

St. Xavier's College (Autonomous), Kolkata

Department of Economics

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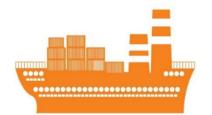


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ECOECHOES VOL. XIX 2019

INDIA'S ROLE IN G20

CHALLENGES & OPPORTUNITIES

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PRINCIPAL

It gives me immense pleasure to learn that the Economics Department, St. Xavier's College (Autonomous), Kolkata, is launching the nineteenth edition of its departmental magazine, 'Eco Echoes'. This year's theme, 'India's role in the G20: Challenges and Opportunities' is extremely relevant in the present socio-economic context.

This magazine is the product of months of tireless effort on the part of the students and faculty members of

the Economics Department. This academic magazine serves as a forum for the young talents to ventilate their ingenious ideas on the aforementioned theme. This academic miscellany also features several insightful interviews with eminent personalities from diverse fields such as economics, goal leadership, and policy-making. These pages unravel a cornucopia of ideas, convictions, and dissemination of knowledge, which provide its readers with an opportunity to analyse India's true potential as a developing economy on a global scale.

I also take pride in announcing that the Annual Departmental Economics Summit, 'Confluence' is now in its 14th year. This one-day meet will feature several incisive deliberations and discussions on this year's chosen theme, and will certainly be a learning experience for all of us.

I wish to extend my heartfelt congratulations to the Department of Economics for steadfastly setting and striving towards new goals of excellence, especially with regard to academic research and circulation of nascent ideas. I also take this opportunity to wish them success and fulfilment in their subsequent endeavours.

Nihil Ultra! May God bless you!

Rev. Fr. Dr. Dominic Savio, S.J.

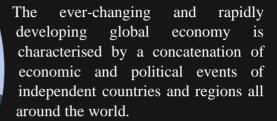
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Principal

St. Xavier's College (Autonomous), Kolkata

MESSAGE FROM THE

VICE PRINCIPAL



With so much going on, India's Role in the G20: Challenges and Opportunities is an excellent choice of theme for the 19th edition of the Economics Departmental magazine "Eco Echoes" in terms of its congruity and bearing.

A magazine carries the contributions reflecting ethos and aspirations of the students, faculty and other team members of the department. It provides an intersection of great challenge and great opportunity for the students to review their efforts and to analyse their achievements. This edition speaks it all.

I strongly believe that the forthcoming departmental economic summit "Confluence" will be a great platform to interact and exchange their views on the above theme and wish it a grand success.

I applaud the Department of Economics for the continuing quality and standard of its scholarship, research and academic achievements. I express my considerable appreciation to all the authors of the articles in this magazine. These contributions have required a generous amount of time and effort. It is this willingness to share knowledge, concerns and special insights with fellow beings that has made this magazine possible.

Professor Bertram Da Silva Vice Principal Department of Arts and Science St. Xavier's College (Autonomous), Kolkata

MESSAGE FROM THE

HEAD OF THE DEPARTMENT

It gives me immense pleasure to announce the release of the 19th issue of the departmental magazine, Eco Echoes the occasion Confluence XIV, the annual summit of the Department of Economics, St. Xavier's College, (Autonomous), Kolkata. The magazine includes articles contributed by the students of our college and interviews with eminent economists and policy makers. This magazine attempts to nurture the pursuit of knowledge by young minds and provides a platform for the budding economists/policy analysts to express their views about contemporary issues of economics.

I take this opportunity to congratulate our dynamic editorial team whose immense commitment for the last few months have culminated in this year's magazine, carrying forward the tradition of the Department of Economics. The praiseworthy efforts, unflagging zeal and impressive work of our editorial board, design board and finance board have made this edition possible. I congratulate them for their unfailing exuberance and constant endeavours. It would be unjust, if I do not mention here, the industrious and dedicated work of our design team whose creative skills and sleepless nights culminated in the present look of this year's magazine. I also want to express my thankfulness to every student of my department who has contributed in various capacities to the development of this magazine. I express my heartfelt gratitude to Rev. Fr. Dr. Dominic Savio, S.J., our Principal for his continuous encouragement, guidance and constant support, and our Vice Principal, Prof. Bertram Da Silva, Dean of Science, Dr. Tapati Dutta and Dean of Arts, Dr. Argha Banerjee for their constant support to our department. I also sincerely thank our entire departmental faculty and students of the department for their concerted efforts and enthusiastic support without which such an undertaking could not have been successfully accomplished. I express my gratitude to all our sponsors without whose enthusiastic response and best wishes our journey would have been difficult.

Nihil Ultra!

Phospal

Dr. Pia Ghoshal, M. Sc, M.Phil., Ph.D. HOD, Department of Economics, St. Xavier's College (Autonomous), Kolkata

MESSAGE FROM THE EDITORS IN CHIEF



It gives us immense pleasure to present to you the 19th edition of our departmental magazine 'Eco Echoes'. The theme for this year is "India and the G20: Challenges and Opportunities".

This year's G20 summit was held at a time of grave global distress when multiple fault-lines threatened to derail the international order. Today, the G-20 perhaps faces its most serious challenge since it first met in November 2008 to tackle the financial crisis with a primary mandate of preventing future international financial crises. As trade tensions escalate among major powers and global growth decelerates, the G-20 countries are finding it hard to present a common framework to tackle global challenges.

Today, the world looks much different. Protectionist policies are on the rise, structural shifts are shaping the trajectory of multilateral relationships and the strongest unions of the past are coming to terms with their dysfunctionality at being challenged from within and without. At this point, there is no leadership around the world that seems capable of rising up to the challenges of our times, which leaves India in the unique position of making its presence felt. We extend our sincerest gratitude to our principal Rev Fr. Dr. Dominic Savio SJ, our Vice Principal, Professor Bertram Da Silva, the Dean of Science and the Dean of Arts for their constant support. I would also like to thank our HOD Dr. Pia Ghoshal and the entire faculty of the Department of Economics for their unwavering support and guidance.

It goes without saying that an enterprise of the magnitude of Eco Echoes requires industry, efficiency and commitment and we have been fortunate to be a part of a team that embodies all these attributes. We congratulate the Editorial Board for patiently and meticulously putting this magazine together, the Design Team and the Finance Committee for working diligently to bring the magazine to fruition. We also extend our gratitude to Mr. Soham Mukhopadhyay of the MCVA Department for helping us along every step of the design and compilation process. Lastly, I would also like to thank all the students of the department for being so cooperative and contributing their ideas to the magazine. Like every year, the magazine received an overwhelming response from other departments of the college as well and we sincerely thank everyone who contributed to the magazine.

It is our fervent hope that the legacy of Eco Echoes continues for the years to come.

Priya Chatterjee Ray

Prakash Chowdhury

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Vanisha Agarwal

Vanisha Agnua

FATHER PRINCIPAL WITH REPRESENTATIVES OF THE DEPARTMENT ON HIS BIRTHDAY







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STUDENT PLACEMENTS

The students of the Department of Economics, St. Xavier's College (Autonomous), Kolkata have carried forward the legacy of the department by acing various competitive exams like CAT, GRE, and entrance examinations of premier institutes like ISI, JNU, IGIDR and DSE. The fact that our graduates of 2019 have been successfully placed in reputed companies and have gained entrance to esteemed institutions like IIMs, ISI, JNU and DSE to pursue their dreams of reaching higher echelons in the field of economics near testimony to the talent and acumen that are department inculcates, harbours and nurtures. The following table provides a glimpse of success that the untiring efforts of our students and professors have yielded over the years.

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COVER STORY

India's Role in the G20: Challenges and Opportunities

Suranjana Roy, Mohit Agarwal, Arinis Naskar Department of Economics, 3rd Year

While it is universally known as the Group of 20, it would be safe to rechristen it as the 'Power of 20'. An amalgamation of economically and socio-politically diverse countries ranging from the undisputed economic powerhouses of the world (the USA, the UK) to the fastest-growing, 'systematically significant others' from the East (India, China), the G20 captures the dynamics of a changing world order: 19 years since its inception and 14 summits later, emerging economies like India have achieved an international standing wherein one can't overlook their significance, simply on account of the greater influence that they exert in global trade and financial policies. This has led to a blurring of the longstanding distinction between advanced economies and developing economies, a phenomenon that invites greater literature of research and analysis to extrapolate where the world economy is headed.

The G20 comprises of Argentina, Australia, Brazil, Canada, the EU, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the UK, and the USA. The G20 was created in response to the financial crises of the 1990s and the growing recognition that the aspirations of some of these countries were not adequately represented in global economic discussion and governance. The objectives of the G20 are:

- 1. Policy coordination between its members to achieve global economic stability, sustainable growth
- 2. To promote financial regulations that reduce risks and prevent future crises
- 3. To create a new economic-financial architecture.

The G20 comprises around 85 percent of the global GDP, 75 percent of the global exports and more than two-thirds of the world's population. As a premier forum of international cooperation, proponents of the same believe in the effectiveness of the G20 in facilitating concrete negotiation amongst key economic players. Skeptics, however, believe such a heterogeneous group with divergent economic philosophies and interests will have troubles reaching a common economic framework.

Given the context of the G20, the role of India in the same is a breeding ground for economic analysis. Since its economic liberalization in 1991, India has emerged as a major global economic player and is en route to become one of the leading economies of the world in the next decade. The Indian business environment provides several opportunities to foreign investors. These include cheap resources, skilled talent, a massive national market (population 1.2 billion) and a middle class exceeding 350 million with increasingly stronger purchasing power, and one of the youngest populations in the world.

India has also shown the capacity to absorb the global financial crisis ripples and is characterized by the enhanced contribution of the private sector, indigenous entrepreneurship, increased support to encourage foreign direct investment and entry of multinational companies. The increasing global leadership of sectors including information technology, software, business and knowledge process outsourcing, pharmaceuticals, research, and development has made the business environment in India exceedingly conducive to growth, all of which is ingrained into the unique socio-cultural, political, legal and economic milieu of India.

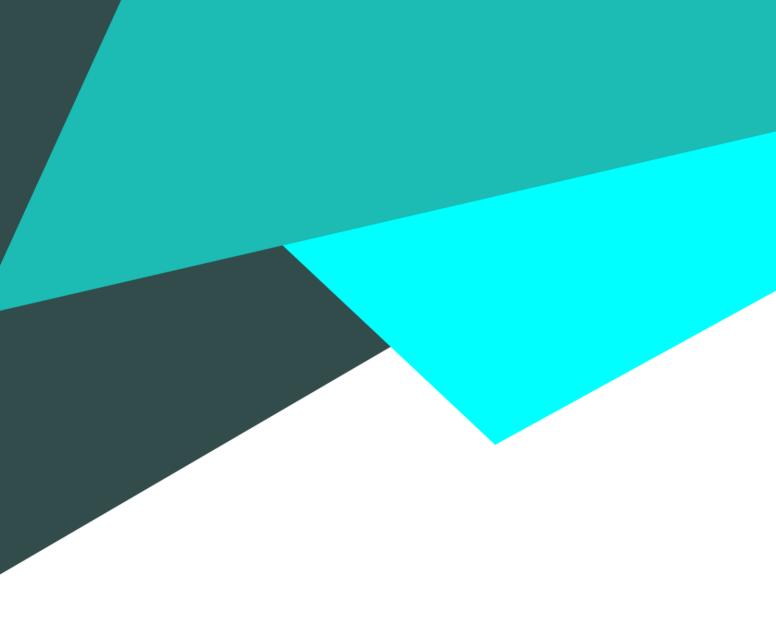
In recent summits, India's reform -mindedness has resounded amongst the world leaders. In the 13th G20 summit held on December 1, 2018, in the city of Buenos Aires, India presented a 9-point agenda calling for strong and active cooperation to deal with fugitive economic offenders. It advocated the setting up of a common platform for sharing experiences and best practices including successful cases of extradition, gaps in existing systems of extradition and legal assistance, etc. India advanced its agenda of 'reformed multilateralism' which is also reiterated in the 14th chapter of the summit held in Osaka, Japan on June 28, 29 2019. The conclusion of the same saw the G20 leaders took a cue from India's efforts to check the spread of terror and extremism and taking immediate steps 'on preventing exploitation of internet for terrorism'. Under the theme of *Human-Centered Future Society*, issues of importance for India included energy security, financial stability, disaster-resilient infrastructure, reformed multilateralism, WTO reforms, countering terrorism, the return of economic fugitives, food security, democratization of technologies and portable social security schemes.

There are a lot of factors which provide a breeding ground of opportunities for India to become a front runner in the G20. Amongst G20 countries, India accounts for 17.6 percent of the world population, far more than the G-8 countries combined. Population structure continues to run in India's favor in terms of providing cheap labor force, as well as a plethora of market agents actively participating in a sphere of free movement of capital and technology. The Indian economy is one of the fastest-growing economies in the world, and in terms of purchasing power parity (PPP), it ranks third largest in the world following the United States and China. Amidst robust economic reforms, especially reforms in the trade policy environment during the last few years, India's presence in world merchandise exports remains intact and an uptick has been observed in India's share in world merchandise exports from 1.60% in 2015 to 1.68% in 2018. The further improvement in logistics infrastructure and trade facilitation measures would enhance India's exports trajectory and create millions of employment growth new opportunities.

Yet, the world order is constantly changing, with growth rates gradually stabilizing but tensions between major economic players augmented by challenges like protectionism, unilateralism, trade wars, etc. The recessionary pressures and uncertainty in the world economy, as well as lack of investment in emerging market economies, are a negative effect on the economic progress and social stability in India. There exists a sense of bewilderment regarding the real aims of the G20 amidst global disarray. India's ability to navigate

through this tricky terrain will be severely tested and the benefits it can accrue is a question that needs to be answered in due time.

This edition of Eco Echoes explores the said position of India in the international sphere. It attempts to understand the cost-benefit analysis that went into the policies that India has implemented in recent years and whether it has at all paved the way for India to become an economic frontrunner in the G20.



INTERVIEWS



In Conversation with

Shri Barun Kumar Ray

I.A.S.

Interviewed by Priya Chatterjee Ray

Shri Barun Kumar Ray is an Indian Administrative Service (I.A.S.) officer of 1992 batch of West Bengal cadre. He is currently posted as Principal Secretary, Science & Technology and Biotechnology Department, Government of West Bengal. Prior to joining the IAS in 1992, Shri Ray served in the Reserve Bank of India from 1990 to 1992.

In his career spanning three decades, he has held numerous important positions in the State Government as Principal Secretary, Panchayats & Rural Development Department; Principal Secretary, North Bengal Development Department; Divisional Commissioner, Jalpaiguri and Malda Divisions; Additional Chief Electoral Officer, West Bengal; Chairman & Managing Director, West Bengal Power Development Corporation Ltd. Managing Director, West Bengal Small Industries Development Corporation Ltd.; Commissioner, Textiles; Secretary, Kolkata Metropolitan Development Authority; and District Magistrate, Birbhum.

Born in Patna, he did his initial schooling in St. Michael's High School, Patna and The Air Force School, Delhi. He has a Master's degree in Economics from Christ Church College, Kanpur and an MBA in Public Service from the University of Birmingham, UK. His other interests include reading, photography and travelling.

Q. Do you think disinvestment and bringing down the stakes in sectors like insurance to 40% government ownership is the right plan to raise funds to achieve a target growth of 8%? Do you think that Public Private Partnerships are the way to revive the wheel of investment in the country?

The government has mobilized Rs. 1,610 crores through disinvestment so far, this fiscal year. It appears that the stake sales will once again be back ended, though the Cabinet Committee on Economic Affairs has given approval for disinvestment in several large public sector companies. For the current year, the government has set an ambitious target of raising Rs. 69,500 crores through disinvestment. However, in recent years, the government has fallen short of the target for a variety of reasons and the same story was repeated last fiscal, though the mobilization was the highest ever. Therefore, the government's plan appears to be a double edged sword.

Since investment from the private sector is weak, the government has taken the lead and this is where higher disinvestment proceeds can be helpful. However, to be able to take full advantage, the approach towards owning commercial assets and disinvestment, must be reassessed. Encouragingly, this year, the government is also looking at strategic sale, which will not only lead to revenue generation, but will also serve the larger purpose of disinvestment, i.e., bringing in more efficiency. What the Government of India needs to work on is creating a long term plan for disinvestment which will create a steady flow of liquidity that can be invested in infrastructure, physical and social.

A robust revival of private investment is a major challenge for the Indian economy. Getting the investment rate to being over 36% again is imperative to get sustained growth of over 8%. In a country with sustained underinvestment in infrastructure, economic competitiveness can suffer. The global "infrastructure gap" is so wide that closing it by 2030 will require an estimated US\$40 trillion to US\$50 trillion. This "gap" looks even more daunting when you consider the fiscal and political obstacles to delivering essential infrastructure. Government revenues are constrained, and public sector spending is constantly in the spotlight, especially on "mega" projects involving significant taxpayer funds.

In such conditions, it is more important than ever to get infrastructure procurement right which is where project finance and public-private partnerships (PPPs) come in and can be used as a major instrument for reviving investment and meeting critical infrastructure needs to take India on to a higher growth trajectory.

The world's most vibrant PPP markets are those where the government sustains and advances projects through incentives. They can range from access to skilled resources and government oversight to budgetary stimulus through dedicated PPP funds, "alternative" funding sources or other financial assistance, such as guarantees.

There have been difficulties with many of the earlier generation of PPPs, especially in the road sector where the projects were conceived at a time of high growth expectations. The execution phase came in a period of more modest growth making quite a few of the bids non-viable. However, in recent times, there has been commendable progress in addressing these problems by the Ministry of Road Transport and the new hybrid annuity model has had success.

But for PPPs to actually prove successful in India, better understanding of risk perceptions of investors and lenders and mitigation of these along with adequate safeguards against windfall profits are required. As long as the assessment of which delivery model to use is rigorous and evidence-based, providing incentives for PPPs can bolster the pipeline, especially for "new entrants" such as local councils. Incentives can also inject greater rigor into procurement practices and provide important signals to the market that the government is committed to doing business. Genuine and transparent stakeholder consultation at the project and contract design stage with an open pragmatic approach would naturally help. Inadequate risk mitigation and faulty design may well be the major cause of the default by IL&FS which has been the leading investor in PPP projects.

Q. As you know, the theme chosen for the nineteenth edition of Eco Echoes is "India and the G20: Challenges and Opportunities". Do you think that India's participation in the G20 summit provides our economy with more "opportunities" than "challenges"?

Definitely. The inclusion of India in the G20 is a great achievement for our nation and it underlines the fact that the economic policies adopted by India since the 1980s have been in consonance with world order. The gradual opening up of the economy with regular doses of liberalization has created a fundamentally strong economy capable of growing at a very rapid rate. The acceptance of India at the high table of the G20 is because India is one of the emerging economies of today with a huge export potential as well as being a huge domestic market as well. India is poised at the threshold of becoming a middle income nation with a huge, young and skilled work force. This advantage will be with India for many decades to come and the Indian economy will continue to prosper with its strong fundamentals.

India's role in the G20 process stems from the realization that as a major developing economy India has a vital stake in the stability of the international economic and financial system. India's agenda at the G20 Summits is driven by the need to bring in greater inclusivity in the financial system, to avoiding protectionist tendencies and above all for ensuring that growth rates of developing countries do not stagnate. India has strived to ensure that the focus of the global community remains on the need to ensure adequate flow of finances to emerging economies to meet their developmental needs. India has all along worked to maintain the dynamism and credibility of the G20 deliberations for establishing a framework for strong, sustainable and balanced growth, strengthening international financial regulatory systems and facilitating trade finance.

At a time when the global order is under threat with fissures appearing in multilateral relations, with US protectionism on the rise, Donald Trump threatening to rip up global frameworks without offering any real alternative, The United Kingdom mired in a political showdown crippled by the leadership contests for the post of prime minster, China facing an economic crisis and Russia having no larger interest than challenging

the US and the West at every possible platform, there appears to be no leadership around the world that seems capable of rising up to the challenges of our times. At this point in time, if India can rise to the challenge and grasp the reigns of the summit, it would present India with the huge opportunity to make its presence felt at the global scale as a world leader.

As per the system of rotation of the G20 Presidency, Saudi Arabia will chair the G20 in 2020, Italy in 2021 and India will chair the G20 in 2022. This is a great opportunity as it gives India the advantage of defining the agenda of priorities to be debated and decides which countries and organisations to invite. Since the G20 does not have a central organisation, the role of the country presiding over the group is critical to the effectiveness of the forum. Taking advantage of this unique opportunity, India could provide the necessary leadership and push through a multi-pronged agenda on poverty eradication, stable and sustainable employment generation, stable financial markets and global trading regimes.

Q. Multiple fault lines are threatening to derail the global order and there is no leadership around the world that seems capable of rising up to the challenges of our times. To what extent do you think US Protectionism and increasing nationalism across countries undermine the G20's functioning?

The G20 primarily focuses on the governance of the global economy. Following the global financial crisis in 2008, the urgent need for a meeting at the Global Leaders' level emerged and for the first time in 2008, the G20 leaders met in Washington DC to coordinate fiscal, monetary and economic policies to put the global economy on a path to recovery. Since then, the G20 has evolved over time, transforming itself into a unique international forum to address long term structural changes. The recurring themes covered by G20 summit participants have been related to global economic growth, international trade and financial market regulation. After the adoption of the UN Sustainable Development Goals and the Paris Climate Agreement in 2015, more issues of global significance were added to the G20 agenda: employment, migration, digitisation, healthcare, the economic empowerment of women and development aid.

However, ever since Mr. Donald Trump took over as the President of USA in January 2017, he has declared "America First" as the official foreign policy doctrine of his administration. His trade policy, laid out in the Trade Policy Agenda of 2018 and 2019, is much more aggressive than those of his predecessors. The highlights being:

- Rebalancing of American trade relationships by supporting National Security,
- Re-negotiation of "outdated and imbalanced" trade agreements,
- Aggressive enforcement of U.S. trade laws, and,
- Defending American interests at the WTO.

As a part of this policy, steep tariffs have been imposed on US imports from the European Union, Canada, Mexico and China. All these countries are responding in kind, retaliating with levies on thousands of US products, leading to a possible trade war. The Trump administration's unjustified demand for countries to stop oil purchases from Iran has not only taken a toll on Iran's exports but led to oil price shocks in other countries stifling their aggregate demand.

Needless to say, the increasing US protectionism and increasing nationalism across countries has impacted the functioning of the G20 drastically and adversely. It is a well-documented fact that Protectionism hurts everybody and trade wars may lead to recession and slowing down of the global economy. There is plenty of empirical evidence to show that Protectionism and Tariffs will always generate costs to the consumers that are far in excess of the benefits to the producers.

However, Protectionism is primarily resorted to for political reasons and this is what has been done by the Trump Administration. Counting on the economic illiteracy of the general public and their blind patriotism to "Buy American," the political payoffs are too tempting as because the benefits of tariffs to the producers are concentrated, immediate and visible, while the costs to consumers are diffused, delayed and largely invisible. This suicidal step has already set the alarm bells ringing and according to an IMF study, global growth is expected to slow down to 3.3% this year and globally the economic losses from the US-China trade war could amount to US \$ 455 billion in 2020.

The recent Osaka Summit was held against the background of aggressive trade confrontations between the United States and China. Against this backdrop and many other disruptive incidents, the role of the G20 in taking rational decisions to continue economic co-operation, co-ordinate fiscal, monetary and economic policies and putting the global economy on a path of recovery and progress has become all the more challenging. It would be disastrous if these initiatives are disregarded in the heat of bilateral conflicts. In the shadow of a possible trade war between the world economies, it is imperative that we continue to uphold multilateralism and solve our problems through discussions and dialogue.

To reiterate Stiglitz, the present US administration fails to understand that globalization, if implemented using the right means, would always result in the betterment of each country's standards of living, owing to the principle Comparative Advantage postulated by classical economist David Ricardo.

Q. The United Nations projects that there will be more than 10 billion people living on the Earth by the year 2100. Moreover, as a result of human activities and unplanned management of the technological development, a number of environmental problems have emerged that interfere with ecological sustainability. In this scenario, how important can the G20 be in achieving the goal of Sustainable Development and Environmental Protection?

The UN Sustainable Development Goals (SDGs) have been designed as to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The 17 SDGs are interweaved in a way that action in one area will affect outcomes in the others and that development must balance social, economic and environment sustainability. Through the pledge to Leave No One Behind, all the countries of the world have committed to

fast-track progress for those furthest behind first. Everyone is needed to reach these ambitious targets. The creativity, knowhow, technology and financial resources from all of society is necessary to achieve the SDGs in every context.

