Investment: Corporate India and Households

By

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Abstract

This paper reviews the growth performance of the Indian economy since 2011-12 using the new GDP series with base 2011-12, and analysis the reasons for declining growth, with a view to identifying policies that will help restore growth to the 8% ranges.

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Introduction

Conventional Wisdom (CW) holds Indian Gross investment peaked at around 38% of GDP in 2007-08, before the Global Financial Crises of 2008 and has declined since to 30% . Hopes of incipient corporate investment recovery have been repeatedly dashed by reality. The main culprit is

identified by CW as lack of demand for corporates coupled with low capacity utilization, hovering between 65% and 70%, which provides no incentive for new investment. The old series of National accounts (base 2004-05) shows that Gross corporate formation declined sharply in 2009-10 following the GFC, recovered in 2010-11 and 2011-12 in 2011-12 and declined progressively t0 30%.

Virmani (2017), in its analysis of the growth slowdown during 2015-16 and 2016-17 suggested that this picture of corporate investment driven decline in total investment may be seriously flawed. This note carries out a detailed analysis of Indian investment using the new series of National accounts base 2011-12.

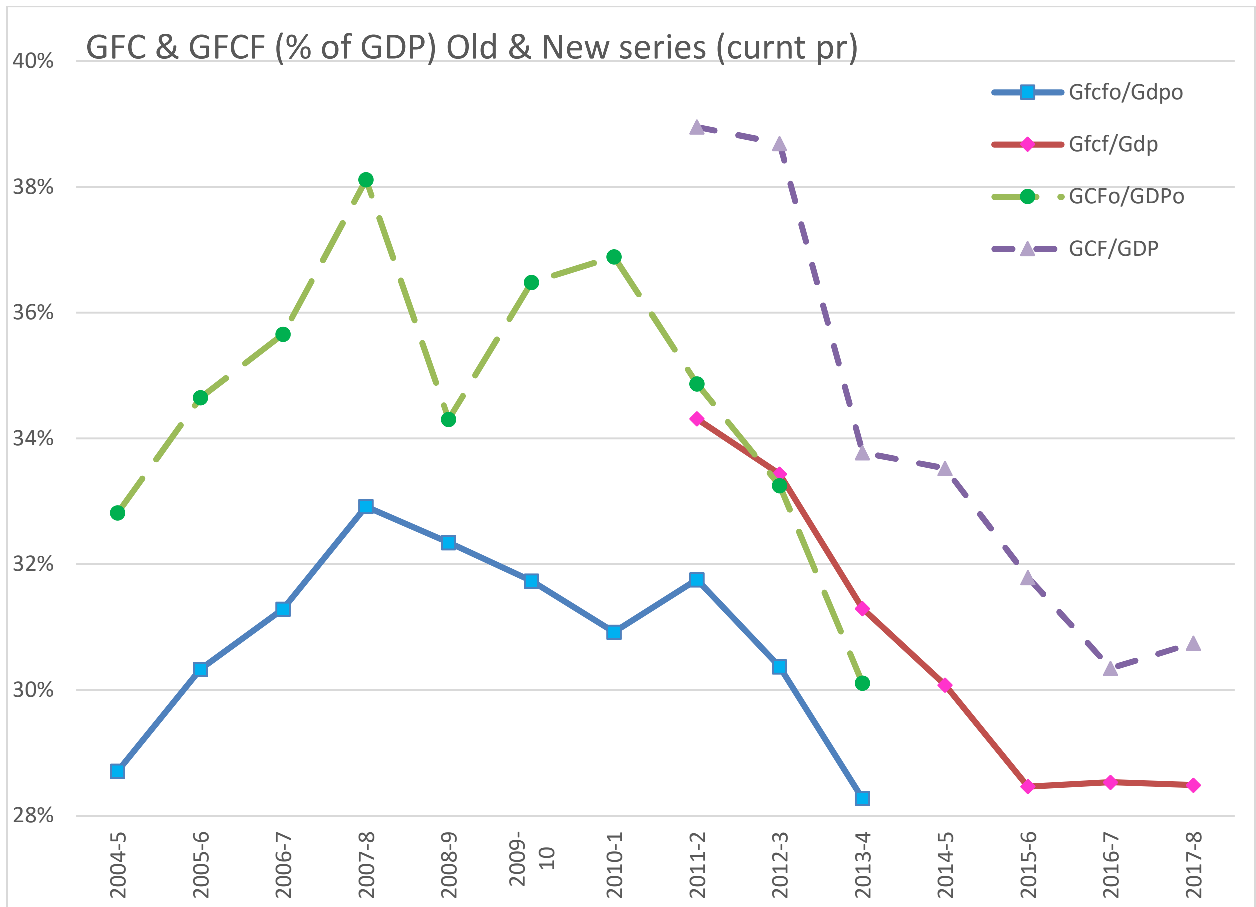
Capital Formation Pre-GFC & Post GFC

Figure 1A shows the investment rate (GCFo/GDPo) in current prices, plotted using the old and new series at current prices. The old series shows a drop of 8% points in this ratio from a peak of 38.1% of GDP in 2007-08 to 30.1% of GDP in 2013-14. It also shows that the GCF/GDP ratio as calculated from the new series is 4.1% higher in the new base year 2011-12 and 4.4% higher for the three years in which the series overlap. This is primarily due to the higher estimates of stock accumulation in 2011-2 and 2012-3 and secondarily due to Fixed capita formation, particularly in 2013-4.

