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GDP Growth Trends: 2012-13 to 2018-19

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Abstract

This paper reviews the growth performance of the Indian economy from 2011-12 to 2018-19 using only the new GDP series with base 2011-12, and analysis the reasons for declining growth. It also compares the growth performance with the Growth performance from 2004-05 to 2011-12 using old series with base 2004-05.

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Introduction

The new series with base 2011-12 gives a consistent series for determining the GDP growth since 2012-13, without getting bogged down in controversies about changes in the new series relative to the old series with base 2004-5. This paper analyses the Trends, cycles and shocks during this seven-year period. The sharp deceleration in growth during the last two years has raised concerns. One question that arises, is whether this decline is due to legacy problems of NPAs in Public Sector Banks, monetary shocks such as demonetization, introduction of GST or the ILFC near-bankruptcy, or due to more fundamental structural problems? This note examines the growth trends and the Demand and Supply factors deriving it. It then goes on to analyze some of the drivers of these trends. Next it uses the GDP with base 2004-05 to derive the growth trends from 2005-06 to 2011-12 and compares them with the trends derived for 2012-13 to 2018-19 (GDP base 2011-12), to sharpen the analysis of the drivers and problem areas requiring policy attention. It concludes with some policy suggestions.

Growth Trends

GDP growth has followed an inverted U-shaped curve, accelerating from a low of 5.5% in 2012-13 to a peak of 8.2% in 2016-17 and then decelerated to 6.8% in 2018-19 (Figure 1). The GVA has followed a similar pattern, but has grown at slower rate, averaging 0.2% lower than GDP over the period.¹

GDP Demand Side

The largest component of Demand for GDP is Private Final Consumption Expenditure (PFCE), contributing an average 59% of aggregate demand. Private consumption growth has been on an accelerating trend but seems to have plateaued out in the last two years (Figure 2). This is confirmed by the quarterly data on PFCE, which also shows a plateauing out of private consumption growth. There is however a slight difference between the two, with annual data showing a plateau below and the quarterly data above 8%.² This contrasts with a clear

¹In terms of linear trend, GDP growth has accelerated from less than 5.5% to over 7.7%.

² Caution: Quarterly data is merely an interpolation of annual GDP data, based on limited monthly & quarterly indicators and not a direct estimate of Quarterly GDP. So it is as volatile as the underlying indicators.

deceleration in GDP growth during last two years to 6.75% in 2018-19, with quarterly GDP data also showing a decelerating trend towards 6.8%.³

Fixed investment (GFCF), the second major component of demand, contributing an average 29% of demand during the period, has been on a clear uptrend and remains so (Figure 3). The rate of growth of 10% in GFCF for 2018-19 is right on the seven-year trend line. The available data for by Assets and institutions (till 2017-18), shows that Household Investment in Dwellings, commercial & industrial structures (HHstr), collapsed in 2015-16, the 2nd year of the double drought (Figure 3), and has averaged -2.4% during 2012-3 to 2017-18. GFCF net of Household Investment in structures (GFCF-HHstr) has been on a clear uptrend, which parallels the uptrend in GFCF but is about 4% point higher. During this period real GFCF- HHstr growth averaged 9.4%, 4.2% points higher than the average growth of 5.6% in GFCF. The anti-black money campaign which had real estate as one of its targets, along with high real interest rates would tend to affect Household investment in, and borrowing for investment in, dwellings and commercial property.

The disaggregated data for Public and Private sectors is not available yet for 2018-19, but author's projections suggest that the trend of accelerating private fixed investment has been maintained, with its growth rate accelerating from 8.7% in 2017-18 to an estimated 9% to 10% in 2018-19. Changes in stock holding, & valuables, the remaining components of investment average about 3% of GDP but are too volatile to use for projection of GDP growth trends.

Some economists have attributed the declining trend in GDP growth to negative or slow growth in exports. The growth rate of exports has followed a perfect U-shaped pattern with a trough 2015-16 (Figure 4). This pattern is virtually the mirror inverse of the inverted U-shaped pattern of aggregate GDP growth. The former cannot therefore provide an explanation for the latter. Associated with this is a misperception that India's export growth relative to the rest of the World. India's merchandise exports have grown by a compound annual growth rate of

³ See fn2, Op cit.

1.4% per annum from 2011 to 2018 compared to a growth rate of 1% for World merchandise exports. During the same period, India's exports of goods & services have grown at a compound annual rate of 2.6% per year compared to a growth rate of 1.6% per year for total World exports. The more relevant factor in aggregate GDP growth is Net Imports= Imports – Exports.

Net imports have averaged -2.8% of GDP in the last 5 years. They therefore act to depress Demand for Indian goods and services. The time pattern of changes in Net exports is revealing; Net Imports declined in real terms in every year from 2013-14 to 2016-17, thus giving a positive boost to real GDP growth. *This has been reversed in the last two years 2017-19 with a large increase net imports depressing the rate of growth of aggregate GDP (at constant 2011-12 prices).*

The rise in net imports over the period as whole, is more than enough to explain the deceleration in growth in 2018-19.⁴ Underlying the change in net imports is the increase in US\$ price and value of oil imports during January 2017 to November 2018. As this has started reversing from December 2018, we will soon see a reversal of this drag by November 2019, and possibly earlier, provided India's oil import price falls quickly below \$65/BD and remains there.

GDP Supply Side

Agriculture and allied (A&A) sectors have averaged 17.4% of Gross Value added in the economy in the last five years. The two consecutive droughts in 2014-15 (-0.2%) and 2015-16 (0.6%), were followed by a sharp recovery in agriculture with two normal monsoons in 2016-17 (6.3%) and 2017-18 (5%), effectively wiping out the shortfall created by the double drought. The A&A growth was 2.9% in 2018-19 exactly equal to the average growth in the previous four years. This was also reflected in the decline in the unemployment rate from a high of 9.0% in first half of 2016-17 to a low of 4.0% in first half of 2017-18.⁵ The average A&A growth rate of 2.9% over five years, resulted in the lowest agricultural price inflation (1%) since 1978 (0.5%) and marginally below 2000-

⁴ Order of magnitude of effect: If the increase in net imports is added back to GDP its growth rate is 9.9% in 2017-18 and 7.7% in 2018-19 ie Increase in Net Imports has depressed growth rate by 2.5% and 0.9% respectively.

⁵ These are calculated from CMIE data on monthly unemployment rates.

01 (1.2%), drastically reducing the income of farmers with marketable surplus and resulting in losses to surplus farmers trapped in traditional crops like cereals and sugar. The A&A growth rate of -0.1% in Q4 of 2018-19 is not, however, as problematic as suggested by many economists, because it followed a growth rate of 6.5 in Q4 of 2017-18 and 7.5% in Q4 of 2016-17.

