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ARTICLE

Post Covid-19: recovering and sustaining India's growth

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Abstract

The paper discusses past virtuous growth cycles in India and argues that the post Covid-19 macro-financial package is an opportunity to trigger another such cycle by raising marginal propensities to spend above those to save. This is feasible since the major constraints that aborted such cycles in the past are waning. Among these constraints are commodity price shocks and other supply-side bottlenecks; financial repression and discretionary allocation; and fiscal space. While the first constraint is relieved, and there is adequate progress on the others, fiscal space is still constrained. Even so, the Covid-19 crisis necessitates a large macroeconomic stimulus. In order not to overstrain government finances it should be targeted, temporary and self-limiting. Financing features can aid this as well as improve financial stability. Large government assets can be monetized to help restructure towards more effective government spending. Specific policy implications are drawn out.

Keywords Covid-19 · Virtuous growth cycles · Commodity price shocks · Macro-financial stimulus

JEL Classification E32 · E44 · E52 · E62 · O11 · O16

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1 Introduction

Why is it that steady high growth continues to elude India[1]? China's catch-up growth extended to about 30 years of double digit growth. India's post-liberalization growth has been volatile and has only rarely reached double digits. A high growth burst in the 2000s was not sustained. There was a slowdown after 2011. Growth was 3% per annum slower than in the previous period. The years 2016, 2018, 2020 saw reversals of weak growth revivals. In 2020 this is due to the Covid-19 shock.

The paper discusses past virtuous growth cycles in India and argues that the post Covid-19 macro-financial package is an opportunity to trigger another such cycle by raising marginal propensities to spend above those to save. This is feasible since the major constraints that aborted such cycles in the past are waning. Among these constraints are commodity price shocks and other supply-side bottlenecks; financial repression and discretionary allocation; and fiscal space. While the first constraint is relieved, and there is adequate progress on the others, fiscal space is still constrained. Even so, the Covid-19 crisis necessitates a large macroeconomic stimulus. In order not to overstrain government finances it should be targeted, temporary and self-limiting. Financing features can aid this as well as improve financial stability. Large government assets can be monetized to help restructure towards more effective government spending. Specific implications for policy are drawn out.

Key macroeconomic constraints of high oil and food price inflation that caused volatility had eased after 2014 but macroeconomic policy did not ease in line with this and became contractionary. High world growth and a local infrastructure boom had raised demand in the 2000s. Both stimuli disappeared after 2011 and were not replaced by others. Indian export growth remained weak after 2011 as poorly designed regional Free Trade Areas stimulated imports more than exports[2] under continuing global shocks and real appreciation. But domestic demand was not allowed to compensate. We examine the types of macro-stabilization policies consistent with an emerging market economic structure and show that in the Indian context because of unutilized resources and limits to depreciation and therefore external demand, sustaining domestic demand is very important.

Commentary on the slowdown in 2018 often pointed to inadequate structural reform rather than to a shortfall in demand. But the standard land labour reforms said to be pre-requisites for growth have been uniformly absent. So they cannot be

[1] For many years in the twentieth century, Vera Anstey conducted a development seminar on the Indian economy at the London School of Economics. A key question she wrestled with was: How has an economy with such rich resources remained so poor? We have still not resolved this issue.

[2] Thirlwall (1997) developed a theory of what he called a balance of payment (BOP) constraint on growth. Under a demand constraint for exports he showed long run growth had to equal export growth divided by the income elasticity of the demand for imports. Assumptions include terms of trade are fixed and capital inflows allow only a temporary deviation. In India's case, its exports are most sensitive to world demand, and high oil import dependence make the BOP constraint bite. Since its exports are such a small share of world exports, however, export demand may not be a constraint with sufficient price and quality improvements on the supply side. But depreciation is not a viable strategy since it raises the cost of imports.

responsible for growth volatility. Their absence did not prevent high growth in the 2000s. The argument often heard that growth is low because reforms are absent is fallacious also because extensive structural reforms continue to take place. Moreover, reforms have a cost. Some encounter intense resistance[3] for ideological reasons or from groups that are hurt, and often impose large short-term costs. It was rather pro-cyclical macroeconomic policy and regulations following specific shocks that led to the slowdown. Focus on structural reforms was excessive, although some of them, especially in the financial sector, were necessary.

With the easing of commodity price shocks and finance constraints macroeconomic policy was moving towards more balance within the space allowed by flexible inflation targeting and fiscal responsibility and budgetary management (FRBM) legislation, facilitating a rise in spending. There were signs of growth recovery in February. But Covid-19 imposed severe supply as well as demand shocks.

How can India's growth best recover and sustain as the effects of Covid-19 wear off? The contraction in global interactions has brought about recognition of the importance of domestic demand. There is also the peer effect as other countries inject monetary, financial and fiscal stimuli. One reason for India's conservative polices was a fear of outflows and large outflows over March–April illustrate again that global risks matter more than domestic policy. While domestic risks matter, growth matters more and spending to revive growth is acceptable especially since every country is doing this. Indeed, inadequate spending is regarded as more of a risk.

A study of past growth accelerations shows a switch to a higher growth path is feasible if marginal propensities to spend rise above those to save. Savings are not a constraint if the domestic financial system delivers. They tend to rise with higher growth. In India credit growth has been pro-cyclical tending to follow and over-enhance rather than lead growth. Especially since 2011, pro-cyclical regulations and focus on financial reforms squeezed credit growth and tightened financial conditions. The post Covid-19 stimulus is an opportunity to relax these especially as structural improvements are adequate and over-tightening has itself created stress.

But interest payments in the Indian government budget are already nearly a quarter of its revenue—it cannot afford to borrow much more, and expected future nominal income growth should limit growth of money supply. So financing schemes will have to be designed to minimize impacts on future fiscal deficits while maximizing growth revival. They should be targeted, temporary, work through the financial sector, and avoid the over-reaction that occurred after the global financial crisis. Reversal of the tightening of financial conditions that characterized the last decade will help the financial sector recover.

For sustainability, short-run actions have to keep an eye on the long-run; short-run stimulus given has to be consistent not only with short-run easing of supply constraints but also with continued long-run supply side improvements. There is sufficient progress on land-labour reforms that are often said to be inadequate. Reform

[3] This happened with attempts at land reform in 2014 by a newly elected government causing a loss of precious political capital and time.

