Opinion

WEDNESDAY, NOVEMBER 13, 2019

BRICS BY BRICS

Prime minister of India, Narendra Modi

"I look forward to exchanging views with other BRICS leaders with the aim to further strengthen intra-BRICS cooperation particularly on the theme of the Summit 'Economic growth for an innovative future"

Cancer treatment receives a India booster

Device developed in India granted Breakthrough Device certification from the US FDA

A PATH-BREAKING cancer-treating device, developed in India, by an Indian scientist at the Bengaluru-based R&D facility of an American company, has just received approval from the US Food and Drugs Administration's (FDA) Center for Devices and Radiological Health, under the Breakthrough Device Program. The machine provides non-invasive tissue engineering that can help treat solid tumours of the breast, liver and pancreas, and is also useful in pain relief and palliative care. Research by Dr Rajah Vijay Kumar, at the Bengaluru-based Scalene Center for Advanced Research and Development, led to the invention of the Cytotron, a device that is based on quantum magnetic resonance therapy (QMRT). The body's tumour suppression mechanism is reactivated non-invasively by QMRT by targeting calibrated doses of radio- or sub-radio frequency, non-ionising, non-thermal electromagnetic waves at the tumour site. This triggers the production of new tumour suppressing nucleoproteins that lead to apoptosis (programmed cell death).

Cytotron is likely to be of immense benefit in other solid tumours such as adult and pediatric brain tumours, lung cancer and many other life-limiting diseases—the fact that it is lined up for application for Breakthrough Device designation for these cancer types suggests this. The US FDA's Breakthrough Device Program was intended to expedite access to new, life-saving medical devices for patients with life-threatening diseases. Under the programme, the US FDA guides the development of a product to the extent that it eases pre-market approval while meeting all the norms, and the product is accorded priority in the approval process. Cytotron has been demonstrated to be a unique, non-invasive cancer-treatment device that can target both primary and metastatic cancers simultaneously—thereby meeting a key criterion for being designated as a "Breakthrough Device". Indeed, Cytotron got the CE mark (the certification required for marketing of such products in the European Economic Area) in 2012 for the whole-body nine axes system that is used in tissue regeneration in osteoarthritis and other musculoskeletal disorders. Apart from this, Cytotron's technology is also indicated for regrowing cartilage, and treatment of spinal dysplasia and sports injuries.

The invention could mean a new lease of life or vastly improved quality of living at the end-stage for millions of cancer patients around the world. As per the International Agency for Research on Cancer, in 2018, nearly 2.1 million cases of breast cancer, half a million cases of pancreatic cancer and over 800,000 liver cancer cases were detected. The ramifications of the technology are significant for India too—of every two women newly diagnosed with breast cancer, one dies of the disease. With cancer being a major cause of morbidity and mortality in India—the burden has more than doubled over the past two-and-half decades—innovative solutions like Cytotron could prove a *manna*. The India connection underscores the R&D potential, with the right capital support, that country can tap into.

The IIP shocker

No solution possible till, to begin with, credit flows restart

GIVEN THE FESTIVE season was around the corner, one would have expected companies to have ramped up production somewhat in September. Under the circumstances, the sharp contraction in the IIP, to an eight-year low of a negative 4.3% year-on-year (y-o-y), comes as a bit of a shock. To be sure, auto manufacturers have been producing less in order to reduce inventories that piled up after the weak 2018 festive season. But, demand is clearly weaker than perceived and consumer confidence severely dented; else, how does one explain a near 10% y-o-y contraction in consumer durables? The infrastructure and construction sectors have been sluggish for a long time now, and it is possible the the late rains in many parts of the country exacerbated the situation. So, the poor data from this segment isn't a big surprise. Neither is the steep 21% y-o-y fall in the capital goods segment because very few companies are adding capacity as the investment data has shown us. But, the discourse should now move on to how soon the economy can come out of the trough it has fallen into.