It is very important to differentiate between crop agriculture (10.6% of GDP), and agriculture & allied which includes livestock, forestry & fishing (7.2% of GDP), separate GVA data for which is not yet available for 2018-19. The four-year (2014-18) average growth rate for crop agriculture is only 0.6%, because the fall in crop value added in the drought years was -3.7% and -2.9%, with the subsequent two normal monsoon years producing 5.0% and 3.8% growth. Despite this lower growth, inflation in crop agriculture was 1% in 2017-18, and likely negative in 2018-19. The second factor that needs to be kept in mind is that farming households, which constitute 2/3 of all households now get more than 50% of their income from outside the A&A sector, while crop agriculture is about 40% of A&A. This means that on average only 1/5th of the income of farm households now comes from crop agriculture. The distress caused by low prices is concentrated by crop, geography of a marketable surplus and availability of non-crop occupational opportunities.

Manufacturing is the largest single sub-sector of the economy, averaging 16.6% of GVA in the last five years. It is also the sector whose inverted V-shaped growth pattern has mirrored the inverted U-shaped trend in aggregate GDP growth (Figure 5). Manufacturing contributed 20% towards the growth of aggregate GVA over the five-year period, a share higher than its average 16.6% share of GVA in current prices. The one per cent point recovery in manufacturing growth in 2018-19 over 2017-18, mirroring the 1.4 per cent point recovery in private consumption, is therefore encouraging (Figures 5 & 2).

Construction sector which is less than half the size of the Manufacturing sector (8%) has been on a recovery path throughout the seven years. Growth has accelerated from below 1% to nearly 9% (Figure 6). This has happened despite

shocks like Demonetization and legal changes like RERA and the changes inherent in GST on construction related goods and services. This growth is likely driven by government investment in infrastructure and corporate investment in industrial structures, given negative growth in household investment in dwellings and commercial property.

The importance of the electricity sector is much greater than its less than 3% share in value added. Electricity growth has also accelerated throughout the period, with the trend growth rate rising from below 4% to 9% (Figure 6). The growth rate from 2018-19 is however below trend at 7%, with annual growth dragged down by a collapse in the last quarter of 2018-19.

Analysis: Drivers of Investment

Private Investment growth has accelerated over the last six years or so (Figure 3). Capacity Utilization, Bank (SCB) lending rates and the price of Investment goods seemed to have played a role (Table 1). Capacity utilization (UCAP) has had a positive effect on real private investment at constant prices (Invest Pvt).⁶ Scheduled Commercial Bank loan rates (SCB Loan Rates) have fallen from high of 10.1% in 2013-14 to 7.9% in 2017-18 leading to an accelerating growth in private investment.⁷ Inflation in prices of fixed investment goods has declined from 5.7% in 2012-13 to 3.4% in 2018-19 stimulating growth in private fixed investment (Table 1).⁸ With capacity utilizing rising to 75.9% in Q3 of 2018-19 there is an expectation of further pick up in private investment. If the current monetary policy of using a combination of reduced Repo rates and increased liquidity, loan interest rates are expected to decline further.

Table 1: Private Investment: Capacity Utilization, Loan Rates and Prices

⁶ Correlation coefficient of GFCF-private at 2011-12 prices and Capacity Utilization derived from RBI's surveys is 0.36 as shown in last line of Table 1. Correlation is 0.4 between quarterly data for total GFCF & UCAP.

⁷ Nominal SCB loan rates are highly correlated with the rate of growth of private investment at -0.9 (last line of Table 1). The correlation coefficient using real rate of interest using price deflator for GFCF is -0.34.

⁸ Price inflation in GFCF has a negative correlation of -0.11 with the rate of growth of private investment (last line of Table 1). The correlation between quarterly data for total GFCF and inflation in GFCF deflator is identical.

	GFCF	InvestPvt	UCAP	InvestPvt	SCB Loan	Loan Real	Inflation	GFCF
FY	Rs cr	Rs Crore		Gr rt(%)	Rate(%)	Rate(%)	GFCF (%)	Gr rt(%)
2012-3	3145793	2490462	74.43	5.7	10.0	4.3	5.7	4.9
2013-4	3194924	2477275	73.50	-0.5	10.1	6.0	4.1	1.6
2014-5	3278096	2513948	72.38	1.5	10.1	6.2	4.0	2.6
2015-6	3492183	2584609	72.43	2.8	9.5	10.5	-1.0	6.5
2016-7	3783778	2865148	72.18	10.9	8.0	6.9	1.1	8.3
2017-8	4136572	3115787	73.08	8.7	7.9	4.6	3.3	9.3
2018-9	4548452	3426027	74.83	10.0	8.0	4.5	3.4	10.0
Correl		1.00	0.36	1.00	-0.90	-0.34	-0.11	
Corel(Q)	1.00		0.40		-0.18	0.03	-0.11	1.00

Note: Private fixed investment in 2018-19 is authors estimate, from GFCF(total) & share of private 2017-8. Quarterly data doesn't exist for Pvt Inv so GFCF used.

Underlying these developments was a fundamental change in approach to monetary policy during the tenure of two RBI governors towards their version of “inflation targeting”. The real repo rate which averaged -2.4% from March 2010 to September 2013, increased to an average of 1.7% from October 2013 to December 2018. Other effects of this Monetary policy approach were a deceleration in real (i.e. at constant prices) credit (BCCS) growth from an average 8.6% during the first period to 5.8% during the second period. Simple analysis shows that the slope of the real credit to real interest rate curve declined from 1.46 during Q3 of 2008 to Q1 of 2014 (CY) to 0.58 during Q2 2014 to Q1 of 2019. The slope of 1.48 is consistent with an independent monetary policy tracing out a demand curve for credit. The 0.58 suggests that either - (1) monetary policy perversely tightened during a period of agricultural supply shock driven jump in inflation, when credit growth was decelerating due to lower effective demand, or (2) The tightening and stricter enforcement of NPA norms for commercial banks, which increased the risk premium of Bank lending to commercial sector, reduced risk adjusted return to banks, reducing their supply of credit for the same level of real interest rates, or (3) The introduction of Indian Bankruptcy Code (IBC) and its implementation through the NCLT reduced the effective demand for credit from the highly leveraged part, and/or stressed part, of the Corporate sector.

Disaggregated Investment & Saving

Many economists have commented on the decline in the Investment and the saving rates, as per cent of GDP. This issue was analyzed earlier by

Virmani(2018).⁹ Here we focus on the period, 2011-12 to 2017-18, as disaggregated data is only available till this date. During this period Gross Fixed Capital Formation(GFCF) as per cent of GDP declined by -5.7% of GDP in current prices and by -2.9% of GDP in constant 2011-12 prices. The reason is quite simple; the inflation in capital goods prices was much less than in overall GDP. The primary reason for this was pronounced excess capacity Worldwide and in India(post Global financial crisis), as demand for capital goods dropped much more sharply than demand for consumption goods, while the capacity creation in capital goods industry did not decline proportionately because of countries like China which continued to pursue an export-investment led growth strategy.