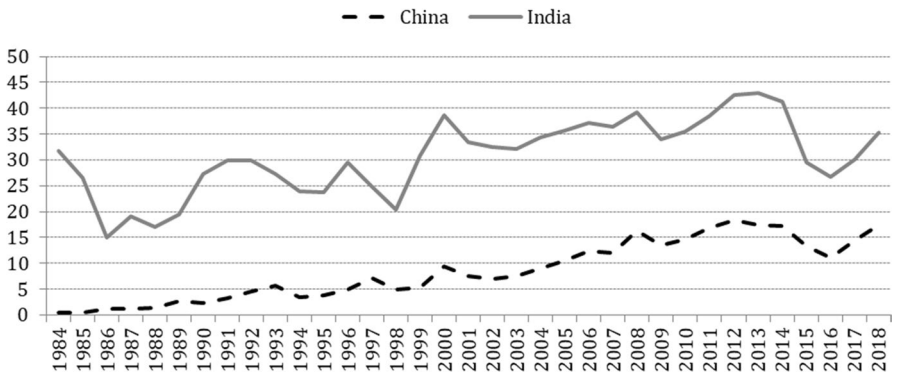

Fig. 1 Fuel imports (% of merchandise imports). Source: World development indicators available at https://data.worldbank.org/country

by stealth riding on feasible trends is allowing resource utilization and productivity to rise. The sheer rise in size and diversity available in a $2 trillion economy creates much more depth and resilience. Financial markets have absorbed many shocks since 2017 and recovered, pointing to this level and diversity effect. Fiscal reforms remain critical, however. Suggestions are made for specific policies.

The structure of the paper is as follows: Sect. 2 shows the relaxation occurring in key macroeconomic constraints. Section 3 brings out how structure and endowments condition reform strategies. Section 4 discusses past and possible future virtuous growth paths in India. Section 5 shows complementary supply-side improvements to be adequate and identifies essential reforms, while Sect. 6 draws out implications for policy.

2 Relief in macroeconomic constraints

2.1 Commodity price shocks

A big advantage for China was it started its catch-up growth in 1978 with reform that raised agricultural productivity. Low relative food prices are essential for sustained low inflation growth in populous countries where food has a large share in the consumption basket.

Other major commodity imports such as oil, an essential intermediate good, also contribute to inflation. China used to export oil but became a net oil importer in 1993.[4] By 2006 it imported 47% of its consumption, and had begun building a large strategic oil reserve as domestic production was now only two-thirds of its needs. In 2013 it became the largest oil importing country. Even so, by the time it became a

[4] See Zhang (2018) and https://en.wikipedia.org/wiki/Petroleum_industry_in_China and https://en.wikipedia.org/wiki/Energy_policy_of_India.

big oil importer its exports had grown enough to finance imports without materially reducing its current account surplus.

India is the world's third largest oil importer. In 2009–10, crude oil imports amounted to 80% of its domestic crude oil consumption and 31% of its total imports compared to 14% for China. India is dependent on a wide range of primary energy imports. Figure 1 shows China started its reforms process with a very low share of oil imports, but at India this was high at the beginning of the 1990s reforms. A rise in oil price raised the current account deficit (CAD) and depreciation in response further raised the import bill and was inflationary. This dependence on commodity imports implied limiting depreciation would help contain inflation.

The discovery of shale oil in many countries and especially the United States (US), together with climate change related efforts to develop green alternatives, as well as the discovery of feasibility of home and distant work in many areas after Covid-19, has reduced the power of the OPEC lobby to keep prices high. This change in the political economy of oil pricing relieves a major constraint for India.

There are also signs of a slackening of critical constraints in agriculture. A rise in agricultural productivity has to precede a growth surge for it to be sustainable in a populous country. This happened in China, while a jump in food inflation was contributed to halting India's high growth phase in the 2000s. By 2018, however, India seemed to have entered a period of agricultural surpluses. There is evidence of rising productivity and diversification to horticulture, aquaculture etc.

Sustained improvements in rural roads, electricity production and use of MGNREGA (rural employment guarantee) funds to strengthen irrigation and other infrastructure raised productivity, allowed farmers to grow high value crops and to venture into pluriactivity.[5] Much further improvement is required, however. Granular market-facilitating changes, for example in good quality grading and sorting is essential for integrating e-markets. Removing irritants like export bans, stock limits and the Essential Commodity Act is necessary for improving private sector participation in storage, processing and value chains. There is movement on this after the Covid-19 pandemic closed congested *mandis*. Direct marketing was allowed and the central government diluted the Essential Commodity Act.

Improved land records,[6] tenancy laws, producer organizations and cooperatives are required for overcoming fragmentation. Division in families has resulted in uneconomic units of production. Non-agricultural employment and better land markets are possible solutions. States have a major role since agriculture is also a State subject. Change is, however, uneven across States.

Rising minimum support prices (MSPs) and government procurement was used in the past to give farmers income support, but these distorted allocation decisions and resulted in large unsold food stocks. As a consequence of strong farm lobbies

[5] For example the share of fruits and vegetables in gross cropped area rose from 1.9% over 1960–61 to 1968–69 to 6.5% over 2004–05 to 2014–15. The share in value of production rose from 10.6% to 18.8% (Dev 2018).

[6] Vera Anstey pointed out that Britain had escaped land fragmentation because second sons did not inherit land. In India better land records and markets may allow some consolidation.

MSPs normally rose with international prices, so farmers benefited in the 2000s. But international food prices softened after that. Farmer distress in 2018 was more due to over-production in relation to demand, which kept prices soft despite attempts to raise MSPs. Stable food prices benefit low surplus marginal farmers as well as consumers. Better marketing facilities that squeeze intermediation margins will give farmers higher prices. The 2018 export policy that promises uninterrupted exports of organic and processed foods needs to be extended to other food crops, as an effective way of giving farmers higher price realization. They would still need insurance against global price volatility, however.

An India approaching middle-income status is attempting to switch to the advanced economy way of subsidizing agriculture, since pricing interventions are not WTO compatible. Price distortions in inputs such as electricity and fertilizer should go. Transfer schemes can build on the Aadhaar data-base. PM-Kisan launched in 2019 aimed to transfer Rs. 6000 to each farmer as minimum income support. A Telengana type Rythu Bandhu transfer needs to be preceded by a cleaning up of land records.

Rural incomes will ultimately rise from diversification to non-agricultural activities. Reducing the number of active farmers is essential to raising their incomes. Non-agricultural rural employment is already providing valuable support for rural incomes. The rural share of India's workforce may still be 70% but NSS surveys show agriculture accounted for only 59.4% of rural male employment in 2011–2012. According to NABARD (2018) only 19% of rural household income came from cultivation. To some extent business is already doing so, but needs to be encouraged further to migrate to states and rural areas where the labour is. This will also lessen migrant pressure on cities. New rural non-agricultural employment tends to be capital intensive—pointing towards a skills shortage that forces capital to substitute for labour. Therefore, a focus on education and skills is required, to make available trained low-skill as well as high-skilled labour. This is all the more required after the Covid-19 driven return of migrant labour to source states.

Productivity, diversification and marketing changes should reduce the MSP-led rise in food, wages and other prices in the future, however.

2.2 Finance

A fallout from the plans plus populism that characterised India's pre-reform growth is persistent strains in government finances. Massive government investments earned negative returns and populist expenditures also added little to productivity and revenue growth. After the 1980s, therefore, increasingly the government was borrowing for consumption. The primary deficit was positive. Before reforms the government was able to borrow cheaply because of fixed interest rates and a statutory liquidity requirement (peak of 38.5% in the early 1990s) that forced financial institutions to buy government debt. This financial repression was slowly reversed with liberalization. Automatic monetization was stopped and interest rates became market determined. But the complementary deep structural fiscal reform required was inadequate

so the cost of government borrowing rose steadily. In 2020 almost a quarter of central government revenues went in interest payments.