Right now, it would appear that, among other factors, tight credit conditions are making it hard for all, except for top-rated borrowers, to access loans at affordable rates, and this is hurting demand and business. After the NBFC crisis which started in August 2018, companies and individuals have been finding it harder to get affordable loans; disbursements by NBFCs and HFCs fell 32% y-o-y in Q2FY20—led by a 36% y-o-y drop at NBFCs—while bank credit growth slowed to 8% y-o-y. Overall loan growth seems to have slumped to 6%, as analysts at Credit Suisse have pointed out, these are levels seen during demonetisation. Even as the government works on longer-term measures to revive the economy, it must find a way for businesses and individuals to be able to access loans and, at the same time, speed up payments so cash flows back into the economy. One can't blame lenders for being risk-averse since it is a fact that credit profiles of most companies are far from robust and, in many cases, are deteriorating. The onus is now on the government to spend more; schemes such as the ₹25,000 crore fund for the real estate sector will go some way in reviving demand. However, over the longer term, the government must ensure that regulation is unbiased, else, we will see wealth destruction of a colossal magnitude as we have seen in telecom. Moreover, investments by global corporations, as indeed local players, will slow down. It is no surprise that key sectors such as defence have attracted such little FDI. Without an investment revival, there is little hope of the economy clocking more than 6%.

ClimateAPATHY

Developed nations have pledged just $9.8 billion to the Green Climate Fund this year

THE APATHY OF developed nations will be one of the key reasons why the climate crisis will likely be worse than it could have possibly been. Nearly every credible scientific and economic modelling tells us that time is running out to mount meaningful mitigation efforts, yet developed nations, in 2019, have pledged all of $9.8 billion to the Green Climate Fund (GCF) that is meant to help low-income countries reduce their carbon emissions and undertake adaptation efforts. Last week, in Paris, 27 countries pledged to give $500 million more than they had given in 2014. This comes against the backdrop of the largest historical polluter, with one of the worst per capita emissions footprint today, the US, having dropped out of the Paris Agreement altogether and, thus, also being free of having to contribute to the GCF. Australia, another top emitter, has also refused to contribute. The pledges by 13 countries, including the UK, Germany and France, to double their contribution from last time seems to be the only, feeble silver lining.

The GCF has so far allocated only $5.2 billion to climate change mitigation efforts around the world. The US, under the Obama regime, had committed more than any other nation to the fund, but with climate-change-denier Donald Trump in charge, it not only withdrew the $2 billion of the $3 billion that it had committed in 2014, but also has refused to give any more money. The so-called climate-progressive regimes elsewhere, say, Canada that is a top polluter, have also been parsimonious in pledging contributions. A key element of the Paris Agreement's arsenal is climate financing, and the deal is centred on the commitment by developed countries to mobilise $100 billion per year by 2020, and the GCF is one of the primary tools to meet that goal. The pledges, this year, make it loud and clear how seriously the developed countries are taking the Agreement.

IIP GROWTH

THE CONCERN IS OF SPILLOVER INTO THE ANCILLARY SERVICE ECOSYSTEM. THE SHARP IIP DE-GROWTH WAS, IN LARGE PART, DUE TO A PERSISTENT NEGATIVE GROWTH IN CAPITAL GOODS

Industrial activity will remain weak for some time

SAUGATA BHATTACHARYA

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THE SEPTEMBER GROWTH rate of the Index of Industrial Production (IIP) was –4.3%, fairly headline hogging. Although such a performance was anticipated to an extent, it still serves to draw attention to the depth of the manufacturing slowdown (the August growth rate was also was revised further down, from –1.1% to –1.4%). This is the deepest negative growth in the 2011-12 series (*see graphic*); even in the previous 2004-05 IIP series, such sharp slowdowns were relatively rare. What should we make of this?

A little context is needed. In mid-October, the IMF had revised India's FY20 GDP growth forecast from 7% (July 2019 update) to 6.1%, a very large –0.9 percentage-point cut, indicative of the element of surprise in the recent growth deceleration (the growth outlook for most other countries had been cut by more modest 0.1-0.2 ppt). In August, the other data point, which had highlighted the extent of the slowdown, was the 5% GDP growth print for Q1 FY20, down from the already tepid 5.8% growth in Q4 FY19. This slowdown had emanated almost entirely from the manufacturing segment, underscoring the sector as the main driver of the slowdown.