The second important point that emerges is that the entire decline in Investment as per cent of GDP can be explained by the decline in Household Investment in Dwellings, Commercial Buildings and Industrial structures (HHstr). This declined by -5.9% of GDP in current prices and by -5.7% of GDP in constant 2011-12 prices. In real (constant price) terms the decline in Household investment in Structures was largely offset by Government (0.9%) & private corporate (0.5%) investment in structures and Household investment in machinery & equipment (1.2%). Virmani (2018) attributed most of the decline in Household investment in Structures to high real interest rates and the anti-black money initiatives. The latter started with formation of a SIT under the direction of the supreme court in 2011 and the Hazare agitation against corruption.¹⁰ They picked up speed in 2014, with a change in international co-operation on tax evasion and various measures taken by Govt, including new legislation.

The third interesting point is that though that Investment in machinery & equipment (M&E) has grown at an annual average rate of 6.8% between 2011-12 and 2017-18, so that its ratio to GDP in constant 2011-12 prices, is exactly the same in 2017-18 as it was in 2011-12. The latter contrasts with a -1.8% of GDP

⁹ Virmani, Arvind, "Investment: Corporate India and Indian Households," Working Paper No. 1/2018, June 2018. [InvestmentFables2017.doc](#).

¹⁰ The initial direct effect on investment was likely limited to major black money generators but spread to the smaller more numerous households through the consequent slowdown in real estate inflation.

in current prices, because of the difference in inflation rates between M&E and GDP.

The decline in Gross Savings at current prices was -4.1% during the same period, i.e. 1.6% point less than the decline in GFCF. Given macro identities, this is reflected in reduction in Current Account Deficit and net capital inflows to finance it.¹¹As Household direct investment is equal to household saving in these assets, it is useful to look at Household investment in financial Assets. Gross financial savings of households increased by 0.26% of GDP, but its liabilities increased even faster by 1.1% of GDP resulting in a -0.75% of GDP decline in Household financial saving between 2011-12 and 2017-18. However, the entire increase in liabilities has occurred in 2017-18 with a 40% jump to 4.3% of GDP over the previous six years average of 3.1 %. It could therefore be a temporary spike connected to demonetization in November 2016, and the slow reinjection of cash back into the economy, necessitating recourse to credit for meeting the Transaction demand for money. Further, the forced shift of a part of the informal sector into the GST framework from April 2017, made their accounts more transparent, making it easier for them to obtain credit from the formal financial sector. We can, however, form a better judgement when data for 2018-19 is available.

The second noteworthy fact is that the savings of financial corporations have declined -1% of GDP, reflecting the share of public (-0.7%) and private (-0.3%) corporations respective shares. This reflects the tightening of financial regulations, exposure of legacy NPAs and more effective enforcement of provisioning norms. The third noteworthy fact is that the savings of Private non-financial companies have increased by 2.5% of GDP, while those of their Public sector counterparts have remained unchanged. The fourth note worthy fact is that General Government has improved its savings rate from -1.8% of GDP in 2011-12 to -1.0% of GDP in 2017-18, reflecting the improvement in fiscal position.

¹¹ After accounting for any changes in Stocks and other non-fixed investment.

Analysis: Drivers of GDP

It is useful to examine the contributions to GDP growth from various drivers of demand and the contribution of sectors to GVA growth. This is done for the period 2011-12 to 2018-19 at constant 2011-12 prices. For comparison, we benchmark this against the corresponding contributions to GDP growth from 2004-05 to 2011-12 at constant 2004-05.¹² Over the two periods, the rate of growth decelerated by 1.1% per annum from a compound annual growth of 8.2% during 2004-5 to 2011-12 to 7.1% per annum from 2011-12 to 2018-19 (Table 2, 3rd row). The last column shows that every major demand segment and most supply segment has slowed, except Mining (+1.3%) and Administrative & other services (+0.3%). The most significant change on demand side is a deceleration in Gross fixed investment (& Stocks) which led to a -0.15(-0.02) decline in its contribution to GDP growth (table 2, column 6). The dramatic change in the monetary policy framework after October 2013, to flexible inflation targeting, which resulted in a dramatic rise in real Repo rates and fall in base money and credit growth in constant prices was an important factor.¹³

Table 2: Contribution to Growth & Growth Rate (Compound Average annual)

¹² The former uses the new series with base 2011-12 and the latter uses the old series with base 2004-05 to avoid the controversial back series

¹³ The real repo rate which averaged -2.4% from March 2010 to September 2013, increased to an average of 1.7% during October 2013 to December 2018 during the tenure of two RBI governors with a very rigid, ideological philosophy of inflation targeting.

1	2018-9/2011-2		2011-2/2004-5		Chg 11-18/04-11	
	2	3	4	5	6	7
	ContGDP	Gr Rt	ContGDP	Gr Rt	ContGDP	Gr Rt
GDP at Market Price	1.00	7.1%	1.00	8.2%	0.00	-1.2%
Pvt Cons(PFCE)	0.58	7.3%	0.61	8.4%	-0.03	-1.2%
Govt Cons(GFCE)	0.10	6.5%	0.11	8.4%	-0.01	-1.9%
Investment (GCF)	0.32	5.9%	0.50	11.4%	-0.18	-5.4%
Fixed Invest(GFCF)	0.29	6.1%	0.44	11.4%	-0.15	-5.3%
Change in Stocks(CIS)	-0.01	-3.9%	0.02	5.6%	-0.02	-9.4%
Net Import (Import-Export)	0.01	1.3%	0.18	35.9%	-0.17	-34.6%
Export: G&S	0.15	4.6%	0.34	13.5%	-0.19	-8.9%
Import G&S	0.16	3.9%	0.52	16.9%	-0.36	-13.0%
Net Indirect Tax(-subsidies)	0.10	9.3%	0.05	5.2%	0.05	4.1%
GVA/GDPfc	0.90	6.9%	0.95	8.5%	-0.05	-1.6%
Agriculture & Allied	0.07	3.1%	0.08	4.2%	-0.01	-1.1%
Mining	0.02	5.1%	0.01	3.8%	0.01	1.3%
Manufacturing	0.19	7.4%	0.18	9.5%	0.02	-2.0%
Electricity, Gas etc	0.02	6.3%	0.02	7.0%	0.00	-0.7%
Construction	0.06	4.4%	0.08	8.9%	-0.02	-4.4%
Trade,Trasport,Sore,Com	0.22	8.3%	0.30	9.8%	-0.08	-1.5%
Finance,Real Estate,Prof Serv	0.27	9.3%	0.22	11.7%	0.05	-2.4%
Admin&othrServ	0.14	7.4%	0.11	7.1%	0.03	0.3%

Constant prices, but in 2004-5 prices for 2004-5 to 2011-2 & 2011-2 prices for 2011-2 to 2018-9

The deceleration in growth in GFCF driven by Household investment in Dwellings, commercial real estate and industrial structures (Figure 3) is mirrored by the deceleration of the Capital + Construction goods' production as measured by the IIP (base 2011-12). The correlation between GDP & IIP has declined marginally (-1.9% from 0.947 to 0.928), and the deceleration in Capital Goods production as measured by IIPs with the bases 2004-05 and base 2011-12, respectively, is more than deceleration in GFCF (Table 3).¹⁴ One reason for these developments is the sharp decline in inflation in capital goods prices, from 5.4% per annum to 3% per annum.