The G20 has a crucial role to play in achieving the goal of sustainable development and environmental protection. The G20 has recently adopted the UN Sustainable Development Goals and the Paris Climate Agreement in 2015, thereby underlining its commitment to achieving the goals of sustainable development and environmental protection. At the recently concluded Osaka Summit, the G20 has prioritised the areas which will be taken up by the G20 nations in the form of an Action Plan to achieve the SDGs by 2030: Health and education, quality infrastructure, innovation, gender equality, climate change and marine environment.

The G20 members can be valuable partakers in the implementation by taking transformative steps through collective and individual concrete actions at international and domestic levels. These actions can advance sustainable development outcomes, support low income and developing countries to implement the SDGs. By identifying issues of common concern and encouraging policy dialogue, coherence and coordination, collective actions can be framed around the relevant Sustainable Development Sectors (SDS). These SDS outlined in the Action Plan not only reflect ongoing, mid and long-term G20 commitments but also intend to be updated and adapted to reflect successive G20 presidency priorities.

Q. With India on its way to being the fastest growing economy in the world, how can it collaborate with the other members of G20 to generate cheaper, more efficient and environment friendly electricity?

India has been one of the fastest growing economies in the world in recent times. With the milestone reforms of the 1990s, India gradually opened up its markets through liberalization. After more fundamental reforms since 1991, India has progressed towards a <u>free market economy</u> and the Indian economy has averaged a growth rate of 7 to 7.5% per annum. India is one of the developing countries which have focused on meeting its energy requirement from renewable sources. In the electricity sector, renewable energy accounts for approximately 35% of the total installed power capacity. The most important non renewable energy sources to be harnessed are large hydro, small hydro, wind, solar, biomass. Harnessing of geothermal, wave energy, biogas and biofuel are also being explored.

India is already collaborating with many of the G20 nations, notably the US, the EU, Brazil, Japan and Russia in identifying emerging areas of non-conventional and renewable energy sources. In addition, India is actively collaborating with its neighbours to bring about change in energy efficiency and reducing dependence on fossil fuels and thermal energy.

Q. With 90% of the world GDP centred around the G20 countries and the Indian and Global unemployment rates hitting 6.1% and 5% respectively, what is your take on solving the issue of unemployment?

The problem of increasing unemployment is a very real and scary one at the moment. With the world economy slowing down drastically, the Indian economy has followed suit and already projections indicate that the Indian economy is likely to grow at 5 to 5.5% this year. Economists often claim India is suffering through a jobless growth, which is alarming and should be tackled by jobs for the unskilled or by providing vocational training to them.

This has very grave ramifications for emerging economies and developing nations. Unlike the developed nations, where population growth has by and large stabilized, the developing nations are still adding substantial numbers to their population every year. It is necessary for these nations, including India, to focus on job creation.

While large scale manufacturing is increasingly becoming automated, India has to focus on Micro, Small and Medium Enterprises (MSME) sector, Handlooms and Handicrafts, Gems and Jewellery sector. The skill of Indian craftsmen is legendary and this is where we have to concentrate. The Skilling India campaign launched in 2015 under the National Policy for Skill Development and Entrepreneurship is a step in this direction.

Q. With greater emphasis on electric cars in this year's budget, do you think it will slowdown and hamper the automobile and steel industries which contribute to nearly 10% of our nation's GDP?

Yes, the emphasis on electric cars is bound to affect the automobile sector in the long run. However, this is a natural progression of the G20 Sustainable Development Goals and the Paris Climate Agreement for reducing greenhouse gases. The transport sector is expected to undergo huge changes both in terms of ownership of vehicles as well as types of vehicles. The evolution of electric cars is likely to continue at a faster pace and this sector itself is likely to grow till 2030, by when, radically different modes of personal transport are expected to evolve. Reports from the previous quarter portray how inventories have already started piling up indicating a slump in the automobile industry. Although this might cause a contraction of demand in the short run, the higher productivity of e-vehicles should set the automobile sector on an upward projector in the medium run.

Q. Development is an important issue for realizing inclusive and sustainable world and discussion on this topic has been elaborated under the past G20 presidencies. Should the nation's focus be more on welfare driven schemes or injections and regulation in the markets to realise this inclusive world?

Both. India's battle with poverty is a continuing one. In spite of major progress in many fields, glaring income disparities remain. India's battle against poverty has been a long one. As per the 2011 census, almost 22% of the population was living below the poverty line, which came down to 17% in 2019. The Government aims to bring down poverty to less than 10% of the population in 2025 and try to eradicate poverty by 2030. This is a very ambitious

target and will require a multi-pronged attack. On one hand, the Government has to ensure a targeted subsidy regime through welfare schemes and Direct Benefit Transfers. On the other hand, the Government has to make huge investments in physical and social infrastructure to ensure rapid growth and equitable distributive justice.

Developing nations have often been the victims of poverty traps, which essentially shows that a onetime transfer doesn't have the potential to push a person out of poverty. Although, it leads to a short-lived upliftment of living standards, eventually the person falls back into the abyss of poverty. So focus should be laid on generating recurring sources of income rather than making solitary transfers.



In Conversation with

Srimati Sanghamitra Ghosh

I.A.S.

Interviewed by Sumedha Ghosh

Ms. Sanghamitra Ghosh, is an alumnus of Presidency College, University of Calcutta, with a Post-Graduate degree in English Literature. She joined the Indian Administrative Service in 1997, and has served in various capacities including as District Magistrate in the districts of South 24 Parganas, and Howrah, and the Mission Direction of the National Health Mission. She is currently the Secretary in the Department of Women and Child Development, and Social Welfare, and the Vice Chairperson of the West Bengal Clinical Establishments Regulatory Commission, Govt. of West Bengal.

Q. How instrumental is the G20 in achieving the goals of sustainable development and environmental preservation?

In December 2018, the G20 leaders congregated at Buenos Aires, Argentina to collectively uphold the goal of sustainable development in the years to come. Being a 21st century global citizen, it would be lax to undermine the urgency of sustainable development in today's steadily deteriorating climate, exacerbated by a heavily consumerist culture. The G20 is one of the most ambitious contingents in the present-day scenario, and has long surpassed the G7 as the major international economic assembly. Born to countermand the escalating debt crisis of the late 90s, the diverse body has now endeavoured to promote climate preservation, energy efficiency, and sustainable development among its other objectives.

But of course, that is easier said than done. For instance, the 2009 Pittsburgh meet of the G20 was committed to phase out and temper the use of fossil fuels. But this declaration failed to garner the necessary traction, and now, a decade later, there has been almost no progress. Many member countries are still hesitant to phase out the fossil fuel subsidies.

However, we are permitted a sense of plausible optimism about the G20 and its impact. Few international bodies can boast of a similar strength. G20 members comprise 66 percent of the world's population, account for 85 percent of the world's gross product, and most importantly, account for about 75 percent of the global greenhouse emissions. One of the highlights of the December 2018 summit was the discussion on 'A Sustainable Food Future'. While the extent of this project is still nebulous, one can agree that the potential for operation is immense. The G20 can be especially instrumental in minimising food loss, enabling food security, and checking soil erosion, while reaping concomitant economic benefits.

The road ahead is not smooth, and the G20 must carefully circumspect these obstacles. The upcoming 2019 meet in Japan, is expected to feature climate change, as one of its major themes. The G20 provides an international platform to world leaders to showcase their concern regarding the health of the climate. Let's hope they use it well!

Q. What is your message to the young generation, so that we can be requisitely equipped for an ever evolving, sustainable future?

This question is particularly poignant to parents, and as a mother of two Gen-Z kids, I can't help but reflect on my role as a parent, and as a policy-maker, in shaping the next generation of minds.

The kind of work I do now, in the social sector, brings me up against people who come from very marginalised backgrounds - abandoned children, destitute women desperately trying to make ends meet, elderly people needing sufficient support, differently abled people. But the story is not one of despair. We work mostly in the rural areas, and in one such instance, several years ago, (before the age of smartphones), I had quite an unexpected encounter. I was in this village, on account of some official ceremony, which the Minister was supposed to be presiding over. We arrived before schedule, when the audience had not yet gathered,

and were waiting backstage. Suddenly, these two young girls pop up, and accost the Minister. What is their problem? Their families wanted to get them married off. We fumbled, trying to come up with appropriate, officious replies, but those two girls gave us absolutely no time. They whipped out their mobile phones, thrust it in the Minister's hand, and very resolutely asked the Minister to directly speak to their families. The Minister didn't have a choice. He did end up speaking to their father.

I do not know what became of those girls. But what stunned me then, and doesn't fail to amaze me even now, is that those two young girls, in a remote village in Bengal, had the gumption to come up to a Minister, and convince him to talk their families into letting them pursue their education. That is what young people can do. They can create an opportunity out of nothing.

We work with 'Kanyashree', with bright, young, courageous girls. We devised the programme, because West Bengal had one of the worst situations of child marriage at that point of time. We had started out thinking it would be a cash incentive to the girls, so that they could stay on in school long enough to delay the age of marriage. It was a very simple and straightforward scheme. But the way the girls have taken it up, it has put 'Kanyashree' on a trajectory that we could have never envisioned. They have made the programme into the brand that it is now, using it as a platform to organise, mobilise, and bring about social change in their community.

You and I are fortunate to have been blessed with a strong support system, free from such dire financial constraints. I am not for a moment suggesting that we feel apologetic for this privilege. But there is a reason, a purpose, that we were fortunate enough to be born free of such challenges. To all you bright, young individuals, this is my message - find that purpose.

Nowadays, there is so much talk about artificial intelligence, and the possible extinction of humankind. Are we rendering ourselves obsolete? No. Artificial intelligence will be used to free ourselves of the daily clutter, so that the human mind can move on to higher things. And you are in that situation, where you are not bogged down with the daily clutter. So how are you going to use your minds, your thoughts, your imagination? The world is full of numb individuals who refuse to use their imagination, and refuse to learn. They choose to remain confined to the bounds of their own experiences.

When my daughter approached me regarding this interview, I was fittingly nervous. What does one possibly have to say to a Google-powered generation? We, as parents, teachers, and mentors, understand our limitations. We are not here to teach you the right from the wrong, or show you the ways of the world. We are simply trying to give you a frame of reference, so that you can grow into yourself, and can take decisions, which are best for you, and for those around you.

Q. How critical are women empowerment and welfare in bolstering economic development at both macro and micro levels? What policy instruments can be employed to ensure that we are actively reducing the gender gap?

Amartya Sen famously coined the term 'missing women', in one of his articles in the 1990 edition of the 'New York Book Review', to underscore the distressing issue of gender disparity across the world. He argued that the proportion of women is lower than what would have been, if women in third world countries were born and perished at the same rate, as their male counterparts. This argument is even more resonant in today's world. As of 2012, the World Development Report has estimated that 6 million women are 'missing' every year. Of these, 23 percent are not even born. And for each missing woman, there are women all across the globe, who are deprived of primary education, jobs and basic legal rights, that would have been available, had they been male.

From a purely empirical standpoint, it has been observed that gender disparity is wider in the poorer countries. But is it sufficient to say that as countries develop, women's conditions will improve organically, and hence we do not require policies targeted at women empowerment? Is it enough to ameliorate poverty and enhance growth? New research does in fact show a positive correlation between endogenous growth and women empowerment. But, there is enough evidence to suggest that pure economic growth is insufficient in tackling gender inequality. In China, in spite of colossal economic growth, sex ratios remain heavily skewed. Thus, gender-specific action is critical. We are required to set up education programmes for women, we must also take care to develop programmes sensitising the participants to gender discrimination, to promote holistic development, and a wide acceptance and safeguarding of women's rights.

The fact that opportunities for women in the labour market are limited, may give rise to active discrimination against them, in their own households. For instance, in West Bengal, L. Beaman (2011) found that in those regions where no woman was ever appointed as the local figurehead, 86 percent of their families would expect them to be domestic housewives. But, from an economic standpoint, if these women are not expected to leave the home to earn their livelihood, there would be little incentive to invest in their medical needs or formal education.

Thus if we were to close the gender gap, we must provide their families with strong economic incentives. There is sufficient empirical evidence to suggest that both parents and children from low-income backgrounds are sensitive to the realised yields of a formal education. Thus, creating an atmosphere conducive to women's health and productivity at the workplace, is key to bolstering economic growth and gender equality.

There is also a persistent bias against women, in the way they are expected to use their time. In our conservative, patriarchal society, women are almost always relegated to the position of care-givers, and expected to spend a significant amount of time in domesticity. In this regard, economic development can hope to safeguard women's rights by reducing the time they typically spend on household work. Access to electricity, and dispersion of appliances could be one such measure. Another way to gain time for productive, economic activity is by decreasing the risk of unwanted pregnancies, by ensuring access to contraceptives.

Women's empowerment is closely interlinked with economic development. One of the bulwarks of socio-economic welfare is equity, and we must strive to be proactive in the face of the stark gender divides prevalent in our present day world. Several policies targeted specifically at women, are so structured, not simply because they are equitable, but also because they bring about large scale socio-economic progress. Micro credit schemes are almost always aimed at women, because it is generally believed that women have a natural predilection to invest in those goods and services which are beneficial for the family. Similarly, education for women can have a whole range of advantages, both inside and outside the home. Women who are aware of their own rights, are less vulnerable to exploitation, and can thus demand and secure higher wages. If the woman in a particular family is the primary care-giver, then a formal education will ensure that she takes better care of her children. Above all, education will empower a woman to develop decision-making skills, and make the best choices for herself.



In Conversation with

Sangeeth Varghese

Interviewed by Dyutita Ajith

Sangeeth Varghese is a globally acknowledged leadership thinker, ranked among the top 10 in 2011, from the Harvard and London School of Economics. He is a personal advisor to 3 prime ministers of the world on matters of leadership and youth development. Varghese is an ambassador of Harvard and listed in the Who's Who in the World, 2012-13. He has consulted for nations from Africa and Asia, institutions like UNO, World Bank, ADB and Fortune 500 corporations like Microsoft, Intel, Unilever and Coca Cola. He was nominated as the Young Global Leader 2010 by the World Economic Forum. Varghese is the author global bestsellers 'Open Source Leader' and 'Decide to Lead'. He was honoured as the first Asian Youth Ambassador by the government of Libya. Varghese is a member of the Global Agenda Council and board member of the Global Business Oath of Harvard University. He is a member of the Karnataka Knowledge Commission and the Chair of the data secretariat. He is also a co-founder of Bangalore Biz Lit Fest and Future 2050. He was a contributing editor for Forbes and Economic Times. He was chosen as the face of the 2010-11 annual report of the Centre for Creative Leadership, USA, considering his unique contributions to the world of leadership development. Prior to this, Varghese was a Principal Consultant for UNO in London. He also has the unique distinction of being part of the core teams that helped India's telecom penetration grow from 1 to 50% and the personal computer spread from the metros to tier 2 and 3 towns. Mr. Varghese currently serves as the Managing Director, LeadCap Trust.

Q. India ranks second in total population. Its population has grown 20% per decade, which leads to problems that include food deficits and unemployment that aggravates poverty. Even though the economic growth data seems promising, the living standard is still deteriorating. What can India do to improve its employment rate of 5.3% in rural India and 7.8% in urban India, in light of what was discussed in the G20 summit?

India's predicament might not be too different from the other countries in the South Asian region. Almost all these countries are plagued by similar challenges. If you look at it historically, it is a sad tale out there haunting us.

	India		China		USA			
	Pops %	GDP %	Pops %	GDP %	Pops %	GDP %		
Maurya (200 BC)	28%	35%	27%	20%	0	0		
Kushan (1 AD)	30%	32%	30%	25%	0	0		
1500 AD	17%	25%	17%	25%	0	0		
1700 AD	24%	25%	24%	22%	0.3%	0		
Industrial revolution, British Raj								
1950 AD	15%	4%	24%	5%	6%	27%		
2010 AD	17%	4.5%	19%	10%	4%	20%		
2017 AD	17%	7%	19%	18%	4%	15%		

Through the recorded history, much before the industrial revolution, starting from the Maurya Empire in 200 BC until the 1700s, the Indian sub-continent had mastered the unique art of higher per capita productivity. Every percentage of Indian population contributed a higher proportion to our share of world GDP. This is indeed a remarkable achievement, considering the fact that an equally ancient civilization, China, though it always stood neck to neck with India in population, could never get around the skills required for achieving higher productivity until the late 1500s – a delay of almost two millennia compared to India.

We might have some great lessons out there, from history, on what made India successful till the 1700's — until we were colonized. First, historically India always celebrated individual skills and abilities. We have never been a melting pot where arguments and opinions disappear, but rather a mosaic, where individualities stand out. We always guarded our libertarian culture — evidence of which is available in the fantastic progress we made in softer realms like art and literature apart from the harder economic growth. Starting from the British time, and continuing post-independence (considering we blindly copied and continued most of the British practices post-independence), this individualistic attitude was systematically eliminated out from our social system. India grew to be a phenomenon where we now wait for our State to sleep so that we can get our things done, so that we can grow, so that we can continue to have hope. During the day time, all what we do is fighting the barricades the State has systematically erected to thwart our progress. When the rest of the world is innovating, we are doing 'jugaads' or work arounds. We are figuring out short

cuts to red tapes, bureaucracy, traffic snarls, agricultural failure, water scarcity and poverty. We refuse to go down, but this snuffs out our spirits.

So, the first step, we need to get back our libertarian spirits, with least interference from the State. That would get us overcoming inertia and moving, where our companies are innovating, entrepreneurs are starting up, employees are producing and consumers are consuming. Second, the State needs to do what it needs to do. If you look at it, we have managed to create large internal markets around those things that the State should have provided us, but is unable — water tankers for basic water supply, water purifiers for drinking water, UPS power backups for electricity supply, slums and illegal occupations for housing. That should get us accelerating. Third, historically, we have had a great level of internal competition. We might have had thousands of kingdoms and fiefdoms, each of them competing among themselves for the world market. As we know, competition raises our efficiency and productivity. India is several markets in one market. We need to find out a way to rekindle this internal competitive spirits and creating a large domestic market. That step should get us cruising. Unless these basics are taken care, it might be impossible to get the nation back on track. All the rest of the bells and whistles in terms of policies, programs could be added on top of these.

Q. In the G20 summit that was held on 28th and 29th of June, India stressed on critical issues related to Energy security & financial stability, Digital Economy and artificial intelligence. India is the fastest growing trillion-dollar economy in the world, thereby making its role in the G20 summits just as relevant as ever. What do you think should be India's major focus on the upcoming summits and what can India do to deliver its vision presented in the 2019 summit?

Being one of the largest and fastest growing economies, as well as representative of 1.2 billion population India would continue to play a large role in the G20. Having said that, in the presence of behemoths like US, China, France, Japan and Russia, the question is whether India can fight above its weight and make its presence felt. This time India focused on economic offences, inclusive and sustainable growth, climate change and renewable energy generation.

Since climate change is one of the biggest demons the world is fighting against now, India has an unprecedented opportunity to take its stand to the next level and nudge the rest of the world nations towards electric and sustainable mobility. Most other nations in G20 have enough reasons to rally against such a cause. For example, US, EU, Japan and South Korea are leading fossil fuel automobile manufacturing and hence, electric mobility would cripple their industries. For Saudi Arabia and Russia, being large producers of fossil fuel, such a change would be disastrous. However, for this to work, India would have to find enough incentives that can enable and convince these nations to overcome their initial barriers and work along with us.

Q. With the recent slowdown in both consumption and private investment expenditure in India in the last quarter, how important is it for India to go for an export oriented growth in the future and how can it use its G20 membership to pave a smoother path for bilateral trade to happen?

Different countries have different trajectories to progress. Our East Asian counterparts, like Hong Kong, South Korea, Taiwan and Singapore have been exceptional in riding on top of export led growth. However, there is an argument that even in these countries, the export led growth is in their last legs because of increasing automation and protectionism. The US-China trade war, looming recession and global slow down predictions all would adversely affect such a growth. Since India is blessed with a large domestic market, I would suggest that export led growth should always be our contingency strategy than our Plan A.

Q. Although the G20 has made a limited effort to broaden its engagement with Africa in recent years, it is yet to include Africans in global issues that bear directly on their own economic opportunities and challenges. Is the G20 digging its own grave by not treating Africa as a co-equal partner? How can the G20 work towards being more inclusive and representative while maintaining its core values?

World goes around making the same mistakes time and again. Nations and powerful members of the society keeps creating cabals and societies, where they can be exclusive members and call the shots. UNO, World Bank, IMF, G7, G20 are all examples of such cabals, where majority members are excluded and their voices stifled out, and their own cacophony amplified. Unfortunately, all these organisations develop into echo chambers where real world issues are not highlighted nor discussed. It is important that not only G20, but even other world institutions start giving prominence to countries in Africa and South Asia.

Q. How can India foster a healthy economy that boasts of increased MNC participation and growing foreign investments while at the same time boosting the domestic enterprise, and encouraging MSMEs and start-ups?

For a growing economy, MSME could be an important enabler of growth. However, just like different types of crops demand different types of climatic conditions, MSMEs and start-ups require a different type of economic and political set up compared to the already established corporations. In the case of large corporations, they can cast their dark shadow on the State through lobbying and sponsorships to get things done. However, MSMEs are at the mercy of the system. They need to be provided the right conditions, they need to be nurtured carefully, they should be enabled by weeding out unfavourable things – whether it is political or economic.

At the same time, there are also industries that revolve around MSMEs. For example, automobile or construction. In fact, the turnaround of Japan is attributed to the MSMEs that were built around the automobile sector. Each large automobile company, say for example Toyota, nurtured thousands of suppliers and vendors around them. They then established a strong element of interdependency among themselves. As Toyota grew, the MSMEs grew, as MSMEs grew, Toyota grew. As Toyota innovated, MSMEs innovated, and as MSMEs innovated, Toyota innovated. We should focus on such a system.

Q. In a budding economy, it is also necessary ensure that economic growth goes hand-in-hand with increasing social welfare. What can the Union government do to improve child nutrition? How can the government ensure that children are requisitely skilled and capable for a sustainable future?

State should identify the focus sectors where they alone can make a difference and should leave all the rest to the private sectors to take care. For example, even after collecting a road tax, infrastructure development cess, vehicle registration fee, GST on vehicle purchase and insurance, fuel surcharge and road tolls, if it is still not able to guarantee its citizens basic roadways, what is its justification to be in the business of infrastructure provision? Same goes with many other basic things – food, housing, railways, electricity and water supply.

However, I believe strongly that child welfare and literacy are couple of sectors that the State can make a difference, because it demands a faceless player without a profit motive. However, I doubt whether the current systems are conductive of this. One of our earlier Prime Minister's commented that only a miniscule part of the development budgets reached the hands of the ultimate beneficiary. I am convinced that in the last three decades, though there have been several claims of improvement of this ratio, this has in reality slipped further. Higher proportion of funds are leaked than reaching the target. If we are to make strides in these very important human development parameters, we need to improve our efficiency, plug the leakages and also learn from those States which have created improvements – for example what can Jharkhand, Bihar, Uttar Pradesh learn from States like Mizoram, Sikkim, Kerala Punjab and Kerala.



In Conversation with

BRUCE BUCKNELL

Interviewed by

Khushi Kumar, Trisha Dasgupta

Mr. Bruce Bucknell currently serves as the British Deputy High Commissioner to Kolkata. He has been a member of the British diplomatic service since 1985 -- and that journey began when he was only 23. He has had five postings, which include Milan, Madrid, Amman and he served as the British Ambassador to Belarus (2012-2016) prior to his assignment in India. Apart from West Bengal, he represents Britain in twelve other states and the Andaman and Nicobar Islands. Mr. Bucknell graduated with a Bachelor's degree in History from Durham University.

Q: When was it that you took up the post of the British Deputy High Commissioner in Kolkata? Please share with us your experience in the city and in India.

I came here in July 2016 and am scheduled to leave in October this year. So, it's been three and a quarter year here. When you go to a new place, I think you expect to find differences. Diplomats bid for jobs, and I bid to come to India. I'd been to India before and, although I hadn't been to the East, I'd visited Rajasthan and Delhi. I knew the country was populated, I knew the climate. I knew everything, but I think until you've lived here, you don't understand how varied the culture is. Even within Calcutta, the culture is fairly mixed.

However, I didn't quite appreciate the food culture that I came across. The Durga puja was a real surprise and I started reading up about it before I came here. British diplomats spend a little bit of time in the country before their assignment, an 'immersion' process to understand how the country works. So I went to Lucknow and saw Akhilesh Yadav in the UP State Legislature too. I also saw the India-Nepal Sonauli border, which is a completely open border. So, I had a very good impression of India.

Q: The G20 is an international forum for economic cooperation. To what extent do you think that the G20 has or hasn't been successful in implementing and realizing their goals and agendas?

