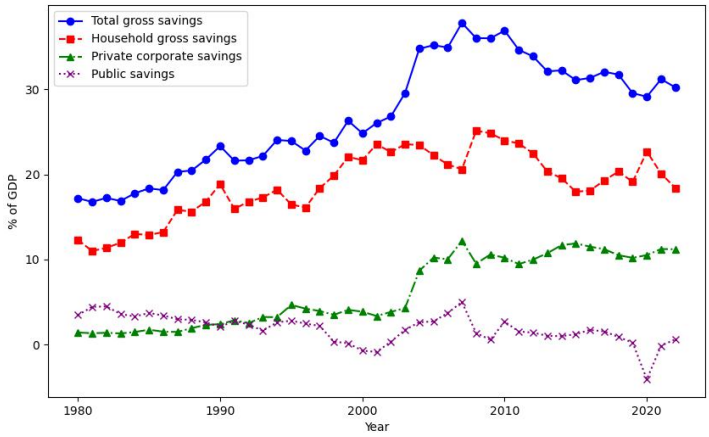

Figure 2: Components of Savings

2.1 Components of Household Savings

Since household savings is the largest component of gross savings, it is worth taking a closer look at its components. Figure 3 shows that while both savings in physical assets and net financial savings have declined, there are subtle differences in trends. Physical savings were on a broadly increasing path until 2012, before starting to decline dramatically until 2015, and then recovering a little after that. Net financial savings, on the other hand, started to decline earlier in 2006, with the largest decline of three percentage points occurring between 2010 and 2011. Since then, net financial savings have remained roughly constant at 7%. There was a sharp increase of four percentage points during the Covid-19 pandemic, but they have again declined to a low of 5% of GDP. Net financial savings are 0.6 percentage points lower compared to the start of our sample in 1980, and six percentage points lower compared to its peak in 1994 and 2020. Physical savings, on the other hand, are more than six percentage points higher compared to the start of the sample, yet are three percentage points lower compared to their peak in 2011.

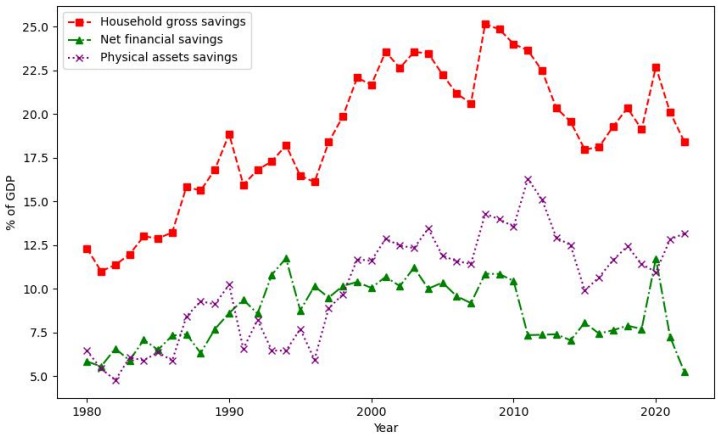

Figure 3: Components of Household Savings

2.2 Components of Financial Savings

The evolution of financial savings masks significant variation across different categories. Figure 4 depicts some of these. Bank deposits started dramatically increasing in 2003, reaching a peak of 10% of GDP in 2006. This was followed by a sharp decline, reaching a trough of 3% in 2017, which is close to the minimum in the last five decades. This has coincided with a shift towards savings in other financial instruments, especially in pension funds. This transformation is taking place despite rising real rates. Real policy rates increased by close to 300 basis points in the 2010s, yet bank deposits fell by 200 basis points over the same period. These trends can likely be explained by the relatively higher returns and tax benefits of other financial instruments vis-à-vis bank deposits. That said, bank deposits are still the largest component, comprising more than a third of all household net financial savings.