The proximate sources of the September IIP slowdown were mining, (growth contracting 8.5%) and electricity generation (growth contracting 2.6%). This can be attributed to the excess, prolonged rains in the mining belts, and is likely to be transient. There is also some indication that the negative growth in petroleum refining might have been due to some maintenance related refinery closures, but more on this later. However, the weakness is quite broad-based, even in consumer non-durables (FMCG); this is probably representative of squeezed purchasing power, and, hence, demand weakness. The patterns of the individual industries in the manufacturing segment, which accounts for the bulk of the slowdown given its large weight in the IIP are, however, illustrative.

IIP growth would have been even weaker had it not been for a couple of sectors where high growth got concentrated. The contributions of a few selected industries is given in the accompanying graphic. Basic metals grew 9.2%, driven largely by Mild Steel (MS) Slabs, contributing 1.6% to the IIP performance; growth in pretty much every other segment was negative. MS Slabs are used in the hydraulic press and machinery industry. This largely explains the 7% growth in the intermediate goods user industry segment, which some analysts have used to predict imminent end-use output recovery.

Unfortunately, as the accompanying graphic also shows, basic metals has been a pretty consistent growth driver for the IIP since March 2019, and this was largely due to high growth in the MS Slabs; yet, there is still little evidence of a recovery of machinery equipment (capital goods), which might then be seen in the end-use consumer goods segments.

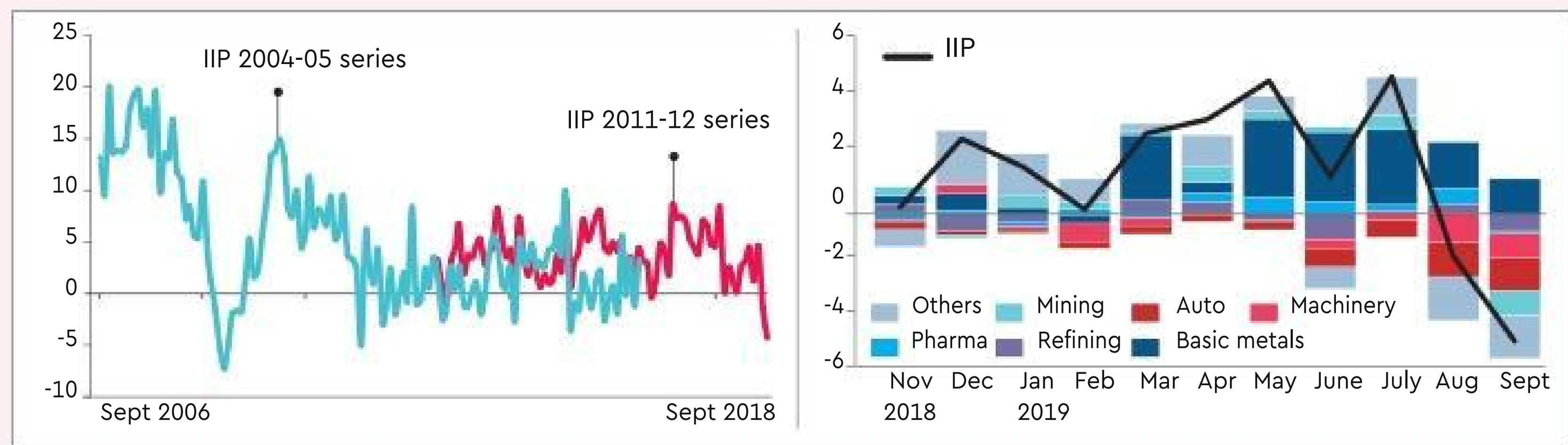
The slowdown is also showing signs of spillover into the broader ecosystem of economic activity, which envelopes manufacturing. The sharp IIP de-growth was, in large part, due to a persistent negative growth in capital goods, driven by commercial vehicles (CVs), which have had an average degrowth of 24% in April-September FY20. Diesel sales, on the other hand, had an average growth of 1% in these six months, indicating that commercial transport activity had slowed much less. However, a continuing vehicle sales slowdown will inevitably impact transport activity down the line. Diesel consumption has sharply decelerated in August and September.

All of this does not augur well for Q2 GDP growth, which will be likely come in at below 5%. Recall that the Q1 FY20 slowdown was largely led by manufacturing, and a turnaround would have determined the quantum of recovery. Unfortunately, Q2 average IIP growth averaged –0.4% vs 3.0% in Q1. Moreover, given that GDP estimates are based on value added more than volumes, initial Q2 results of manufacturing companies show a very sharp contraction of operating profits, which suggests that GVA manufacturing growth might be significantly lower than the 0.6% growth in Q1.