The second point which emerges from the old series is that there was a second lower peak in the investment rate of 36.9% of GDP in 2010-11, -1.2% lower than the highest investment rate ever. This contrasts with global investment ratio which declined sharply and remained low during these two years. This can be attributed to the mistaken policy of not reversing the expansionary fiscal policy in 2010-11 after its unprecedented success in 2008-2009 in restoring economic growth to its pre-GFC trend by 2009-10. The fiscal deficit was wrongly increased despite a sharp growth & revenue recovery and a windfall in non-tax revenues from spectrum auctions.

In real terms (constant 2004-5 prices), the second peak of the investment rate in 2010-11 was 1.1% points higher than the one in 2007-08 (figure 1B). This, along with continuing loose fiscal policy accompanied by a tightening monetary policy was responsible for the subsequent spurt in NPAs. The decline in the constant price ratio was less than 6% points by 2013-14 compared to the 8% fall in current price investment ratio. In other words, a decline in real capital goods prices is 1/4th part of the reason for the fall in current price ratio.

Figure 1A: GFC & GFCF (% of GDP) Old & New series (curnt price)

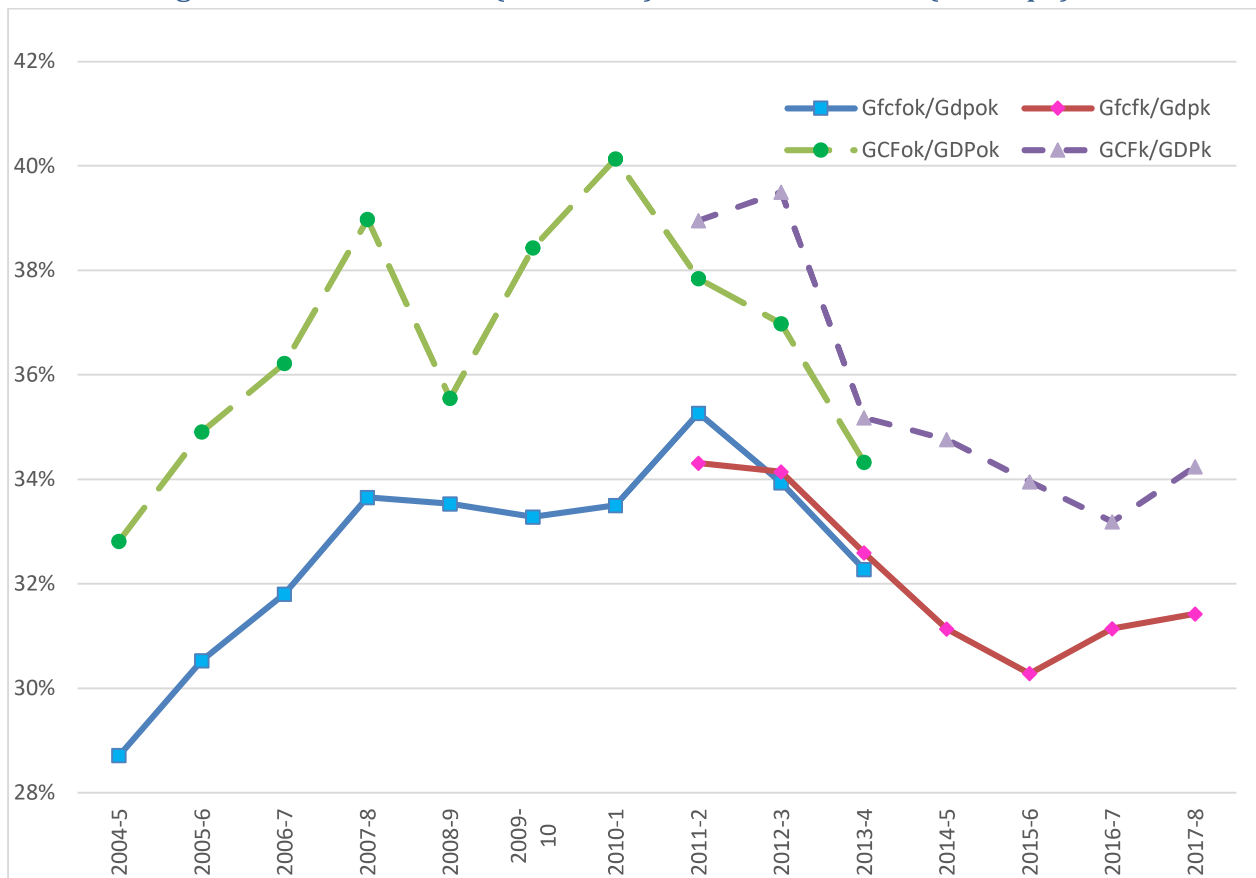


The third point is that in the old series, private corporate investment declined by 8.2% points from 17.3% of GDP in 2007-8 to 9.2% of GDP in 2012-13 apparently explaining the entire decline (>100%) in total investment.[1] This is the likely source of the conventional wisdom (#CW) that the decline corporate investment is the reason for the sharp fall in overall investment ratio from its peak. Over the same period, however, the decline in Gross Domestic savings rate was lower at -6.7% and the contribution of the private corporate sector was only 1/3rd (-2.4%) of this lower 6.7% decline.

Finally, the decline in the fixed capital formation (GFCF), which is the driver of productivity and growth, was only -4.6% points from 32.9% of GDP in 2007-8 to 28.3% in 2013-14. This is 6/10th of the decline in Gross capital investment (GCF). This is the critical aspect that we need to understand for policy action.

[1] 2013-4 disaggregation unavailable in old series.