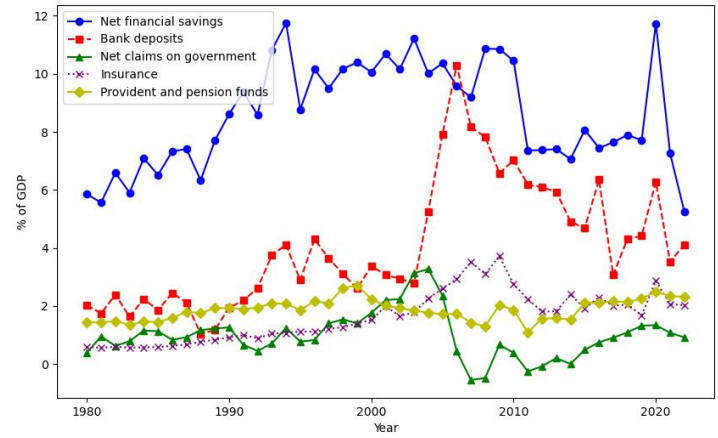

Figure 4: Components of Net Financial Savings

Movements in net financial savings also mask differences in gross savings and liabilities of households. Figure 5 depicts that while the gross savings rate of households has remained broadly stable with the exception of the sharp increases post demonetization and Covid-19, financial liabilities of households have increased. These contribute to the decline in net financial savings. For example, while the gross savings rate of households increased mildly by 0.4 percentage points between 2011 and 2022, liabilities increased by 2.4 percentage points, thereby leading to the sharp decline in net financial savings of 2 percentage points over this period.

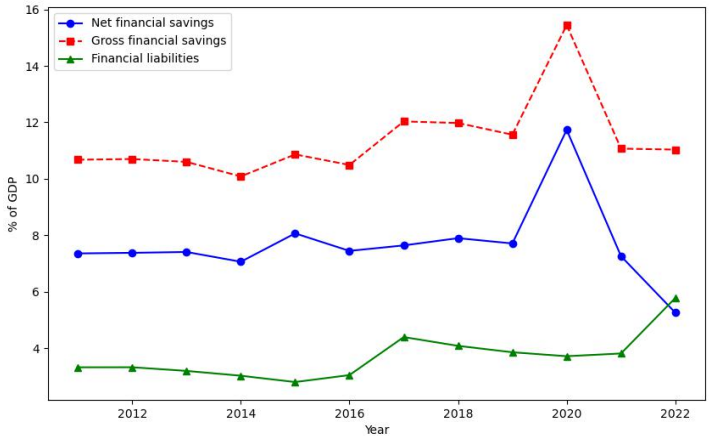

Figure 5: Gross Financial Savings vs Financial Liabilities

2.3 Savings and the Macroeconomy

What are the implications of the decline in savings for the macroeconomy? We start by looking at investment, as measured by gross capital formation. Figure 6 shows that gross savings and investment are strongly correlated, with the correlation increasing in recent times. This is consistent with the results in Ghate, Gopalakrishnan and Saha (2024).

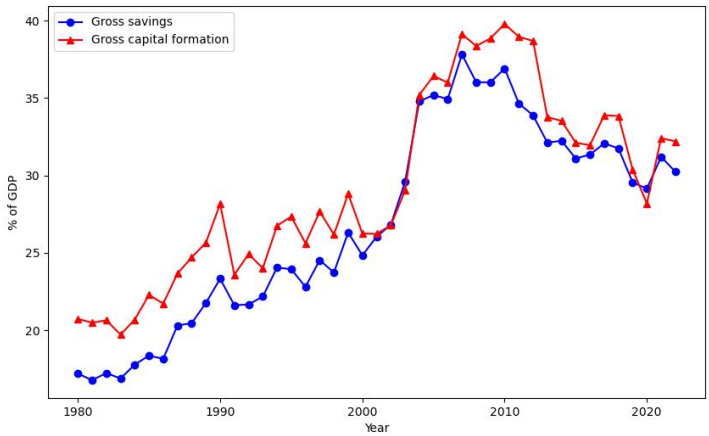

Figure 6: Gross Saving vs GCF

In Figure 7, we plot the financial surplus in the Indian economy as measured by the the difference between savings and investment (identically equal to the difference between income and spending). This difference has been negative for most of our sample, but recently, the gap between savings and investment has shrunk, even turning positive in 2020 when investment decreased sharply. The figure also reports the split between public and private sectors. Households have usually been strong savers, while the public and private corporate sectors have been strong investors. Recently however, the gap between saving and investment for the private corporate sector has shrunk to zero. Combined with figure 2 which shows that savings of the private corporate sector have been relatively stable in recent years, this implies a decrease in corporate investment. However, the combined financial position of the private sector (households and corporates) remains strong with a sizable financial surplus that is higher than the long-term average. The public sector, on the other hand, does run a significant financial deficit, though it does not appear out of line with its long-term average, and is relatively stable rather than on an increasing path.