IIP is unlikely to have recovered in October, although this is an artefact of the IIP inputs. The IIP prints during the September-November months present a distorted picture in the individual months due to the festival-day schedule for Dussehra and Diwali, which vary during these months, year to year. Last year, FY19, for instance, Diwali was in November, leading to a production surge and stocking in October, with an 8.4% print, which will inevitably lead to a deep continuing negative this year. This year, FY20, the festive days were in October, so the output surge would have been in September, despite which we get the -4.3% print. There was also one additional working day in September, which should have bumped up growth; on the other side, this also means that *inter alia*, November IIP growth might be quite strong.

The design of an optimal mix of policies to reverse this deceleration needs to be thought through in detail. The scope for a strong monetary policy response is limited. We forecast a jump in October CPI inflation to 4.4%, although entirely from high food and vegetable prices, which has continued into the first week of November. If this pattern is maintained, we will get an even higher print for November, which will present a quandary for the MPC meeting to review the repo rate and other measures in early December.

With contributions from Vikram Chhabra



India must rethink trade diplomacy

Investment in a cadre of trade officers trained specifically for bolstering trade would be beneficial

NILAYA VARMA

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GLOBALISATION, OFFERED TREMENDOUS trade opportunities for the world at large. With rapidly emerging new technologies, the potential for economically and politically stable nations such as India is enormous. Today, we are witnessing massive challenges to the global economic landscape. The World Trade Organization (WTO) has already raised an alarm on growing tensions amongst nations in promoting free trade.

The US-China trade conflicts have aggravated global political risks and financial costs over the past year leading the world to 'de-globalisation' of supply chains, wherein, the companies seek to produce closer to their consumer markets to avoid uncertainty, as well as to mitigate the costs of tariffs.

It, unarguably, provides an opportunity for political and largely bureaucratic neutral nations such as India to bolster its position as a favoured nation for free trade. With multinational enterprises moving their supply chains closer to their markets, it is an icing on the cake for our demand-rich nation. However, we have not leveraged as much benefit as we could have in comparison to our regional counterparts.

Citing the example of Vietnam, which has gained orders from trade diversion on tariffed goods equal to 7.9% of GDP through the first quarter of 2019. Their trade diplomacy has played a critical role in facilitating the country's rise to an Asian 'trade celebrity nation'. The country's international trade missions have been entrusted for proposing mechanisms and policies to capitalise on the deals, and promoting Vietnam's entry to regional and global value chains.

The trade-progressive nations had long realised the importance of having specialists as trade diplomats. Most developed nations are actively using their international embassies as a platform for promoting and building new trade connections. They have designated trade attaches at various embassy locations across the globe to help build trade-related capacity. However, India's limited global presence restricts us from broadening our trade profile.

It is imperative for India to expand its network of foreign missions to more countries and have a team of trade attaches who manage trade development agenda with regard to trade policies and negotiations, as well as productive capacities essential to compete on a global platform.

For now, India has just 181 international missions while smaller economies like France, Spain and Italy have many more. India needs to establish foreign missions that will open the doors to unexplored markets and new trade alliances.

The finance minister, in her budget speech this year, had announced that India has decided to expand its diplomatic outreach in Africa with setting up of 18 new missions, five of which are already set up. Hence, investment in a cadre of trade officers trained specifically for bolstering trade would be beneficial.

To further empower and entrust Indian foreign missions abroad, it would be ideal to develop an in-house Indian Trade Facilitation Office (ITFO) which should focus on the below-mentioned areas.