The G20 was the result of the financial crisis of the 1990s. It was convened by various countries that recognized that the response of the G7 to the global financial crisis was not enough, and that more countries were needed to be involved, for example: China, India. You needed to have representatives from all parts of the world to have a better response to situations which affect lots of different countries. However, now I think the G20 is struggling a little bit. Ten or eleven years ago, there was a need to concert financial interest rate policy and try to avoid a big slowdown and financial crises affecting trade, whereas now we face a slightly different situation. There is more diversity of opinion on how to tackle economic pressure, and some of the trade imbalances and the fiscal imbalances that there are. So it's a lot more difficult now. The G20 is a forum to get the biggest economies together; so even if they disagree, the organization provides a platform and an occasion to get the decision-makers together and I can't underline the importance of that enough. It provides the nations an opportunity to have an exchange and to have negotiations that may de-escalate crisis.

Q: Britain and India are both important members of the G20. In which areas do you think the two nations can collaborate for better outcomes?

Britain and India have a very long history, not all of it is great, but old ties exist. The Indian diaspora, the 1.5 million people of Indian origin in Britain working with partners here is just one example of the human side of it. In the wider context, Britain and India are big investors in each other. India is one of the largest investors in the UK, Tata Steel being an example. Royal Enfield has just set up an R&D center in Britain because the best engineering of the old-fashioned internal combustion engine is based there. Most of British investments are in the north and the west of India, in Delhi, Jaipur, Mumbai and Pune. A lot of British software is actually written in Bangalore, so there are very strong and interesting links. There are a lot of Bengalis in British universities, and over a thousand people of Indian origin. There are research links between Indian and British universities to do primary and applied research. We invested around £200 million for about five years, which will run out in 2020; but there will be a replacement program.

India is Britain's second largest research partner, after the United States. There are so many young people and bright minds here and at every university I visit, I try and celebrate those research links. What we're trying to do is to encourage technology partnerships -- the twinning of Pune and the center of England for things like automotive, and electric vehicles. Electric vehicles are the big thing, that's what we really want to work on together, because India has a massive demand for mobility. But there's also a massive need to try and remove air pollution.

We are actively working with the Indian government in third countries to implement the development systems we've traditionally followed, largely on our own.

We have the advantage of the English language and because of the history, India is the largest country of the Commonwealth. These strong links give you so many more possibilities in the wider world. India needs a lot of capital and there is the problem of non-performing loans and exchange rate risks exist too. The most liquid financial market is London and Indian companies can now raise capital in London, but denominated in Rupees, so you immediately take out the exchange rate risk. These are called the 'masala bonds'.

We're seeing more and more of these financial instruments in London, which are going to be of major benefit to India. There are so many relations between the two countriescricket, and we even have a British kabaddi team, but they're not very good (*laughs*). We have Shakespeare Sarani just around the corner. So there's a lot about India and Britain and the partnership will be of benefit to everyone.

Q: India is one of the fastest growing economies of the world. In which areas can it learn from Britain to make its growth environmental friendly and sustainable?

I believe learning is a two-way process. Both the countries can learn from each other to make their growth environmental friendly. Recycling that is carried out at the lower levels by the rag pickers is much more in India than in other countries.

Yes, Britain does use advanced green technologies such as solar energy and we are lucky to have masses of wind energy because of the way the UK is positioned. Britain plans on going carbon neutral by 2050. There are technologies that Britain can provide India but we face the challenge of producing at a massive scale.

India faces very different challenges. There are some things that India can teach and learn. Britain does things industrially but India has all the organic methods and we could learn the art of organic farming from India. What we should try and do is to share the knowledge in such a way that it is mutually beneficial. We can guide you on how to do some things and how to not do some things. As an example- don't use carbon fuels like we did, don't use plastic like we do. Britain intends on going plastic free and to implement the same we import masses of jute bags from India.

Q: What are the steps that are being or can be taken to ensure that the students/children are requisitely skilled and capable for a sustainable economic development?

My first piece of advice would be to follow the Sustainable Development Goals set by the United Nations. In this generation, where mobile phones play such an important role, you need to be aware that these gadgets consume power and the more we use it the higher is our carbon footprint. Don't use plastic, recycle everything, recycle your phones and digital devices. You have your life in front of you so think about your future and question the current generation or as I would say, give them a little grief so as to have a better future. A Swedish 17-year-old, Greta Thunberg has become a digital sensation in Europe- a European fixation- for going green, she is fighting climate change and emphasizes the need for sustainable development so that we could secure the future for the coming generations. Similarly, I believe that you are the ones who can decide your future and should work towards sustainable development. In a circular economy, there are lots of technologies to focus on to reduce carbon emissions.

Q: One of the major issues raised in the 14th edition of the G20 Summit was women empowerment. What can India do to improve its rank from 108 last year in the World Economic Forum (WEF) gender gap index?

I feel there is no simple answer. There are role models like the former Indian Foreign Minister Mrs. Sushma Swaraj, who transformed the Indian Foreign Services by the use of social media. She changed the way services were provided to their nationals overseas. She completely changed the mind-set of how Indian diplomats abroad should be looking after the Indian citizens. There are women like Hima Das and the new Indian Finance Minister Nirmala Sitharaman who are doing great in their respective fields.

Gender equality is something Britain also needs to achieve and hasn't got it fantastically right yet. Don't cut off 50% of your workforce by not allowing equal participation of women in the society. It is about changing the mind-set and accepting that talent is spread in all genders. In Britain there are some professions that are dominated by women such as medicine and languages. There may be some brilliant women engineers but they may not get a chance because of the traditional patriarchal view. The mind-set of decision makers needs to change. There are only 10% of women Chief Executives in the top 100 companies in Britain. Despite equal opportunity legislation, fair play still needs to be practiced. Culture plays an important role and different cultures need to take different steps for women empowerment accordingly.

Q: Brexit negotiations are taking place between the UK and the European Union. If the withdrawal agreement is ratified what do you think will be the implications of Brexit on Britain, the European Union and the global economy?

Brexit is an issue going on for a long time. Britain has a very different history than the rest of Europe. We have a different system of common law and we don't have a written constitution like France and Germany do. Also, Britain has different connections and networks in the world. Well if Britain does exit, there will be a second stage in the negotiations about future relationship- whether we are going to share certain things or not. The 'divorce' would cause problems as it states that if Britain can't work out its future relationship with Europe then there has to be a system that stops a border between the north and south of Ireland.

Brexit was born to leave the European Union and it aims to leave the customs union so that Britain is able to have separate bilateral trade agreements with countries like India. Immediately, if India has a different trade agreement with Britain, India could export so much more- Basmati rice, for example- to Britain since Britain will not be constrained by the European laws.

Under a different agreement called the 'Good Friday' agreement which is about changing the status of Northern Ireland, where some of the population wants to rejoin Southern Ireland and some want to stay in Britain. Since we are all a part of the European Union there isn't any need for a hard border but if we have our own separate trade agreement for the country then a border will have to be set-up between the North and South of Ireland.

Globally, 45% of our trade is with Europe but because of the trading arrangements between Europe and Britain the impact on the global economy will not be so dramatic. I discount the effect on the global economy. There is definitely some uncertainty but right now there are bigger factors at play such as the China -America trade negotiations that are unsettling the global economy more.

As far as the implications on Britain are considered there will be some adjustments in how we trade with Europe. We will have to use the general standard rules set by the World Trade Organization. We will be facing a bit of a dislocation period but in the long run it would make marginal differences. The impact of Brexit would vary from sector to sector where some sectors might struggle while some may remain unaffected but in the long term it will give Britain much greater flexibility to have trading arrangements with other countries that will be of mutual benefit.



STUDENT ARTICLES

Role of India's Key Sectors in Achieving the Goals of the **G20**

- Mahek Agarwal, Ashna Vimal Department of Economics, Third Year

Abstract

This article emphasizes on India's role in the 2019 G20 Osaka Summit, which was the fourteenth meeting of the G20. The Indian economy is saddled with an array of issues which the country aims to resolve through the implementation of appropriate policies. Some of the challenges that the economy has been facing have been discussed here.

Introduction

The Group of 20 (G20) is an organization of finance ministers and central bank governors from 19 individual countries and the European Union. The nineteen countries are India, United States, Argentina, Australia, Brazil, Britain, Canada, China, France, Germany, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea and Turkey.

G20 economies account for around 90% of the gross world product (GWP), 80% of world trade, twothirds of the world population, and approximately half of the world's land area. The G20 Leaders' Summit was established in response to the global financial crisis that occurred in the wake of the collapse of the Lehman Brothers. G20 summits are an annual gathering of the representatives of the nations who come together to discuss about the various financial and economic issues. It focuses on several core issues around which the leaders hope to reach a consensus for collective action. The goal is to conclude the two-day gathering by issuing a joint statement committing its members to action.

In 2008, the first G20 Leaders' Summit was held, and the group played a key role in responding to the global financial crisis. It's decisive and coordinated actions boosted consumer and business confidence and supported the first stages of economic recovery. G20 leaders have met nine times since 2008.

The last G20 summit was hosted by Japan in the year 2019. The eight themes of the summit were –

- Global Economy
- Trade and Investment
- **Environment and Energy**
- Women Empowerment
- **Employment**
- Innovation
- Development
- Health

In this article, we will be taking you through the four issues namely women empowerment, employment, digitalisation and climate change which have posed as a constant challenge to the Indian economy over the years.

1. Women empowerment

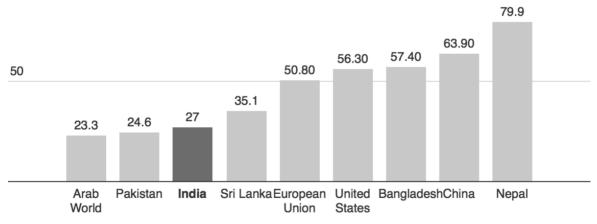
Women empowerment has been a topic of discussion in many international summits. It has been a constant focus in many of the G20 summits as well. Women have faced oppression for a long time. It is very important to empower women for the economic prosperity of nations. With better education, skills and opportunities women can contribute in the economic growth of the country.

The Prime Minister of the host country of the G20 summit held in 2019 said "societal change is possible if there is a clear vision coupled with concrete action." He also added that Japan aims at decreasing gender gap in the work force and also at improving the quality of women's education. All the world leaders who were a part of the summit showed their support to empower women. It is believed by many that there can be a great boost to the economy if gender gap is reduced in the work force and higher positions are held by women.

In the 2019 G20 summit, this issue was addressed in great detail. Discussions under the Japanese Presidency was made under the following three pillars: (1) implementation of G20 commitments including those related to women's labour participation, (2) enhancing support for girls' and women's education including STEM (Science, Technology, Engineering and Mathematics) area, (3) engagement with women business leaders and entrepreneurs.

Statistics shows that countries with a higher index of gender discrimination have been more prone to armed conflict. Women have a better understanding of human behaviour. Companies in which women occupy higher posts have shown better labour productivity and efficiency. The following graph shows the Global Female Labour Force Participation (in percentage).

Global Female Labour Force Participation (%)



Source: World Bank

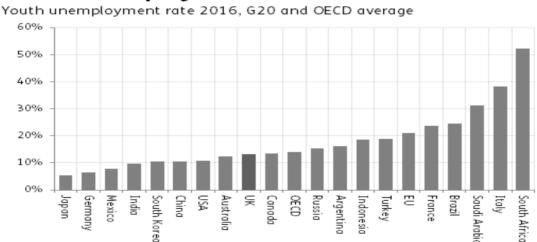
India has taken many steps to empower women over the course of many years. The initiatives taken by the Government are MAHILA E-HAAT, BETI BACHAO BETI PADHAO, ONE STOP CENTRE SCHEME, WORKING WOMEN HOSTELS, SWADHAR GREH, STEP, NARI SHAKTI PURUSKARS etc. The Support to Training and Employment Programme for Women (STEP) provides skills to women to make them employable and provides competencies and skills to women so that they can become self-employable. Beti Bachao Beti Padhao is a social campaign aimed at eradication of female foeticide and raising awareness on welfare services intended for young Indian girls. One stop centre scheme popularly known as 'Sakhi,' was implemented in 2015. The One Stop Centres are established at various locations in India for providing shelter, police

desk, legal, medical and counselling services to victims of violence under one roof integrated with a 24-hour Helpline.

2. Employment

Ten years since the global financial crisis, only half of the G20 nations had returned to pre-crisis unemployment levels. The other half continues to face the issue of high unemployment. Countries like Italy, Brazil, and South Africa have their unemployment rates much higher than it was in 2007. The graph below shows a comparison in the youth unemployment rates of the G20 countries in 2016.

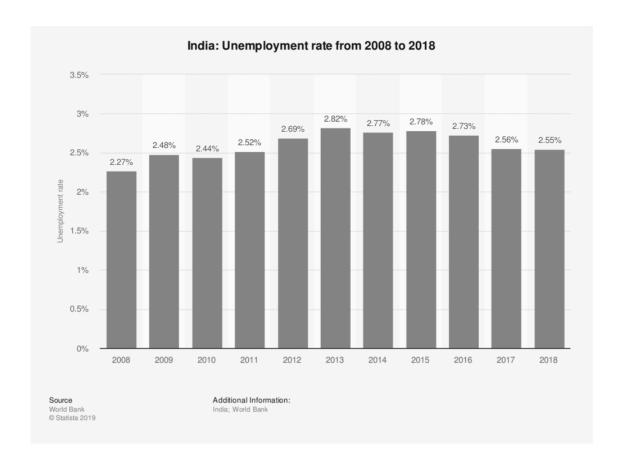
Youth unemployment in the G20



Source: World Bank Databank, Unemployment, youth total (% of total labour force ages 15-24) (modeled ILO estimate)



One of the key targets of the Government of India in the G20 meetings has been tackling the problem of unemployment that has been plaguing the country for years. This is a huge challenge for the country considering the fact that unemployment in the country is at a four-decade-high. The National Sample Survey Office's (NSSO) job survey for 2017-18 had shown a spike in the unemployment rate to over 6 per cent. According to the Periodic Labour Force Survey (PLFS), the unemployment rate in the rural areas in the year 2017-18 was 5.3 % while in the urban areas; it was pegged at 7.8 %, the unemployment rate being higher in urban areas than in rural areas. The following chart shows the unemployment rate of India from 2008 to 2018.



However, the Government has taken various measures over the years to counter this issue. Some of the schemes initiated have been discussed below:

1. **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) -** This Act was launched in 2005. It is an Indian labour law and social security measure that aims at guaranteeing to its citizens, the right to work.

Mission- "To enhance livelihood security in rural areas by providing at least 100 days of wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work."

This scheme is demand driven where the workers are hired when they demand and not when the Government demands it. At least one-third of the workers should be women. Wages are to be paid according to the Minimum Wages Act 1948 for agricultural labourers in the State.

Effects- Since the time the Act has come into existence; it has generated 19.86 billion person-days of employment benefitting 276 million workers. Through this Act, women workers as well as the Scheduled Castes and Scheduled Tribes have benefitted immensely. The Act has reduced migration of workers from rural to urban areas by providing them work closer to their homes. Moreover, the average daily wage rate of farm workers has grown sharply.

Criticisms- However, this scheme has also faced some criticisms due to insufficient budget allocation. In some states, the wage rate is lower than the Minimum Wage Rate. Moreover, there has been a delay in wage payments by the Government.

2. **Start-up India-** Start-up India was operationalized on 1st April, 2016 to resolve queries and provide handholding support to start-ups. This scheme focuses on creating the right ecosystem in the country for innovation and entrepreneurship. It aims to build the start-up culture which will in turn help the country to become a job creator rather than a job seeker. The scheme places emphasis on the following areas-

- Providing proper infrastructure to start-ups.
- Easier IPR facilitation, including easier patent filing.
- Providing tax benefits and easier compliance facilities to start-ups

Start-up India has acted as a catalyst in the creation of jobs across the country. The hub has handled more than 1, 14,000 queries from start-ups through telephone, email and Twitter. The start-up culture has received a boost as more and more people are venturing out to start their own businesses.

3. Innovation and Digitalisation

Technological improvement is very essential for increasing the productivity of the economy. All the economies in the world spend a considerable amount of money in developing new technologies. Innovation was one of the eight themes discussed in great details in the G20 summit of 2019. In September 2015, the United Nations General Assembly unanimously adopted "the 2030 Agenda for Sustainable Development" that comprises 17 Sustainable Development Goals (SDGs) with 169 targets. According to the 2030 Agenda, harnessing science, technology and innovation (STI) is crucial for achieving the SDGs ("STI for SDGs").

The previous summits have focused on how innovation including digitalisation enhances growth and productivity of an economy. The 2019 Osaka summit focused on the crucial role played by data in the 21st century economic system. Digitalisation is now influencing our societies and economies to a large extent, so effective use of data is an important economic driver of social welfare and economic growth.

India presented the 5 'I's vision on Digital Economy & AI. The 5 'I's are - Inclusiveness, Indigenisation, Innovation, Investment in infrastructure & International cooperation. The Indian government has also worked towards digitalisation of India. Digital India is a campaign launched by the Government of India in order to make Government services available electronically through improved infrastructure. For the government, the shift to digital has primarily been about transparency and reach, taking services and resources in the healthcare, education and financial sectors to the rural population of India. Digitalisation in uplifting the country and enabling services to reach better and faster. Farmers can know about the weather conditions and plan their activities accordingly. The various services available on the digital platform are Bharat net, digital locker, eeducation, e-health, e-sign, e-shopping etc. While Digital India programme has by far bridged the gaps between the online and offline in both urban and non-urban areas, the industry is looking forward to additional concessions and rebates so that the dissemination of technology becomes easier.

4. Climate Change

Another issue that has been in the pipeline for the Indian economy is to address the problem of climate change. The Earth is warming up and the countries of the G20 have come together to face this issue.

According to the World Health Organisation (WHO), India is home to 14 of the 15 most polluted cities across the globe in terms of the PM 2.5 concentrations. The cities that have registered high levels of PM 2.5 concentrations are New Delhi, Kanpur, Varanasi, and Mumbai.



India is progressing well under the Paris pact to check this issue. Under the Paris agreement, India and other countries have set targets called Intended Nationally Determined Contribution (INDC) in order to ensure that global temperature does not rise by more than two degree Celsius by the end of the century. India is focusing on three areas-

- Reducing energy intensity of GDP by 30-35%.
- Generating 78000 megawatt of non-renewable energy.
- To have carbon sink for which the necessary steps have been taken and as a result, the green cover has increased in two years.

The Government has installed and operationalized 28000 Megawatts of solar power. Every individual in the country must contribute in their own little way to counter this on-going crisis.

Conclusion

Among the nineteen countries and the European Union, India had emerged as a powerful player at the G20 Osaka Summit 2019. The country will be hosting the G20 Summit in 2022, when it would have completed 75 years of Independence. The Indian economy is progressing rapidly on the lines of the issues laid down by it at the Osaka meet. Being a dynamic country, there are a lot of opportunities in India which are still left to be harnessed.

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Establishing India's Relevance in the G20: Structural Changes via Behavioural Policy

- Deep Mehta Department of Economics, 2nd Year

Abstract

While the Indian economy boasts of an admirable growth rate, there are fundamental concerns with regard to its monetary functioning as there persists a lack of institutional reliance which is inherently embedded in society and aggravated by recent situations that have reduced confidence in financial markets. This has raised concerns regarding vulnerability to future crises and inability to utilise opportunities. The behavioural economic policy proposed by the current Government, if correctly implemented, can hope to achieve the necessary transition and must be actively undertaken.

JEL Classification

E5, E4, E7, F4, F5

Introduction: Developing indeed?

In the current global scenario, the world economy finds itself in certain intensity with regard to the trade and capital linkages across countries and the largely contentious policy moves alongside the increasingly important role of multi-national corporations.

There is a cognizable attempt at the establishment of a Chinese economic hegemony, challenged and restricted by wary policy moves of various countries, not least the aggressive protectionism of The United States and the tariff war with PRC, a matter greatly being deliberated upon.

With a rising GDP growth rate and bustling tertiary sector, India has achieved economic growth that is expected to match up to the developed United States, China and European nations. In reality, however, there are fundamental issues with the core economy that are critical impediments to the desired development.

The premise of development lies in the establishment of an economic structure that is inclusive of all (or nearly all) transactional and productive activities in the country such that macro-economic policy can be effectively implemented via monetary tools with desired results; regulation of liquidity and credit, and to facilitate an infrastructure sound enough for global investor confidence; portfolio as well as direct.

While there has been significant expansion in the reach of Banking and financial institutionalisation in India, the actual extent of inclusion is much lower than claimed due to the lack of reliance on the infrastructure in economic activities. While millions of accounts for savings and transactional purposes are created, the overwhelming trend is reliance on informal and isolated means of doing the same.

Immobility of Savings:

The Informal Sector and Lack of Confidence on Bankers

While the international collaborations and mutualities India seeks via the G20 and other fora are of importance, there are internal aspects holding it back in international regard. Psychological patterns in Indian society are largely responsible for the lack of transition of the economy in two fundamental manners.

Anchored Immobility:

Monetary and fiscal policy have been significantly eroded in effectiveness since a major chunk of the economy is the informal sector is characterised by unrecorded, undocumented and non-institutional transactions which cannot be included in data adequately, let alone be effectively monitored or controlled by central authorities. Informal labour, unregistered micro businesses and even voluminous transactions among large but traditional family businesses among others carry on economic activity without having any institutional connect with the core financial sector. Although it is common to find banking relationships, the entities do not avail of the said facilities due to isolated individual objectives and a lack of clarity on the finance mechanisms.

The traditional Indian norm involves maintenance of accumulated wealth in the form of household assets such as gold, jewellery or stored cash and the same applies for various communities across regions, income groups and demographic differences.

Customary and often, communal connotations with earnings and assets over time have ensured that households and firms continue to indulge majorly in cash transactions and self-maintain accounts of the same for daily usage, especially among lower income groups. Manual paper billing and currency note exchange are the common transactional method for business to business and business to consumer dealings.

Despite the availability of online transactions and the facility to utilise institutional saving methods, a conscious shift to the same cannot be seen. This reflects a widespread anchoring bias with informal money management and cash usage in the country.

Living standards in India are not necessarily causally related with formal education, especially for the lower middle class, as the quality of education at the level is low and earnings depend upon vocational ability.

Hence, a significant proportion of the population in the lower middle class is unable to access banking systems due to a disconnect with the sector; lacking a formal education and being brought up without the usage of technology or organisational benefits, there is a dissonance towards cashless monetisation of their business or domestic activities even when they have the economic resources to avail of them.

In fairly widespread and friction oriented markets without systematic changes being influential to a great extent; as most sellers insist on cash transactions, consumers are held from shifting as well, especially as there is no immediate incentive to not stick with cash.

Loss in Confidence:

Second, and perhaps more harrowing, is the lack of confidence in the security of financial institutionalisation in the country owing to an increase in observed and expected volatility.

Of late, the situation in India's banking and non-banking industry have been bleak; the massive issue of Non-Performing Assets and the ground-breaking wilful defaults worth several thousand crores have exacerbated the questionability of banks' lending decisions, especially since maladministration was seen as a cause for wilful default. The same has been seen with major fallouts in the NBFCs and a possible economic crisis looming as a result of the same.

Hence, although there hasn't been a run on banks, confidence in these institutions has fallen, with people believing less in the security of their deposits. With lesser deposits, the banks have less capital and there is increased informal saving which is immobile. This contracts the very process of credit generation in the economy and reduces the strength of the core sector.

A distinctive concern the Indian economy has persisted with is the lack of a proper market for bonds and securities which is a glaring shortcoming when juxtaposed other economies.

The increased risk due to higher default rates and lack of economic predictability has caused the growth in the notably undersized bond market to be at its worst rate in a long period, with investor sentiment favouring banks to bonds, even in light of the precarious situation in banks and the overall decline in reliability there as well. It is clearly beyond the Reserve Bank of India to engage in Open Market Operations as an effective tool for regulating credit and money supply.

Consequential Concerns

Implementation of Monetary Policy

It is imperative for economic policy makers to be able to predict aggregate demand and supply alterations in the economy and have at their disposal the requisite instruments to effectively implement regulations.

There is little feasibility in the Indian policy makers' analysis of velocity of money supply and demand in the economy as well as little means to control it since rates controlled by the RBI are not inclusive of the financial markets in totality.

It has been observed that increased usage of non-cash instruments contributes to economic growth by facilitating a rise in consumption. Consumption in the United States rose by an estimate of USD 296 billion in the four years that technology replacement set in. The same has been observed for countries like Singapore as well. (Mo. Os.)

Importantly, a company's costs incurred in managing accounts and cash dealings are significant in the present scenario and the same is a hindrance for entrepreneurial initiative. This, in turn, brings down investment.