The dramatic fall in growth which would have resulted from the decline in deceleration of fixed investment was however offset by a positive change in net Exports (X-M), whose contribution to GDP growth went from -0.18 in 2004-5 to 2011-2 to -0.01 in 2011-2 to 2018-9 i.e. increased by 0.17. Thus, the decline in oil prices gave a large enough boost to the economy to offset the negative effect

¹⁴ We add the category of Construction + Infrastructure goods introduced in 2011-12 rebasing of IIP, to capital goods to get Capital + Construction goods, which are compared to Capital goods in IIP base 2004-05.

arising from decline in investment due to global excess capacity. Another way to understand the importance of oil imports and oil prices in Indian GDP growth is to recall the identity $GDP = C+I+G+(X-M)$ and calculate $GDP(dom) = GDP-(X-M)$. *Compound annual Growth of GDP(dom) decelerated by 2.5% points from 9.2% in 2004-5 to 2011-12 to 6.7% in 2011-12 to 2018-19*. This is almost double the deceleration of 1.1% in GDP.

Table 3: IIP Correlation with GDP and Compound Annual Growth rate (%)

1	2018-19/ 2011-12		2011-12/ 2004-05		Difference		Diff
	2	3	4	5	6	7	8
	Correl	Growth	Correl	Growth	Corell	IIP gr	GDP
	IIP-GDP	Rate	IIP-GDP	Rate	(4-2)	(5-3)	(tbl 2)
Electricity	0.973	6.6%	0.998	5.9%	-2.5%	0.8%	-0.7%
Mining	0.835	1.1%	0.994	3.6%	-15.9%	-2.6%	1.3%
Manufacturing	0.990	3.9%	0.982	8.8%	0.8%	-4.9%	-2.0%
Capital+Construction gds	0.928	2.4%	0.947	15.1%	-1.9%	-12.7%	-5.3%
Capital goods	0.862	1.2%	0.947	15.1%			
Consumer goods(PFCE)	0.997	4.7%	0.979	9.3%	1.8%	-4.5%	-1.2%
Base =>	2011-12	2011-12	2004-05	2004-05	both	both	both

Source: Calculated from IIP series base 2011-12 & base 2004-5 & correspondingly for GDP

Leaving aside these above two offsetting factors, the deceleration of Private Consumption demand by an average -1.2% per annum and of Govt consumption by an average -1.9% contributed to the -1.1% deceleration in GDP growth. The correlation between IIP for consumer goods and Private fixed consumption in GDP (PFCE) has increased by 1.8% points from 0.979 in the 2004-5 base to 0.997 in the 2011-12 base. At the same time IIP for consumer goods decelerated from a growth of 9.3% per year from the first period (base 2004-5), to a growth rate of 4.7%, in the second period (base 2011-2), a deceleration of -4.5% (Table 3). Part of the explanation lies in a deceleration of consumer goods inflation by -1.2%, partly in incomplete pass-through of oil price declines and partly in higher real interest rates which reduced demand for consumer loans and led to a dramatic deceleration in IIP consumer durables output by -13.9% points.

On the supply side, the greatest contribution to slowdown was from “Trade, Transport, Storage & Communication” (-0.8; Table 2, column 6). The deceleration in electricity growth of -0.7% from 7% to 8.3% was only 64% of

GDP growth deceleration of 1.1% point from 8.2% to 7.1%. Electricity output increases from a compound annual average growth of 5.9% as measured by the IIP with 2004-5 base to 6.6% as measured by IIP with 2011-2 base (Table 3). The deceleration in growth of GDP from electricity of -0.7% from 7% to 8.3% was only 0.64 of GDP growth deceleration of 1.1% point from 8.2% to 7.1%. Electricity output growth however contradicts the Value Added data. Electricity output accelerated from a compound annual average growth of 5.9% as measured by the IIP with 2004-5 base to 6.6% as measured by IIP with 2011-2 base. However, the correlation between IIP-manufacturing & GDP manufacturing has declined by -2.5% from 0.998 to 0.973 (Table 3). In the case of mining, it's the opposite story with GDP accelerating by 1.3% points and IIP mining decelerating by -2.6% points, but with the correlation between the two declining even more (Table 3).

Deflation:

Many commentators have talked about the divergence between output indicators and GDP at constant prices. Deflation is one possible explanation for this divergence. Post Global Financial Crises many tradable sectors across the World, have seen deflation for the first time since the Great Depression. A noteworthy feature of the GDP growth during this period is the sharp decline in GDP inflation from 9% at the start of the period, to a trough of 2.3% in 2015-16 for aggregate GDP but to 3.0% in 2017-18 for PFCE. The difference is driven by the deflation of -1% in 2015-16 in fixed investment followed by a gradual rise to 4.1% by the end of the period.

Further, prices actually declined in a number of sectors over certain periods: For instance, in Metals (by -0.8% in 2013-4 and -1.3% & -6.8% in 2015-6 & 2016-7), Water transport & other transport service prices (2013-14 & 2015-6), Air transport (2013-4, 2016-7), Mining and Quarrying (by -5% in 2014-5 & -13.5% in 2015-6). Construction, Trade, Hotels & Restaurants, Storage and Real Estate & Housing (2015-6), Electricity (-4%), Financial Services -0.3% (2016-17). Prices of Fixed investment also declined by -1% in 2015-16.

CONCLUSION& REFORMS

GDP growth has decelerated by a compound annual rate of -1.1% during 2011-12 to 2018-19 (base 2011-12) relative to the compound annual growth during 2004-05 to 2011-12 (base 2004-05). This was the result of a deceleration of -1.1% in Private consumption, -1.9% in Govt consumption, -5.3% in fixed capital formation and the deceleration of net imports (Import-export) by -34%. The decline in GFCF and the deceleration in net imports (i.e. an increase in Net exports) offset each other to yield a net deceleration of GDP growth of -1.1% point. The main drivers of the deceleration of Investment were creation of excess capacity during 2004-5 to 2011-2 and subsequent low capacity utilization, a reversal of the loose fiscal policy, a fundamental change in monetary policy philosophy, which resulted in a sharp rise in real interest rates, and enforcement of tighter norms on Bank NPAs followed by implementation of the Indian Bankruptcy Code. The main drivers of the rise and subsequent decline in net imports, was the sharp increase in oil prices, followed by some reduction in oil prices. If the GDP is adjusted for the drag of Net Imports of Goods & Services (Import – Export), the residual which may be termed GDP (dom), decelerated by 2.4% points from an average of 9.2% in 2004-5 to 2011-2 period (base 2004-05) to an average of 6.8% 2011-2 to 2018-19 period (base 2011-12).