- A designated officer should be supported by a team of trade specialists responsible for harnessing trade potential.
- ITFO would also be India's Ambassador and Permanent Representative to key international trade promotion bodies such as WTO.
- ITFO to be also responsible for protecting the interest of existing Indian businesses abroad and extend necessary professional support.
- It can also play an important role in facilitating government's international spending for promoting bilateral trade. ITFO may monitor such investments and ensure proper grounding of all such efforts.
- ITFO can work on building a plethora of ground level knowledge base, i.e., country-specific trade opportunities and extend such information to Indian companies.
- ITFO can also be the key point of contact for state governments in India, and given the economic diversity of each state, it can play an important role in grounding 'comparative advantage' state-wise.
- ITFO will also be responsible for scouting of country-specific opportunities. For example, Dubai Expo 2020 had a several billion dollar budget, and its organising authority had issued hundreds of global tenders. However, hardly any of it was directly given to an Indian company. Here, ITFO's role would have been to keep a tab on every single opportunity and inform Indian companies through a centralised database. The quantum of such huge opportunities would benefit Indian businesses if ITFOs initiate such scouting.

Today, India is considered a crucial player on the global economic landscape. But its trade policies, economic strengths and technological advancements are not living up to their potential, unless we expand our reach to unexplored markets and attract investors. The government is already inking important deals with many nations that will contribute to the economic development of the country. A trade specific venture through our foreign missions will give us an extra edge in global trading, and bridge any gaps that come in the way of boosting India's share in international trade.

LETTERS TO THE EDITOR

JNU students' protest

The move by the HRD Ministry and the JNU administration to hike the fee exorbitantly would go to make education unaffordable to students from families in financial straits. It is sad to think that as many as 40% of the students may have to drop out of the prestigious and academically number one varsity. Any VC's sympathies should lie with the students. But it is unfortunate that JNU VC M Jagadesh Kumar, for reasons best known to himself, refused to lend an ear to the students. The crucial question is whether higher education should be subsidised and made affordable to bright students from impoverished families or it should be converted into the exclusive preserve of those with money. The government cannot shirk its core responsibility to provide quality education to those without the wherewithal to pay for receiving good education. It is hard to reconcile the government's present decision to hike all kinds of fees with its earlier decision to cut corporate tax to the tune of over 1.45 lakh crore rupees. It would be cruel of the government to say that it is starved of funds to give financial support to avoid the fee hike or at least bring it down to affordable levels. The government should not become less generous to JNU for showing no receptivity to the Hindutva ideology. Any government with farsightedness would readily invest in students to help them realise their full potential. The Modi government should do it. Incidentally, why impose 'dress code' and 'curfew timings' if they don't fit in with the university's liberal values and lifestyle? We urge the HRD Ministry and JNU administration to shelve their student-hostile policies, become considerate towards students and accede to their just demands, principally rolling back the fee hike.

— G David Milton, Maruthancode

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STATE FINANCES

Why is Kerala different?

Identifying innovative sources of financing the deficit is significant to maintain the high human development achievements of the state and also the growth-inducing capital infrastructure formation in Kerala

Budget credibility: Sources of errors in Kerala (BE-actuals)

	Bias	Unequal variation	Random
Total revenue receipt (I+II)	**0.38**	**0.00**	**0.62**
I. Tax revenue (i+ii)	**0.15**	**0.00**	**0.85**
● States own tax revenue (i)	0.80	0.12	0.08
● Share in central taxes (ii)	0.08	0.08	0.84
II. Non-tax revenue (iii+iv)	**0.30**	**0.16**	**0.54**
● State own non-tax revenue (iii)	0.00	0.49	0.51
● Grants from Centre (iv)	0.49	0.01	0.50
Revenue expenditure (v+vi+vii)	**0.23**	**0.17**	**0.60**
● General services (v)	0.24	0.61	0.15
● Social services (vi)	0.45	0.00	0.55
● Economic services (vii)	0.12	0.44	0.45
Capital expenditure	**0.41**	**0.00**	**0.59**
Revenue deficit	0.06	0.71	0.23
Fiscal deficit	0.08	0.56	0.35
Primary deficit	0.08	0.69	0.22

Sources: (Basic Data), Finance Accounts (various years), Government of Kerala

RECENT REPORTS FROM RBI and Niti Aayog highlight the remarkable achievements of Kerala in education, health and nutrition; and the significant role of the state in ensuring such positive human development outcome. This makes Kerala different from rest of the country.

Of late, the state is facing fiscal problems in maintaining such levels of high human development and capital formation. The fiscal stress of the state is getting attention in Indian public finances, at the subnational level, in the backdrop of "fiscal rules" and Fiscal Responsibility and Budget Management (FRBM).