Dealing with the consumption slump

For the better part of 2019, consumption has been significantly low across sectors, particularly in the automobile and other durable goods sectors. The same has been Pan-Asia and is attributed to various debatable factors although the effects are more prominent in the Indian context.

While the future regarding the same remains doubtful; whether the economy bounces back or sees depression trends, it is understandable that there is a significant risk of slowdowns and recessions in the country in light of the lack of inclusiveness and cognizable inapplicability of monetary policy.

The inability of researchers to make accurate analyses and predictions about the economic functioning and the relative ineffectiveness of RBI's tools keep a vast share of society vulnerable to macroeconomic disruptions.

While the fiscal policy of the Government has supposedly adequate reach across the economy, there are some major setbacks in this regard.

Firstly, the budget deficit of the country has perpetuated beyond a reasonable period with government after government extending deadlines and failing to meet targets. The fiscal policy required for growth and revival are expansionary and involve expenditure beyond what is already being incurred which is hazardous for the financial health of the state.

Secondly, the current expenditure undertakings of the Indian Government are and should be focused on infrastructure development (including monetary up gradation) and inequality reduction, both of which involve projects with considerable gestation lags. Hence, focus of fiscal budgeting would be shifted from the same to deal with cyclical fluctuations that occur in the first place due to the lack of a sound infrastructure.

Thirdly, the increased government expenditure is accounted for, if not completely, by policy makers and RBI analysts. Hence, a rise in money demand is observed immediately causing interest rates to rise on grounds of the acquired data. This, in turn, leads to crowding out of private enterprise, which is contrary to the desired outcomes in the age of start-up culture, especially as India falls behind the developed world in the ease of doing business for the private sector and is marred by the aforementioned lack of sound infrastructure.

Opportunity Lost

What is noted all around by Multi-National Corporations is that India is the second largest consumer market after China and presents the greatest opportunity in terms of market with a saturated United States and a business side protectionist China, with the US also falling in the latter category. Companies have sought to expand market presence significantly in the country; notable cases being Amazon and Apple.

But overall, foreign capital inflow, especially in the form of direct investment, is hindered by the concerns of an economy without an established base in monetary functioning. This implies a significant loss of opportunity in terms of output, employment and global positioning.

The Sino-US trade war has seen an increased opportunity for Indian exports worldwide with expansion in the same regard but not to the desired extent.

Keeping up with Progress

The most important concern with the inability of the private sector to develop itself well in India goes back to the consideration of the country's greater leverage among the G20.

A bustling private sector; involving foreign corporations and domestic enterprise, is the premise of technological innovation and change in best methods for firms as well as increased quality of output.

In the current scenario, India is heavily reliant on the West for technology across sectors, be it healthcare, information technology or business consultancy and lags behind in development of the same. The issue of private investment goes back to the country's global position, as its economic potential in the G20 relies on increased self-sustenance and supply-side contribution to the global economy. The same is necessary to lose the image of a developing but still small player in geopolitical and world economic deliberations.

The Way Ahead: Behavioural Facilitation

In the Economic Survey, 2019; "Policy for Homo Sapiens, Not Homo Economicus: Leveraging the Behavioural Economics of 'Nudge'", there is an outlay of how the present Government has sought to foster social change via its propaganda schemes that make people connect directly with the cause; Beti Bachao Beti Padhao, Jan Dhan A/cs, Swacch Bharat Abhiyan, etc. have been schemes aimed at using consumer behaviour and response to propaganda as facilitating action towards their specified objective.

The concern here is that while the initial outlay has been claimed as successful and has expanded reach in terms of official registrations and knowledge dissemination, the campaigns regarding economic activity have not been furthered to the extent that positive yields are generated; while millions of zero balance Jan Dhan A/c s have been opened, the usage of these accounts by the concerned individuals for savings and transactions is far from reality.

In this regard, it is necessary for the government to use active, socially connective campaigning to advocate a shift to a less cash economy that can be sustained in the future. The extent of the nudge must be significantly more than it has been for Jan Dhan accounts and even for programmes in general.

Private Contribution:

Behavioural policy need not be entirely based in government initiative. The essence of social campaigns boils down to the same methods and often, objectives served by marketing campaigns of firms with the latter being more efficiently implementable more often than not and hence, for a pragmatic and more efficient behavioural policy, the government must collaborate with private players in the financial sector to reach out to consumers for a common goal.

Payments Banks in the Indian economy have barely managed to sustain themselves, with only three revenue generating firms remaining in the space. The vast need for financial inclusion cannot be adhered to well enough due to government restrictions on operations. Sufficient easing must be allowed in the same regard to facilitate joint marketing collaboration.

The facilitation of social campaigning via strategies and tools developed and executed by private players involves the benefits of more nuanced and effective Research and Development and more efficient implementation.

Addressing the situations:

It is important for the government to work towards improving the scenario in the markets by addressing the failures of banks and NBFCs as well as work towards developing the bond market. Investor as well as consumer sentiment must be in favour of institutionalised machinery which is not possible without government intervention and overhauls of inefficient systems that allow egregious NPAs and gross inefficiencies.

Conclusion

It has thus been reasonably established that the policy considerations in India, specifically the proposed usage of consumer behaviour analysis, set innovatively as they have been, must be channelized and implemented in the direction of wider economic progress.

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Indian Health: A Silent Crisis

- Dyutita Ajith, Oishiki Mukherjee Department of Economics, 2nd Year

"Let us all work together to make the 21st century a human-centred century which has strong and resilient health systems, individuals and communities"

> Dr. Harsh Vardhan Union Minister of Health and Family Welfare

Abstract

A study conducted by the Public Health Foundation of India reported that 5.5 crore Indians fell below the poverty line in 2017-18 due to the healthcare expenditure they faced, out of which 3.8 crore fell into the tragic hands of poverty due to their medicinal expenses alone. The contrasting infrastructure in rural and urban areas presents a scenario where a few sections of the urban society get access to the best-quality treatment and medical personnel while the poor in the rural areas fight to even meet basic nutritional requirements and timely healthcare. The G-20 summit held in Osaka this year focused its global health agenda on the promotion on the UNIVERSAL HEALTH COVERAGE. This article aims to shed some light on the Indian healthcare scenario while providing a clear analysis of the problems that it faces and what India can do to avoid a silent health crisis.

JEL Classification:

I10, I11, I13, I14, I18.

Introduction

The Group of 20 [G-20] is an international coalition of finance ministers and Central Bank Governors of twenty of the world's most powerful economies in the world, which includes developed and developing countries [as well as the European Union]. The summit focuses on major economic and monetary policy issues of different emerging nations in the global financial system with a target of achieving a secure and sustainable development for the welfare of the world economy. Health is an integral part of economic growth, employment creation and job opportunities thereby it is imperative for the G-20 to focus on it. The theme of Global Health in G-20 is of paramount importance because of its predominant significance in sustainable growth of the world economy. In the Osaka summit, the following three components were prioritized

- Achievement of Universal Health Coverage(UHC)
- Response of Aging Society
- Management of Health Emergencies including Antimicrobial Resistance(AMR)

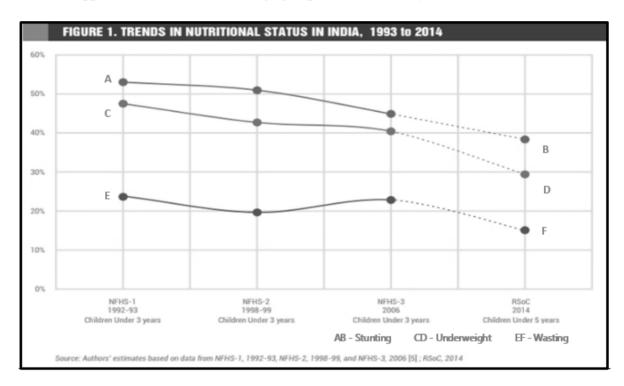
In 2017, the major issue of Global Health was brought to the foresight by the assemblage of Global Health Organizations that demanded health ministers to execute new long-term investments to tackle pandemics, drug related issues and disregarded diseases. Currently, India ranks 145th amongst 195 countries, in a study that assessed medical accessibility and quality of health care, thereby ranking behind countries like Bangladesh and China. Even though Dr Harsh Vardhan painted a rosy picture

of healthcare in India during the course of the summit, the reality is that India is still fumbling and falling in its path towards providing quality healthcare to all its citizens.

Primary Health Issues

1. Child Nutrition

According to the National Family Health Survey, India has the highest number of low birth weight babies per year at an estimated 7.4 million. Only 20 % of children aged 6-23 months are fed appropriately according to all three recommended practices for infant and young child feeding. To combat this concern, The National Nutrition Strategy proposes to reduce all forms of malnutrition by 2030. Its implementation is backed by a strong decentralization approach that provides the state and districts with greater flexibility in decision making which will enable localized innovation and accountability. The strategy intends to promote breastfeeding, grant access to infant and child care and provide bi-annual vitamin A supplements for children in the age group of 9 months to 5 years.



2. Water Sanitation

The World Bank reckons that 21% of communicable diseases in India are interlinked to consumption of polluted water and the dearth of hygienic practices. More than 400 children under the age of five die each day from diarrhoea in India. The predominant cause for diarrhoea is the low level of sanitation of drinking water and the lack of toilets around the country [at least 620 million people indulge in public defecation]. The World Health Organization states that 50% of cases of malnutrition are associated with repeated diarrhoea or intestinal worm infections. Provision of job security to sanitation workers and converting their work to the formal organized sector is pivotal to the eradication of sanitation problems.

3. Tuberculosis

According to the Global TB report, the estimated occurrence of TB in India is approximately 28, 00,000 which accounts for about a quarter of the world's cases. India devised the National Strategic Plan (NSP), 2017-2025 in order to achieve a rapid decline in the morbidity and mortality of TB. One of the major objectives of the NSP is to find innovative resistant drugs and ensure that it reaches the TB patients who are seeking care in both urban and rural areas. It also believes in empowering institutions, enhancing human resources and providing adequate financial resources to strengthen the mitigation process.

Table: 3.1 NSP 2017-25 Results Framework

	Baseline	Target		
IMPACT INDICATORS	2015	2020	2023	2025
To reduce estimated TB Incidence rate (per 100,000 population)	217	142	77	44
	(112-355)	(76-255)	(49-185)	(36-158)
To reduce estimated TB prevalence	320	170	90	65
(per 100,000 population)	(280-380)	(159-217)	(81-125)	(56-93)
To reduce estimated mortality due to TB (per 100,000 population)	32	15	6	3
	(29-35)	(13-16)	(5-7)	(3-4)
To ensure no family should suffer catastrophic cost due to TB	35%	0%	0%	0%

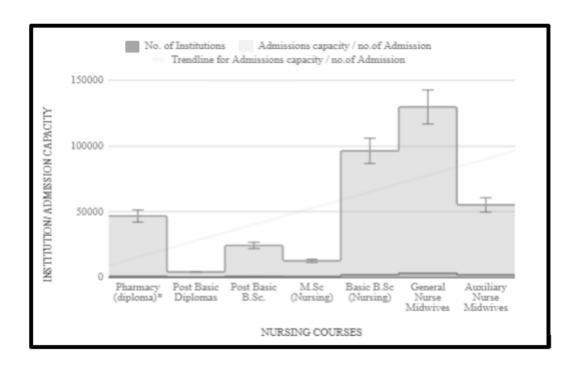
	Baseline	Target		
OUTCOME INDICATORS	2015	2020	2023	2025
Total TB patient notification(in millions)	1.74	3.6	2.7	2
Total patient Private providers notification (in millions)	0.19	2	1.5	1.2
MDR/RR TB patients notified	28,096	92,000	69,000	55,000
Proportion of notified TB patients offered DST	25%	80%	98%	100%
Proportion of notified patients initiated on treatment	90%	95%	95%	95%
Treatment success rate among notified DSTB	75%	90%	92%	92%
Treatment success rate among notified DRTB	46%	65%	73%	75%
Proportion of identified targeted key affected population undergoing active case finding	0%	100%	100%	100%
Proportion of notified TB patients receiving financial support through Direct Benefit Transfers (DBT)	0%	80%	90%	90%
Proportion of identified/eligible individuals for preventive therapy / LTBI s - initiated on treatment	10%	60%	90%	95%

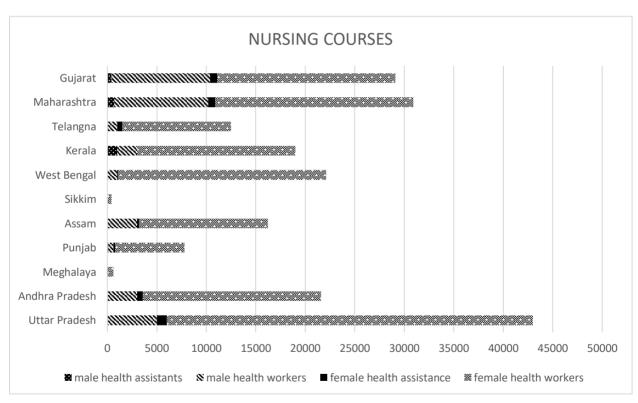
Rural vs. Urban Healthcare

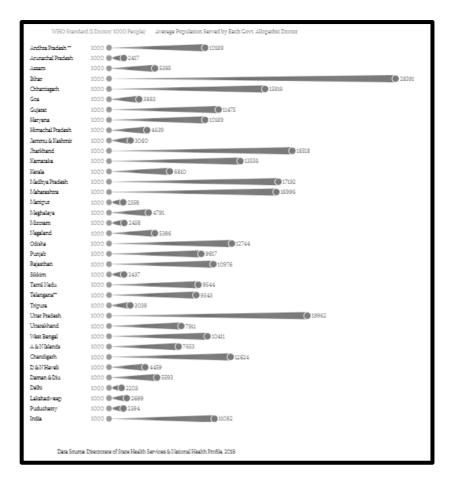
The constitution of India guarantees everyone the right to gain access to the highest attainable standard of physical and mental health. However, the access to healthcare isn't as egalitarian as proposed. 75% of healthcare infrastructure is concentrated in urban areas that consist of only 27% of India's population. Only 13% PHCs (Primary Health Centres) and 16% CHCs (Community health centres) in rural India meet the Indian Public Health Standards (IPHS). For attaining a well-functioning health care system, it is necessary to ensure that there is availability, supply and optimum utilization of healthcare tools and services. Physical reach, defined as "the ability to enter a healthcare facility within 5 km from a place of residence or work", is a fundamental determinant of access. Keeping this definition in mind, a study reported that only 37% of people had access to IP [Inpatient] facilities and 68% had access to OP [Out-patient] facilities. While the National Health Mission has taken notable steps to improve the infrastructure in the rural public health system, most PHCs lack basic infrastructural facilities such as toilets, drinking water, surgical wards, medicines, syringes and regular electricity.

Infrastructure & Workforce Crisis in Public Sector

Infrastructural issues in the public sector are different in the rural areas when compared to the urban areas, hence they require different solutions. It is essential for rural public infrastructure to exhibit affordability and access along with a consistent growth in quality. The lack of quality healthcare personnel at hospitals and treatment camps is highly discouraging to the widely disease prone rural population. In accordance with the G-20, The World Health Organization, prescribes that for the optimum health care provision, there needs to be 1 doctor per 1000 patients, instead India has a record shortage of 1 doctor per 11,082 patients. In fact, PHCs across the country require at least 3,000 doctors and 1,974 such centres are operating without a single doctor. In community health centres, there is a shortfall of close to 5,000 surgeons. The only impactful solution to this workforce crisis is an improvement and expansion of medical education in India. At present, there are 462 medical colleges in India that churn out 56,748 doctors every year in addition to the 3,123 institutions across the country that train 125,764 nurses every year. Even though the last decade has witnessed a manifold increase in medical schools (from 256 in 2006 to 479 in 2017), its effect is nullified by the inadequate teaching infrastructure which has resulted in barring 82 (out of which 70 is privately owned) medical colleges from taking admissions in 2018-19 by the Union Health Ministry. The only antidote to the unregulated business of private medical education is the introduction of Public-Private Partnership (PPP) models in health care. According to the G-20, PPPs are seen as an optimum way to benefit from the strengths of both the public and private sectors in solving problems that neither could address on their own. The WHO states that "Especially in a developing country, the public sector contributes both basic science and funding, and the private sector has strength in drug discovery and bringing innovation" The lack of medical research is then tackled by creating a PPP entity with a well-defined set of goals relating to the development of new products or technology that make health care accessible and affordable for the general Indian public.







Health Financing

While addressing his colleagues in the global ministers' meet in the face of a healthcare crisis in India, Dr Harsh Vardhan stated that, "With this understanding, in India, the finance and health ministries collaborate very closely for health sector outcomes". However, this has been far from the case back home. Ms Nirmala Sitharaman [Present Finance Minister] introduced her maiden budget which was met with widespread disappointment from the health sector, as it barely mentioned concrete solutions. The silver lining in the proposed budget is the 15% (to Rs 62,659 crore) increase in the budgetary allocation for the Department of Health and Family Welfare. Contrary to last time's decrease, the allocation for the National Rural Health Mission (NRHM) has been increased to Rs 27,039 crores. This 7.11% raise, however, is not sufficient to better rural health infrastructure when seen in accordance with the government's own Economic Survey. The budget also proposes an increase in allocation for the National Urban Health Mission [Rs 875 crore to Rs950 crore] as well as a 60 crore increase in allocation for tertiary care programs. This is unfortunate as while it is the Primary care which needs the most attention, it's the urban and tertiary sector that gets the most.

Feasible solutions that can be implemented:

1. Strengthening PHC's and CHC's

Increased state budget allocation towards PHCs and CHCs needs to be implemented methodically. The state governments need to progressively increase their health expenditure by 10 % within 2025. An immediate task at the hand of the state government is to look deeply into the range of work done by the grass root-level health bodies, and strengthen the existing centres and grant them access to more human resources so that fuller utilization of PHC/CHCs takes place. Tamil Nadu is a good example where 94% PHCs functioned in their

own building and had electricity, 95% of pharmacists were in position and proper access to medicines was provided as well.

2. Cost Reducing Techniques

Both primary and tertiary public healthcare bodies need to be given government concessions for their welfare efforts in inaccessible areas. The provision of concessional land, custom exemption and tax breaks against a promise to provide affordable health care to patients who are underprivileged needs to be sanctioned. Along with the provision of concession, it is necessary that regulatory bodies are set up to monitor the working of these healthcare centres. Majority of non-corporate private units such as nursing homes are run by doctorentrepreneurs, who in the bid of gaining high profits end up over-commercializing the sector. The government needs to engage, allocate and monitor such entities.

Universal Health Coverage: G20's Aim

The G20 Osaka leaders' declaration mentions that, 'Health is a prerequisite for sustainable and inclusive economic growth. We recall our commitment to moving towards achieving universal health coverage according to national contexts and priorities.'

The Universal Health Coverage is a healthcare system that provides all the citizens of a country easy access to quality healthcare and financial risk protection. The World Health Organization describes it as a "situation where citizens can access health services without incurring financial hardship.

Funding Methodology - Some UHCs are funded by the government whereas most of them provide financial security on the condition that citizens need to purchase private health insurance. In a system dependent on general tax based revenue, individuals contribute to the provision of healthcare through progressive taxes. In an insurance based model, a combination of public and private funded insurances is levied. A risk composition pool is then used for mitigating risk and equalizing it.

Implementation in India: AYUSHMAN BHARAT

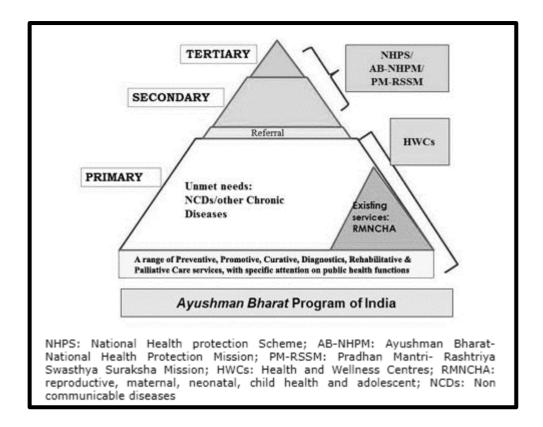
In its pursuit to achieving the goal of UHC, India introduced the Ayushman Bharat Program (ABP) which is in alignment with the National Health Policy 2017.

The scheme has two initiatives-

1. National Health Protection scheme which aims for increased accessibility, availability and affordability of multi-level health care services.

2. Pradhan Mantri Rashtriya Swasthya Suraksha Mission

The program promises to deliver extensive primary health care through the establishment of 1, 50,000 health and wellness centres by the year 2022. It aims to provide financial protection for hospitalization as part of the National Health Protection Scheme. The ABP also plans to initiate 'the world's largest government-funded health insurance program'. It aims to provide coverage of up to Rs.5, 00,000 per family per year for expenses related to secondary and tertiary level hospitalization. Millions of Indians are pushed into poverty every year due to out-of-pocket spending on health care thereby making the Ayushman Bharat program crucial in shaping India's health care future.



Conclusion

Even though the future of health care in India looks grim right now, proper implementation of corrective measures in a timely manner can change the course ahead for India. The nation's contrasting diaspora cries for healthcare equality. The G20, with its consistent focus on UHC encouraged India to introduce the Ayushman Bharat which assures economic health equality. As we embark on an unknown future, it is essential for India to hold its reigns tight and ensure that all possible health development opportunities are considered. Otherwise, India will have to bear witness to a silent health crisis.

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The World Economy: Which Way Now?

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Abstract

The year "2020 is a real inflection point," Mark Zandi, chief economist at Moody's Analytics, said earlier this year, warning of an impending global downturn. More than a decade after the 2008 financial crisis, an already fragile global economy might be on the verge of another recession. The global economy is already facing headwinds in the form of an escalating Sino-American trade war, slumping industrial output, political instability and general uncertainty. Further shocks could trigger the onset on a global recession. We examine the indicators that help predict a recession and the role of the G20 in mitigating the fear of an oncoming recession.

JEL Classification

G110, G120, N200, E4, F5

Introduction

The Group of Twenty (G20) is the premier international forum for global economic and financial cooperation. The members of the G20 include 19 countries and the European Union.

The G20 members account for 85 per cent of the global economy, 75 per cent of world trade, and around 67% of the world's population, including more than half of the world's poor.

This year's G-20 summit was held at a time of grave global distress. Multiple fault lines are threatening to derail the global economy. The U.S. President Donald Trump is threatening to dismantle global frameworks without offering any real alternative and is instigating a trade war with China. The European Union is coming to terms with own dysfunctionality with major economies like Germany and Italy facing an impending recession while other EU countries experiencing stagnation. The United Kingdom is also mired in the economic and political mess that is Brexit. China is facing an economic crisis that even Xi Jinping is finding it difficult to manage. Hence, India is well positioned to make its presence felt.

This year the G20 faces possibly its most serious challenges since it met in November 2008 to tackle the global financial contagion, with a principal mandate of preventing future global financial crises. World trade growth slowed in the second half of 2018, particularly toward the end of the year as trade frictions remained high and GDP growth weakened in leading economies. The uncertainty about trade policy is likely to continue into 2019 reducing investment and weighing negatively on world trade and output.

As trade tensions escalate among major economies and global growth slows down, the G20 countries will be hard pressed to work out a common framework to confront global challenges, something the G20 was able to do after the 2008 financial crisis.

It has exactly been ten years that the Great Recession which started in 2007 primarily due to the bursting of the US housing bubble ended, making the current expansion as the longest expansion in American history. So, the big question that an ordinary person is increasingly asking is that when the next downturn will hit the global economy.

There are several financial, economic and political reasons that may lead to a global recession like the previous one. Recessions are like picking four cards from a pack of 52 playing card in the sense that just because you get all the four aces for 5 times in a row doesn't mean you will get them again in your next chance. There are several leading and lagging indicators of a recession which indicates the emergence of one. Quite surprisingly, there have been several indicators that indicate that the next global recession is not far away, whereas others are indicating that it's a clear sky out there with no chance of a recession anytime soon. Some indicators are discussed below.

The Yield Curve

A yield curve is a line that plots the interest rates, at a set point in time, of bonds having equal credit quality but differing maturities.

A majority of yield curve analysis refers to nominal interest rates. Economic theory, however, underscores the relevance of real or inflation-adjusted interest rates. The real interest rate measures the rate at which consumption is anticipated to grow over a given horizon according to the standard asset-pricing theory.

As investors expect longer-maturity bond yields to decline even further during economic downturns, they rush to purchase them sooner. They desire to lock in the yields, driving up demand and hence price for longer-maturity bonds while demand and price for short-term bonds fall. It usually means that investors are becoming less sure that economic growth will last. When bond prices increase, their yields decrease. This bond attributes move in opposite directions. When interest rates go down, bonds that are already paying higher rates are more attractive and hence command a higher price.