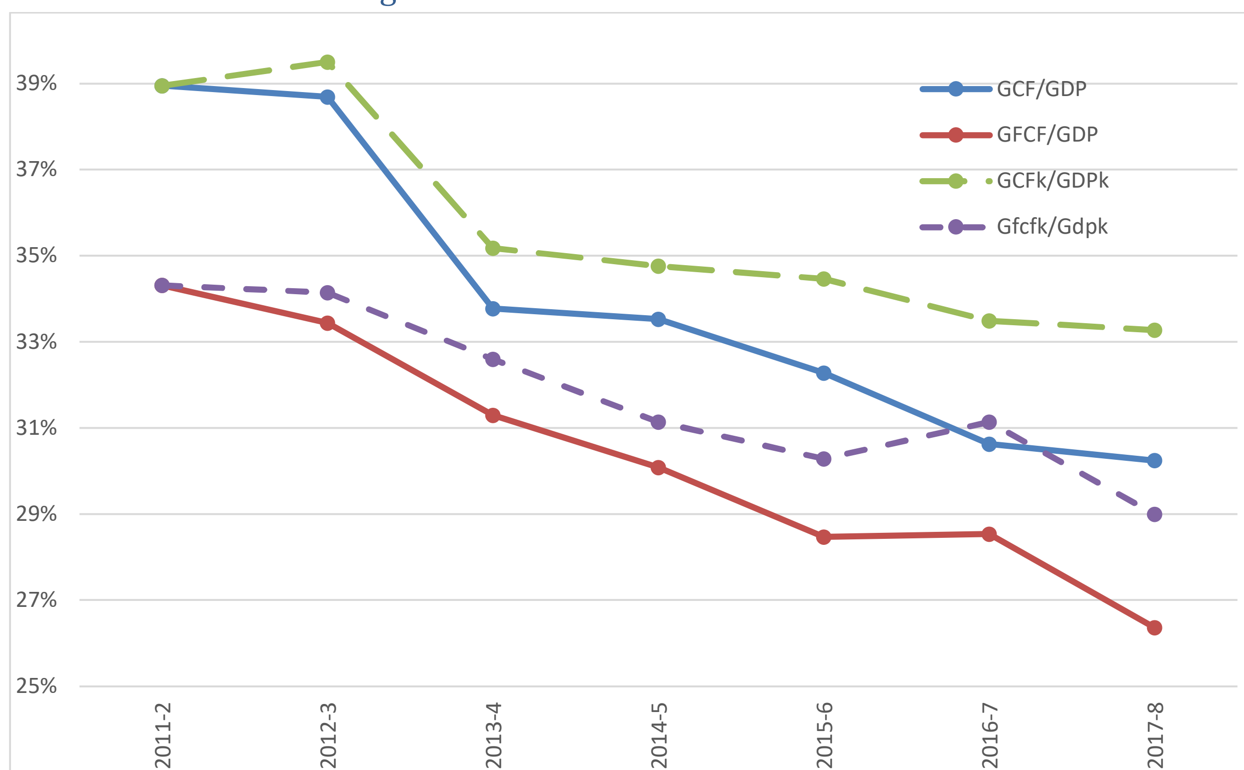
Figure 1B: GFC & GFCF (% of GDP) Old & New series (const pr)



Fixed Capital Formation in 2010s

To get a clear, consistent and contemporary analysis of investment, we focus on the period for which the new series of national account base 2011-12 is available. Figure 2 shows that three has been a continuous decline in both Gross Capital formation (GCF) and Gross Fixed capital formation, GFC declined from 39% of GDP in 2011-12 to 30.2% of GDP while GFCF declined from 34.3% to 26.4% of GDP over the same period. The decline in the GFCF/GDP ratio of 8% is more than 9/10th of the decline in GFC/GDP ratio during this period. Thus an analysis of fixed capital investment, which is most important driver of GDP growth, is the key to understanding the reasons for the decline in investment rate. The gross fixed capital formation shows a steady decline as % of GDP over the entire period. In contrast to the Gross capital formation, which shows a sharper dip in 2013-14 compared to the rest of the period.

Figure 2: Investment Rate In 2010s



The post significant point which emerges is that between 2011-12 and 2017-18, the nominal fixed investment ratio declines much more than the real fixed investment. Gross fixed investment in current prices declined from 34.3% to 28.5% of GDP, while the fixed investment in constant prices declined from the same level to 31.4% of GDP. Thus, the real decline in the fixed investment ratio is 2.9%, half of the 5.8 per cent point decline in nominal investment ratio from 2011-12 to 2017-18.

Household & Corporate Investment

Disaggregated data is available only till 2016-17 (table 1). However, there was no change in the nominal Fixed investment rate in 2017-18, while the Fixed investment rate improved marginally by +0.3% point of GDP. The entire decline of -5.8% of GDP in the fixed investment is due to the -6.1% decline in Household investment in Dwellings, buildings and structures, in current prices (table 1). The corresponding data for Gross Capital Formation by industry of use suggests that -3.1% point of this was from real estate & dwellings, -1.5% point of GDP from Construction sector and -0.9% from Agriculture sector.[2]

In constant price terms the decline in household investment in dwellings, buildings and structures, was 1.8 times the total investment decline of -3.2% point of GDP (table 1). 2.3% point of GDP decline was however offset by an increase in the investment by Private Non-financial corporations. Contrary to what many have asserted, there is no evidence of decline in real investment by the Private corporate sector during the period 2011-12 to 2016-17. From the User industry side, the decline in investment ratio is clearly centered on Real Estate & dwellings (-2.7% of GDP), Construction (-1.2%) and Agriculture (-0.9%).