An analysis of the reports of Kerala State Public Expenditure Committee (chaired by Pinaki Chakraborty) reveals that Kerala is trying to achieve a revenue-led fiscal consolidation. However, the volatility in tax transfers and grants and the difficulties in Additional Resource Mobilisation (ARM) with respect to own revenue are matters of serious concern. There is lack of clarity in the apportionment of IGST, the portion given to the states is bound to affect state finances. The tax buoyancy is also affected due to the cyclicality of returns, and ease of filing GST returns.

There are also concerns about the phasing out of revenue deficit grants by the Finance Commission (FC). Clarity would emerge, by end-November, when 15th FC releases its report. The report shall also provide clarity on the issue of the new inter-governmental fiscal transfer mechanism since the phasing out of plan and non-plan distinction of grants.

What can be a flexible framework for borrowing requirements to finance the human development and capital infrastructure investment, within the FRBM Act? Oliver Blanchard, in his recent Presidential Address in American Economic Association, highlighted that as long as the real rate of interest (r) is less than real growth of economy (g), public debt is not bad. However, Indian states have been under pressure to adjust to the fiscal rules, with imposition of a fiscal deficit-GSDP ratio of 3% and phasing out of revenue deficit. Fiscal discipline is viewed as a prerequisite for greater economic growth. Different states have responded in different ways to the public debt threshold. For instance, Telangana has preferred to elongate the maturity structure of public debt to overcome the stringent borrowing paradigm. Kerala has initiated trading of rupee-denominated "*masala* bonds" to finance capital infrastructure investment. Kerala, is the first state to go to international bond market for trading in rupee-denominated *masala* bonds.

"Off-budget liability" is becoming a significant element of state finances. The "golden fiscal rule" of zero revenue deficit is a significant challenge. The fiscal space for meeting revenue expenditure, especially the salary and pensions and interest payments, out of own revenue receipts is shrinking. The extra borrowing powers of the state is limited by central government. The Fourteenth Finance Commission did carve out a strategy for the states based on certain criteria to make them eligible for extra borrowing powers. These four criteria include zero revenue deficit, fiscal deficit –GSDP ratio at 3%, public debt-GSDP ratio at 25% and interest payments-revenue receipts ratio at 10%. Kerala has not been able to clear all the criteria for extra-borrowing powers permitted by the Fourteenth Finance Commission. The point to be noted here is that the States which have cleared all four criteria and are eligible for extra-borrowing requirements have also not availed that power, and prefer to get "over-adjusted" to the fiscal rules at the cost of capital expenditure.

The revenue receipts to GSDP in Kerala was around 12% in 2016-17. The tax revenue to GSDP was 9.23% in 2016-17. The revenue expenditure to GSDP ratio was 14.65%. The social service spending to GSDP ratio was 5%. The capital expenditure to GSDP ratio was only around 1%. Over the years, capital expenditure has declined from 1.12% of GSDP in 2012-13 to 0.83% in 2014-15, one can see a marginal increase to 1.63% in 2016-17. The state recently initiated rupee-denominated "*masala* bonds" for capital investment through public sector entity. These bonds are backed by state guarantee.

Kerala has fiscal deficit to GSDP ratio higher than the rule-based numerical threshold, which clearly shows the fiscal stress to achieve fiscal consolidation through revenue buoyancy and not through expenditure compression. Therefore, it is crucial to analyse the budget credibility of the State, disaggregating various macro-fiscal variables (see table).

Budget credibility, captured in the magnitude and sources of the fiscal forecasting errors, is found relatively challenging for tax revenue. The sources of forecasting errors can decomposed into bias, unequal variation and random components using Theils U methodology. These three components add up to one.

At the aggregate level, in case of total revenue receipt (both tax revenue and non-tax revenue), revenue expenditure and capital expenditure, the random component of the error is greater than the systematic component (i.e. it is greater than 0.5). More precisely, the random error for these components are 0.62, 0.85, 0.54, 0.60 and 0.59, respectively.

A disaggregated level analysis of revenue receipts, shows significant "systematic errors" in the own tax revenue projections in Kerala. In the non-tax revenue component, the systemic errors (0.49) in grants were found as high as the random errors (0.50). On the expenditure side, the errors in the social sector expenditure were found to have both systematic bias (0.45) and random errors (0.55). This might be the reflection of the adjustments in the State budgets in the social sector despite projecting high in Budget Estimate phase. The capital expenditure also incurred systematic errors (0.41) and random errors (0.59).