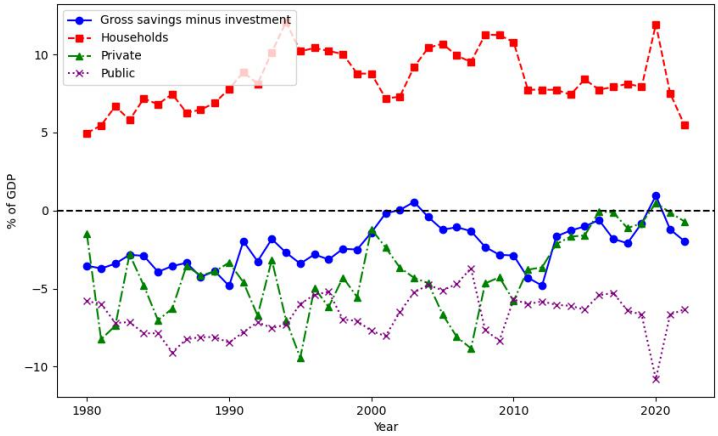

Figure 7: Decomposition of S-I across sectors

3. Simple Framework to Model Savings

We use a simple framework that seeks to explain the time variation in household savings in India. To do this, we estimate a standard household savings equation over the time span of 1995[2] to 2022. This equation relies on a life-cycle theory of consumption, where individuals plan their consumption and savings behavior not just for one or two periods but for their entire life-cycle. The dependent variable in the regressions is the ratio of net household savings to GDP[3]. The regression results reported in Table 1 suggest five key findings: (i) public savings appear to offset household savings, though the effect is statistically

[2]We are constrained to start in 1995 rather than 1980 because tax data only goes back to 1995.

[3]Data on public, corporate and household savings is from MoSPI, real income and old age dependency ratio is from World Bank, taxes is from Department of Revenue and interest rate and inflation is from the Reserve Bank of India (RBI).

insignificant at conventional levels; (ii) household savings increase with corporate savings, suggesting that common factors could be driving both of these, although the effect is again statistically indistinguishable from zero at conventional levels (iii) income growth positively affects savings, but increases in the level of per capita income is negatively associated with savings. In other words, higher prosperity is associated with lower savings. The effect of higher prosperity is strongly negative and statistically distinguishable from zero at conventional level (iv) a standard demographic impact is found, with a higher old age dependency ratio being associated with lower household savings, as older people dissave after retirement; and finally (v) higher tax (both direct as well as indirect) appears to be negatively associated with savings. This could simply reflect the effects of lower disposable income on savings. The model is able to explain about 92% of the variation in savings over the sample period.

Table 1: Household Savings (% of GDP) Simple Regression Model

	(1)
Variables	**Coefficient**
Public savings (% of GDP)	-0.386
	(0.233)
Corporate savings (% of GDP)	0.0612
	(0.0938)
Real income per capita	-0.000242***
	(4.49e-05)
Growth rate of real income per capita	0.0403
	(0.0631)
Old age dependency ratio	-0.762**
	(0.266)
Direct taxes (% of GDP)	-0.306
	(0.737)
Indirect taxes (% of GDP)	-1.326***
	(0.365)
Interest rate (%)	-0.802***
	(0.160)
Inflation	0.0303
	(0.0941)
Constant	95.79***
	(21.28)
Observations	28
R-squared	0.916

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 8 plots the relationship between actual and predicted savings. Not only is the overall explanatory power of the model high, as indicated by the R-squared, figure 8 suggests high explanatory power over time too, and a tight relation between the actual and predicted values of household savings based on our model.