Public funds for infrastructure financing, therefore, were limited. Moreover, development banks had been wound up but despite repeated attempts bond markets had not developed adequately. In an open economy the government has to reduce deficits to prevent country risk and the cost of borrowing for all entities abroad going up. After the 2000s growth boom and especially as part of the global coordinated post global financial crisis (GFC) demand stimulus, the UPA government pushed public sector commercial banks (PSBs) to lend for large infrastructure projects. Their own over-optimism contributed to excess investments. Clearance delays and other external shocks following the GFC turned many of these loans into default. Since this time large infrastructure loans had gone to the private not the public sector, there was an unwillingness to allow private enrichment at public expense. In the absence of a bankruptcy regime and threat of losing their assets, promoters were not used to repaying loans. They tended to strip assets and continued to prosper while their factories floundered.

This was only an example of the corruption that a system of controls combined with political/bureaucratic discretion had created. Rising value of natural resources with reforms and higher growth, led to allegations of corruption in allocation. There was a national revulsion, an example of which was the movement against corruption led by Anna Hazare over 2011–2012, that would help bring down the ruling Congress-led coalition.

As corruption increased, however, institutions were created to fight it. A clause in the Government of India (1988) defined criminal misconduct by a public servant to include obtaining a pecuniary advantage for anyone where no public interest is involved. In the atmosphere of suspicion and mistrust this clause was used to harass public servants for market-based commercial decisions that had gone wrong. As a result decision-making froze. A market economy has to move to transparent processes with better incentives and appropriate institutions.

High non-performing assets (NPAs) of PSBs after 2011 were also partly due to the above systemic flaws including the asset liability mismatch in financing infrastructure. PSBs needed repayment earlier but infrastructure has a longer gestation than the average deposit cycle, so many loans were non-performing from the beginning. Global slowdown and internal (government permission paralysis) shocks compounded firms' losses. Therefore financial structures such as takeout financing that were expected to extend the loans did not materialize. Essential rollovers were regarded as 'evergreening' even though they were inadequate to keep projects viable.

An asset quality review (AQR) from Reserve Bank of India (RBI) in 2014 that enforced strict provisioning, after other schemes had not worked in an environment of high real interest rates and low growth, severely reduced bank lending, especially to industry.[7] An AQR is normally followed by recapitalization since otherwise banks

[7] An alternative approach of some reform, accommodation and falling interest rates at the turn of the century had brought down PSB NPAs to 2.4% in 2009–10 from 12.8% in 1991.

capital and lending is severely affected. But, in India, full recapitalization had to await the setting up of essential resolution institutions and for governance improvements. NPAs persisted on the higher side for almost a decade.

An insolvency and bankruptcy code (IBC) was passed into law only in 2016. Other complementary institutions were also set up. After driblets of money earlier, it was only in 2018–2019 that a reasonable shot of 1.08 lakh crores came from the government as owner, in the form of recap bonds.

Relatively healthy private banks were lending only to retail, partly as a risk-minimization strategy. But reduction in their lending to industry suggests low loan demand was the real constraint (Goyal and Varma 2018). Diversity in bank strategies is healthy for the economy, and should be preserved. Although competition had led to an improvement in PSB performance after reforms, there was still scope to improve governance and customer friendliness. Weaknesses in private banks also had to be addressed.[8]

As capital ratios deteriorated, the RBI tightened its prompt corrective action (PCA) thresholds in 2017 and placed restraints on lending for about a dozen PSBs. Meanwhile demonetization in October 2016 flooded banks with deposits and mutual funds with inflows. Non-banking financial companies (NBFCs) had begun to substitute for banks and provide credit where banks found it difficult to assess credit-risk. The commercial paper market boomed. Some NBFCs found it profitable to borrow short at cheap rates there and lend long for infrastructure. Regulations should have been tightened at this time. Instead the rise in credit was welcomed.

In 2018, a major semi-public NBFC operating in the infrastructure space, with a complicated non-transparent structure, was unable to honour its obligations. And when short-term money markets froze, no immediate liquidity was provided. Regulation was pro-cyclical, and did not respond to systemic spillovers. Markets were shaken by rumours of firms in trouble. Risk aversion grew for lending to NBFCs, particularly those in the housing space. Spreads rose. NBFCs began hoarding liquidity and cut down on their lending.

The RBI provides a liquidity window only for banks. Banks were incentivised to lend to NBFCs since they were expected to be able to take a reasoned call on credit risk, but high risk aversion meant such lending never became substantial. Banks are not reliable liquidity providers in bad times. That is why a more comprehensive lender of last resort is essential to prevent systemic spillovers. It was not surprising that credit growth fell steeply and with it output growth. Credit growth in H1 2019–2020 was only 12% of that in H1 2018–2019.[9]

[8] Festering problems at Yes Bank were addressed in March 2020, through restructuring, fresh capital and new management. Deposits were guaranteed but equity and bonds wiped out. This approach reduces both systemic risk and moral hazard. For example, a Swedish banking crisis in the early 1990s was resolved within a couple of years and at lowest cost to the taxpayer by following a policy of saving banks but not their owners. The cost of the rescue to taxpayers amounting to about 2% of GDP was recovered as asset values rose.

[9] BIS data shows increase in Indian ratios of total debt, debt to government and to non-financial corporations over 2011–15, a period of high global liquidity, to be much below the global increase. The government was reducing its fiscal deficit and firms were borrowing little. For Indian non-financial corporations, the ratio increased only by 0.3 compared to 29.4 for other emerging markets (EMs). Non-

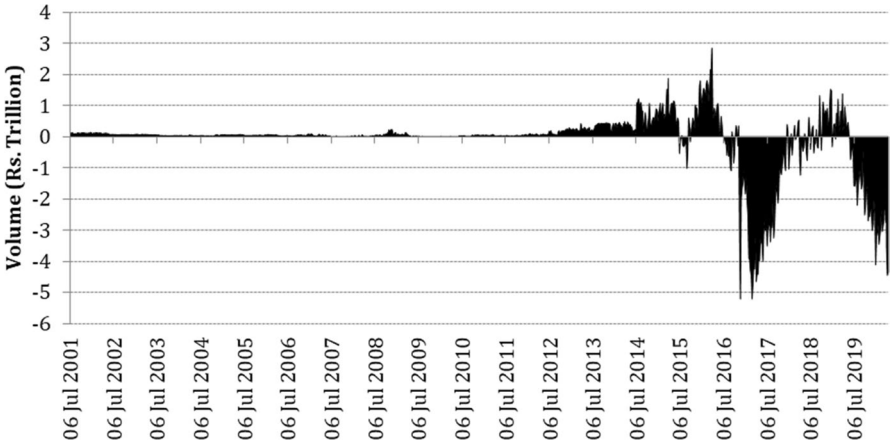

Fig. 2 RBI's Claims on Banks: Bank deposits with (−surplus liquidity), borrowing from RBI (+deficit liquidity). Source: RBI/CMIE data

Even as sector-level liquidity tightened, aggregate liquidity was also often tight.[10] Since 2011 durable liquidity was kept in deficit (with short-term RBI liquidity financing the deficit in injection mode) in the belief this would improve transmission. But India faces large exogenous durable liquidity shocks because of foreign outflows, government cash balances, and currency demand, so that durable liquidity shortfalls were often excessive. Figure 2 shows banks were borrowing from the RBI in most periods. But tightening was unprecedented after 2013, and over 2018–2019. Liquidity surplus, when banks deposit excess liquidity in the RBI reverse repo window, was also exceptionally high during demonetization and in the liquidity correction that followed from mid-2019. Durable liquidity shortfalls, that have to be compensated by borrowing from the RBI, added to banks reluctance to lend after 2011.