Ruzel Shrestha and this author in a paper published by NIPFP has estimated the fiscal forecasting errors with respect to Revised Estimates (RE) and Actuals, and the broad inference is that the proportion of error due to random component has been significantly higher than the systematic bias for all the macro-fiscal variables in Kerala, except for grants, own revenue (both own tax and own non-tax) and capital expenditure. This has policy implications as volatility in intergovernmental fiscal transfers can affect the stability of subnational public finances.

Identifying innovative sources of financing the deficit is significant to maintain the high human development achievements of the state and also the growth-inducing capital infrastructure formation in Kerala.

CARD FAILURE

Swiping troubles for Apple

ALEX WEBB & ELISA MARTINUZZI

Bloomberg

The Apple Card is sexist, blaming the algorithm is proof

HYPED AS THE biggest credit-card innovation in 50 years, the Apple Card is starting to look more like something from the 1960s and 1970s: Women are allegedly being granted a fraction of their spouses' borrowing limits. It's another troubling example of the deficiencies of machine learning.

Just months after its launch, New York regulators say they're investigating Goldman Sachs Group Inc, the bank behind the card, and the algorithm that it uses to determine credit-worthiness. Goldman denies any discrimination but that hasn't stopped Apple Inc's co-founder Steve Wozniak from calling for the US government to get involved. "We don't have transparency on how these companies set these things up and operate," he told Bloomberg News.

The investigation and Wozniak's comments came in response to a Twitter broadside from the tech entrepreneur David Heinemeier Hansson, in which he said the Apple Card gave him a credit limit 20 times bigger than the one for his wife. This was despite her superior credit score and their jointly filed tax returns. Wozniak says he has been given 10 times the limit granted to his wife.

The bone of contention here is what Apple's customer services representatives called, in Hansson's telling, "the algorithm." When he sought an explanation of why his wife was being treated differently, he was told the algorithm was accountable.

Yet blaming the algorithm—while saying an exception would be made for Hansson's wife and her credit assessment adjusted, as Apple did—seems a tacit admission that said algorithm is flawed. At the very least, it raises questions about just how "accountable" these systems are. Customers don't know the details of how the Apple-Goldman credit-worthiness computations work, how dependent they are on artificial intelligence (or, more precisely, machine learning), what inputs they use, or even how much of the technology is proprietary to the two companies.

Apple's CEO Tim Cook has hinted that he's seeking a partner to bring the Apple Card to Europe. The Hansson and Wozniak episodes show that would be quite a gamble

If the system is indeed making such blatantly egregious decisions, should it really be used at all? At least when there's human error or bias there's a more straightforward route to correct it. While a company can interrogate a person about how they arrived at an individual decision, that's usually not possible with machine learning. Instead you have to examine the "big data" inputs that informed the algorithm, and see if that prompted a set of biases.

Of course, bias in artificial intelligence is not unique to the Apple Card. It has reared its head in the criminal justice system, the employment market, health care, facial recognition, app recommendations and beyond. In each case, understanding what prompted the prejudices is essential to fixing it. And in each case, that's easier said than done. John Giannandrea, Apple's head of AI, said in 2017 that data bias is the greatest danger posed by machine learning.

This isn't the first consumer finance misstep for Goldman. The Wall Street firm may be at the cutting edge of finance, but its foray into consumer lending has been mired in rookie mistakes. Its consumer lending arm, Marcus, reportedly started without a team of debt collectors, leading to early losses on delinquent borrowers.

Apple's chief executive officer Tim Cook, meanwhile, has hinted that he's seeking a partner to bring the Apple Card to Europe. The Hansson and Wozniak episodes show that would be quite a gamble. The European Union's General Data Protection Regulation, introduced last year, includes the "right to explanation" for consumers—exactly the thing being demanded by Hansson. A failure to provide a satisfactory reason might result in financial penalties. As we can see, with AI algorithms such explanations aren't easily extracted.