[2] There was also -0.9% decline in Electricity and manufacturing sectors, but much of this is likely to be from corporate/non-households, making a total decline in GCF of -7.5% of GDP.

Table 1: Gross Fixed Capital Formation (% of GDP); Current & constant

Current Price	FY17-FY12	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
GFCF	-5.8%	34.3%	33.4%	31.3%	30.1%	28.5%	28.5%	28.5%
Household Sector	-6.7%	15.7%	14.6%	12.5%	12.1%	9.1%	9.1%	
HH dwellings, bldgs, structures	-6.1%	12.8%	11.6%	11.1%	10.2%	7.3%	6.8%	
Private Non-Financial Corporations	1.1%	11.0%	11.6%	11.5%	10.8%	11.7%	12.0%	
Public Non-Financial Corporations	-0.4%	3.8%	3.5%	3.4%	3.4%	3.7%	3.3%	
Private Financial Corporations	0.0%	0.3%	0.2%	0.2%	0.2%	0.3%	0.2%	
Public Financial Corporations	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	
General Government	0.3%	3.5%	3.4%	3.5%	3.5%	3.6%	3.8%	
FDI	0.1%	1.8%	1.5%	1.7%	1.7%	2.1%	1.9%	1.4%
Constant 2011-12 Price								
GFCF	-3.2%	34.3%	34.1%	32.6%	31.1%	30.3%	31.1%	31.4%
Household Sector	-5.9%	15.7%	14.7%	12.6%	12.3%	9.7%	9.8%	
HH dwellings, bldgs, structures	-5.7%	12.8%	11.5%	11.1%	10.3%	7.6%	7.1%	
Private Non-Financial Corporations	2.3%	11.0%	12.1%	12.4%	11.3%	12.4%	13.2%	
Public Non-Financial Corporations	-0.2%	3.8%	3.6%	3.6%	3.5%	3.8%	3.6%	
Private Financial Corporations	0.0%	0.3%	0.2%	0.2%	0.2%	0.3%	0.3%	
Public Financial Corporations	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	
General Government	0.7%	3.5%	3.4%	3.6%	3.7%	3.9%	4.2%	
FDI	0.3%	1.8%	1.5%	1.7%	1.8%	2.3%	2.0%	1.6%

Investment by Private Non-Financial Companies increased by 1.1 per cent point of GDP between 2011-12 and 2016-17. In constant prices the increase was an even higher 2.3 per cent point of GDP in constant prices (table 1). The difference arises from the fact that the inflation in GDP deflator was greater than in GFCF deflator during the period. It should also be noted that government investment in real terms increased by 0.9% of real GDP between 2011-12 and 2016-17 (table 1).

The time pattern of the decline in real fixed investment (i.e. in constant prices) reveals that -3.9% of the real decline in GFCF of -3.2% of GDP occurred in the three-year period 2013-4 to 2015-16, part of which (-3.9%) was made up in next year. Household investment in dwellings, buildings and structures (DBS) declined by -3.9% of real GDP during these three years, but -3.5% of this was in 2014-15 and 2015-16.[3] These were the years of two consecutive droughts, a double drought event that last occurred in 2008-9 cum 2009-10.[4] Household investment in DBS at constant prices fell by -0.8% of GDP in 2014-15 the first year of drought and by -2.7% of GDP in the 2015-16 the second year of double drought. This follows the pattern observed in rural households in earlier droughts. In the first drought, a fall in income is met by a cut-back in non-essential consumption and investment. In the second consecutive drought there is a sharper cut-back in savings & investment by those who still had the margin for saving. The fall in fixed investment by private non-financial corporations in 2014-15 by -1.1% of GDP suggests that the optimism generated by political changes in first half of

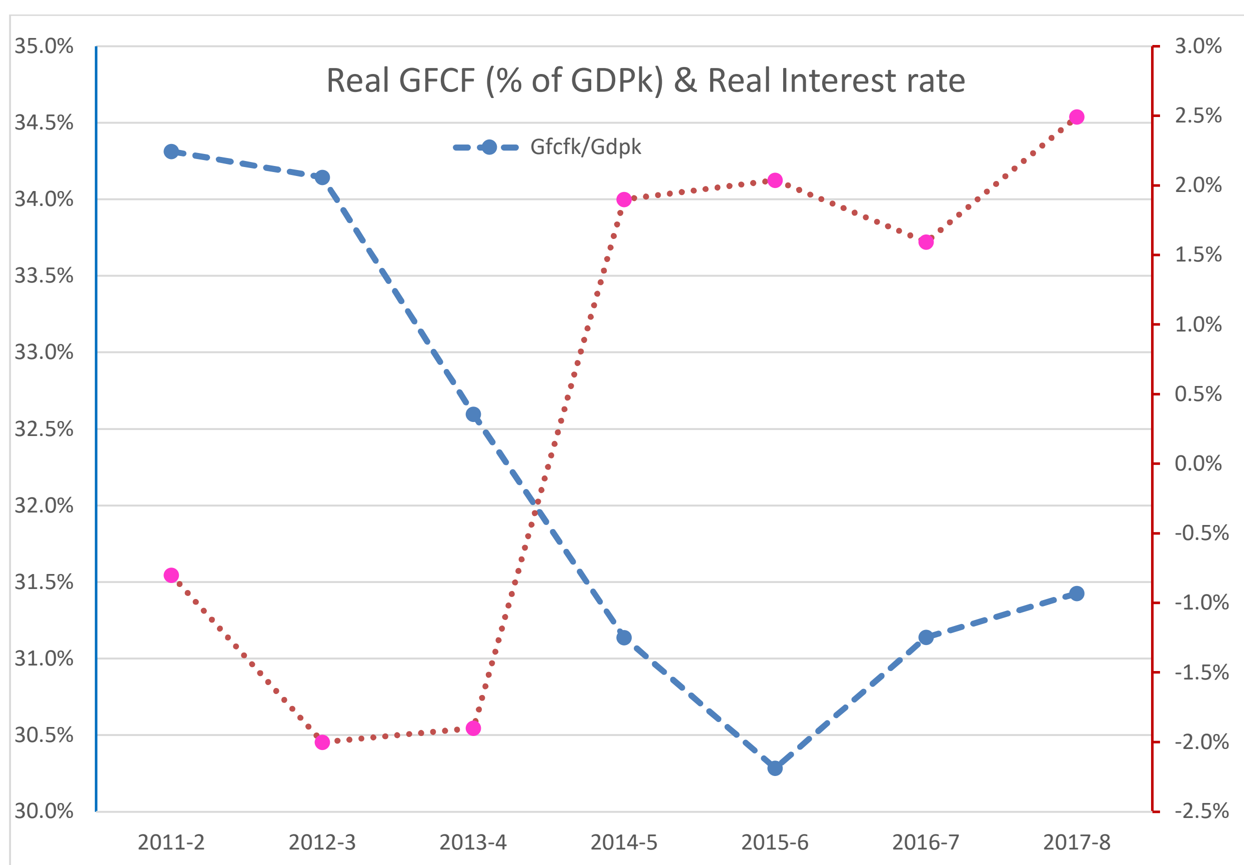
[3] Total Household investment however declined by -2.1% of GDP because of a -1.6% of GDP decline in investment in machinery and equipment. The entire decline of -1.5% in GFCF during 2013-14 was due to household investment in machinery and equipment. However most of this decline was reversed by 2016-17, as the ratio returned to its 2011-12 level.