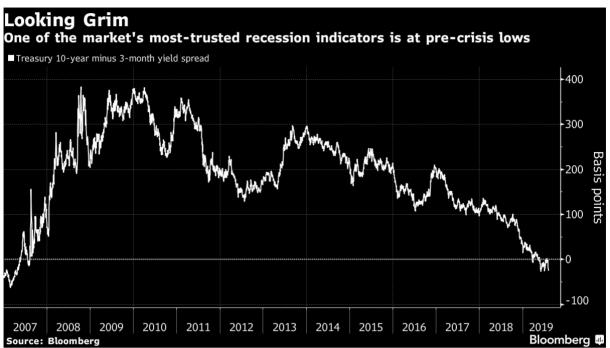
The slope of the yield curve or the term spread is the difference between long-term and short-term interest rates. It has shown a consistent negative correlation with subsequent real economic activity in the United States. The yield curve measures used most frequently are based on the differences between the interest rates on US Treasury securities of different maturities, for example, ten years minus three months. If the slope of the yield curve is negative i.e. if the real yield curve inverts—then growth is expected to decelerate.

One way to think about this is in terms of Friedman's permanent income hypothesis, which states that an individual's desired consumption expenditure today should depend not only on current income, but also on the likely path of his or her income over the foreseeable future. According to this theory, if people expect higher future income i.e. economic growth, then they will want to consume more today to smooth out their consumption. They can attempt to do so by saving less or borrowing more. If a community is collectively "bullish" in this sense, desired consumer spending should rise in the aggregate and desired saving should fall, leading to upward pressure on the real interest rate.

Next, suppose that an inverted yield curve forecasts a deceleration in growth. Then the deceleration will entail moving from a higher-growth state to a lower-growth state.

The yield curve has predicted essentially every U.S. recession since 1950 with only one "false" signal, which preceded the credit crunch and slowdown in production in 1967.

Yield curves have now inverted in the US, in Australia, Canada, and a number of other advanced economies. Even in countries where short-term rates are already at zero, like in Japan and Germany, long-term rates have fallen into more negative territory. This has led to the unusual case where investors pay these countries a premium for holding their government bonds.



While an inverted yield curve does not guarantee a future economic downturn, the economic outlook has worsened substantially in recent months.

In this way, an inverted yield curve does not forecast recession; instead, it forecasts the economic conditions that make recession more likely.

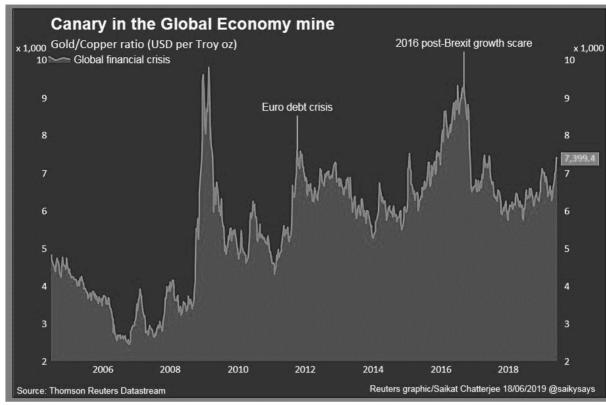
Gold to Copper Ratio

Gold throughout history has been used as a store of value. It is widely regarded as a safe-haven asset among investors. Thus, during times of economic slowdown people tend to buy large amounts of gold to protect the value of their money and as a result, gold moves higher during recession.

The term "Doctor Copper" is a famous market lingo for the red metal which is often used in the field of economics because of its ability to predict the boom-bust cycle in the global economy. Copper is often viewed as a proxy since it is used explicitly for industrial consumption. More than two-thirds of the worlds red metal is used in construction and electronics. Because of copper's widespread application in different sectors of an economy, demand for copper is often viewed as a leading indicator of the health of an economy. The demand for copper can be derived from its changing price. A rise in price indicates higher demand for copper which in turn suggests a growing global economy, while a fall in the price of copper suggests an economic slowdown.

The gold/copper ratio can thus point where the economy is heading. If the economy faces downturn, then demand for industrial goods will come down leading to a fall in the price of copper and people will tend to buy more gold leading to a rise in the price of gold. Thus, during an economic downturn the ratio of the price gold to that of copper rises. The gold to copper ratio is thus an untold wonder of economic analysis.





The gold/copper ratio has been 25% up since the end of 2017 amid trade war, US fiscal and monetary policy, Brexit and slowdown in China indication economic slowdown.

Surprisingly, the gold/copper ratio has a high negative correlation with the 10-year Treasury yield which we have discussed earlier.

Trade War

There is no doubt that the escalating trade war between the U.S. And China is a perfect storm leading the world economy towards the next recession. The U.S. increasing the tariffs from 10% in first round to 25% on the \$300 billion-odd worth of imports from China, and China taking countermeasures by devaluing its currency, we can surely end up in recession very soon.

There are several ways which can lead these trade tensions to affect the health of the global economy. The very basic economic logic being that imposition of tariffs will lead to an increase in the cost of commodities. This will lead to a loss in profitability of companies and due to higher prices; consumers may pull back on demand. Also, the increased tariff rates may spill over to the global supply chain and thus lead to slowdown of the global economy. According to a WTO report, world trade growth slowed in the second half of the 2018 and continued during the first quarter of this year. The leading trade indicators suggested that the trade would continue to lose its momentum for the rest of the year. More than 20 new trade related measure were taken by the G20 countries which included import bans, hiked tariff rates and new custom procedures. The trade tension between the G20 countries has continued to dominate the headlines and has ended to the uncertain future of the overall global economy.

Conclusion

The Great Recession impacted the global economy as a whole but it weighed majorly on the G20 countries. According to several economists it is about time that the world economy experiences the next downturn. Given that this year's G20 summit did not generate any unexpected or noteworthy headline, it is difficult to argue that the G20 will have any major role for a real change in the global economic trends. It is indeed true that the world economy depends too much on policy support. The monetary policy of the central banks of major G20 countries has still not normalised since the farreaching measures that began back in 2008. No one knows what's there in store for the next downturn, nor probably the central banks. The trade and commercial conflict has severely deteriorated and could easily top the world economy into 2020 recession.

While a well-coordinated plan to rescue the world economy was a major challenge almost ten years ago, today it seems impossible for them to reach a consensus. India's role in the G20 will only increase in the near future as along with China, India will be one of the main drivers of economic growth in the world.

The G20's role in safeguarding an already fragile global economy from the spectre of another recession is of paramount importance.

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India's Role and Priorities in the G20 Issues of Employment and Development: A Theoretical Analysis

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Abstract

G20 as an organisation has its own goals and agenda for the forthcoming years. India as a G20 member has to adhere to these objectives. However, India has its own pressing needs which are not completely in-sync with the G20 goals. This article discusses India's contrasting needs in terms of development and employment generation. India has a young aspiring population, but not enough jobs which can help them to achieve their goals. The case is similar in many other developing nations. It also highlights the important issues which India needs to bring up in the future G20 summits. The study lays emphasis on the fact that the solution to these socio-economic issues is intrinsically dynamic and changes have to be brought in by complete monitoring and timely interventions.

JEL Classification

D6, E1, E2, F6, H5, J1, J6, O0, O1, O2

The Group of Twenty (G20)

The G20 is an organisation which serves as a platform for governments and central bank governors. It consists of 19 countries and the European Union; together they account for 84% of the global economy. During its formation in 1996, its main objective was to obtain steady global economic growth through mutual understanding and cooperation. However, priorities have changed since then. The 2019 G20 Osaka Summit focused on Trade and Investment, Innovation, Environment and Energy, Employment, Women's Empowerment, Development, Health as well as Global Economy.

Table 1 shows the share of the G20 countries in World Population, World Trade, World Economy and World Carbon Emissions. It is included to provide a basic outlook of the participation of the G20 countries in World dynamics.

Table 1: Share of the G20 countries in the world resources and other parameters

	Percentage(%) constituted by	Percentage(%) constituted by	
	the G20 countries the rest of the world		
World Population	65	35	
World Trade	79	21	
World Economy	84	16	
World Carbon Emissions	79	21	

(Source: theconversation.com)

G20 Osaka summit decided to achieve development based on the following agenda:

- 2030 Agenda for Sustainable Development
- Accountability
- Science Technology and Innovations for SDGs
- Quality infrastructure for connectivity enhancement towards sustainable development
- **Human Capital Investment**

Employment catered to the following important criteria

- Adapting to Demographic Change
- Promoting Gender Equality in Labour Markets
- Exchanging National Policies
- Practices in response to the new forms of work

India's Response to the G20 Goals of Development and Employment

India's own immediate priorities differ from many of the broader goals of the group which are dominated by the requirements of the developed nations. Most of the goals of G20 are long term in nature and are essential for the survival of the human race. However, India as a developing nation has more pressing needs of survival. Climate change or sustainability cannot be expected to be of prime concern to a hungry man. India needs to address her own specific issues of employment, wealth inequality, etc. on an urgent basis. It also has to keep in mind that the solutions have to be in sync, at least partially, with the G20 objectives.

Problems and Possible Solutions

1. The Curse of Technology

Globalisation started in India in the 1990s. The GDP growth rate increased till the fiscal year 2015-2016, but has been declining since. Since 2015 there have been the twin shocks to the economy in the form of demonetisation and GST. There have been some controversies regarding the GDP figures since the introductions of the new formulae.

As the economy opened up, multinational companies came in with improved technologies and the Indian companies followed suit. These technologies are more capital intensive and require less labour. This was followed by a reduction in employment. Those who were employed had to spend longer hours at their jobs. Some of the companies demand more than 8 hours of toil from its workers, thus requiring less number of employees and helping to make a bigger profit. As employment declines, purchasing power of the general population reduces, thus reducing consumption expenditure (marginal propensity to consume is higher for the workers than for the profit earners; as workers' income decrease their consumption decreases more than the increase in consumption of the profit earners whose income has risen) which finally reduces the nation's output (IS-LM approach). Using a parallel approach, as demand reduces, investors are reluctant to invest in such an economy. Without fresh investments an economy cannot grow. Growth rate keeps on declining.

India needs to generate more employment and redistribute it across all sectors of the population. Sweden has started experimenting with six-hour working days. It is shown to have led to a better quality of life and productivity has also increased. If India were to introduce this model, more employment could be generated along with the already achieved benefits. This might reduce the profits of the corporate sector. Thus no company would do this on its own. It requires government legislation. However any country doing it on its own would lose the competitive edge as an attractive investment destination. An agreement at the G20 level would make it feasible, keeping the playing field level. If Sweden can do it, it is possible for India to convince others to do the same.

2. Mobility: Labour vs Capital

Developed countries which are rich in capital but low in labour, have set up a trend where capital has perfect mobility but labour is less mobile. For underdeveloped and developing countries like India which have abundance of labour, this is a major setback. Capital flow and labour flow are the two sides of the same coin. The United States of America has restricted the issue of H1B visas (employment based, non-immigrant and temporary) which were largely received by the Indian population. This has reduced labour flow from a larger population to a smaller population. However, capital flow remains as high, if not higher, as before from the developed to developing countries. This causes serious inequality in the world economy.

This disparity should be redressed. Through G20, India along with the other developing countries should convince others that basic sustainably has to be given to the people of the poorer countries, before development as a whole for the world economy can be further improved.

3. New Infrastructure as a Boost to Economy

India has a huge labour supply, infinite enough to make the supply for labour perfectly inelastic. Workers agree to work at a very minimal wage set by the hirers. With the government setting up a minimum wage on one hand as well as increasing the employment opportunity this issue can be addressed. Infrastructure can be a major source for employment generation.

With the government spending more on infrastructure for the economy, it increases the government spending and thus increasing national output. More employment is generated, and thus the purchasing power of the people increase, investment increases and the economy grows. On the other hand, this generates an opportunity for further employment due to the new infrastructure, reduces cost of production and distribution of some goods. On the whole, it generates more income for the people. Again both consumption expenditure and investment in the economy increase. An economy boom is observed. The capital required for this has to be generated through a combination of higher tax collection, borrowing and deficit financing.

4. Cost of New Technology

The G20 Agenda calls for introduction of cleaner technologies which are more sustainable but can be very expensive. It is expected that all the members would contribute equiproportionately for this technology change. For India and other developing countries, implementing these technologies would be at the cost of foregoing the basic development issues.

The developed countries have so far extensively used most of the world resources to achieve their status. Asking the developing and underdeveloped countries to forego their development due to the pressing climate needs nowadays, is not only morally wrong but not even feasible.

The developed countries have to bear the cost of these technological changes. Experiments with these new technologies have to be done in the developed countries only. Even their installation costs in the developing nations have to be shared by the developed ones. India as a G20 member has to raise this issue in the upcoming G20 summits.

5. Women Empowerment: India's Position

Inequality in the form of employment and participation of men and women is very rampant in India. When women are not included in the decision making it is the wastage of nearly 50% of the human resource belonging to the country. This issue has taken a position of central importance not only in G20 summits but across summits all over the world this year.

Table 2: Gender Gap Rating of G20 Countries

Countries	Overall Global Rank (Out of 142 countries)	Score (0.0= inequality 1.0= equality)
Germany	12	0.7780
France	16	0.7588
South Africa	18	0.7527
Canada	19	0.7464
United States	20	0.7463
Australia	24	0.7409
United Kingdom	26	0.7383
Argentina	31	0.7317
Italy	69	0.6973
Brazil	71	0.6941
Russia	75	0.6927
Mexico	80	0.6900
China	87	0.6830
Indonesia	97	0.6725
Japan	104	0.6584
India	114	0.6455
South Korea	117	0.6403
Turkey	125	0.6183
Saudi Arabia	130	0.6059

(Source: World Economic Forum: Gender Gap Report 2014)

Table 2 shows that India is drastically lagging behind in gender equality as compared to the other G20 nations as well as all the other nations of the world. Gender inequality in employment is a huge factor. India's primary emphasis should be on primary as well as secondary education for the girl child. Once this is ensured, the skilled women can give her utmost contribution for the growth of the economy. A study in the United States of America has shown that although women earn approximately 23% less than men, they are better spenders of what they earn. They have less credit card debt, are less financially dependent on their parents, more likely to save for retirement, less likely to spend from their retirement funds and more measured in investment. So the active participation of women would not only make the country more economically better off, but also ensure better social-welfare for its citizens.

Conclusion

Socio-economic problems are inherently extremely complex in nature. Every issue is affected by and affects a large number of other issues. Unlike physical systems, here many of these issues cannot be controlled directly. Say, if one increases component A to increase component B, it might so happen that the increase in A has decreased another component C which in turn has decreased component B, B having an overall decreasing effect. The whole process of addressing socio-economic issues is very dynamic and the process might have to be adapted at frequent nodes. G20 has to address the need for equality, both in terms of wealth and gender. The G20 as a whole has to take decisions, with eminent professionals from various fields monitoring and executing the whole process. India has to step up as a leader in this process so that these issues are addressed.

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The G20 and Digital Taxation: **A Critical Analysis**

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"The Income Tax created more criminals than any other single act of government."

- Barry Goldwater

Abstract

It is like a game of cops and robbers: only more contrived, incredibly crafty and played on the margins of fuzzy legality. Apple, Facebook, Amazon and Google – four very disparate corporate monoliths - have been gaming the world's taxation systems for years by using a string of tax shelters, artificial corporate structures and other devices to either avoid or under pay taxes in the jurisdictions in which they operate. This article aims to analyze the recent developments in this largely uncharted realm. A study on the Indian government's initiatives and its implications has been presented to help us comprehend the uncertain and perilous road ahead.

JEL Classification

E62, F23, H25, H26, H87, K34

Introduction

As the world gallops towards absolute digitalization, there is a growing challenge to the existing taxation system which largely applies to businesses having a physical presence within a geographical territory. However, with an exponential progress in technology, there is a demand for tax reforms which prevents digital business from evading tax. These businesses generate economic value in a country from a combination of factors such as sales functions, algorithms and personal information of users without establishing any physical presence in the country and this intangibility enables tax avoidance.

G20 and GAFA

At the Osaka Summit of the G20 in June, the finance ministers of the member countries recognized the need to plug the gaping flaws prevalent in the international tax system. With the sharp surge in the digital revenues of the technology giants, it has become imperative for the nations to batten down the hatches and stop the rampant use of intricate tax avoidance strategies.

Back in 2013, the Organization for Economic Cooperation and Development (OECD) produced a report to address the problem of Base Erosion and Profit Shifting (BEPS) – an elaborate machination through which multinationals shifted large pools of cash to tax havens in the guise of loan repayments, dividend repatriation and interest transfers. The OECD report formed the basis for the G20's Inclusive Framework on BEPS. Working together, over 130 countries and jurisdictions have collaborated on the implementation of 15 measures to tackle tax avoidance, improve the coherence of international tax rules and ensure a more transparent tax environment.

The OECD proposal is propped up by two basic pillars: first, the tax will be levied on revenues and not profits in those countries where the end users are located; second, if a digital business still finds ways to funnel money to an offshore tax haven, a global minimum tax rate (of presumably, 3%) will be levied. However, countries like Ireland and the Netherlands have

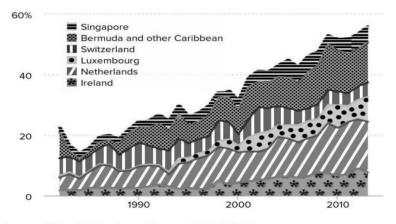
opposed this second method since this potentially harms their export-led low-tax economies that are heavily dependent on foreign direct investment (FDI) flows.

France became the first major economy to impose a tax on the digital giants like Google, Apple, Facebook, and Amazon. Dubbed the 'GAFA tax', the country's legislation decided to impose a 3% levy on the total revenues of the firms. This additional tax on the French revenues of these large companies is expected to yield €500m per year.

Countries such as the UK, Spain and Austria have followed suit and plan to implement their own digital tax. For instance, the UK is planning a digital services tax of 2% on the revenues of search engines, social media platforms and online marketplaces serving UK customers, which is due to come into force next year. The tax would be applied only to companies with global revenues in excess of £500m and revenue of at least £25m from UK activities.

Over half of U.S. corporate offshore profits are in tax-haven countries

Share of offshore U.S. corporate profits by tax haven, 1982–2013



Source: ATF and EPI analysis of Zucman (2014, 128, 130)

India's Approach to Digital Tax

Fractional Apportionment Approach: India's income tax department has proposed a new blueprint for taxing multinational corporations, including digital firms. This resolution will augment the country's tax collections and boost the taxation of large digital companies.

A report prepared by a committee formed by the Central Board of Direct taxes (CBDT) put forth new indicators highlighting the 'fractional apportionment approach' to gauge a corporation's domestic tax liability. This is based on the sales revenue of the firm, the number of local employees and their remuneration, and the company's assets in India. In case of digital firms, a fourth criterion of 'user base' has been added.

Critique: A significant drawback of the suggested proposal is that it fails to outline a sound tax assessment plan.

Several international corporations do not publish a country specific annual report, and instead,

provide annual figures such as revenue, profits earned, number of employees, for the operations of all their subsidiaries bundled together. As a result, tax evaluation has become even more complex and difficult to navigate. Digital businesses, in particular, hinge on intellectual property assets which have high flexibility. With tax-haven shopping being a common practice, these laws might prove to be detrimental to foreign investment in our country. One of the problems with the fractional apportionment is that it is arbitrary and open to prolonged legal disputes.

The Indian tax authorities have adopted a thumb rule approach to digital taxation:

Profits attributable in India = Revenue derived from India X Global operation profit margin.

This formula makes assumptions that can be contested. Take Facebook: it does not breakout user base statistics for India in its annual report. The government has tried to get around the problem by insisting that digital companies maintain their data on their users/consumers in India. But this could open up a can of legal worms that will make digital taxation difficult.

Significant Economic Presence: India introduced the concept of 'Significant Economic Presence' (SEP) as a part of the Income Tax Act in 2018. Drawn from the OECD's model tax law, it creates a new nexus rule based on which an enterprise with no presence in the country can become taxable if it has a significant economic presence. For instance, Facebook has a total "potential audience" of 241 million active users in India as of July 2019 and, therefore, earns revenue in the form of advertising directed at these users. The SEP-based tax legislation seeks to establish thresholds for tax purposes based on deemed income earned based on either attributable revenue or user base in India. The thresholds have not been decided yet even after a long consultative process with the various stakeholders.

Critique: The concept of SEP and its applicability in the real world have yet to be tested. Moreover, the proposal lacks definitive quantitative parameters which help label economic presence of various companies as 'significant'. Annual revenues, though important in determining the size of a company's operations, can never be adequate in establishing nexus. High revenues do not always translate into sustained and active participation in the domestic economy.

Therefore, additional factors, such as sustained marketing activities, digital traffic etc. must be included. While estimating the size of the user base, we must have domestic authorities who can manage web traffic. The implementation of SEP might be rewarding but it will be a long wait before we can gauge its impact.

Equalization Levy: Equalization levy was introduced as a part of the Finance Act on 29 February 2016. It was a pioneering effort to tax digital transactions in India. Since taxing the profits of offshore digital companies was infeasible, the Government of India introduced equalization levy at the rate of 6% on the gross amount to be deducted at the source of payments (TDS) pertinent to transactions in the area of digital advertising. The parameters that must be satisfied for applicability of the tax are:

- An offshore company should be the recipient of the payments. 1)
- 2) The annual payment to the recipient company should exceed ₹1,00,000.
- An overseas company must have a permanent establishment in India. 3)

Critique: Since this is an evolving policy domain, such a tax can create distortions in the following ways:

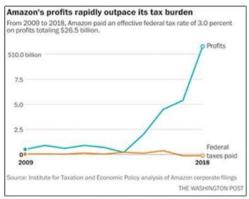
- O In the event that such digital spaces shift their tax burden onto the consumers, pricesensitive consumers will face an affordability barrier.
- O If taxes reduce the total available capital to be spent, investment in infrastructure by service providers will fall and become counter- productive, harming the dream to ensure complete digitization of India.
- O Global giants might adapt their deployment footprint (deployment of technological resources, basically) according to the minimization of tax burden.
- Equalization Levy is focused on businesses and their online transactions. This is not sufficient since it undermines the usage of streaming websites and social media platforms that generate revenue from subscriptions and intellectual data and yet go untaxed.

AMAZON: A CASE STUDY

Amazon, an American multinational technology company based in Seattle, Washington, with diverse areas of interest ranging from e-commerce to digital streaming, revolutionized the shopping and sales platform causing a shift from a brick-and-mortar business to a digital one. Undoubtedly, Amazon's business model has proved to be hugely successful and profitable because of its ability to deliver goods and services at incredible speed and low prices across the world. Through its digitized business, it seeks to attain a competitive edge. However, due to the ambiguous structure of digital marketing, the tech giant avoids paying taxes using a variety of tax credits and tax exemptions that are legal and built especially into the U.S. federal tax code.

Amazon reported \$5.6 billion in U.S. profits in 2017 and paid \$0 in taxes. In 2018, it posted a profit of \$11.2 billion and yet paid no tax for the second year in a row. A constant effort is being made in the US to plug tax loopholes. It was observed that Amazon's sales dropped by as much as 10% after an effort to close one tax loophole was successful. Amazon has many European subsidiary companies in France, Spain, Germany, and the UK and its headquarters in Luxembourg which have faced accusations of tax evasion. Amazon books its profits in the lower tax jurisdiction in Europe such as Luxembourg. This attempt to redirect about 66% of its revenue to its 'operationally not so significant' headquarters with no employees working is at the core of its strategy to avoid taxes in other jurisdictions.

While the subsidiaries pay an effective tax of 6%, other domestic companies in the same area pay 30% tax. Many European countries have ordered Amazon to disassemble the current complex business structure and fabricate a simpler one. This would ensure increased transparency and efficient monitoring of their digital system. If Amazon loses its tax advantage, its growth will be impeded. Amazon's loss would be a welcome relief for the retailers and governments. However, there exists a possibility that it may exploit other tax loopholes that are yet to be fixed. Amazon plans to pass on the costs of France's new digital tax of 3% - the GAFA tax - on Internet giants to the businesses that use its marketplace platform to find customers instead of taking the hit itself. The levy, which has attracted criticism from the U.S. for being biased, could lead to another artifice to avoid the tax.