By mid-2019, however, post recap and recovery through the IBC, PSB net NPAs had reached low single digits, writing back of provisioning made earlier added to profits; durable liquidity was in surplus by July, with the call money rate closer to the reverse repo rate; although there was still no RBI refinance window for NBFCs, slow moving government liquidity schemes continued to be fine-tuned to deliver better and were working satisfactorily after the Covid-19 shock. RBI also further incentivised banks to lend to NBFCs. The earlier suspicion of NBFCs inadequate business model, was giving way to a realization that they had

Footnote 9 (continued)
bank financial intermediation rose by about 14% of GDP since the crisis for EMs. In India this remained minuscule. Banks continued to be the dominant source of credit, but the all India commercial bank credit-deposit ratio fell to 70.6 per cent by end-December 2016 compared to 74.5 per cent a quarter earlier (Goyal and Verma 2018).

[10] For example in 2015 and also in the second half of 2018, which saw large foreign outflows as the US Fed raised rates and oil prices rose (Goyal and Agarwal 2020).

a natural partnership with banks due to their ability to assess risks and distribute credit where banks found it difficult.

The Prevention of Corruption Act had been amended in 2018 to make the essential distinction between business loss and corruption. Investigation could be undertaken only if there was proof of disproportionate assets. Awareness of these changes was slowly increasing.

Governance reforms at PSBs include considerable strengthening of boards and absence of government interference in commercial decisions, as well as a regulatory push towards faster more transparent provisioning and risk-based lending. But this means that PSBs, like private banks, will only lend when there is a valid business case. Credit ratings become important. That is why help for Covid-19 affected firms had to take the form of government credit guarantees and interest rate subventions. Timely lending can reduce future NPAs.

Government and Plan driven resource allocation had created stagnation in the pre-liberalization period. Therefore reform to facilitate non-discretionary allocation through markets and financial institutions was necessary. The country sought to move from cronyism and corruption to transparent regulated markets.

But large outflows following Covid-19 underline again that over-dependence on profit motives, capital flows and markets is dangerous. They also have weaknesses. Better regulation and corporate governance is one pre-requisite. Good regulation, however, has to have counter-cyclical features. Diversity also makes for safety in the financial sector. For example, in equity markets contrarian moves by domestic financial institutions and continuation of systematic investment plans (SIPs) by domestic households reduced volatility due to global risk driven foreign equity flows.

The system has absorbed a number of shocks showing resilience, even as reforms have strengthened its fundamentals. Institutions with strong corporate governance have thrived. The diversity created, institutions strengthened, and greater rule of law puts the financial sector in a better position to support growth, although more still needs to be done, especially to help it survive the Covid-19 shock.

3 Structure and relative country reform strategies

The oil import constraint described above affects feasible stabilization and growth strategies. Figure 3 drawn in the space of traded (Q_T) and non-traded goods (Q_N) illustrates this. The tangent of the price to the production possibility frontier (PPF) gives the point of optimal production and its tangency to the indifference curve gives the point of optimal consumption.[11] An emerging market (EM) needing macroeconomic adjustment could be consuming at point *a* but producing at point *b*. The production of non-traded goods equals its consumption, but there is excess consumption of traded goods financed through a CAD. If the latter is unsustainable, stabilization is required to reduce absorption (demand) shifting the budget line in parallel inwards

[11] See Corbo and Fischer (1995) for such an application of the Swan Salter model.

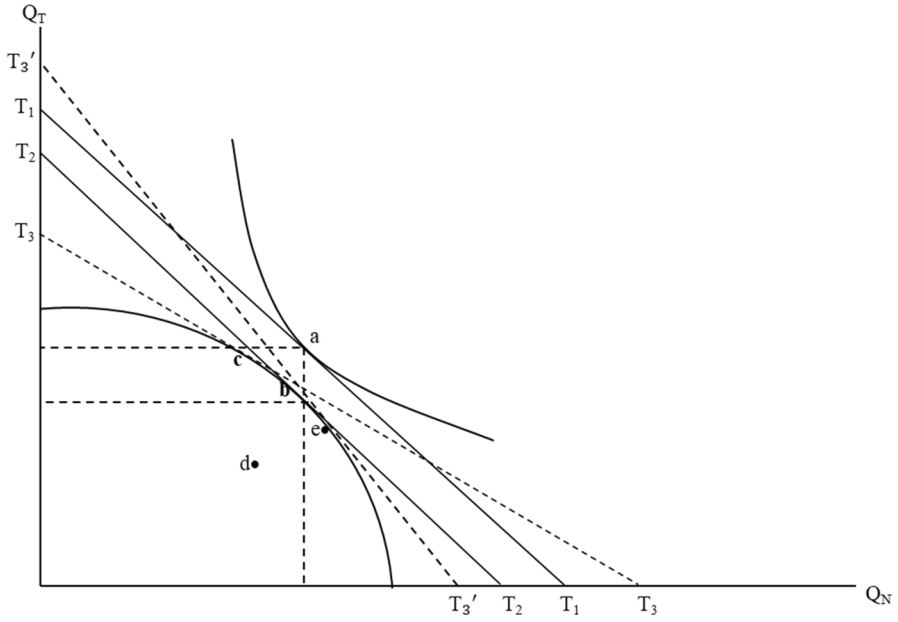

Fig. 3 Country structure and growth paths

so it becomes tangent to the production possibility frontier and the nation is not consuming more than it is producing.

But typically excess demand for tradable goods would continue even after stabilization to *b* unless prices also adjust. The slope of the price line has to change to switch production towards tradable goods and reduce their consumption as they become relatively more expensive. Depreciation of the currency flattens the price line to reach a final equilibrium *c* where there is no excess consumption and the CAD is zero. Consumption of non-traded goods also falls, as does their production, while the production of traded goods rises compared to the earlier values. Since at the new price line, traded goods prices have risen relative to non-traded goods so less of Q_T can now be bought compared to Q_N. These are the adjustments required in the case of excess demand and full employment of resources. While consumption of both types of goods falls, there is a rise in the relative domestic production of traded goods.