[4] And before that in 1999-2000 cum 2000-01

2014 was tempered by the negative effects of the drought, on the plans of these corporations. This decline was however fully made up in 2016-17.

Figure (3) plots the fixed investment rate against the real repo rate based on CPI inflation. This suggests that high real interests rates have played a role in slowing the investment recovery during 2015-16 to 2017-18. The fact that the entire decline in fixed investment rate is due to Household Investment in Dwellings, Buildings & Structures, one of the most interest sensitive sectors of the economy (table 1), the explanation is very credible. The anti-corruption and anti-black money campaigns have undoubtedly had a dampening effect on household physical investment, though by its nature there is no official data to analyze this effect.[5] As these sectors are largely non-tradable, any appreciation/depreciation of the real effective exchange rate is unlikely to have had a significant impact on them.

Figure 3: Real GFCF (% of GDP) & Real Interest Rate(Repo-CPI)



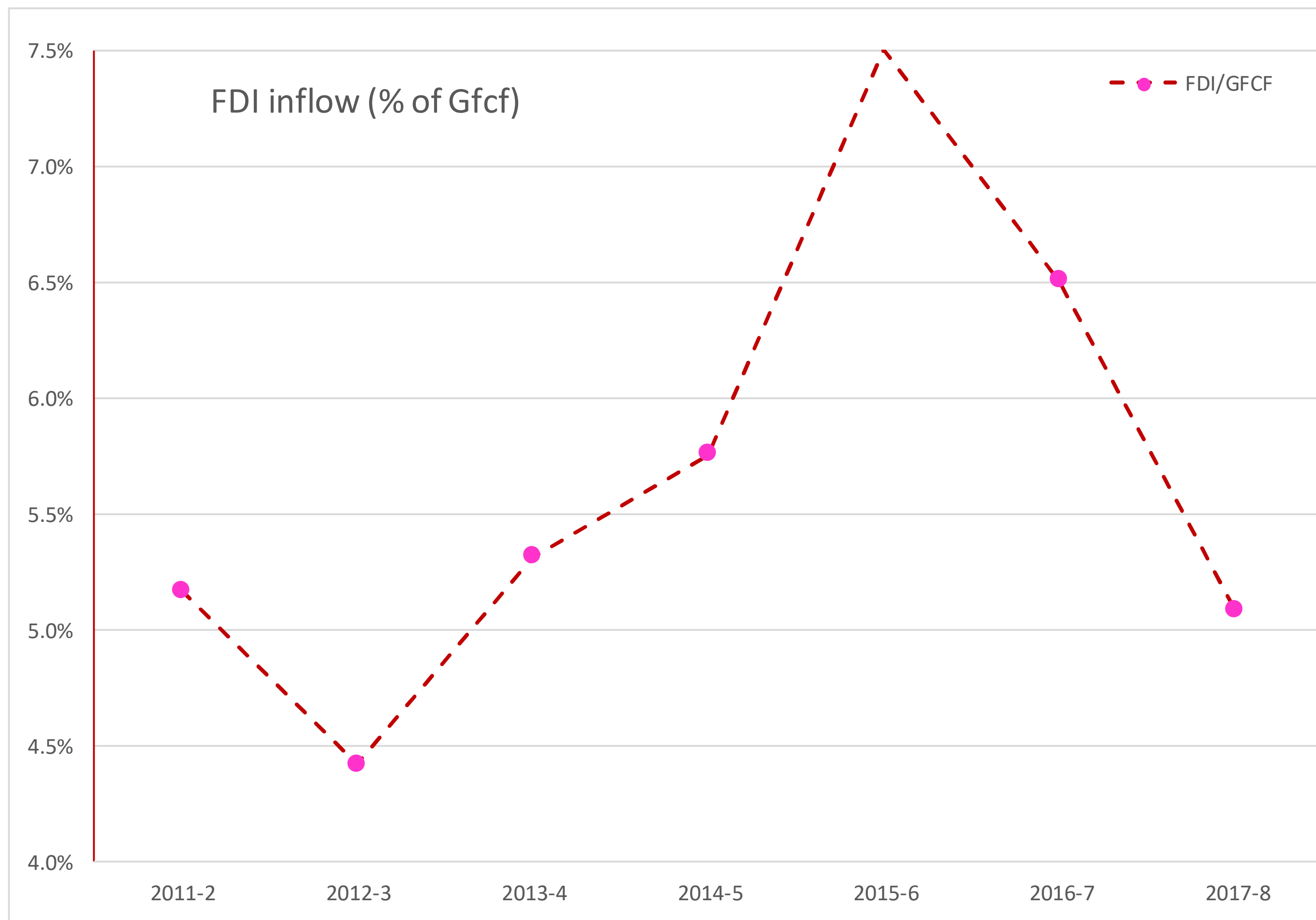
Foreign Direct Investment