Indicators of growth

Prioritising GI in 2020-25 trade policy will accord India certain advantages

ABHISHEK JHA & SEEMA BATHLA

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INDIA'S FOREIGN TRADE policy 2020-2025 is expected to roll out early next year. The mandate is to accelerate exports from current $331 billion to $1 trillion, this is also echoed by the commerce and industry minister, Piyush Goyal. Geographical indicators (GI) can be one of the most crucial and pragmatic instruments to achieve this target.

The WTO Members and their nationals are progressively recognising that geographical indicators are valuable marketing tools in the global economy. Basically, GIs, let's goods be identified as agricultural goods, natural goods or manufactured goods on the basis of location, thereby attaching a quality and reputation. This definition flows from Article 22.1 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

The concept emerged after certain countries started counterfeiting products for quick profits, thereby tarnishing the image of genuine products. This translated into a loss for producers and consumers both. A few examples of international Geographical Indicators include champagne (France), port wine (Portugal), etivaz and gruyere Cheese (Switzerland), Idaho potatoes (USA), Vidalia Onions (USA) Darjeeling tea (India), Long-Ging Tea (China) and Jasmine Rice (Thailand). A few more include cheese and wine-spirits, meat and meat products like ham and salmon followed by oil and fat products such as olive oil. Many food processing industries like cocoa and chocolate and tea processing are reaping the benefits of the GI policy.

India has also recently come out with a GI logo, in consonance with the GI Act, 1999. In contrast, European Union (EU) developed three GI logos way back in 2002. India does not restrict its GI to focused categories, but extends it to the handicrafts, clothing and manufactured products. This is also extended to those who provide eclectic varieties for export but lack concentrated efforts. So far, India has registered 361 products as GI, out of which 15 belong to the foreign nations, four of which are from the EU.

Going by the success of EU in leveraging geographical indications, we find that it was to protect the consumers by offering reliable information about the goods they wish to purchase. It was thought that the GI could also afford protection to the producers, by fighting against reputation theft and unfair competition. The GI concept was subsequently expanded to foster rural development by sustaining and enhancing economic opportunities in rural communities in the European Union. This is in contrast to India. The EU GIs legally protect more than 3,400 names of products in order to promote the unique characteristics and defend the traditional expertise of their producers. Each GI has a specific legal standards on how the product is made, while also serving as a guarantee for the quality of the products.

Two key categories which distinguish the European products as GIs are Protected Designation of Origin (PDO) and Protected Geographical Indication (PGI). PDOs are the product's qualities or characteristics which are due to the geographical environment with its natural and human factors. PGI are the products which have specific quality, characteristics or reputation attributable to its geographical origin. During 2017, the EU exported $17 billion of GI produced goods, while it sold $70 billion worth of GI goods in the domestic market. To further add to this, the Italian "Toscano" oil received a 20% premium over commodity oil and a PDO cheese in France got more than 25% premium against average price for all cheese in the previous years. In the EU, Protected Geographical Indication (PGI), Protected Designation of Origin (PDO) and Traditional Specialty Guaranteed (TSG) seals are used to encourage and protect the reputation for quality of agricultural products and food.

When it comes to the GIs of third/foreign countries in EU, a total of 33 accepted GI exists and China has maximum presence by having 10 GIs in the EU market. Next to China are Thailand, Turkey, Cambodia and Norway with four, three, two and two GIs, respectively. From India, only Darjeeling tea is successfully registered so far and basmati rice is still in the process of getting the GI status. The process of getting a GI under third country in the EU is a modest process. Non-EU application are sent directly to the Commission, together with the proof of protection in the country of origin. Government interventions or initiatives are not required for approaching to start a GI process from the third country. Rather, Association members of that product from the third country can directly apply for registration and then the case is examined by the European Commission. GIs are an area for technical cooperation between India and EU as there will be interest in protecting each other's GIs.

By prioritising the GI in the upcoming foreign trade policy–(2020-2025), India will have certain advantages including growing interest of consumers in the origin of food, its quality and the way it is made, awareness across world food market as it will have a PDO/PGI logo. Not to forget, the EU as a region is the largest food importer, the bloc imported commodity worth $128 billion in 2018, of which 80% was imported from the developing economies. Thus, by pushing agri and food and GI for getting the status of EU's GI, India can immediately escalate its exports not just to the EU but also to other nations. Products like alphonso mangoes, feni of Goa, Mizo chilli can be the immediate picks.