If poor organization and unemployment wastes domestic resources, however, initial production could be at any point inside the production possibility frontier such as *d*. The tangencies would now have to be at a PPF passing through point *d*. Consumption could also be at *d* or could be higher so that there still is a CAD. Consumption could increase as production shifts out to the frontier. Expansion of domestic supply could remove excess demand and reduce any CAD and such an expansion in supply can happen faster at a point like *d* with underutilized resources. This illustrates the process of structural adjustment. Improvements in productivity due to catch-up can also shift out the frontier.

While some Latin American economies, where inflation reached above 1000%, certainly required a reduction in demand, labour intensive economies such as China and India are better characterized as being at *d*, with underutilized resources. As long as reform facilitates utilization of these resources, a contraction of demand may not be necessary.

It is also possible the optimal move may be from *d* to *e* requiring a real appreciation or rise in relative non-traded goods prices. This may be necessary to keep traded goods such as oil and food, which have a large weight in consumption and therefore second round effects on inflation, cheaper. Consumption and production of both traded and non-traded goods rise on the path but production shifts relatively more towards non-traded goods,[12] and consumption relatively more towards traded goods.

Or, as in China, under-valuation of the currency may aid a labour absorbing expansion in production of traded goods and of exports from *d* to a point such as *c*. If the path chosen is from *d* to *e* maintaining domestic demand is even more important, since foreign demand plays less of a role in absorbing labour. The choice between *c* or *e* would depend on domestic structure that affects inflationary processes. Traded goods may have to be kept relatively cheaper to restrain inflation.

The rising share of oil imports in India, implies India's optimal path away from *d* is more towards *e*. High commodity price driven inflation since 2007, as well as large foreign inflows during the period of high global liquidity led to real appreciation. Export growth slowed after 2011, partly due to global shocks, and a tight macroeconomic policy that reduced domestic demand also reduced growth rates. Imports were relatively cheaper, and non-traded goods such as education and health were more expensive. The relative production of non-tradables and consumption of imports rose over this period. Productivity rose more in non-tradables such as construction than in traded goods such as agriculture (Goyal and Baikar 2015).

Export growth requires long-term improvement in domestic supply conditions, which is a function of reforms and investment. Strategic attraction of FDI diversifying from China can also help.

4 Virtuous cycles

Table 1 shows past periods of high growth in the Indian economy have been characterized by a jump in investment exceeding that in savings.[13] This is true even in the pre-reform period (see Goyal 1994), only then it was government investment that drove the process. These are periods when spending exceeds its financing at the margin. That is, marginal propensity to invest exceeds that to save. But as income grows so does saving, and the high growth periods following the jump are also those

[12] Non-traded goods price rise relatively more as in the Balassa-Samuelson effect but it is not due to higher productivity and wages in the traded goods sector (Goyal 2014).

[13] All savings and capital formation values, in the table and figures, are reported as a percentage of gross domestic product at market prices (GDP).

Table 1 Aggregate savings and fixed capital formation

Percentage of GDP at current market prices	GDS	GFCF	GDS: Household sector	GFCF: Private sector
Averages				
1970–1971 to 1990–1991	18.2	18.3	12.6	9.2
1991–1992 to 2002–2003	23.4	23.2	18.8	15.2
2003–2004 to 2011–2012	33.0	30.5	23.4	22.9
2012–2013 to 2017–2018	28.2	27.9	18.4	21
Jump periods: Percentage rise				
1994–1995 to 1995–1996	0	10.1	− 10.6	27.8
2003–2004 to 2004–2005	10.5	17.0	1.8	22.3

Source: Data updated from MOSPI Press Notes

with the largest rise in average savings. There was, however, an unsustainable rise in public deficits and debt in the 1980s, driven partly by low returns to government expenditure. This reduced public investment and forced reform.

Post reform, there was a jump in private investment in the mid-1990s and mid-2000s. Both times the higher growth that followed was interrupted by external shocks, a sharp rise in interest rates and financial tightening. Private investment is more responsive to the price and availability of finance.

Since government finances continue strained after a decade of low growth, and banks will not now make large loans to the private sector, an infrastructure boom is no longer possible, although the government is orchestrating a rise in infrastructure spending.[14] GOI (2020) had discussed the possibility of virtuous growth cycles, driven by supply-side improvements and rise in exports. But just macroeconomic stimulus from lower interest rates and better liquidity with on-going supply-side improvements had led to a growth turnaround in February 2020. There was the possibility of a gradual switch to a higher growth path, but this was aborted by the Covid-19 crisis.

But post-Covid-19 there is the possibility of a larger macroeconomic-financial stimulus than India has seen for a long time. A calibrated stimulus that rises as supply conditions improve, can lead marginal propensities to spend to rise above those to save, and trigger a switch to a higher growth path. Since the macroeconomic constraints identified earlier will continue to be relaxed, and financial intermediation has improved, it need not be aborted by the inflation and monetary tightening of the 2010s. It would have to be supported, of course, by continuing short- as well as long-run improvement in supply conditions. Well planned and phased short-run

[14] The Centre was now restricted to a coordination and announcement role. The 2019 budget promised a Rs. 22,000 crores support to a pre-announced national infrastructure pipeline of Rs. 1 lakh crores. The total included planned investments of PSUs and state governments. The budgetary support would be leveraged through financial institutions.

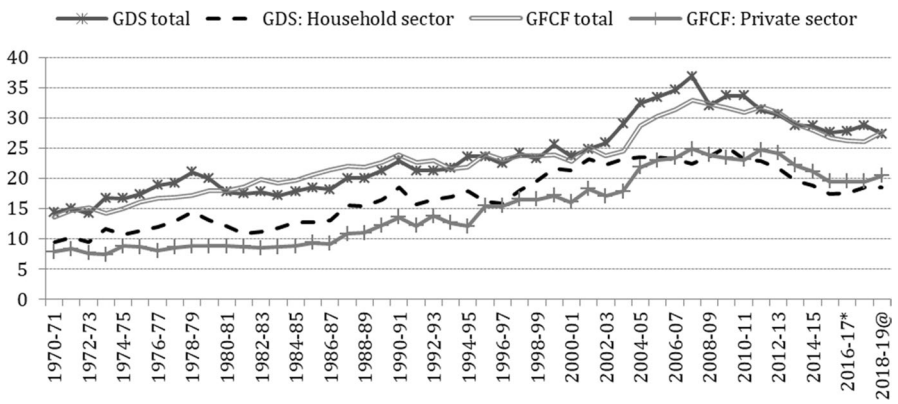

Fig. 4 Gross domestic savings and capital formation (% of GDP). Source: Data updated from MOSPI Press Notes. "*" Third revised estimates, "#" second revised estimates, "@" first revised estimates

improvements will be required as lockdowns are lifted. But using crisis financing practices being followed in many countries will allow better liquidity and counter-cyclical regulation—crucial elements missing in the 2010s. Reversal of the slow-down in Indian credit growth can reverse on-going deterioration in Indian asset quality as well as prevent further deterioration from the Covid-19 disruption.