There has been a lot of discussion on the revival of FDI after the collapse initiated by retroactive tax amendments introduced in 2010. We use the data on Direct Investment into India (FDI) from the BOP accounts published by RBI in current rupees and USD. Where needed, we use the GFCF deflator to convert the nominal rupee values to constant prices. FDI flows bottomed out at 4.4% of total

[5] The Black money Act (Undisclosed Foreign Income and Assets (imposition of Tax) Act 2017, Benami Transactions (Prohibition) Amendment Act 2016, Demonetization (November 2016) and Real Estate (Regulation and Development) Act 2016

fixed investment in 2012-13. The recovery however, peaked in 2015-16 at 7.5% of total investment and has declined to 5.1% of total investment 2017-18 (figure 4).

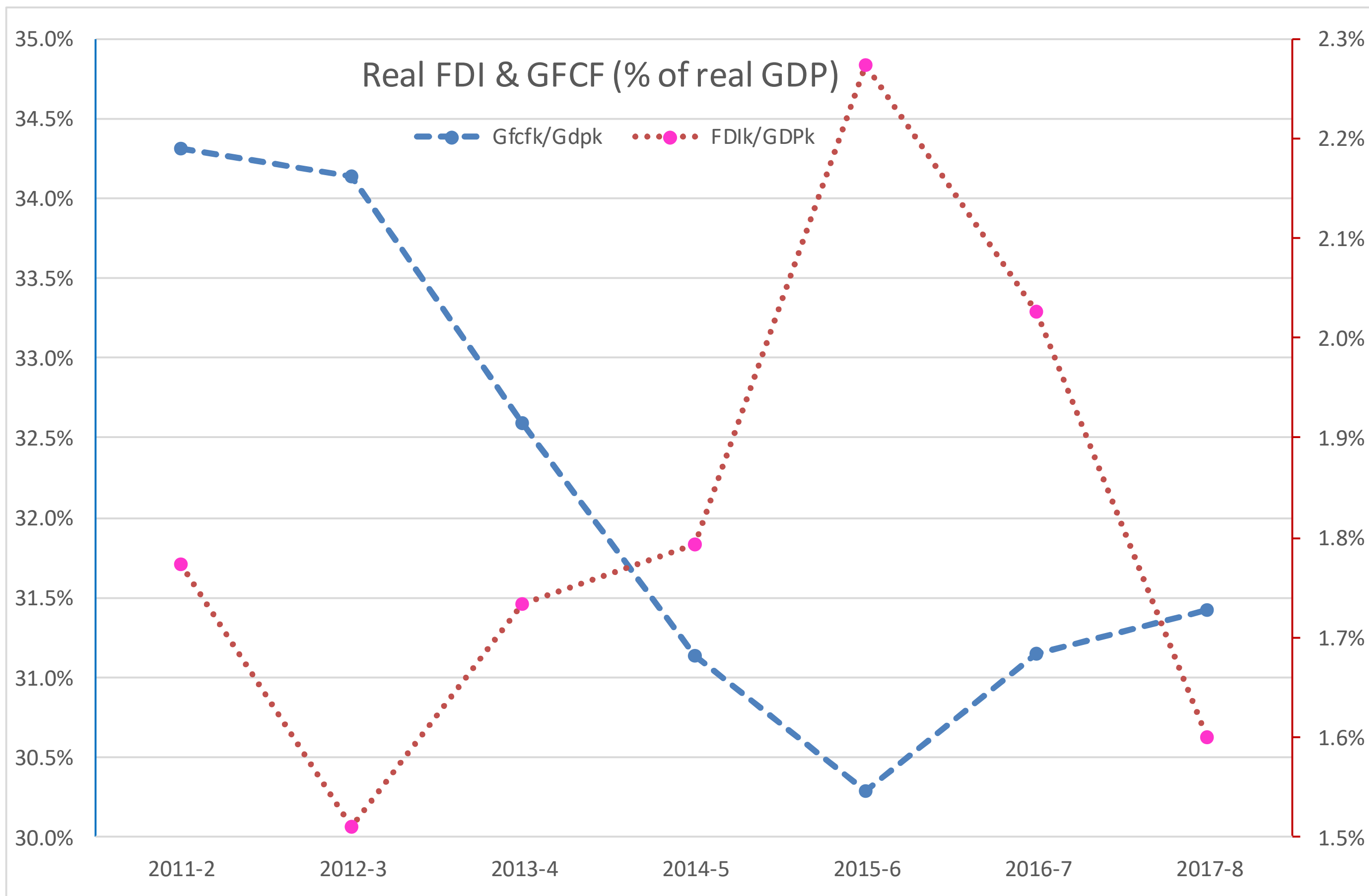
Figure 4: FDI inflow (% of Gfcf)



The pattern of changes in the rate of total fixed investment and that of Foreign Direct investment (as % of GDP in constant prices) is almost the opposite of each other.[6] Fixed investment trended down from 2011-12 to 2015-16 and then recovered slowly in the next two years (figure 5). FDI in contrast, rose to a peak sharply to a peak in 2015-16 and then declined just as sharply in the next two years (figure 4).