GDP growth has declined for the last two years from a peak of 8.2% to 7.2% and further to 6.8%. The quarterly (y-o-y) trend and higher frequency data for April-July 2019, suggests the possibility of further decline in growth in Q1 of 2019-20. Though the slackening of private consumption growth for 2018-19 was marginal its disaggregated components are more disturbing; namely an absolute decline in auto sales (i.e. a negative growth rate. Among the factors which have played a role are, (a) the announcement of BS VI norms beginning April 2020, inducing postponement of purchases, (b) the introduction of 28%+ GST on cars, affecting retail sales in rural and other areas because of sticker shock, (c) ILFC crisis and its effect on NBFC consumer credit, (d) a rise in insurance premiums, (e) rise in oil prices in 2019 though these have partly reversed in 2019, (f) lower agricultural profits in 2018-19 because of collapse of prices in certain agricultural

commodities, and (g) the potential impact of the subsidies to electric vehicle. Most of these appear likely to reverse, but reasonably strong growth may not resume till Q4 2019-20 or Q1 2020-21. Though I forecast a GDP growth rate of 6.5% to 7% in 2019-20. Recovery of Auto consumption remains a downside risk factor.

The growth of fixed capital formation remained strong during 2018-19 but may be threatened in 2019-20 by post-budget pessimism. Though Capacity utilization has inched up gradually, real policy rates remain very high and real credit growth remains very slow. Reform of the entire financial intermediation system, particularly NBFC regulation & reform, must be accelerated, and monetary policy loosened in line with realistic forecasts of inflation, correcting repeated over forecasting of inflation. Both low real policy rates and faster growth of Monetary Base (long term liquidity) are critical for effective monetary policy in India, which has a large informal sector and fragmented financial markets. NBFC risk & uncertainty must be resolved by shifting from esoteric discussion of ideal solutions (viz Asymmetric information and Moral hazard) to pragmatic resolution by Govt and RBI (jointly).

Fiscal policy must follow the new FRBM and maintain a glide path consistent with the objective of reducing Government Debt/GDP target of 60% i.e. Union Govt Debt to 40% of GDP and State Government Debt to 40% of GDP. The capital expenditure share of Union Govt budget, which had risen from 10.1% in 2014-15 to average 12.6% in 2015-6 to 2016-17 has declined to 11.4% in 2018-19. Defence capital expenditures have declined progressively from 0.66% of GDP in 2014-15 to 0.51% of GDP in 2018-19. Attempt must be made to reverse these declines to improve the quality of expenditures. Sale of loss-making Public Sector Units (PSUs) is the most efficient and equitable way to do this, followed by sale of loss-making, high-NPA, Public Sector Banks (PSBs). Converting welfare subsidies into Direct Cash Transfer has already proved to eliminate corruption, reduce bureaucratic costs and deliver benefits seamlessly to the poor & less well off. Application of this method to all subsidies will ensure ease of living while releasing funds for Drinking Water, Health, Housing and Job Skilling.

Corporate tax reform to make rates more competitive with rates in East & S.E. Asia (i.e. 20-22%) and a simplified Direct Tax Code (DTC) which helps eliminate Tax Terrorism, is essential. To the extent that gains of simplification and reform, in the form of improved voluntary compliance and lower tax evasion, spill over from the current year into the next, any under-achievement of fiscal deficit target in current year, is acceptable to both tax economists and markets. Reform and reduction of the Provident Fund and ESI taxes/contributions to make them portable and competitive with private Pension and Health insurance plans, will also help in promoting labor intensive industry.

To lift the spirits of all business (tiny, small, medium, large) the Union Govt must immediately propose to the GST council, a drastically simplified 3 tier, revenue neutral, GST structure. The first tier of exempt goods & services & zero rating of exports is largely in place. The second tier will consist of a single uniform tax of 15% or 16% on all non-exempt goods & services. The third tier of single point surcharges as close to the final consumer as possible, which is not vatable (i.e. no offsets) is also largely in place. This should be restricted to 6-12 well specified goods and services (e.g. Tobacco products, petrol, diesel, cars and luxury hotels. This will result in a dramatic increase in Ease of compliance, monitoring, checking & enforcement and a dramatic decrease in the cost to both taxpayers & GST authorities. With food constituting 50% of the budget of poor taxpayers and (GST exempt) food, health services and education constituting >50% of the budget of 2/3 of population, such a system is also very progressive and equitable.

There is a once-in-a-generation opportunity to attract *Manufacturing Supply chains* looking to diversify out of China and to stimulate manufacturing value added and exports. A special group, with representation of exporters, producers of Labor-Intensive goods, FDI investors and Western companies located in China, must be formed to identify and remove sub-sectoral bottlenecks. Ease of Cross Border Trade remains poorly ranked and must be improved dramatically. Agriculture EXIM policy must move from Quantitative restrictions to import tariffs and export duties, and Specific duties on Textile imports be replaced by ad-

valorem tariffs. The GST system for refunding input duties to exporters need further refinement and reduction of refund lags to less than one week. The ITO agreement may have to be suspended for 3-5 years to reverse the inverted duty structure for electronics. The tariff rates on manufactures and minerals which are still above 10% must be phased down to 10% over the next 3-5 years. An increase in all tariffs below 10% to 10% should also be considered to bring the tariff structure as close to uniformity as possible. As a shift in supply chain from any other country to India will result in loss of sunk costs, a temporary tax incentive to compensate for loss of sunk costs should be considered.

The simplification of 44 industrial & labor laws into four Acts, which was pending for more than five years has started moving with the introduction of two of them in Lok Sabha. The other two should follow expeditiously. If the sections relating to flexibility for redundant labor are politically difficult to include in the new laws, they could initially be included in the proposed amendments in the SEZ Act. These changes could also be introduced in CEZs so that they can shine as Coastal Employment Zones, not just as Coastal Export Zones. This is essential for ensuring that India is ranked higher than Vietnam and other potential locations for labor intensive exports in Asia. Priority must also be given to basic education and skills required by labor intensive export industry and semi-skilled workers required for mid-tech industries where our rank seems to be lower than that of Thailand and Malaysia. An effective way to ensure generation of usable job skills for which there is a demand, is to amend the Apprenticeship Act to link Vocational education to Internship & training in manufacturing industry.