In India's pro-cyclical financial system a rise in credit normally follows that in growth. An RBI financed fiscal stimulus will be a case of credit leading growth. It is not necessary to have full financing before you begin a project. In fact, this almost never happens. Borrowings are repaid and equity serviced as a firm begins to earn. Similarly, for a country a switch to a higher growth path normally sees the marginal propensity to spend rise above that to save. But total savings and savings percentages rise even as propensities to save fall below propensities to invest. To the extent consumption follows and does not drive growth, the same must be true of savings.

In an open economy, foreign savings are also available to finance a short-term gap, but proper intermediation and availability of domestic finance is also necessary for the switch and for long-run sustainability of growth.

For such a strategy is it a constraint that household net financial savings have fallen and are now barely adequate to meet the public sector borrowing requirement, let alone to lend to the private sector? But to the extent growth is investment-led and savings rise with growth, starting with lower savings need not be a problem. Adequate monetary and liquidity support can prevent interest rates from rising, as long as supply responds.

Historically Indian savings as a percentage of Gross Domestic Product (GDP) have fallen in low growth periods and risen when growth is high, although financial sector development has also affected the value. After peaking in the seventies at about 20 with bank nationalization, it fell with stagflation and a fall in public sector savings reaching 17 in the mid-1980s. It had recovered to above 20 before the liberalizing reforms. As it stagnated below the 1978/1979 peak of 23.2, a debate in the early 1990s echoed current concerns that raising growth would be difficult because

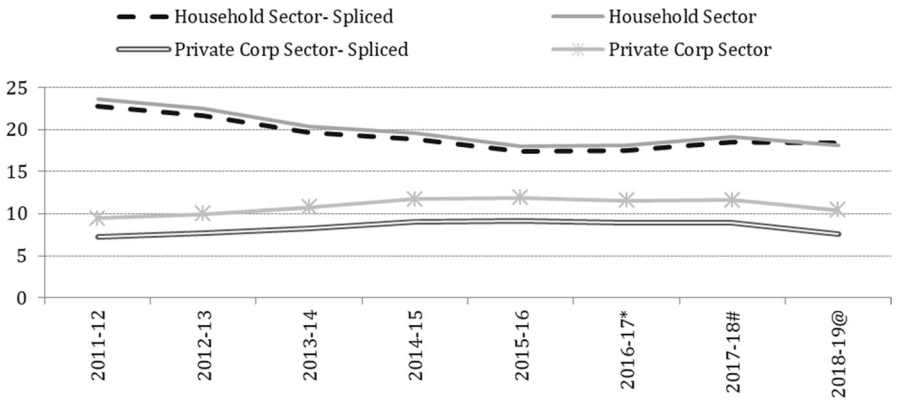

Fig. 5 Household and private sector savings old and new series (% of GDP). Source: Data updated from MOSPI Press Notes. "*" Third revised estimates, "#" second revised estimates, "@" first revised estimates

of the fall in savings. But growth jumped up in the late-1990s, and savings increased to above 25. The sharpest rise came with the 2000 growth boom. In 2010–2011 the savings ratio peaked at 33.7. As growth fell after 2011, the savings ratio fell with it. After rising in 2017–2018 to 32.4 with the growth recovery, it fell again in the next year as growth slowed.

Figure 4 shows turning points in Gross Fixed Capital formation (GFCF) normally led those in savings, and savings rose, flattened and fell with GFCF. This suggests that growth was investment, not savings led. Savings rose as investment raised jobs and incomes. The mild growth and recovery in GFCF in 2017–2018 also raised savings. GFCF and gross savings are not identical since they are measured by different methods, so the comparison is valid.[15] The changing gap between household sector savings and private GFCF, shows how the pattern of financing has changed. While the corporate sector drew on household savings earlier, in recent years it has its own surpluses. Since the new GDP series with base 2011–2012 is very different, to preserve comparability, Fig. 4 gives values spliced to the old series. Figure 5 shows the difference in the spliced and the new series for some categories.

Measurement issues Aggregate savings did fall after 2011–2012 with lower growth, but part of the decrease in estimated household savings percentages may only reflect changes in measurement.

In the new GDP series with base 2011–2012 some household physical savings were transferred to corporates, as the corporate base was expanded to include the unorganized sector. Even so, both remained higher in the new series compared to the spliced old, with the rise in corporate savings more than that in household savings

[15] GFCF is measured using the commodity flow approach derived by type of asset, while gross savings comes from flow of funds. Gross savings plus net capital flow from rest of the world is the controlling total for GCF since the macroeconomic identity implies savings must equal investment. The difference of this from GCF derived from the commodity flow approach gives errors and omissions. From the commodity flow approach GCF = GFCF + CIS + valuables + errors and omissions.

(Fig. 5). But while household savings largely fell after 2011–2012, corporate savings rose. Part of the decrease in household physical savings may be an artefact since they are measured as a residual. They are the same as household physical investment and derived by subtracting corporate and government investment from the total estimated by the commodity flow method. In this benchmark estimates and proportions are used for estimating the production of goods. As use of a larger corporate database improves the estimation of one part relative to the whole, the residual could shrink.

Even so now household net financial savings are not the only source of financing for corporates. Household net financial savings at present are adequate only to cover government net dissaving. Corporate savings have risen but a rise in corporate investment above own savings can be financed by foreign savings and domestic credit, even as it induces a rise in incomes and domestic savings.

Changes in the composition of savings The savings GDP percentage had fallen to about 30 as growth slowed. But it was household physical savings that fell, while household gross financial savings recovered from a low of 8% in 2011–2012. Savings of non-financial corporations held in financial assets rose. A current account deficit (CAD) implies investment exceeds domestic savings. Financial savings largely fund investments involving goods that are tradable, while physical savings are invested more in non-traded goods, such as in real estate. Estimates of physical savings in the household sector are identical to those of investment in the unorganized sector. It follows, then, that if organized sector investment exceeds financial savings, it has to be financed by foreign savings that is, by running a CAD. Better financial intermediation of domestic savings will tend to reduce the CAD and dependence on volatile foreign capital inflows.

Incentives for savings While savings percentages improve with the cycle, incentives can help raise savings over the long-run. In high-saving countries such as Japan and Canada tax breaks and behavioural tweaks encourage pension and targeted savings, while high-consumption US had tax breaks for interest on consumption loans. Indian tax systems should systematically favour savings over consumption. Tax breaks can continue for durable assets such as housing.

5 Complementary reforms

Many of the supply-side improvements essential to support the above process and sustain growth are taking place.

5.1 Factors of production: Land and labour

The reforms that foreign analysts repeatedly flag as essential but incomplete are landand labour reforms. There must be deep political economy reasons that stall them despite numerous attempts. If standard reforms were feasible they would have been done by now. In India's noisy democracy any group adversely affected is able to shout, and the larger the group, all else equal, the louder the shouting.