[6] Correlation = - 0.66

Figure 5: Real FDI & GFCF (% of real GDP)



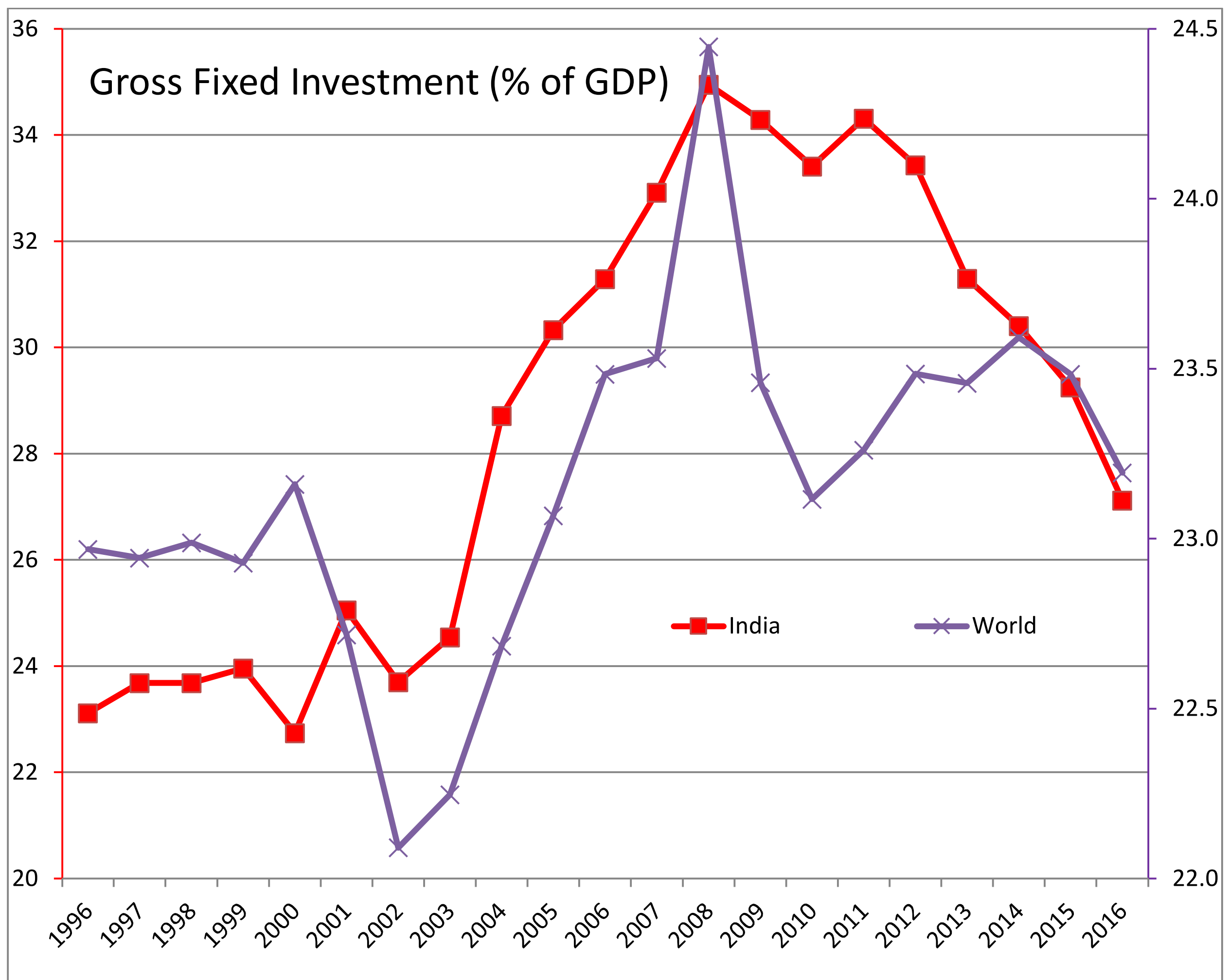
Global Perspective

Figure 6 shows the Gross Fixed investment pattern of India (left scale) against that of the World (right scale), using data from the World Bank, World development Indicators (April 2018). The graph for the Total investment rate (% of GDP) shows a similar comparative picture. The striking thing is that World Investment rose sharply before the Global Financial Crises (GFC) and then fell even more sharply in the two years following the GFC.[7] In contrast, Indian investment rate fell very slowly in the four years following the GFC, and then collapsed continuously in the next four years. One reason for this contrast is the difference in Fiscal-Monetary mix. India had a much looser fiscal and much tighter monetary policy mix than the USA and other major developed economies.