Comprehensive decontrol of the Agriculture trade (Output & input, domestic & international) and rural land sale, leasing, rental systems, will be essential for unleashing the export of Agriculture and Allied products and doubling farmers income. Sale/leasing of degraded and waste land to corporate agriculture, flexibility in land use of agriculture land for labor intensive manufacturing, and acquisition of land through “land pooling method” requires urgent attention. Rural youth must be provided with agricultural, service and manufacturing skills

to transform the entire sector. In sum, significant structural reforms is essential for raising the Economy's current growth trajectory of 6.5%-7% to 7.5% to 8%.

Appendix 1: Figures

Figure 1: Rate of Growth of GDP & GVA (%)

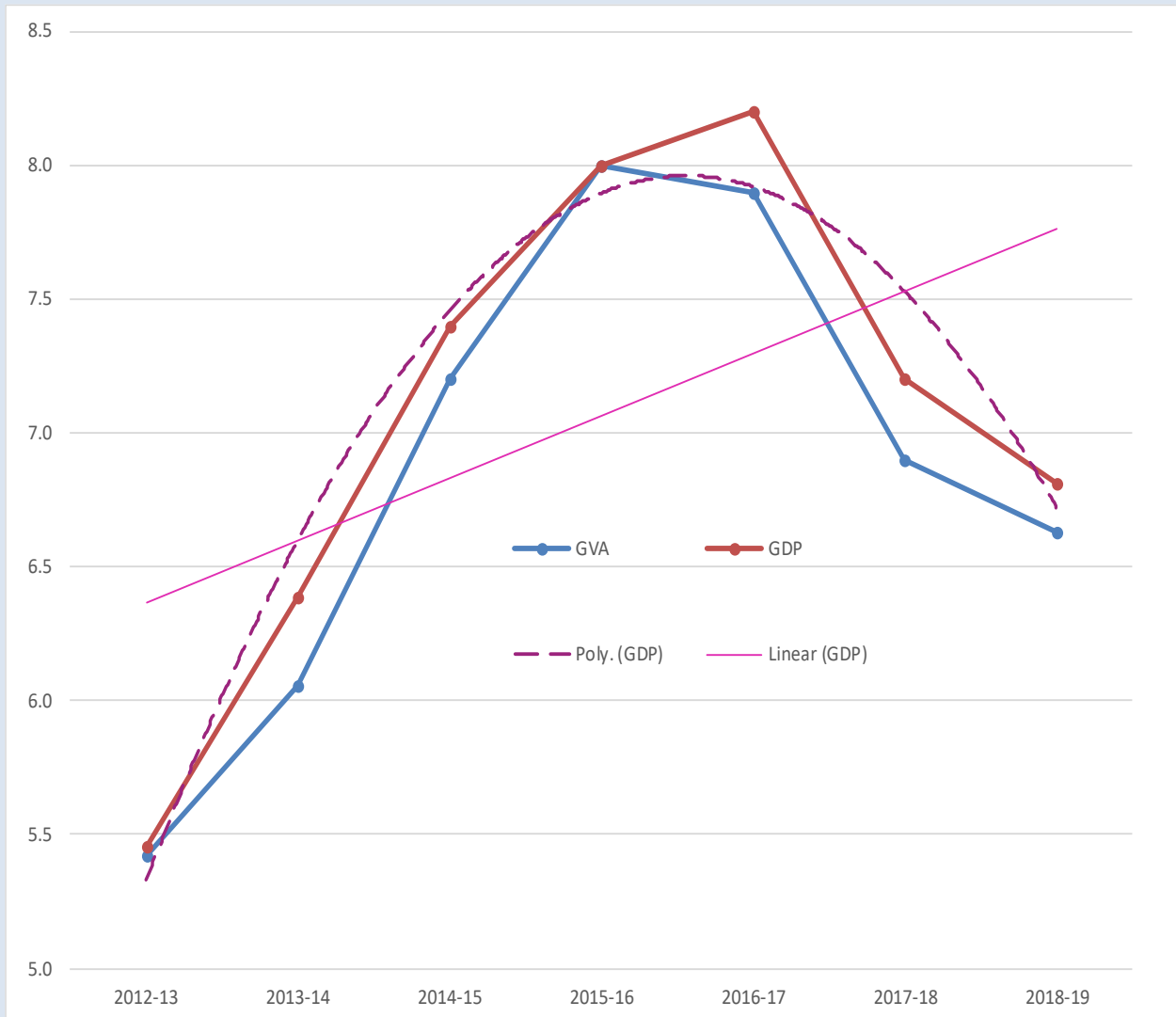


Figure 2: Rate of Growth of GDP & PFCE (%)