In this area reform by stealth that works by intensifying trends at the margin is feasible and is happening. Some of these ways include simplification of laws and legal codes, encouraging competition and convergence to best practices among states, improving governance and supervisory conflict, using technology in many ways, including creating better land records. This not only allows land markets to develop but also eases the use of land as collateral in financial markets. They are not critical constraints to growth, although they do affect the speed and length of the journey to the frontier from an inefficient point like *d* in Fig. 3, because enough change is happening. Covid-19 has triggered temporary competitive easing of labour laws in states, as a way to attract industry and create jobs for returning migrants. This could lead to a more permanent simplification and recast of laws combining protection with flexibility.

Although the focus in debates is on inadequate growth of employment, there is evidence of the type of structural change in labour markets that occurs with development. The lockdown made us aware of extensive migration from rural to urban areas as predicted by the Harris-Todaro model. We have already seen evidence of rising non-agricultural rural employment. While labour participation rates have dropped for women, part of this is due to opting for better education and job-profiles. Women are migrating to jobs in education and services from menial jobs. Since 2011 although about 30 m jobs were lost for pre-secondary education, a similar number were gained for post-secondary education (Kannan 2019).

There are many opportunities in Web based employment and a potential explosion of jobs as education and health services expand in 3 tier towns. In general, unemployment now is aspirational. Unemployment rates are higher for youth since they search for better jobs. After 40 they tend to settle for what is available. These trends imply rising labour productivity. There is sufficient improvement to suggest land and labour are not constraints to short-term growth expansion.

Indirect proof of better resource utilization allowing movement upwardsfrom*d* comes from productivity growth continuing to rise in India over 2011–2016, a period when in most countries there was a productivity slowdown after the global financial crisis.[16] Unorganized sector compound annual productivity growth (7.2%) exceeded that in the organized sector (3.2%) in this period (CSO 2017). India is still well inside the frontier, however. IMF (2017) assessed India's level at about 45 compared to the US frontier at 100.

The literature distinguishes between narrow versus broad or active inclusion. While the first just reduces inequality, the second gives broad rights, voice, and capabilities to make the excluded active participants. Active inclusion enhances human capacity and makes labour supply more elastic in transition, while redistributive strategies are required for persistent poverty. Since active inclusion increases rewards to work, it suits India's youthful demographics and growth potential. Many government policies aim for such systematic empowerment.

An economy in transition should be one which is innovating. Pure income transfers need not shift the poor to dynamic technologies that show continuous

[16] The remainder of this section follows Goyal (2017).

improvement, while active inclusion would do so. It would also induce more cost decreasing innovation in accessible technologies as their market size increased. The deep penetration of the smartphone in India is an example.

Much is happening in the Indian digital space and Covid-19 will give a further stimulus to it. Indian growth in information technology (IT) outsourcing was decried as low-paid mechanical work, but the industry developed from Y2K to body-shopping to value addition and entrepreneurship in a variety of internet-linked businesses. Koramangala in Bangalore is an example of such a venture-capital fed business hub that targets the large domestic market as well as exports.

One of India's great advantages is its human and geographical diversity since this encourages innovation and also diversifies risk. The 1990s reforms increased economic diversity, since exports became another source of demand. Markets raise welfare and encourage innovation by making available more margins of adjustment. Horizontal democracy is deepening, with NGOs proliferating, and corporates given a push by social responsibility legislation, contributing more to society.

Standard structural reforms are also taking place, with improvements in infrastructure, law and governance, ease of doing business, more facilities, improved data collection, formalization and standardization for Micro, Small, and Medium Enterprises (MSMEs).

Despite its federal structure India never had one domestic market. This raised transaction costs of business. The goods and services tax (GST), while still a work in progress, is a major step towards this integration.

5.2 Fiscal space

How can demand be deficient (at d) if the aggregate fiscal deficit is almost in double digits, or if investment propensities exceed savings? The sector-level macroeconomic constraints discussed imply supply shortage for specific goods can create generalized inflation. In 2008, for example, there was excess demand for goods (food) in short-supply, together with large underemployed resources. But we have seen such commodity price constraints have eased.

Delays in government payments are notorious. Some of the deficits maybe accounting illusions—payments are provided for but not made. Almost one-fourth of government expenditure was interest payments to banks in a period bank lending had slowed. States also hold large cash balances. Expenditure on idle excess stocks of food also does not create demand. The use of better targeted direct benefit transfers (DBT) has reduced leakages that used to create demand. This suggests a thorough restructuring of government expenditure can increase the share of effective high-multiplier expenditure (Goyal and Sharma 2018).

Cutting unproductive subsidies and better expenditure targeting will be essential to restrain the fiscal deficit while giving a post Covid-19 stimulus. There is room to do so. For example, bloated food and fertilizer subsidies can be trimmed, reducing excess food stocks. Departments and ministries can be streamlined, avoiding duplication. Better monetary-fiscal coordination can also reduce the share of interest payments in the short-run, even as higher growth reduces debt ratios in the long-run.

One reason governments were not able to reduce deficits materially despite intense efforts after 2011 was the sharp rise in nominal interest rates in this period. Finally, large public sector assets, acquired over the years but utlilized poorly, can be monetized.

6 Policy implications

Standard macroeconomic stabilization, such as followed in India since 2011, can be counter-productive, since it throttles domestic demand, without releasing critical sector-level supply-side constraints. Such macroeconomic policies, followed since 2011, resulted in rising consumption and import dependence, while investment fell and exports stagnated. Dependence on oil imports constrains depreciation of the Indian rupee as an export stimulating policy. But over-appreciation is also problematic given the large trade deficit. Over-appreciation occurred in the 2010s and was not compensated with a rise in domestic demand.

The commodity price shocks that contributed to growth volatility have moderated, however. Moreover, as the economy grows and diversifies it will be less vulnerable to such shocks.

Sustained higher growth is feasible, if context-relevant supply-side policies transform a high cost economy and allow better utilization of resources, with support from macroeconomic policies that maintain domestic demand, as well as from counter-cyclical financial regulation. Critical reforms required include improving the productivity of government expenditure, cutting flab, coordination with states, strengthening corporate governance, legal simplification and capacity as well as making financial sector regulation more appropriate.

Covid-19 is a large negative supply and demand shock, and combined with the lockout severely reduced short-term growth. As supply recovers, however, while commodity prices remain constrained, there is an opportunity to switch from the low credit and money growth that characterized India's post 2011 growth slowdown, to a credit-led recovery, that also reduces persistent financial sector stress. It underlines the importance of domestic demand in insulating India from global shocks and likely prolonged shrinking of trade.

In addition, there are longer-run supply-side opportunities that the crisis has revealed. Examples include a larger share of distance work economizing on fuel the import of which has been India's weakness, and encouraging the digital economy, which is India's strength. Supply chains can be incentivized to shift from China. States that are the source of migration should think of packages to attract FDI thus reducing out-migration. While some firms will suffer irreversible balance sheet shocks and may not recover, others such as pharmaceuticals, digital businesses and home services will do well.