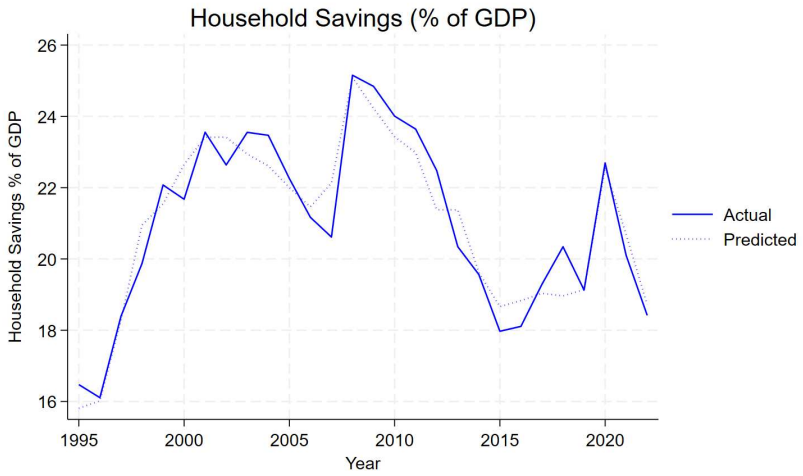

Figure 8: Household Savings to GDP: Predicted and Actual

4. Looking Ahead

Figure 9 summarizes the factors that contributed to the sharp decline in household savings since its peak in 2007. Most of the decrease in savings can be explained by increased prosperity as measured by increase in real per capita income, whereas the decline in old age dependency ratio was a major offset. Lower indirect taxes provided a noticeable offset too. The other factors were less important.

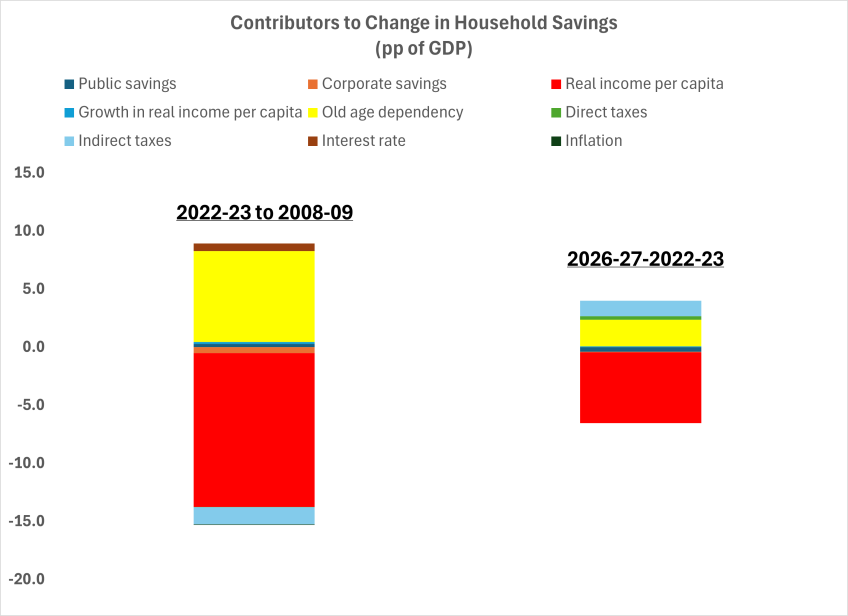

Figure 9: Predicted Household Savings to GDP: Change, percentage points

Looking ahead, even assuming further increases in per capita income at a moderate pace, we expect the equilibrium savings rate to fall further. Overall, our baseline forecast implies a roughly 2 percentage point decline in household savings as a fraction of GDP over the next five years. As India becomes richer, households would continue to save less,

consistent with the cross-country trend of richer countries having lower saving rates as evidenced in figure 10. At the same time, higher growth rates, continued demographic dividend, lower taxes and higher disposable incomes could provide offsets and push the saving rate in an upward direction.