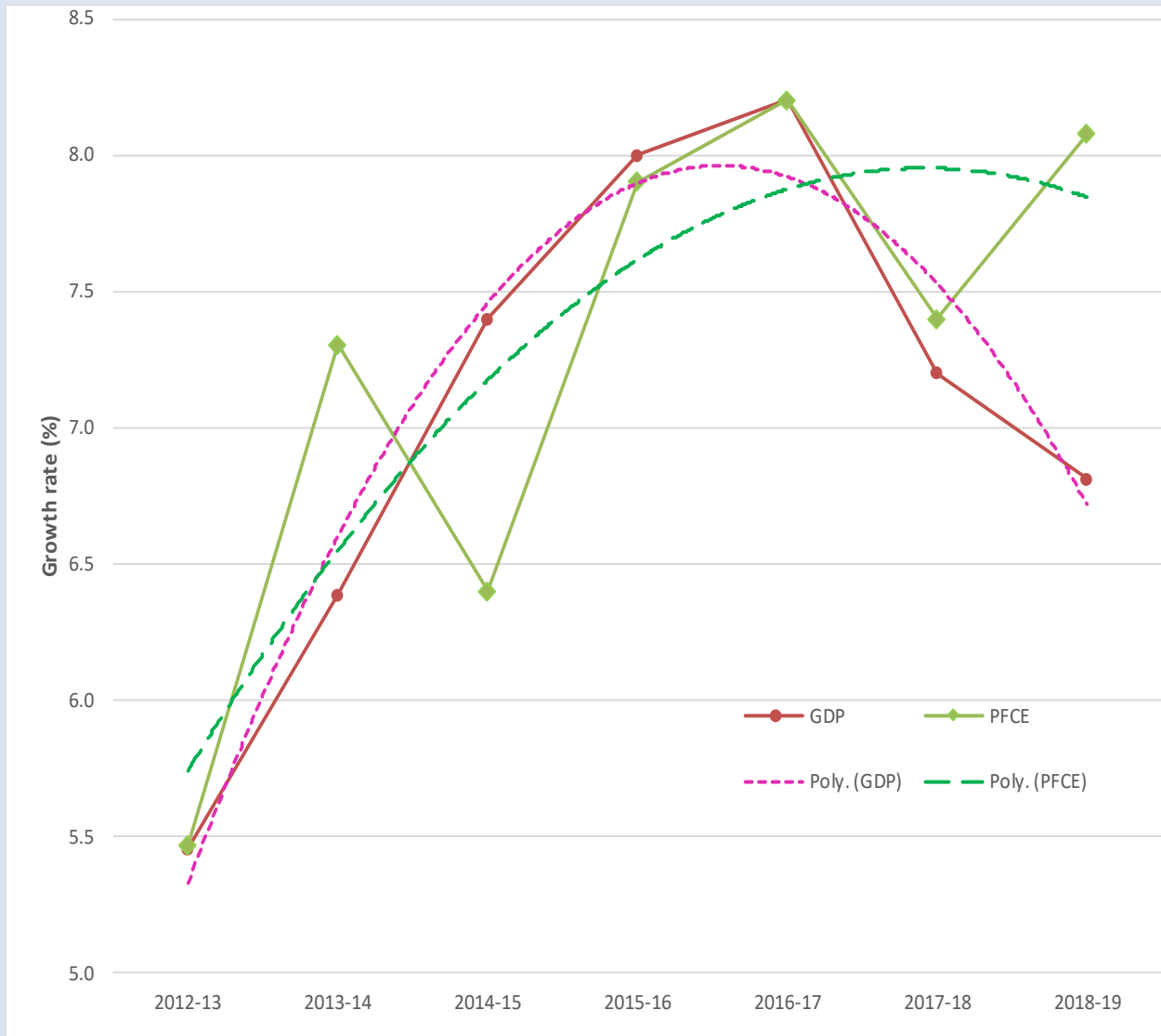


Figure 3: Rate of Growth of GFCF & its components

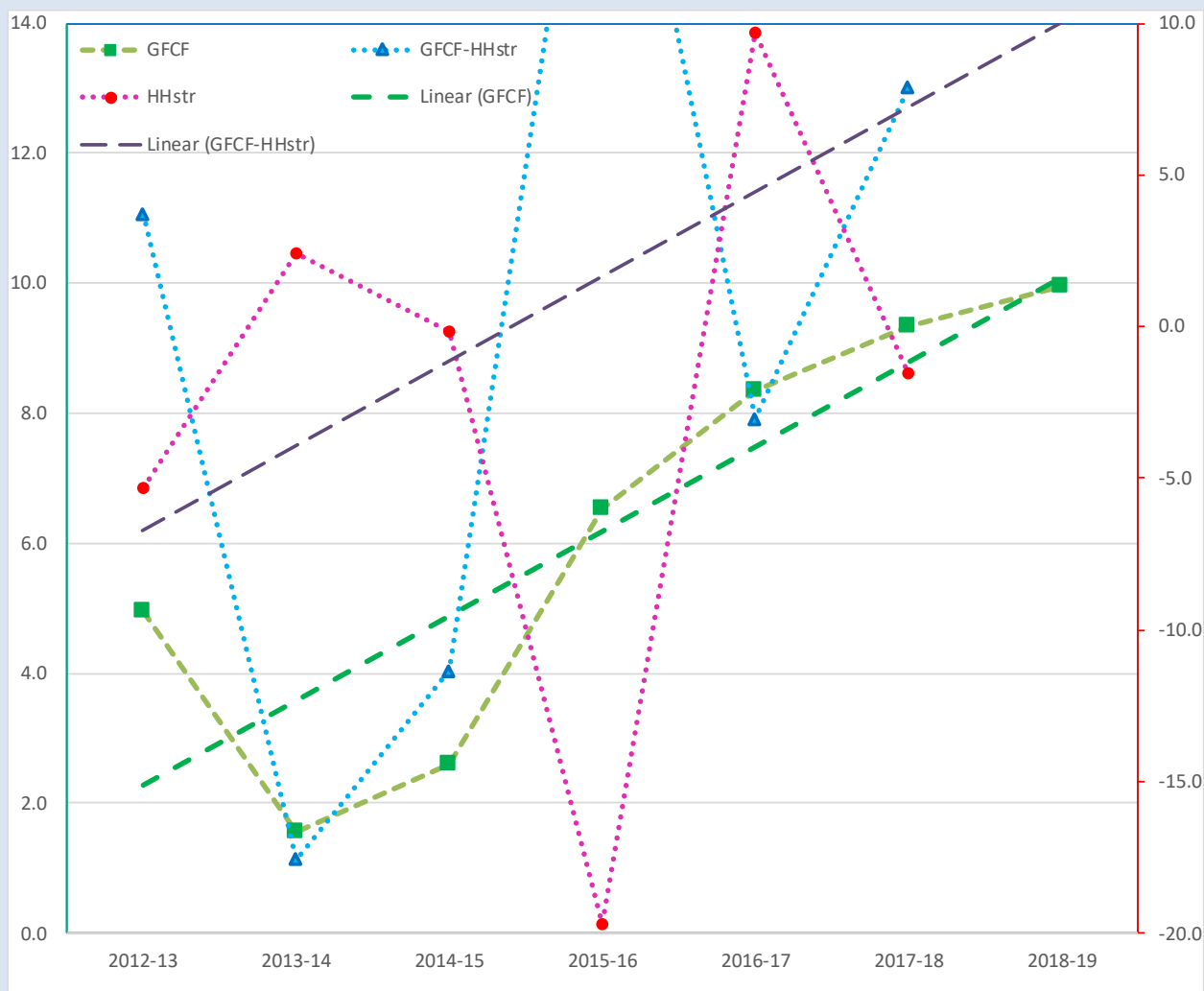


Figure 4: Rate of Growth of GDP & Exports of G&S