Polices adopted in many countries around the world, include transfers, credit guarantee funds, interest rate subventions, liquidity and refinance facilities, loan extension and forbearance, tax relief, deferrals and regulatory easing. Many of these have the feature that they expire over time, and pay for themselves as they revive growth. The compulsion to restrict the expansion of India's fiscal deficit can also be

achieved by including such well-targeted and temporary features, as well as working through the financial sector. A seed fund can be leveraged many times. For example, credit guarantees are off budget sheet items, and may not even add to debt if they are not invoked as recovery takes place, especially if banks are incentivised to not invoke them.

Wage/PPF subsidies and interest rate subventions should be targeted to viable MSMEs based on positive turnover in the GST records. Moratoria on debt repayments and provisioning deferrals must be given until growth recovers, but not indefinitely. Temporary and targeted measures reduce moral hazard. Transfers should only be to low income groups, combining tax and Aadhaar data-bases. All government payments due must be made and expenditure on the national infrastructure pipeline frontloaded. Government stimulus must be increased to the point where reduction in debt ratios due to increased growth, equals the increase in debt ratios from further borrowing. Structural fiscal reform changing the composition of government expenditure can increase the growth boost.

The RBI can announce an open market operations (OMO) calendar and if necessary, special Covid-19 government bonds financed by RBI. These would take pressure off the bond markets, allowing interest rates to ease, while it is clear they are for a well-defined purpose and limited time. Firms that are not receiving payments are afraid of running out of cash and are hoarding liquidity. Banks now will only make risk-based lending. Therefore a government credit guarantee is necessary for banks to undertake wider liquidity infusion. It would help if new liquidity channels are established to reach those starved of funds.

Measures have to be carefully sequenced as the situation evolves. While initial measures help survival and revival of supply, as people begin venturing out and shops open, a demand boost from the government can help kick-start consumption and therefore production. Before that, even income transfers tend to be saved. This happened in many advanced economies where large transfers and other fiscal stimuli could not prevent large growth shortfalls. Transfers to lower income groups could be in the form of coupons with a limited life to ensure they are spent. Tax cuts or waiving stamp duties should be for a limited time period. Help for small firms could be conditional on employment to ensure it is paid out and raises demand and production. The series of Indian monetary-fiscal stimuli were largely in line with the above principles, while tending to be over-cautious.

Easing of financial conditions that had delivered a turnaround in February, could do so again after the Covid-19 shock. In most of the world new liquidity infusion is following quantitative easing that drove up asset prices. There are risks since credit is based on a Ponzi leverage on asset value. A collapse of stretched asset values can create a large financial shock. Deleveraging can reduce demand. But in India there is the opposite problem. Credit growth has been very low, so a loosening of financial conditions can help asset values recover. Tightening following the excesses and scams of the post GFC period created a trust deficit. There were valid moves away from giving individual favours towards improving business conditions. But in a large external shock like Covid-19 aid from the government and regulators can apply balm to current as well as old wounds, revive trust and help society pull together once more.

The large post GFC monetary-fiscal stimulus made possible a sharp V-shaped recovery. But over-reaction, and difficulty in reversing the stimulus, created macroeconomic vulnerabilities. A limited, well targeted and transient stimulus would avoid this while preventing illiquidity becoming insolvency, relieving persistent financial stress and with complementary supply-side action create a virtuous growth cycle.

References

Corbo, V., & Fischer, S. (1995). Structural adjustment, stabilisation and policy reform: Domestic and international finance'. In J. Behreman, T.N. Srinivasan (Eds.) *Handbook of Development Economics*, (chapter 44, vol. 3, pp. 2845–2924). North-Holland, Amsterdam: Elsevier.

CSO (Central Statistical Organization). (2017). NSS 73rd round: Unincorporated non-agricultural enterprises (excluding construction) in India for July 2015 – June 2016, June. Available at http://www.mospi.gov.in/sites/default/files/publication_reports/NSS_KI_73_2.34.pdf

Dev, M. (2018). Transformation of Indian agriculture: Growth, inclusiveness and sustainability. Presidential Address at the 78th Annual Conference of the Indian Society of Agricultural Economics, November 1–3, New Delhi.

GOI (Government of India). (2020). Economic Survey 2019-20. Ministry of Finance. Available at https://www.indiabudget.gov.in/economicsurvey/

Government of India. (1988). Prevention of Corruption Act, 1988. Available at http://cbi.gov.in/rt_infoact/pcact.pdf

Goyal, A. (1994). Growth dynamics in a general equilibrium macroeconomic model for India. *Journal of Policy Modeling, 16*(3), 265–289.

Goyal, A. (1999). *Developing Economy Macroeconomics: Fresh Perspectives*. New Delhi: Allied Publishers.

Goyal, A. (2009). Swan Diagram. In R. S. Rajan & K. A. Reinert (Eds.), *Princeton Encyclopedia of the World Economy*. Princeton University Press: Princeton.

Goyal, A. (2014). Purchasing power parity, wages and inflation in emerging markets. *Foreign Trade Review, 49*(4), 1–21.

Goyal, A. (2017). Macroeconomic policy for an India in transition. *Economic and Political Weekly, 52*(47), 31–37.

Goyal, A. & Agarwal, D.K. (2020). Policy transmission in Indian money markets: The role of liquidity. *The Journal of Economic Asymmetries*, *21*. https://doi.org/10.1016/j.jeca.2019.e00137 (Published online on 13 December 2019).

Goyal, A., & Baikar, A. K. (2015). Psychology or cyclicality: Rural wage and inflation dynamics in India. *Economic and Political Weekly., 50*(23), 116–125.

Goyal, A., & Sharma, B. (2018). Government expenditure in India: Composition, cyclicality and multipliers. *Journal of Quantitative Economics., 16*(1), 1–39. https://doi.org/10.1007/s40953-018-0122-y.

Goyal, A., & Verma, A. (2018). Slowdown in bank credit growth: Aggregate demand or bank non-performing assets? *Margin., 12*(3), 257–275. https://doi.org/10.1177/0973801018768985.

IMF (International Monetary Fund). (2017). Regional economic outlook for Asia and the Pacific. https://www.imf.org/en/Publications/REO/APAC/Issues/2017/04/28/areo0517. Accessed on 15 May 2017.

Kannan, K.P. (2019). Growth, employment and labour through a budget lens. *Economic and Political Weekly, Special Issue Budget 2019–2020, 54*(33) (17 August).

NABARD. (2018). All India rural financial inclusion survey 2016–2017. https://www.nabard.org/auth/writereaddata/tender/1608180417NABARD-Repo-16_Web_P.pdf. Accessed on 15 Oct 2018.

Thirlwall A.P. & Hussain M.N. (1982). The balance of payments constraint, capital flows and growth rate differences between developing countries. In *Oxford Economic Papers, New Series*, (vol. 34(03), pp. 498–510). Oxford: Oxford University Press. https://www.jstor.org/stable/2662591. Accessed on 7 Feb 2020.

Zhang, Z. X. (2018). Energy price reform in China. In R. Garnaut, L. Song, & C. Fang (Eds.), *China's 40 Years of Reform and Development: 1978–2018. China Update Series* (pp. 509–524). Acton ACT: ANU Press.