Amazon's Effective Tax Rates Over 10 Years								
Amazon.com	2018	2017	2016	2015	2014	2013	2012	2011
US pretax profit , \$ Billions (after subtracting state)	10.8	5.4	4.5	2.0	0.2	0.7	0.9	0.6
Current federal tax, \$ Billions	-0.129	-0.14	0.45	0.12	0.21	0.03	0.13	0.03
Effective tax	-1.2%	2.5%	10.0%	5.9%	91.7%	5.1%	15.1%	4.7%

(Source: Institute on Taxation and Economic Policy Analysis of SEC filings)

Conclusion

The problems with digital taxation will magnify if the nations are unable to agree on a standard empirical formula for the imposition of the levy which necessarily will be based on certain assumptions about revenues earned in their separate jurisdictions. If they fail to agree, there is a greater risk of competing tax assessments which will give the multinational corporations the ability to play off one against the other -and lock up all the disputes in various courts across the world.

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Gender Wage Gap: A Major Deterrent to Women Empowerment

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"To achieve gender equality, we need to mobilize not just parliaments but populations, not only civil society but all of society."

-Phumzile Mlambo- Ngcuka Executive Director of UN Women

Abstract

The G20 (Group of Twenty) members account for 85% of the world economy, 75% of global trade and two-third of the world's population. The economic empowerment of women was added to the G20 agenda under the topic of 'Inclusive Growth' after 2015. Since then, initiatives have been taken by the G20 to uphold and protect the status of women in the society and upgrade their economic identity.

In this article, we discuss the raging issue of gender wage gap in India. We examine the reasons for such prevalent wage disparity in our country and also the opportunities that lie ahead of the challenge of reducing this difference in wage earnings. This would foster the economic empowerment of women and help increase the chances of India of achieving the \$5 trillion economy target by 2024-25 as it would lead to a significant increase in participation of women in the labour force.

JEL Classification:

B54, J31, J71

Introduction

For eons, women had been subjected to various kinds of atrocities - physical, psychological, cultural and social oppression. However, times have changed and so has people's perception. In today's world, men and women are no different. This is an era of women empowerment where females break free from the stereotype and venture to mark the evolution of a world that does not discriminate between men and women. 'Women Empowerment' is the process in which women create opportunities for themselves to be what they can, to accomplish in a circumstance that they were previously denied. India, being a developing country, has realized that women empowerment is necessary for social, cultural and economic prosperity.

India has expressed concerns with respect to women empowerment in many international events and the G20 (Group of Twenty) is one of those platforms where our country has laid emphasis on this concept. The issue was taken up as one of the main topics of discussion in the recent 2019 G20

Osaka Summit. The key points under the G20 Osaka Leaders' Declaration related to women's empowerment are as follows: -

- 1. To take note of the actions taken in the G20 towards the Brisbane Goal i.e.to reduce the gender gap in labour force participation by 25% by 2025.
- 2. To continue supporting for women's education and training, including improved access to STEM (Science, Technology, Engineering and Mathematics) education.
- 3. To promote funding for Women Entrepreneurs Finance Initiative (We- Fi) in support of women's entrepreneurship in developing countries including in Africa.
- 4. To welcome the launch of the private sector alliance for the 'Empowerment and Progression of Women's Economic Representation (EMPOWER)' and call upon the alliance to advocate for the advancement of women in private sector.

India has had a long history with discrimination between men and women. This social setback has shown up in terms of poor female labour force participation, wage disparity, inequality in education, ownership rights, health etc. Here, we will be bringing the issue of gender pay gap in India under focus.

A report by the Labour Bureau, India suggests that the average daily wage gap between males and females for agricultural occupations was Rs. 120.05 in 2016 and Rs. 114.9 in 2017 and that for nonagricultural occupations was Rs. 158.5 in 2016 and Rs. 196.3 in 2017. This striking gender wagegap has deteriorated the position of India in the overall gender gap rankings by the World Economic Forum in 2018 as compared to 2016. India stood at a low of 108 out of 149 countries in 2018, the same as in 2017. Among all the G20 countries, France had the highest rank of 12, while Saudi Arabia finished last with a rank of 141.

Some significant reasons behind the existence of Wage gap are: -

1. Gender Stereotype and workplace discrimination:

One of the major factors that lies behind the dismal picture of wage disparity, not only in India but also globally is the discrimination existing in the society and therefore in the workplace too. The characteristic of a highly patriarchal society gets reflected in the workplace where women are denied equal pay and are not considered for senior posts and challenging opportunities. Surveys reveal that majority of organizations show reluctance towards hiring women having taken childcare/ maternity leave. Women are usually thought to be less productive and hence are not considered as the first choice for promotion to higher positions. Not only women belonging to underprivileged families face these situations, but women from well-to-do families also share similar experiences. This leads to women remaining at the lower end of the occupational hierarchy.

2. Societal Barriers:

Usually, a female is considered for doing the larger share of domestic work than her male counterpart. Data shows that in India, women contribute three times more than men in unpaid work (ILO, 2016). So they end up giving more time on household work and less time to think about their career. Research shows that in order to reach top professional/leadership posts, a person needs to get updated with the latest skills and technology. So for women to reach to such positions, they need to invest on themselves, which implies taking out time to acquire the skills needed. This is too difficult for majority of women given the role of caregivers they play for everyone in the family. So they are encouraged to choose relatively easy or part-time jobs which evidently pay them less. In many instances, the decision taken by a woman to work in places other than her home town, which would have provided her with better opportunities, is met with strong resistance. This deprives them of getting a higher salary and a better post. The career of the spouse is usually given more importance for which a woman is forced to leave her job and relocate. Also, the restricted mobility of women is enhanced by the safety concerns given the rise in cases of harassment in the workplace.

3. Low investment on a Girl child:

In India, most families undertake low investment in girl's education due to the inherent idea of saving money for dowry. This acts as a hindrance for them to get empowered with the required skills. Early marriage and therefore taking care of children and aged people in the family occupy a major part of their lifetime, and so they have little scope for self-development. In this way, most women fall prey to the vicious cycle of low self-confidence and sacrifice a crucial part of their career to devoting time to her family which refrains them from involving in more demanding and responsible jobs.

The Indian Scenario:

Statistics show that in spite of almost doubling of real wages over the period of 18 years between 1993-1994 and 2011-2012, there has been a growth in wage inequalities in India.

The wage gap is calculated using the following formula:

WAGE GAP = {MEDIAN WAGE (FEMALE) – MEDIAN WAGE (MALE)} * 100

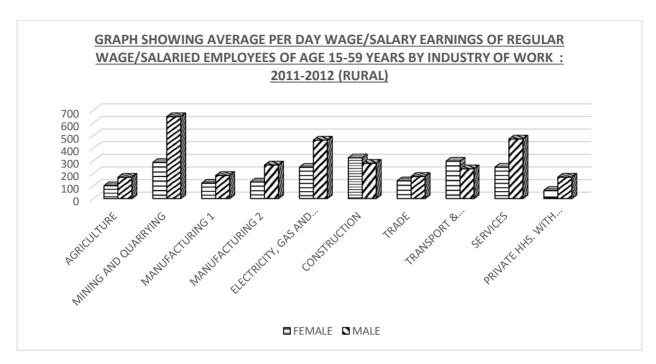
MEDIAN WAGE (MALE)

Following charts and graphs show wage disparities in different sectors of the economy and in different states and union territories of India.

Wage Disparity in Different Sectors of the Economy:

RURAL:

SECTOR	FEMALE	MALE	WAGE GAP (%)
AGRICULTURE	101.24	168.83	-40.03
MINING AND QUARRYING	286.17	648.63	-55.88
MANUFACTURING 1	121.36	182.64	-33.25
MANUFACTURING 2	131.33	265.65	-50.56
ELECTRICITY, GAS AND WATER	248.06	462.71	-46.39
CONSTRUCTION	322.43	279.15	+15.50
TRADE	140.27	175.15	-19.91
TRANSPORT &STORAGE,E.T.C	295.87	235.55	+25.60
SERVICES	248.67	471.51	-47.26
PRIVATE HHS. WITH EMP. PERSONS	64.79	169.32	-61.73



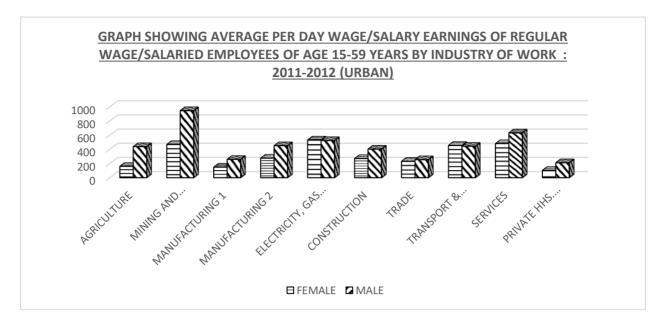
Source: NSSO 68th Round, July-2011-June-2012

OBSERVATIONS:

- Of all the sectors where women are paid less than men, the wage gap is highest in case of private households with employed persons (-61.73%) while it is the lowest in the trade sector (-19.91%).
- Women are paid more than men in only two sectors: construction (+15.50%) and transport and storage (+25.60%).

URBAN:

SECTOR	FEMALE	MALE	WAGE GAP (%)
AGRICULTURE	160.35	438.14	-63.40
MINING AND QUARRYING	467.78	946.25	-50.56
MANUFACTURING 1	149.03	258.9	-42.43
MANUFACTURING 2	276.09	451.64	-38.87
ELECTRICITY, GAS AND WATER	531.96	524.55	+1.41
CONSTRUCTION	270.29	403.3	-32.98
TRADE	231.33	254.59	-9.14
TRANSPORT &STORAGE,E.T.C	455.01	443.76	+2.53
SERVICES	480.74	631.96	-23.93
PRIVATE HHS. WITH EMP. PERSONS	102.93	211.82	-51.40



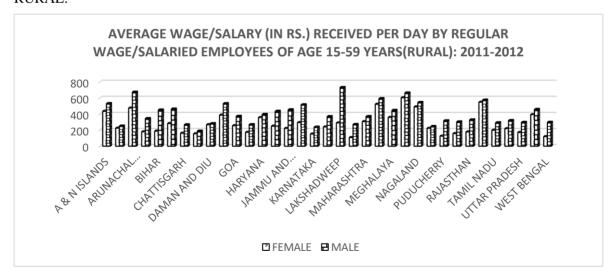
Source: NSSO 68th Round, July-2011-June-2012

OBSERVATIONS:

- Of all the sectors where women are paid less than men, the wage gap is highest in the agriculture sector (-63.40%) while it is the lowest in the trade sector (-9.14%).
- Women are paid more than men in only two sectors: electricity, gas and water (+1.41%) and transport and storage (+2.53%).

Wage Disparity in Different States and Union Territories of India:

RURAL:

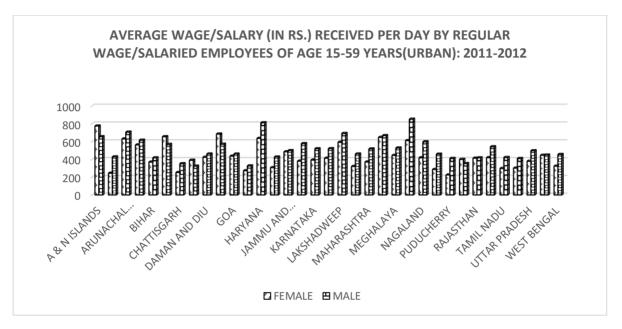


Source: NSSO 68th Round, July-2011-June-2012

OBSERVATIONS:

- The wage gap is highest in Lakshadweep (-60.26%) while it is the lowest in the Sikkim (4.53%).
- The overall wage gap in rural India is -37.46%.

URBAN:



Source: NSSO 68th round, July-2011-June-2012

OBSERVATIONS:

- Of all the states and union territories where women are paid less than men, the wage gap is highest in Puducherry (-45.29%) while it is the lowest in Uttarakhand (-0.40%).
- Women are paid more than men in A & N Islands (+18.33%), Chandigarh (+15.15%), Dadra and Nagar Haveli (+20.39%), Delhi (+20.09%), Punjab (+13.27%)
- The overall wage gap in urban India is -22.07%.

Laws:

Increase in the level of wage inequality reduces the level of GDP per capita as well as the economic growth of a country. In India women are paid 34% less than men. Keeping in mind its negative impact, the wage inequality should be controlled. We list the acts that have worked so far in their favour.

® Equality Act 2010,

The act gives the rights to equal pay between women and men for equal work. This covers individuals in the same employment and includes equality in pay.

® Equal Remuneration act, 1976,

This act provides for equal pay to men and women for equal work.

There are some Articles of the Constitution of India, which are in favour of gender equality

ARTICLES	DESCRIPTION
Article 14	Men and Women to have equal rights and opportunities in the political economic and social spheres.
Article 39 (d)	Equal pay for equal work for both men and women.
Article 42	The state to make provision for ensuring just and humane conditions of work and maternity relief.

Future Course of Action

Firstly, marriage, maternity, child rearing and other responsibilities of family are crucial milestones of women life in India. These may force women to take a break from work. If organizations are empathetic and realize that these reasons don't make women less competent than men, then women can be empowered.

We need some policies for equalizing the inheritance rights between sons and daughters which can help to ensure more investment on women's career from their childhood. That kind of policy will lead to an increase in educational attainment and age of marriage for daughters. Specially, it is required to change the mentality of such men who think that women's primary responsibility is towards the household and theirs, towards office work. This will play a key role in changing the way women are perceived in the professional sphere as well.

There is a unique policy in village —level governance which provides one —third representation for women in position of local leadership. As an affirmative result of this policy, it is found that, in villages led by women, the preferences of female residents are better represented, and women become more confident in reporting crime that they may consider too stigmatizing earlier. Besides female leaders should play a role model to improve the education level and career of adolescent girls. Evaluations of these policies will be a crucial way in future to abolish wage disparity in India.

Improvements in labour market also have the potential to reduce wage gap by empowering women. Young women of rural areas are now being trained for some factory-based jobs in cities which provide economic independence and social autonomy.

Till now in India sexual harassment is a major obstacle in every woman's life. Organizations should implement some policies against sexual harassment or should follow Sexual harassment act 2013, passed by Lok Sabha on 3 September 2012, to ensure that women can work comfortably. Awareness about sexual harassment can build a long way towards increasing equality and decreasing discomfort in the work place.

Such policies and acts not only abolish the wage disparity but also make attempt to reach toward the theme of International Women's day "Press for Progress".

Conclusion

Although India is one of the fastest growing economies and has the second largest population in the World, it is distressing that wage gap does exist in India. Comprising about half of the population, women are still not at par with their male counterparts. Policies aiming at bridging the wage gap need to be given more importance which would encourage and support women to make a mark in their respective fields. This will help the nation to realize the potential of its workforce to the fullest. The silver lining is that over the recent years there has been a slender fall in the wage gap which is a positive trend in this direction and therefore more emphasis is needed to find remedy to this issue of global concern.

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Impact of Trade Related Measures on Import: A Statistical Review on India

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Abstract:

The leaders of the G20, which comprises the world's largest economies, are firmly committed to open trade. But trade tensions have been escalated once again in the international trade arena with many countries imposing tariffs and other countries retaliating on those measures. Not only tariffs but also various non- tariff barriers have hindered trade and global growth rate. We thus, in this article, focus on how G20 countries have responded to this scenario. We use the index of trade barrier and analyze the correlation between the index and import of the G20 countries. We then put emphasis on the Indian scenario by briefly describing the import-tariff relationship since 2001 to 2017 using a log-log regression model.

JEL Classification:

C13, F01, F13, F14

Introduction:

The G20, short for Group of 20, is a global organization of finance ministers and central bank governors from 18 of the 21 nations with the biggest economies by Gross Domestic Product, along with South Africa and European Union. The member countries are Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, Turkey, United Kingdom and United States. The official themes of G20 summits include global economic risks, trade disputes, international cooperation, global trade expansion and reduction of trade barriers. However, the effect of tariff and trade barriers on business, consumers and government of different countries shifts over time.

A tariff may be defined as a tax imposed by domestic country on the goods and services imported from a foreign country. Tariffs are used to restrict imports by increasing the price of goods and services purchased from another country, making them dearer to domestic consumers and increasing revenues for the governments. Tariffs are regarded as a drag on economic growth, even if they can be deployed to benefit certain narrow sectors under some circumstances. Tariff can also be used as an extension of foreign policy. However, countries often target trade balance of specific countries using tariffs which may lead to trade dispute. The increase in tariff would negatively affect productivity, employment and output.

The term "Non-Tariff Measures" (NTMs) covers a diverse set of policies having its economic effect. Such measures can be classified as technical measures like sanitary or environmental protection measures, quotas, and price control or contingent trade protective measures. They also tend to increase production costs and can influence, positively or negatively, the development of new technologies or production methods. With NTMs, quality restrictions weaken trade prospects of the developing countries like India which decreases the competitiveness of India. Though countries have

started decreasing tariffs overall, there is an increasing trend to substitute such measures with nontariff barriers. These non-tariff barriers mainly quotas have similar effect on trade as tariff. Though WTO has made efforts to decrease quotas technical, non-technical measures and sanitary measures have become major policies to restrict imports.

Trade Scenario:

Talking about the global scenario of trade, we must mention the trade tension between US and China. The series of trade restrictive actions triggered by US tariffs on steel and aluminum products and on China's exports to the United States and the responses by China to those actions caused an increase in the value of trade affected by trade-restrictive measures as reported in November, 2018 WTO Trade Monitoring Report. As a result, survey indicates to the potentially high economic cost of 'Tariff War'.

Raghuram Rajan stated in an interview, "In an environment where there is external turmoil, we have to get our house in order and we can't postpone it". So now we are going to elaborate the Indian scenario. India has become one of the most sought after destinations for foreign investments in the world by means of her trade policies, government reforms, inherent economic strength and technological and infrastructural developments.

- 1) In March 2019, the Indian Government proposed Africa to enter a "Free Trade Agreement (FTA) or a Preferential Trade Agreement (PTA)".
- 2) Bilateral trade and cumulative reduction in tariffs on about 11000 goods in order to reduce bilateral trade barriers between India and China has increased Indian exports to China by 40%.
- 3) The European Union is India's major trading partners, accounting for 12.9% of total Indian trade, ahead of China (10.9%) and USA (10.1%). EU-India Trade Sub-commission and Partnership Agreement between EU and India along with multilateral trading system with WTO at its center have increased trade in goods by 72% in the last decade.
- 4) India has negotiated Global System of Trade Preferences (GSTP) with 43 countries like Argentina, Brazil, Indonesia, Mexico, Korea etc.
- 5) India and South Korea signed a joint statement in July, 2018 to upgrade negotiations under CEPA, with early harvest offers made for 35items.
- 6) Trade deficit of India and US dropped by almost 6% in 2017 compared to previous year. So, US have actively sought bilateral and multilateral opportunities to open India's market.

Empirical Study:

Data

All the data for the study have been collected from the databank of the World Bank. Simple mean of applied tariff rates on all products of G20 countries have been collected. As an incidence variable for non-tariff barriers coverage ratio for all imported products have been used. Import and GDP values have been measured at constant US dollars 2010.

Tariff Rates

The figure 1 shows how the tariffs of the countries have varied over the years 2001-2017. US tariff rates increased from 2.87 in 2016 to 3.36 in 2017. This increase in tariffs was mainly on the Chinese imports which China also retaliated by increasing tariffs as the simple mean tariffs increased from 7.88 to 8.46 percent. Other countries were also affected due to repercussions of such tariff measures which also decreased the trade volumes and led to more global slowdown. We will show in the later section that there is a clear negative relation between tariff rates and trade volume in case of India. These developments in the global trade scenario made WTO worried about the future outcomes. There is a global consensus that USA and China should decrease their tariff rates. Among the G20 members, India had the highest rates before 2008 and there was a dramatic fall in rates after 2004 after which she kept her tariff rates lower and there has been a downward trend in the tariff rates then onwards. This is quite significant as 2008 marks not only the financial crisis but also the establishment of G20. Brazil has the highest tariff rates after 2008 but it also has more or less stable rates in the recent years. European Union and Australia have the lowest tariff rates. In next section we will show higher tariff rates leads to decrease in imports.

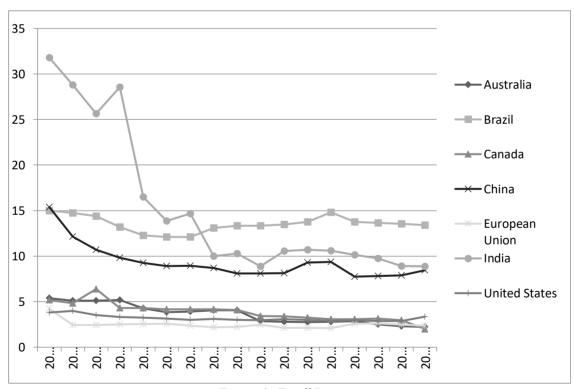


Figure 1: Tariff Rates Source: World Bank

NTM

Due to paucity of data we have studied the year 2014 only though such measures do not change rapidly. European Union has low tariff rates but a high coverage ratio. China and Brazil continue to have high tariff and high NTMs coverage. India has a low NTM coverage ratio of only 45% where as high tariffs compared to other developed countries. But the EU and USA have comparatively higher NTMs which actually makes trade difficult for countries like India. This is because with NTMs like on quality restrictions it becomes difficult for developing countries to export their products to developed countries.

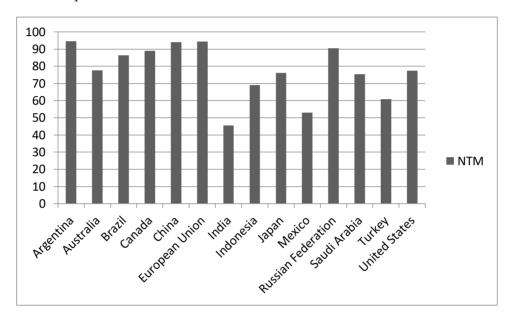


Figure 2: Non-Tariff Measures Source: WITS (World Bank)

Index- We now combine the tariff rates and NTMs of different countries to make a comparison between the members of G20.For this we define a Trade Barrier Index (TBI)

$$TBI = (T_c - T_{min})/(T_{max} - T_{min}) + NTM_c$$

Where

T_c= simple tariff mean applied on all products by country

T_{min}= minimum simple tariff mean among all the G20 countries applied on all products

 T_{max} = maximum simple tariff mean among all the G20 countries

NTM_c= coverage ratio of NTMs used by country on all imported products.

From the definition of the index it is clear that the first fragment of the index lies between 0 and 1. In the years between 2014-2017 Brazil had the highest tariff rates and had the value 1. The table shows index for all the members of the G20. Brazil has highest trade barrier index followed by china and India. The other developed countries have low index value though EU has a comparatively

higher index value due to the application of NTMs. We couldn't show the index for South Africa and Republic of Korea due to non-availability of data on NTMs. In the figure we have shown the simple average of all G20 countries in the first entry.

COUNTRY	INDEX
AEGENTINA	95.476
AUSTRALIA	77.5459
BRAZIL	87.42
CANADA	88.9556
CHINA	94.464
EUROPEAN UNION	94.3127
FRANCE	94.313
GERMANY	94.313
INDIA	46.201
INDONESIA	69.232
ITALY	94.313
JAPAN	76.289
MEXICO	53.012
RUSSIAN FEDERATION	90.898
SAUDI ARABIA	75.582
TURKEY	60.74
UNITED KINGDOM	94.313
UNITED STATES	77.3966

Table 1: Trade Barrier Index Source: Authors' Calculation

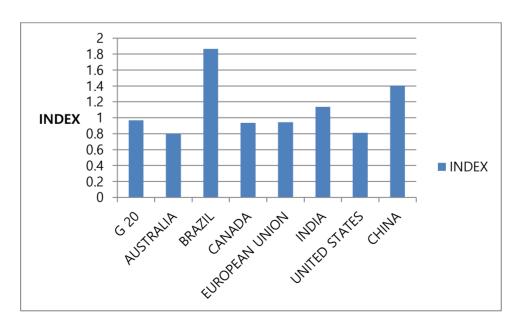


Figure 3: Trade Barrier Index Source: Authors' Calculation

Regression Analysis

Post globalization India has slowly decreased her tariff rates. In 1992 it was 56.02% whereas in 2017 it was 8.88 which is massive decrease. This led to the opening up of the economy and increase of the imports as well which can be shown by import value index. Figure 4 shows how imports have been changed. Here import value index is the current value of imports in US dollar divided by import value of 2000 in current us dollar. There is a clear trend in the increase of imports over the period. We hypothesize in our model that there is negative relationship between imports and tariffs as far as country's trade aspect is concerned.

In the figure 5 we show a scatter plot for import and GDP values with a linear regression line which shows the high negative correlation between the variables. We take the log of import and GDP values measured at constant 2010 US dollars. The Pearson correlation coefficient in this case was (-0.962) which is significant at 1% level of significance. (p=0.00). This supports our hypothesis.