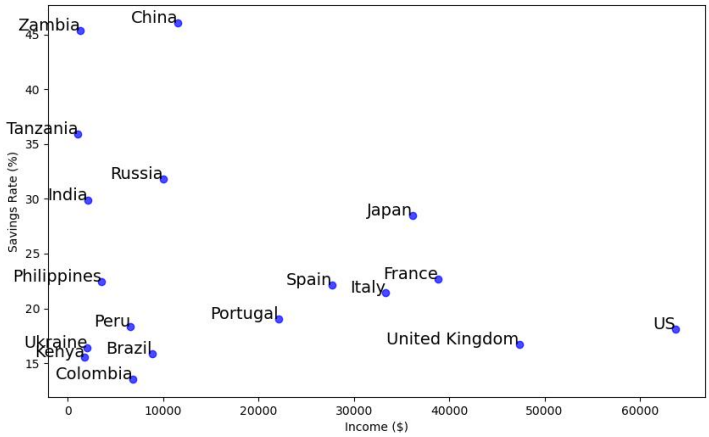

Figure 10: Savings rate and Per capita income

There are risks that impact the savings outlook in both directions. Should the demographic dividend fail to proceed as anticipated or if India's economic prosperity surpasses expectations, household savings levels could drop even further. Conversely, if the government doesn't boost its savings, for example if states spend excessively or the central government fails to adhere to its budget goals, then the household savings rate might end up higher than projected. On balance, the risks to the savings outlook going forward are likely to be on the downside, given prosperity levels are likely to increase and the demographic dividend likely to decrease.

5. Conclusions

To summarize, we forecast a further decline in savings, and therefore, a more positive outlook for consumption. Will this hurt investment and growth? The answer is it depends.

The difference between savings and investment identically equals the current account. While the difference was large, negative, and increasing in magnitude between 2000 and 2013, since then it has declined, and stands closer to zero. S-I close to zero, however, can reflect both low savings and low investment, an inferior equilibrium, compared to a high savings and high investment equilibrium. As private sector investment is already picking up (see Economic Survey (2024)), the question is how will it be funded? Net financial savings would ultimately have to pick up, or alternatively investment in physical assets, particularly gold, would have to be productively channeled. Alternatively, capital would

have to be imported from abroad, i.e. a higher current account would need to be sustained.

We build some simple medium term scenarios to understand the tradeoffs going forward. We start with the assumptions underlying the FRBM Review Committee (FRBM Review Committee Report (2017)). The FRBM Review Committee relied on a savings-based argument to arrive at a path for the operational target. Based on the latest data, net household financial savings were reported at 7.6% of GDP in 2015. Further, India's external borrowing needs, proxied by its sustainable current deficit in the medium-term, are estimated at roughly 2.3% of GDP. Therefore, a total of around 10% of GDP of household savings and external borrowing would be available for the public and private sectors in the medium-term, which the Committee assumed to be allocated equally between the two. This would lead to a combined fiscal deficit of the centre and the states of 5% of GDP, and at the same time ensure an investment of 5% of GDP. The 5% general government deficit, divided equally between the centre and the states, would imply a 2.5% deficit for the centre in the medium-term.

We build three medium term scenarios. "Status quo", "Moderate", and "Desirable". In the status quo scenario, private sector continues to dissave, which is inconsistent with a sustainable pick up in private investment. In the "Moderate" scenario with a less than 2 percentage point higher net financial savings and some fiscal consolidation by the government, there can be some space for private investment. However, to create sufficient space for private investment, consistent with a 8-10 percent growth in the medium term, we would need firepower from both households - with higher net financial savings, a significant consolidation by the government, at a total of 6 percent of GDP public sector deficit, as well as higher resources from abroad, at more sustainable levels (as shown by Rangarajan and Mishra (2013)). This is the "Desirable" scenario. Notably, a rise in net financial savings need not be inconsistent with a decline in overall household savings, as households mature, and switch from physical to financial savings.

.

Resource Distribution and Projections

	Net financial savings	**Current account deficit**	**Total resources**	**Corporate**	**Government**
FRBM, 2017	7.5%	2.50%	10%	5%	5%
Medium-term projections					
Scenario					
Status quo	5.3%	0.7%	6.0%	-2.5%	8.5%
Moderate	7.0%	1.0%	8.0%	1.0%	7.0%
Desirable	10.0%	2.5%	12.5%	6.5%	6.0%

References

- FRBM Review Committee (2017): *FRBM Review Committee Report,* Volume 1
- Ghate, Chetan and Pawan Gopalakrishnan, Pawan and Saha, Anuradha (2024): *The Great Indian Savings Puzzle,* IEG Working Paper, No 459
- Ministry of Finance, Government of India (2024): *Economic Survey*
- Rangarajan, C and Mishra, Prachi (2013): *India'e External Sector: Do We Need To Worry?,* Economic and Political Weekly, Volume 48, Issue number 07.