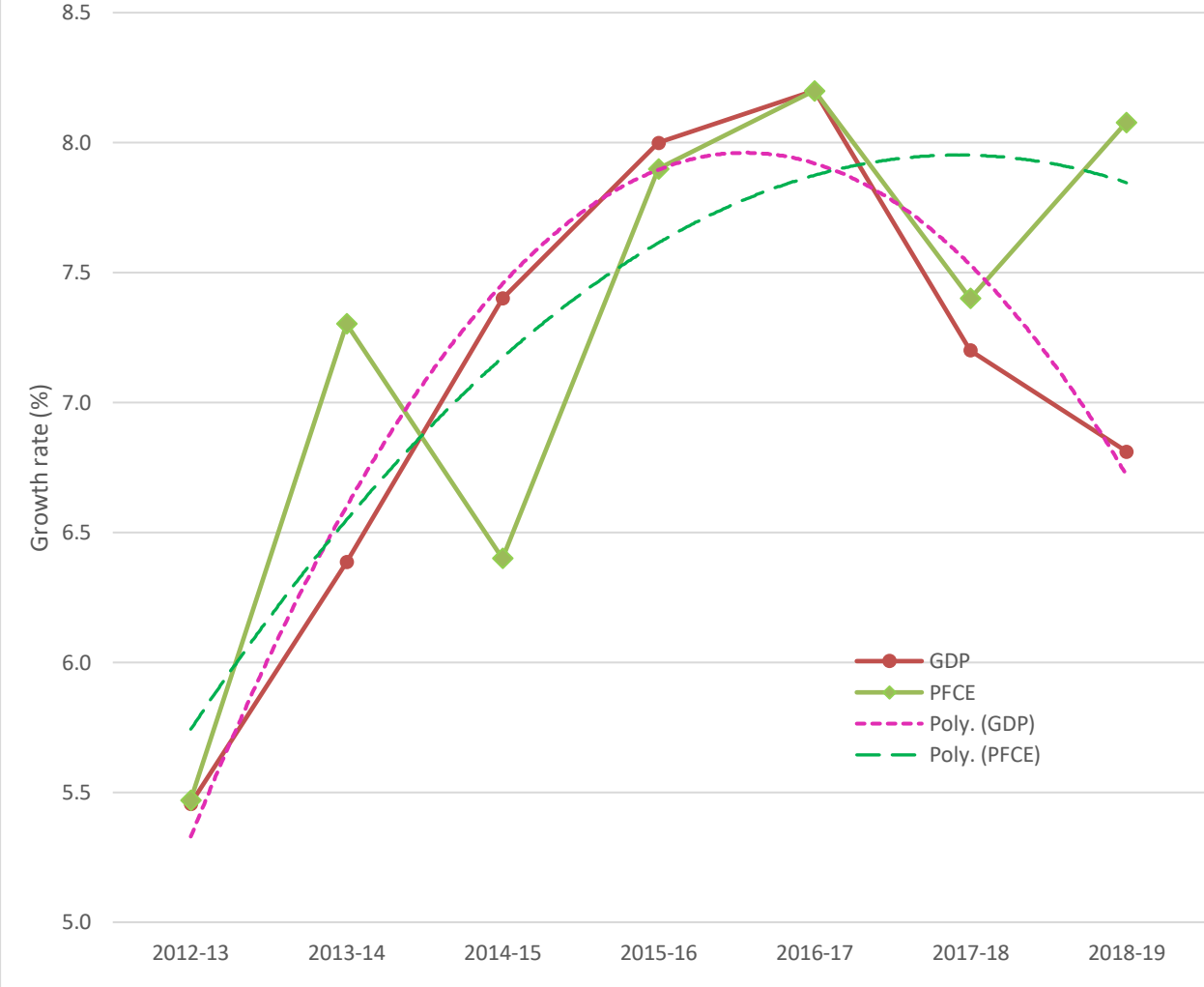


Figure 5: Sector Growth: GVA & Manufacture

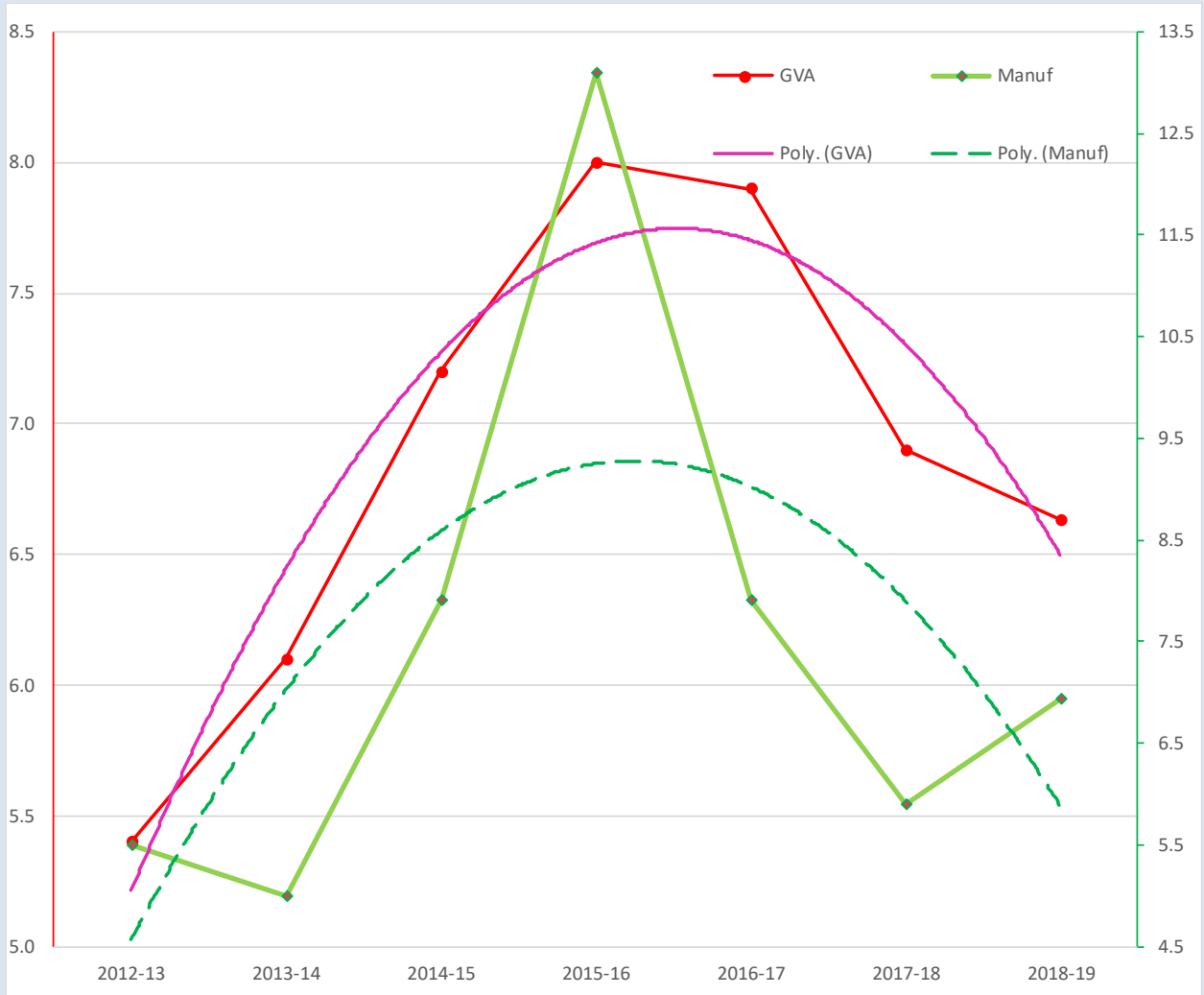


Figure 6: Growth of Construction and Electricity