Next we make a regression analysis to show how imports of India vary with tariff. We take a simple log model as

$$LogIMPORT_t = a + b logTARIFF_t + c logGDP_{t-1} + e_t$$

We take GDP as a lagged variable as imports generally depend on income level of previous period. Our principal variable of interest is log Tariff and we expect b to be negative according to our hypothesis. By using Minitab software, we estimated the constant coefficients as shown in the table.

Term	Coefficient	SE Coefficient	T-Value	P-Value	VIF
Constant	4.44	2.58	1.72	0.107	
Log GDP	0.652	0.200	3.26	0.006	4.68
Log Tariff	-0.743	0.144	-5.14	0.000	4.68

Regression Equation:

LOG IMPORT = 4.44 + 0.652 LOG GDP - 0.743 log tariff

All our results are significant at 1 % as p value for all results were less than 0.01 as given in the table. We now explain our results.

Imports depend on tariffs negatively. According to our estimates if tariffs increase by 1 % then imports decrease by 0.743 percent. As tariffs rates are high it increases the relative prices of the imports making demand of imports to fall. Domestic goods become relatively cheaper than foreign goods. So people buy more of domestic goods and less of foreign goods which is captured as a fall in the demand of imports. Earlier high tariff rates were the result of Government of India's policy of import substitution. Such policies proved effectiveness and India followed globalization y. Though the growth India experienced was not an export oriented growth but it provided much impetus for growth.

Imports depend on GDP positively. Keynesian aggregate demand theory for an open economy

indicates a positive relationship between imports and GDP. Our study verifies that simple linear model as well.

Thus as India opened more and more decreasing its tariff rates imports of the country increased with it. Though India has moved towards a flexible regime of exchange rates, still it's mostly controlled by the RBI thus we have a crawling peg exchange rate. This is the reason why such changes in tariff policies work. With enough foreign exchange now increasing imports is not difficult. It is to be noted that here with reduction in tariffs as imports demand has increased Marshall Lerner index must be satisfied i.e. import demand elasticity must be enough. Thus we have a negative relationship between imports and tariffs in case of India. This decrease in tariffs and increase in imports though may have worsened the trade balance but increases the benefits of free trade. People who are willing to pay for imported goods can now buy them which increases consumer surplus. On the other hand, earlier with import substitution in mind, domestic industries used to produce goods at much higher cost with obsolete technology. With removal of trade barriers over the years, foreign goods are available at much lower cost. Foreign technology and machineries can also be imported and used in major industries to produce better quality goods at lower cost. As a result, the productivity and output level have been increased in a broader sense.

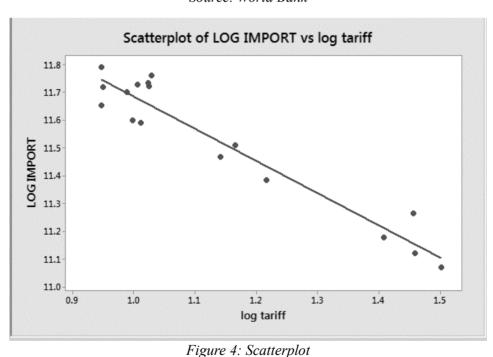


Figure 4: Import of India Source: World Bank

Source: Authors' Calculation

Conclusion

Conventional economic wisdom follows that the reduction of import restrictions assists in the development of the G20 countries. As it can be seen from the case study of India that imports are negatively affected by tariffs, it can be further generalized for other developing and developed countries as well. Thus policy makers should decrease tariffs and other trade restrictions as well to enjoy fruits of free trade which in turn will promote to development. The tariff-growth link is best explained by discovering the conditional effect of those restrictions on the development through imports. Actually, an increasing use of NTMs contingent protection measures can nullify the effect of tariff reduction on market access. This scenario not only prevails in the G20 platform but also in the Indian backdrop. While some express India to be one of the most trade restrictive economies, the others appreciated India for lowering import tariffs and NTMs and increasing the scope of free trade because ultimately free trade is a major force of the global development. Hence, it is really a matter of debate- the relationship between tariff, NTM, import and development. Thus, it is crucial that future research continues to examine the complex impact of tariff and NTM on import and economic growth and explore the manner in which tariffs can be utilized in the arena of development.

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Food Security and the G20: A Critical Review

- Mahene Samuel Chatterjee and Varsha Catherine James Department of Economics, 3rd Year

Abstract

Many were optimistic for constructive change when the G20 took up food security in 2010. Hopeful that they would address structural problems in commodity markets, that contributed to high and volatile food prices and worsening hunger. Its members' support of multilateral trade rules would reflect both importer and exporter need much better. They hold the power to reinforce regulation of agricultural commodity future markets, stop the diversion of land to biofuels production by ending renewable fuel targets and coordinate food reserves. The G20 chose to promote smoothing and coping measures within the current global economic framework rather than tackle the structural economic dimensions of food security. By diverting the focus away from structural issues, the G20 has had a deterring effect on policy debates in other global food security forums, particularly the UN Committee on World Food Security (CFS). In addition, the G20 dismisses the expressions of the lesser developed countries and civil societies, and fails to implement its recommendations as it lacks expertise and capacity. In this article, we reason that although food security was taken up by the G20 as a focus area, it squandered a crucial opportunity. Thus, showcasing that it certainly was not the most apt forum for food security policy.

JEL Classification

O180

Introduction

In June 2011, a ministerial declaration was passed by the G20 agriculture ministers. The action plan was considered to be the harbinger of food price stability and improved food security in the G20 nations. Since the G20 includes the world's largest agricultural producers as well as exporters, people believed that the forum was appropriate to discuss the several economic dimensions of the food crisis. The G20 could regulate the speculation in the agricultural commodity market by changing financial policies of its member states. It could help the underdeveloped, food-importing countries through its trade policies and also stop drastic subsidies which allowed distortionary trade prices in the world market. It could plan and coordinate the food held in exporting countries in order to stabilize prices and lessen risks for low-income food deficit countries.

Economic policy reforms aimed solely at the supply side were deemed to be ineffective as the supply side was not the major drive of price volatility during the 2007-08 food price crises. Many analysts and commentators pointed instead to macroeconomic policy changes that they believe are essential to improving global food security. The G20 countries are the most important of the countries that must make these kinds of structural economic policy changes because of their influence in the global economy and because of the distortionary prices created by them in international markets. These distortions appear in the form of biofuel subsidies, unregulated use of export bans, excessive agricultural subsidies and the failure to adequately regulate food commodity futures exchanges.

The G20's performance on food security issues has been disappointing. The group has ignored broader structural economic reforms and instead has pressed for initiatives that aid markets by increasing food production and encouraging information flows and by creating mechanisms to cope

with price volatility. However, most of the research into the key causes of food price volatility emphasizes the role of economic policies in curbing the turmoil prevalent in world food markets. Merely smoothening and coping with the prevalent price volatility will not tackle the structural causes of the problem.

Initiatives Taken by the G20

As an international body established primarily for coordinating economic policy among the world's leading economies, the G20 seemed uniquely placed to contribute to greater global food security by focusing on structural measures that would require reforms to its own members' economic policies.

Some of these measures are as follows:

- Regulating financial markets in order to stem speculation in agricultural commodity markets.
- Improving international trade policies (which would include reduction of agricultural subsidies granted by the government in the industrialized countries).
- Strengthening rules on export restrictions and ensuring proper safeguards for poor foodimporting developing countries.
- Repealing biofuel policies that are trade-distorting and providing incentives to divert grains from food to fuel uses.

Each of these factors have been identified in several analyses of the food crisis as being crucial drivers for both food price volatility and the vulnerability to price shocks in the world's poorest countries. The G20 also includes the governments that could implement rules for coordinating grain reserves among the major exporting countries as a way to provide stability in global grain markets.

Ten intergovernmental agencies were asked to prepare a background report on food price volatility in international markets. The International Organization (IO) report made ten key recommendations which were a mix of smoothing, coping as well as structural reforms to tackle the food security issue.

Disregarding the capacity to push for coordinated economic regulatory reforms among its own membership, the G20 backed its weight behind the smoothing and coping measures that were outlined in the IO report. These measures were merely adding to the existing regulatory framework that governs the world food economy. There was no attempt to restructure the framework in a way that would protect developing countries from vulnerability to price shocks and volatility in international markets.

An early indication of the narrowing of the agenda came with the G20 agriculture ministers' final communiqué from their meeting in June 2011. The ministers developed an Action Plan on 'Food Price Volatility and Agriculture'. This plan covered five areas for action:

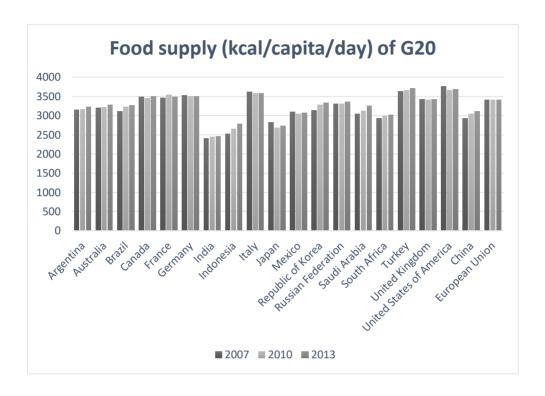
The first priority in the Action Plan was to take measures to increase agricultural productivity in developing countries. This was largely a smoothing mechanism, aimed at answering supply shocks caused by poor harvests. Many developing countries face repeated supply shocks, which are smaller but much more frequent than the shocks on international markets. The plan promised to strengthen agricultural research and innovation through the G20 governments' own national agricultural research systems as well as international research bodies such as the Consultative Group on International Agricultural Research (CGIAR).

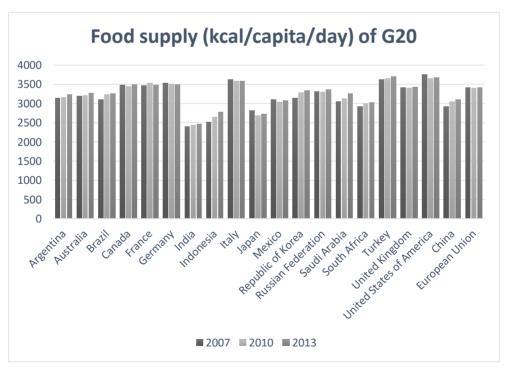
- The second area the agriculture ministers highlighted was additional market information and transparency. The G20 ministers announced the launch of the Agricultural Market Information System (AMIS). The idea behind AMIS is to gather and disseminate more information on physical commodity production and market transactions in the hope that it will help to reduce market uncertainty, and aid in greater efficiency, less volatile international food markets. AMIS, housed at the FAO, is a collaborative effort among nine international organizations. It remains unsure how AMIS could work with the private sector, particularly the four global grain traders (ADM, Bunge, Cargill and Louise Dreyfus) that control an estimated 75 per cent or more of the international cereal trade. With public stocks now eliminated in most countries, these traders are the ones knowing the most about what grain will be available when and from where.
- The plan also called for measures to help cope with volatility that might arise despite efforts to avert it. Inviting stronger policy coordination on food security issues within the UN system, and establishing a 'Rapid Response Forum' comprising of senior officials from the major producing, importing and exporting countries within the AMIS framework.
- Another coping measure was the endorsement of market-based risk management strategies
 at the farm level and safety nets for the most vulnerable populations. The risk management
 tools range from promoting weather index insurance and bank loans to hedging on
 commodity markets; along with support from developing country governments and food
 assistance agencies.
- The sole structural measure endorsement by the G20 agriculture ministers was the need for appropriate financial market regulation. They welcomed the work of the International Organization of Securities Commissions (IOSCO), which was at the time working on a set of recommendations for the G20 on financial regulation. But a decision on this was not something that the agriculture ministers could formally agree upon, as it was not part of their portfolio. Instead, they encouraged the G20 finance ministers and Central Bank governors to do so.

Where did they go wrong?

The agriculture ministers failed to seriously consider two of the major structural issues identified in the IO report- the unbalanced trading system and biofuel policies in the G20 countries. Biofuels were only mentioned in the Action Plan as something that required further study and no concrete action was recommended despite the growing weight of evidence that biofuels demand was a significant factor in high and volatile prices. Finally, the lack of stocks to underpin major international grain markets – an issue discussed in the IO report failed to secure any recommended action – remaining ignored and unaddressed. The failure of the agriculture ministers' to address the big structural economic issues in any meaningful way had the effect of shifting the discussion on food security back to politically safer issues such as productivity, information and emergency response. The focus on these smoothing and coping measures in effect diverted attention from the G20 governments' own role in aggravating the food crisis. In other words, food security was redefined by the G20 as a problem largely originating and experienced in the world's poorest countries. They instructed these countries as well as international organizations what they needed to do to improve food security without taking responsibility for the role of its own members' economic policies in the crisis and has missed an important opportunity to rectify some of the major structural issues that worked against global food security in recent decades. Their failure to treat commodity speculation, biofuels and unbalanced trade policies seriously is especially worrying given the growing dependence of developing countries on food imports. Indeed, that dependence itself is a product of the same unbalanced trading system that has made them vulnerable to food price volatility. This system has

systematically disadvantaged the world's poorest countries in agricultural markets over the past 40 years, and explains how least developed countries have gone from being net agricultural exporters to importers in that same period, despite their continued lack of foreign exchange to pay for these necessities.





(Index: http://www.fao.org/faostat/ Years: 2007, 2010, and 2013)

Conclusion

When the G20 took up the food security agenda, particularly as first formulated under French leadership, even commentators that did not initially see the merit of the G20 as a global governance institution were willing to consider the usefulness of this move. Many of the structural problems with distributional mechanisms that circulate food in world markets could be addressed by G20 national governments through regulatory reforms. If the G20 were willing to put their own agricultural policies in order, collectively, there could be significant benefits for international markets (and the many that depend upon those markets). In practice, however, their efforts in this matter have been weak and only partial.

Structural economic issues, especially those concerning G20 governments themselves have received rudimentary treatment. While some movement was made with respect to the endorsement of new rules to allow for some regulation to stem financial speculation on agricultural commodity markets, it remains unclear whether new rules in the US and EU will be strong enough to pull through. They lacked sufficient research and implementation capability on food security matters. Regarding biofuels, they did nothing more than call for further research and remained silent with respect to international grain reserves. The focus instead has been on levelling markets within the current global economic structure by providing more information and investment, and providing more assistance and necessary risk management tools in order to help countries cope with volatility. The least developed countries – those who are most dependent on food imports and face high levels of hunger were not represented. Moreover, it excludes input from civil society organizations while seemingly prioritizing the views of business organizations.

Some analysts have argued that despite its weaknesses on process and structure, the G20 could and should still play a constructive role in development issues more broadly, including food security. Implementation of serious structural reforms within its own member states will be able to effectively tackle the food security crisis.

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India's Financial Stability: Opportunities and Challenges

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Abstract

The foundation of the G20 was built in the wake of the global financial crisis of 2008 with its objectives being policy coordination between member nations for economic sustainability and financial regulation to reduce risks and prevention of any such crisis in future. However, Nouriel Roubini, one of the eminent economists to foresee the 2008 crisis warned that "the risk of a global recession and crisis in an already fragile economy is rising" in a publication in 2019. Here we have discussed the impacts of the crisis of 2008 on India, a member of the G20 and the potential opportunities and challenges that it would face in the impending crisis looming about in the present day.

JEL Classification

H12, P51, P52, O23, O24, N25, G01, G15, F01

Introduction

Accounting for about two thirds of the world population, 75% of international trade, 85% of global gross domestic product and 80% of global investments in research and development, the G20 (Group of 20) is an international forum for financial, economic and political cooperation which includes nineteen of the world's largest economies and the European Union.

The subsidence of financial services firm Lehman Brothers on 15th September, 2008 led to a worldwide economic collapse and the highly interlinked financial economies of the world fell prey to the contagion effect. The global economy started falling at a pace not seen since the Great Depression of the 1930s, unemployment rose across the globe, trade volumes collapsed and liquidity in the market became growingly scarce.

In 2008, amid the distress of the global financial crisis, world leaders upgraded G20 from what used to be an abstruse financial minister's conferences into a high profile meet of powerful heads of government and state to coordinate policies and tackle the worst financial crash since the Great Depression. To a large degree, the actions of the G20 economies helped to reverse the trajectory of the crisis.

Impact of the Crisis on India

'When America sneezes, the rest of the world catches a cold', this may be true for the rest of the world but India had some higher immunity to resist the global meltdown of 2008. The fundamental of India and less exposure of her financial sector with the global financial sector saved India from the turmoil.

The immediate impact of the US financial crisis was felt when the Indian stock market started falling. About Rs. 2,50,000 crores were wiped out of the Indian economy, mainly by Foreign Institutional Investors (FII's) and Participatory Notes on 10th October,2008. The foreign exchange reserves of India depleted by around \$ 57 billion to \$ 253 billion by the last week of October, 2008. With the US and the European countries slipping under the full blown recession, India's exports fell by around

9.9%. With the outflow of FII, India's rupee depreciated by approximately 20% and stood at Rs 49 per dollar at some point, creating panic among the importers.

India is one of the largest economies in Purchasing Power Parity terms; this made India a favourable location for Foreign Direct Investment (FDI). Due to global recession, FII's made withdrawal but the inflow FDI doubled from \$7.5 billion in 2007-08 to \$ 19.3 billion during September, 2008. In 1969, some of the major Indian Banks were nationalized; it facilitated the Government of India in forcing some policies like high Cash to Reserve Ratio (CRR), stringent credit policy and regulation of lending rate. This control over banks proved to be a blessing for India as the recession that started in the US was due to the increased greed of the financial institutions, which started lending to the borrowers having lesser credibility at higher interest rates. The stringent policies prevented India from falling into this pitfall.

The G20

The primary agenda of the G20 since its inception after the global crisis of 2008 has been economic and financial stability among its member nations. However, the impending crisis driven by US trade war against China, the crumbling economies of smaller nations, slowdown of equity markets with rise in newer forms of debt, decline in the rate of global growth as predicted by The World Economic Outlook 2019 to a meagre 3.3% and the value of the WTOI at 96.3 indicating below-trend trade expansion in 2019 are the red flags in front of the G20. Economists from all over the world have stated these and many other reasons as to why the G20 should buckle up their belts. India's primary agenda amongst all was "financial stability" in the 2019 G20 Osaka Summit held in Japan. Multiple fault lines are threatening to derail the global order in the near future and the G20 member nations should rise up to take control of this situation.

Table 2. Selected Macroeconomic and Financial Indicators for India: 2004-2009

	Iliula. 2004-2009							
Item	2004-05	2005-06	2006-07	2007-08	2008- 09			
GDP (Annual % change)	7.5	9.5	9.7	9.0	6.7			
Industrial Production	8.4	8.2	11.5	8.5	2.7			
(Annual % change)								
BSE Index (Annual % change)	16.1	73.7	15.9	19.7	-37.9			
Inflation (% change)	6.4	4.4	5.4	4.7	8.3			
Export Growth (Annual % change)	28.5	23.4	22.6	28.9	5.4			
Export/GDP (%)	12.1	13.0	14.1	14.2	15.1			
Foreign Reserves (US \$ Billions)	141.5	151.6	199.1	309.7	252.0			
Current Account (% of GDP)	-0.4	-1.2	-1.1	-1.5	-2.6			
External Debt (US \$ Billions)	133.0	138.1	171.3	224.6	229.9			
Foreign Debt-GDP Ratio (%)	18.5	17.2	18.1	19.0	22.0			

Source: Compiled from various tables in Reserve Bank of India 2009 Annual Report and Central Statistical Organization database

Note: The fiscal calendar year for India starts in April and ends in March of the following year.

India's Stand

Raghuram Rajan, a former Governor of the Reserve Bank of India said in an interview, "We are all very well aware that two things have built up, which had built up before the previous crisis, leverage and asset prices". In light of this, the question remains if India, an emerging economy can escape the vicious clutches of the forthcoming crisis? Will it be affected in the same proximity as it was during the crisis of 2008? Are the surrounding conditions analogous with the previous crisis? What are the factors that might either show it the light of dawn or the darkness of dusk during this downturn?

Following are some opportunities which could save India from delving deep in the puddle of a crisis and some challenges which might instigate the fall.

Opportunities

Monetary policy:

Since India's liberalization in 1991, stringent regulation of banks has limited their exposure to complex derivatives and off-balance sheet activities. The exposure of the banks in India to the United States subprime mortgage and credit default swaps markets was negligible and indirect. Further, the share of bank assets held by foreign banks in India is only 5%, one of the lowest among all EMEs, which limits the transmission of the crisis through the banking sector. The banks in India are also prudent in their lending practices in the real estate sector. Taking cue from the economic turmoil, the Reserve Bank of India has gradually reduced the repo rate from 6.5% (in August,2018) to 5.4% (in August,2019) and the reverse repo rate from 6.25%(in august,2018) to 5.5% in order to provide liquidity to the credit markets.

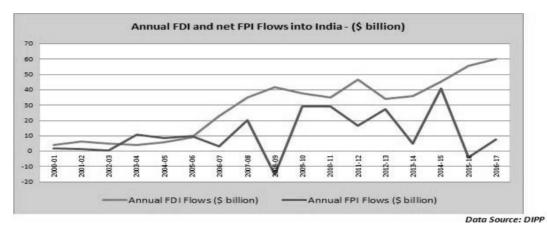
RBI RATE CUT PATTERN					
Date	Repo Rate				
6 Jun 2019	5.75				
4 Apr 2019	6				
7 Feb 2019	6.25				
1 Aug 2018	6.5	श्रय रिज़र			
6 Jun 2018	6.25	1 6 million 23			
2 Aug 2017	6	4			
4 Oct 2016	6.25	E Comme			
5 Apr 2016	6.5	P. 2123			
29 Sep 2015	6.75	BANKO			
2 Jun 2015	7.25				
4 Mar 2015	7.5				
15 Jan 2015	7.75				
28 Jan 2014	8				

Export and Remittances:

It has been observed that the impact on the Indian economy was less severe during the 2008 crisis because of lower dependence on exports. India's exports have declined from 24.7% in 2008 to 19.69% in 2018. India has witnessed a significant flow of remittances, a relatively stable form of income helpful during the grim times and is the largest remittance receiving country as of 2019.

Foreign Direct Investment:

Foreign Direct Investment is not only a critical driver of economic growth but also a major source of non-debt financial resource for the economic development of India. For a country where economic investments are being made, it also means achieving technical knowledge and generating employment. In recent years, a number of incentives have been undertaken by the Government of India such as relaxation of FDI norms across sectors such as defence, telecom, power exchanges, etc. India received \$42 billion worth of FDI in 2018 according to UN reports. Such large amount of FDIs makes the Indian economy robust and hence more immune to global fluctuations.



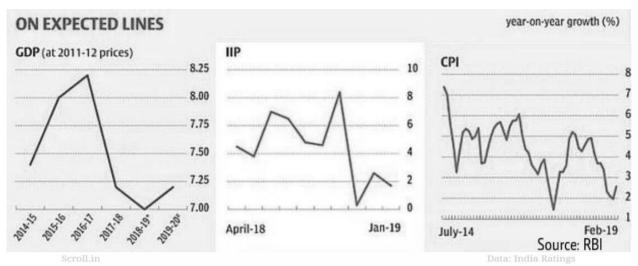
Savings in the form of gold:

At the time of recession, gold is considered to be a safe investment. Deeper the recession, the higher the price of gold. In India, people put their savings in the form of gold which provides her with an upper edge during recession.

Challenges

Inequality:

Raghuram Rajan, an eminent economist who had given an early warning to the world before the 2008 crisis illustrates in his thesis, "Fault Lines: How Hidden Fractures Still Threaten The World Economy" that widening income inequality is one of the reasons leading to the crisis. A survey as of early 2019 shows that India's top 1% of the population now holds 73% of the wealth as compared to 1% holding 58% of the country's total wealth the previous year. Growing inequality leads to greater polarity in political establishment and taxation difficulties and therefore administration is resorting to providing loans. RBI's reports state that "Macro-stress tests indicate that under the baseline scenario, SCBs' gross non-performing advances (GNPA) ratio may rise from 11.6% in March 2018 to 12.2% by March 2019. The system level capital to risk-weighted assets ratio (CRAR) may come down from 13.5% to 12.8% during the period. Sensitivity analysis indicates that a severe shock to the GNPA ratio could bring down the CRAR of as many as 20 banks, mostly public sector banks (PSBs), below 9 per cent".



Foreign Institutional Investors

The Indian economy is more connected to the global financial system today than it was a decade ago. Foreign Institutional Investors (FIIs) have been one of the biggest drivers of India's financial markets and have invested about Rs.12.51 trillion in India between financial years 2002-2018. The increased exposure to the volatile FIIs has made the economy more vulnerable to any external shocks. With interest rates beginning to rise in the advanced countries, India may experience outflows of foreign capital. Now, there is a concern that the buoyancy of the market is not supported by the real economy since the FIIs have been the driving force behind the stock market performance.