The fluctuation in the fixed investment rate from this source matches the pattern in the new series from 2011-12 to 2016-17, better than, in the old series from 2007-8 to 2011-12 (figure 1)

[7] GCF was high in both 2007 & 2008 but collapsed more sharply in 2009. It also recovered more quickly

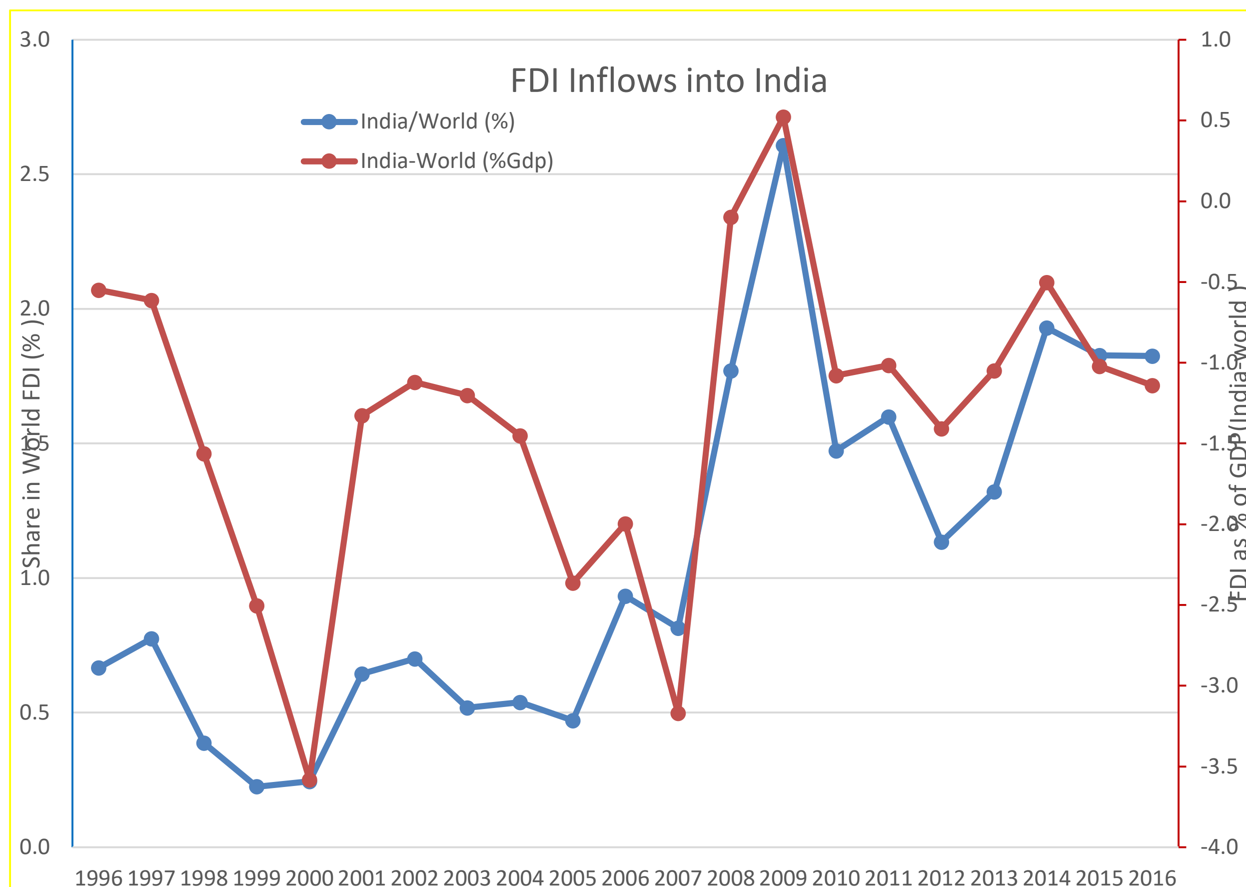
Figure 6: Fixed Investment Rate(GFCF/GDP): India(L) & World(R)



Source: Graph based on data from WDI, World Bank, April 2018 (Macro16Wdi15Apr18).

Figure 7 shows the FDI inflows into India relative to total FDI inflows into all economies (world) in terms of India's share and as the difference in FDI/GDP ratio between India and the World. India's share of World FDI & its ratio to GDP spiked in 2007, prior to the Global Financial crises (GFC) in Q4 of 2007. It continued in 2008 given gestation lags in investment and the quick recovery in GDP. Then it collapsed in 2010 following the retroactive tax, and didn't recover till 2014, driven by expectations of positive economic changes by the new Government. Though FDI has declined somewhat since then, it remains above the levels observed before the spike resulting from the global bubble which ended with the GFC.

Figure 7: FDI Inflows into India relative to World [Share(L) & Diff in % of GDP(R)]



Investment Growth recovery

Real rate of growth in investment is a better indicator of potential recovery than the Nominal Investment rate is an imperfect indicator of recovery. The real growth rate shows that investment recovery has clearly started in 2016-17 and 2017-18. The rate of growth of fixed investment has accelerated from an average 3.3% (2012-13 & 2013-14) to 3.9% (2014-15 & 2015-16) and further to 8.9% (2016-17 & 2017-18). Rate of growth of total investment has accelerated from an average of 0.8% to 5.9% to 7.4% over the same three, two-year periods.

Conclusion

This analysis contradicts much of the popular analysis of the decline in the investment rate. The only part which remains valid is that the investment rate reached an unsustainable peak in 2007-8 before the global financial crises heal global finance and global demand for tradable goods at the end of 2008.

The paper shows that the decline in rate of investment (GFCF as % of GDP) was due to House hold investment and not the corporate sector. More surprising the entire decline in the household investment rate is due to the decline in the household investment in dwellings, buildings and structure, not in machinery and equipment. This seems to be linked to some extent to tighter

monetary policy induced higher real interest rates and the anti-corruption anti-black money laws and actions taken by the government.

Recent data on growth of investment suggests that the private investment cycle has finally turned and is on its recovery phase.

References

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