Imports

India's current account deficit widened to \$57.2 billion or 2.1% of GDP, in financial year 2019 from 1.8% a year ago. Current account deficit is one of the key indicators of an economy's health. The falling exports along with rising current account deficit indicate rising imports. As an economy's imports increase, so does its dependence on the global economy. With an impending threat of global crisis, such dependency on other countries' political and economic power may make it difficult for India to overcome another crisis.

Fall in Consumption

It has been empirically seen that regardless of whether the financial crisis in the United States and Europe had any direct or indirect bearing on the Indian market, and the size of the effect, if any, all the economic agents became more risk averse and cut back on their consumption and investment. The gradual fall in equity prices is leading to decline in the demand of consumers. Businesses having already started cutting back on their investments and labour resources. The pessimistic sentiment of businesses and investors is reflected by the constant decline in the National Council of Applied and Economic Research (NCAER) Business Confidence Index.

Conclusion

Only time can ascertain the answer to some questions, the happening or non-happening of another recession and its impact on the G20 nations being the paramount one. India, one of the fastest growing economies of the world survived the 2008 crisis but will it survive the next one? The factors that we have analysed provide mixed signals regarding the same. The effective monetary policies, the presence of huge Foreign Direct Investments, decline in the dependence on global markets (initiated by the propaganda of "Make in India") and high savings in gold are some of the various reasons that might help India suffer relatively less during a global crisis. On the gloomy side however, an increasing dependence on foreign institutional investors as well as on imports and persistent inequality, fall in consumption along with piling of NPAs in banks are some determinants that can drag the Indian economy to the trench of crisis.

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Gender Inequality and Undernutrition in India: A Comparative Analysis

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Abstract

The prevalence of a complex relationship between under nutrition and discrimination against women is assumed to exist in India. The availability of comparable nutritional information on adult under nutrition for the first time in National Family Health Survey-3 (2005-06) state-wise data enables us to examine the gender gap. We further analyze the persistence of the same 10 years later in 2015-16. The analysis shows a co-existence of a huge gender gap in iron deficiency anemia, with general high levels in India, in both years, along with negligible gender gap in incidence of chronic energy deficiency over time, with the general level being lowered after 10 years. Biological and social factors are assumed to be the causes of high incidence of anemia and that of CED being socioeconomic inequity in India. A need for health specific public policies is evident.

JEL Classification

I120, I140

Introduction

The prevalence of under nutrition among women in India remains one of the highest in the world. The incidence indicates the ill-health that women are subjected to due to lack of proper nutrition. Two of the eight major themes of G20 Summit held this year in Osaka, Japan were 'Women Empowerment' and 'Health'. India, one of the members of the G20 countries, is yet to achieve these Sustainable Development Goals.

The G20 expanded its theme of "International Financial Stability" after 2008. The widespread outbreak of Ebola epidemic in 2013 drew attention of G20 leaders towards "Global Health" at the Summit in 2013. It was in 2017 in the summit at Hamburg, Germany that for the first time in a G20 Summit, the importance of "health" was realized and a group of 20 Health ministers sat together to discuss and resolve pandemic preparedness and anti-microbial resistance. As one of the participant countries of the 2019 Global Summit, which represents 80% of the global GDP, India highlighted the issue of "global health" and put forward the need of not only discussing health through economic perspective but also investing money into it through public policies. The Prime Minister of India promoted India's traditional healing measures as well as his flagship "Ayushman Bharat" health scheme promising the 5A's in Health Services: "Accessible, Affordable, Appropriate, Accountable and Adaptable".

The awareness on gender equality in labor workforce was raised in 2010 but it was in 2014 Brisbane Summit that "Gender Equality" was raised to another level. India also strongly supported the raised issue of bringing in Women Empowerment by closing gap with men in finance and in various other forms of economic empowerment. The Prime Minister even actively participated in the special session on "Women Empowerment".

Undernutrition is one of the pressing issues of health and human development in India. This article seeks to examine the prevalence of under nutrition, an indicator of ill-health, along with the coexistence of gender gap, which shows the need for women empowerment, in India.

The data has been taken from National Family Health Survey-3 (NFHS-3, henceforth) (2005-06) as it was then, for the first time, nutritional information on women along with men, for the whole of India, were made available. This is compared to NFHS-4 (2015-16) data to assess the changes in a span of 10 years. We have done a state-wise comparison of under nutrition, taking data on Iron Deficiency Anemia and Chronic Energy Deficiency (CED), two important indicators of Undernutrition, in the two data sets. This article analyses the state of gender discrimination in health, a major indicator of human development, in India and how has the situation changed after a period of 10 years.

Reasons for Undernutrition

The ability to be well-nourished, or freedom from malnutrition, is one among a relatively small number of centrally important human freedoms (Sen 1992: 44). Undernutrition implies the deprivation of fundamentals of a healthy life, it demands high priority. The incidence of under nutrition, indicated by body mass index (BMI) and iron deficiency anaemia in India is higher than most countries in the world.

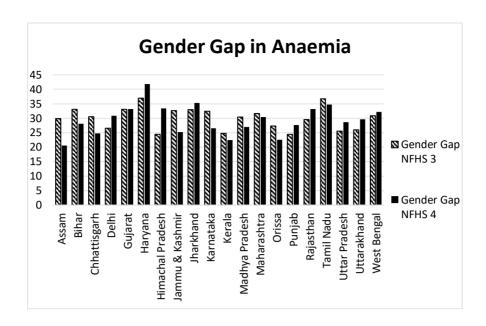
"...under nutrition is associated with a cluster of related, often coexistent, factors which together constitute what may be termed the 'poverty syndrome', the major attributes of which are (1) income levels that are inadequate to meet basic needs of food, clothing and shelter; (2) diets that are quantitatively and often qualitatively deficient; (3) poor environment, poor access to safe water and poor sanitation; (4) poor access to healthcare; and (5) large family size and high levels of illiteracy - especially female illiteracy" (Gopalan 1992:18). Thus, poverty is a primary cause of under nutrition and holds true for women as well. Additionally, analyses also suggest that there is something regressive in the culture of the South Asian region that leads to the excessive neglect of women's nutrition, in addition to the usual determinants (Ramalingaswami et al 1996; Osmani and Bhargava 1998; Osmani and Sen 2003). It is of utmost importance to know how men and women fare in nutritional attainment, which is an important pillar of human development. These are now analysed by considering the NFHS-3 and NFHS-4 state level data on iron deficiency anaemia and chronic energy deficiency (CED).

Iron Deficiency Anemia

In the table we compare the overall percentages of men and women of age 15-49 years suffering from anemia (in terms of Iron Deficiency in blood) in the years 2005-06 and 2015-16. In the analysis, we have taken major states according to population, along with Delhi. (Andhra Pradesh has been excluded because it was divided into Telangana and Andhra Pradesh in 2014 and this makes comparison difficult). A person is considered to be anemic if hemoglobin in the blood is below 13gm/dl for men, 12gm/dl for non-pregnant women and 11gm/dl for pregnant women.

Source: NFHS 3 and NFHS 4 State Level data *Uttaranchal was renamed Uttarakhand in 2007

NFHS-3 (2005-06)			NFHS-4 (2015-16)				
States	Women	Men	Gender Gap NFHS-3	States	Women	Men	Gender Gap NFHS-4
Assam	69.5	39.6	29.9	Assam	46	25.4	20.6
Bihar	67.4	34.3	33.1	Bihar	60.3	32.2	28.1
Chhattisgarh	57.5	27	30.5	Chhattisgarh	47	22.2	24.8
Delhi	44.3	17.8	26.5	Delhi	52.5	21.6	30.9
Gujarat	55.3	22.2	33.1	Gujarat	54.9	21.7	33.2
Haryana	56.1	19.2	36.9	Haryana	62.7	20.9	41.8
Himachal Pradesh	43.3	18.9	24.4	Himachal Pradesh	53.5	20.1	33.4
Jammu & Kashmir	52.1	19.5	32.6	Jammu and Kashmir	40.3	15.1	25.2
Jharkhand	69.5	36.5	33	Jharkhand	65.2	29.9	35.3
Karnataka	51.5	19.1	32.4	Karnataka	44.8	18.2	26.6
Kerala	32.8	8	24.8	Kerala	34.2	11.7	22.5
Madhya Pradesh	56	25.6	30.4	Madhya Pradesh	52.5	25.5	27
Maharashtra	48.4	16.8	31.6	Maharashtra	48	17.6	30.4
Orissa	61.2	33.9	27.3	Odisha	51	28.4	22.6
Punjab	38	13.6	24.4	Punjab	53.5	25.9	27.6
Rajasthan	53.1	23.6	29.5	Rajasthan	46.8	17.2	29.6
Tamil Nadu	53.2	16.5	36.7	Tamil Nadu	55.1	20.4	34.7
Uttar Pradesh	49.9	24.3	25.6	Uttar Pradesh	52.4	23.7	28.7
Uttaranchal*	55.2	29.2	26	Uttarakhand*	45.2	15.5	29.7
West Bengal	63.2	32.3	30.9	West Bengal	62.5	30.3	32.2



In the graph above, we compare the Gender Gap in 2005-06 and 2015-16 to assess the changes in the span of 10 years.

In NFHS-3 (2005-06) we see that the proportion of women suffering from anemia was much higher than the proportion of men. Around 55.3% women and 24.2% men in India were anemic. In states like Bihar, Chhattisgarh, Gujarat, Haryana, Jammu and Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Tamil Nadu and West Bengal, the gap was higher than 30%. In other states, the gap ranged from 20-30%.

In NFHS-4 (2015-16) we see that the gender gap has not reduced much. In India, the percentage of anemic women has only marginally reduced to 53.1 while that of men to 22.7. In states like West Bengal, Uttarakhand, Uttar Pradesh, Punjab, Jharkhand, Himachal Pradesh, Haryana and Delhi, the gap has increased, while in other states the gap has reduced a little. The proportion of women suffering from anemia is still very high as compared to men.

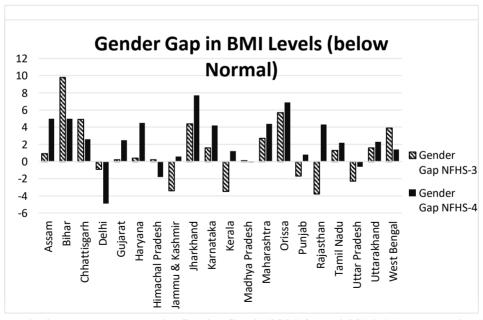
Chronic Energy Deficiency (CED)

In the following table we compare the overall percentages of men and women suffering from low BMI levels, referred to as Chronic Energy Deficiency (CED) in the years 2005-06 and 2015-16. BMI below 18.5kg/m² (for both men and women) indicates CED. (BMI excludes pregnant women and women with birth in the prior 2 months.)

NFHS-3 (2005-06)		NFHS-4 (2015-16)					
States	Women	Men	Gender Gap NFHS-3	States	Women	Men	Gender Gap NFHS-4
Assam	36.5	35.6	0.9	Assam	25.7	20.7	5
Bihar	45.1	35.3	9.8	Bihar	30.4	25.4	5
Chhattisgarh	43.4	38.5	4.9	Chhattisgarh	26.7	24.1	2.6
Delhi	14.8	15.7	-0.9	Delhi	12.8	17.7	-4.9
Gujarat	36.3	36.1	0.2	Gujarat	27.2	24.7	2.5
Haryana	31.3	30.9	0.4	Haryana	15.8	11.3	4.5
Himachal Pradesh	29.9	29.7	0.2	Himachal Pradesh	16.2	18	-1.8
Jammu & Kashmir	24.6	28	-3.4	Jammu and Kashmir	12.1	11.5	0.6
Jharkhand	43	38.6	4.4	Jharkhand	31.5	23.8	7.7
Karnataka	35.5	33.9	1.6	Karnataka	20.7	16.5	4.2
Kerala	18	21.5	-3.5	Kerala	9.7	8.5	1.2
Madhya Pradesh	41.7	41.6	0.1	Madhya Pradesh	28.3	28.4	-0.1
Maharashtra	36.2	33.5	2.7	Maharashtra	23.5	19.1	4.4
Orissa	41.4	35.7	5.7	Odisha	26.4	19.5	6.9
Punjab	18.9	20.6	-1.7	Punjab	11.7	10.9	0.8
Rajasthan	36.7	40.5	-3.8	Rajasthan	27	22.7	4.3
Tamil Nadu	28.4	27.1	1.3	Tamil Nadu	14.6	12.4	2.2
Uttar Pradesh	36	38.3	-2.3	Uttar Pradesh	25.3	25.9	-0.6
Uttaranchal*	30	28.4	1.6	Uttarakhand*	18.4	16.1	2.3
West Bengal	39.1	35.2	3.9	West Bengal	21.3	19.9	1.4

Source: NFHS-3 and NHFS-4 State Level data

*Uttaranchal was renamed Uttarakhand in 2007



In the graph above, we compare the Gender Gap in 2005-06 and 2015-16 to assess the changes in the span of 10 years. According to the NFHS-3 (2005-06) data, 35.6% women and 34.2% Men in India suffered from CED. In states like Bihar, Chhattisgarh, Jharkhand, Orissa and West Bengal, the gap was little high. In some states the percentage of men suffering from CED was higher than women.

In the NFHS-4 (2015-16) data, a substantial decrease in the percentage of men and women suffering from CED can be pointed out. The percentage of women suffering from CED has reduced to 22.9, while that of men to 20.2. In some states the gender gap has increased a little. In States like Bihar, Chhattisgarh and West Bengal the gender gap has reduced. In others, the percentage of men suffering from CED is higher than women. So, compared to NFHS-3 data, the overall percentage of men and women suffering from CED has reduced to quite an extent, but not much can be concluded about the gender gap.

Conclusion

Is there a presence of huge gender gap in the prevalence of under nutrition in India and has it changed over a span of 10 years? The analysis suggests a co-existence of high anemia along with a huge gender gap, in both years, as well as high CED which has reduced over years with negligible gender gap, in both years. These contrasting patterns indicate presence of lot of complexities than evidently assumed. This complexity is reinforced further by a possible wealth-based hierarchy in CED and a gender-based hierarchy in anemia (Jose, S. 2011).

The incidence of anemia is higher in women than in men in India as in 2005-06 and this gap has remained almost the same in 2015-16 as well. Thus, we see that not much has been done to improve nutrition patterns in India over years; the condition is almost similar in the compared years. A number of questions arise from this. Why have no policies been implemented to reduce the incidence of anemia on both men and women? Why do women, be it rich or poor, have such higher levels of incidence of anemia? Physiological/reproductive factors tend to play an important role for the higher incidence of anaemia among women. They are partly responsible for the higher incidence of anaemia among women from all wealth groups in India. However, they are complemented by an irondeficient diet (largely vegetarian, cereal based and less-diversified) and poor absorption of iron from such iron-deficient diet (Jose, S. 2011). A well-balanced diet is the solution to this but its feasibility for poor men and women is an open question. Thus less-expensive and commonly eaten foods seem an effective option.

The incidence of CED, almost equal among men and women in India, is seen to be substantially lowered over time. There is an absence of a gender gap, statistically. One of the reasons assumed for the absence of gender gap could be the wealth status of adults in India. But one thing is noteworthy here that the absence of gender gap does not necessarily imply no discrimination against women in the intake of nutrients. The lowering of incidence of CED over time suggests that both men and women in India have fared better in one important aspect of human development, though the prevalence cannot be ignored. The causes for decreased incidence might be public policies on food subsidy, public distribution system and alike.

Hence, addressing the issue of higher incidence of iron deficiency anaemia in women is equally important as assessing the huge socio-economic gap in under nutrition in India. There is a visible need for specialised public policy implementation in these specific sectors for improving the state of human development, as discussed in the G20 Summit this year. The newly promoted health schemes in India like "AYUSH" and "Ayushman Bharat" will hopefully bear desired results. Also, women empowerment in finance (as agreed upon in the Global Summit) cannot be effectively brought about unless specific policies on women's health, especially to deal with high levels of anaemia, are brought in and implemented. Policies such as "Working Women Hostel Scheme",

"Swadhar Greh", "STEP" scheme and others have been introduced but need for more policies is evident.

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G20: A Source of FDI and Growth in India

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Labour was the first price, the original purchase - money - that was paid for all things. It was not by gold or by silver, but by labour, that all wealth of the world was originally purchased.

-Adam Smith

Abstract

According to International Monetary Fund, India's GDP at current prices in 2018 is \$2,690 billion and is the 7th largest economy in the world. India, being a developing country, needs huge amount of private investment and this is facilitated through the inflow of foreign direct investment. In this article we have proved that foreign investments are required to have a higher growth rate. G20 (Group of twenty nations) is an international forum which focuses on global financial stability and provides a platform for the easy transaction of FDI and we have subsequently showed how India has taken several steps to ease the inflow of FDI especially from G20 countries.

Introduction

FDI-Foreign Direct Investment

Foreign Direct investment is one of the economic measures adopted by the Developing Countries. Investment has always been an issue for all the developing economies. The world has been globalizing and all the countries are liberalizing their policies and welcoming investment from capital abundant countries. These capital rich developed countries are focusing on new markets, where there is availability of cheap and abundant labour, scope for the marketing of products, and higher profits can be achieved. Hence Foreign Direct Investment (FDI) has become a necessity in the emerging markets. The motto behind allowing FDI is to complement and supplement domestic investment and capital, for achieving a significant greater level of economic development and providing ample scope for technological progress. FDI also helps in getting access to global managerial skills and practices.

FDI in India

FDI has played an important role during recession in the development of the Indian economy. FDI, in a lot of ways, has enabled India to achieve a certain degree of financial stability, growth and development. This money has allowed India to focus on the areas that needed economic attention and counter various problems that continue to challenge the country. The economic factors that brought investment in India are stable economic policies, availability of cheap labour and quality human resources, and the opportunities of new unexplored markets. FDI mostly flowed in service sector and manufacturing sectors. Foreign direct investment (FDI) is a major source of non-debt financial resource for the economic development of India and a critical driver of economic growth.

Companies from various countries invest in India to take advantage of relatively lower wages, special investment privileges such as tax exemptions, etc. For a country where foreign investments are being delivered it also means the country is achieving technical know-how and generating employment.

The Indian government's policy regime and robust business environment have ensured that foreign capital keeps flowing into the country without hindrance. The government has taken multiple steps such as relaxing FDI norms across sectors that include defence, PSU oil refineries, telecom, power exchanges, and stock exchanges, among others.

Establishing a Positive Relationship Between FDI and Development

To show this direct relationship between growth and FDI we are considering a dualistic model. The host economy can be divided into two broad sectors: A subsistence sector not receiving FDI (sector 1) and a modern sector which is receiving FDI (sector 2). Because of the FDI inflow we see that the output in sector 2 (X_2) directly increases. Due to the spill over effect the output in sector 1 (X_1) also increases. Moreover there are other effects leading to increase of X_1 and X_2 like the increase of efficiency of labour due to FDI and increase in domestic capital formation.

We start with K_0 being the total domestic capital, which is divided into K_1 (capital in sector1) and K_2 (capital in sector 2). Similarly for labour. Therefore.

$$K_0 = K_1 + K_2$$

$$L_0 = L_1 + L_2$$

'F' is the FDI inflow to the host country. E₁ is the efficiency of labour in sector 1 and E₂ is that in sector 2.

We take a Cobb-Douglas production function in both the sectors.

$$X_1 = A[X_2(F), E_1]K_1^{\alpha}L_1^{1-\alpha}$$

$$0 < \alpha < 1$$

$$\frac{\partial X_2}{\partial F} > 0, \frac{\partial A}{\partial X_2} > 0, \frac{\partial A}{\partial E_1} > 0$$

$$X_2 = \chi(F, E_2) K_2^{\beta} L_2^{1-\beta}$$

$$0 < \beta < 1$$

$$\frac{\partial \chi}{\partial F} > 0, \frac{\partial \chi}{\partial E_2} > 0$$

'A' is a function of $X_2(F)$ to account for the spill over effect in sector 1.

Therefore the total output of the economy is (assuming price is set to 1):

$$Y = X_1 + X_2$$

or,

$$Y = A[X_2(F), E_1]K_1^{\alpha}L_1^{1-\alpha} + \chi(F, E_2)K_2^{\beta}L_2^{1-\beta}$$

Assumptions of the model are-

Hicks-Neutral Technical change. This assumes that the capital-effective labour ratio is constant. Thus, (K/EL) in each sector is constant.

Population is constant. This assumption makes the total labour force constant.

$$\frac{dL_1}{dt} = \frac{dL_2}{dt} = 0$$

We have initial steady state equilibrium.

We see the effect of FDI inflow over time by totally differentiating Y with respect to 't':

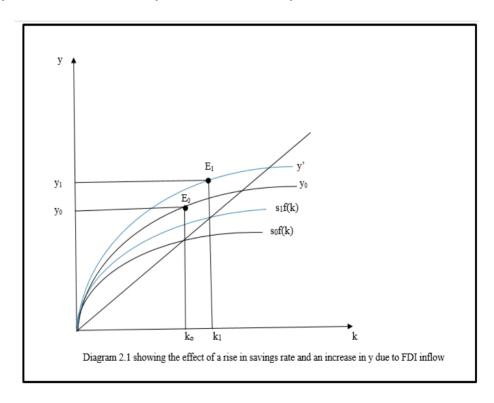
$$Y = A[X_{2}(F), E_{1}]K_{1}^{\alpha}L_{1}^{1-\alpha} + \chi(F, E_{2})K_{2}^{\beta}L_{2}^{1-\beta}$$

$$\frac{dY}{dt} = K_1^{\alpha} L_1^{1-\alpha} \left[\frac{\partial A}{\partial X_2} \frac{\partial X_2}{\partial F} \frac{\partial F}{\partial t} + \frac{\partial A}{\partial E_1} \frac{\partial E_1}{\partial t} \right] + A\alpha K_1^{\alpha-1} L_1^{1-\alpha} \frac{dK_1}{dt} + K_2^{\beta} L_2^{1-\beta} \left[\frac{\partial \chi}{\partial F} \frac{\partial F}{\partial t} + \frac{\partial \chi}{\partial E_2} \frac{\partial E_2}{\partial t} \right] + \beta \chi K_2^{\beta-1} L_2^{1-\beta} \frac{dK_2}{dt}$$
..... (1.1)

Now, we divide both sides by Y to get the instantaneous rate of change of Y:

$$\frac{1}{Y}\frac{dY}{dt} = \left[\frac{X_1}{Y}\frac{1}{A}\frac{\partial A}{\partial X_2}\frac{\partial X_2}{\partial F} + \frac{X_2}{Y}\frac{1}{\chi}\frac{\partial \chi}{\partial F}\right]\frac{\partial F}{\partial t} + \left[\frac{X_1}{Y}\frac{1}{A}\frac{\partial A}{\partial E_1}\frac{\partial E_1}{\partial t} + \frac{X_2}{Y}\frac{1}{\chi}\frac{\partial \chi}{\partial E_2}\frac{\partial E_2}{\partial t}\right] + \left[\frac{X_1}{Y}\frac{\alpha}{K_1}\frac{dK_1}{dt} + \frac{X_2}{Y}\frac{\beta}{K_2}\frac{dK_2}{dt}\right]$$
..... (1.2)

We assume here that F increases over time, i.e. there is inflow of FDI in the host country. FDI leads to human capital formation and increases the skill of the labour force. Therefore we see E1 and E2 both increase over time as labour becomes more efficient. There is domestic capital formation as the economy moves from initial steady state to another steady state.



As FDI inflow takes place Y increases, thus y=Y/L also increase. Thus in the above diagram y moves to y^1 . Thus savings curve also shifts upwards. Net domestic capital formation takes place as per capita capital stock and per capita output increases during this transition period.

Therefore, in equation 1.2 all terms are positive. Therefore, the model shows that the rate of change of Y is positive. Hence, we can conclude that Y increases with FDI inflow, over time.

FDI and G20

For many countries, FDI has become one of the most important sources of external finance. But if FDI is to contribute meaningfully to economic growth and sustainable development, existing flows must increase even more. It is believed that the G20 is one of the best forums to facilitate this process.

Six G20 Members have taken policy measures that are specific to FDI. These were Australia, Brazil, Canada, China, India, and Saudi Arabia.

- Brazil and Saudi Arabia have liberalized FDI in certain industries and sectors.
- China adopted a new Foreign Investment Law and issued a "Negative List of Market Access", which supplements the "Special Administrative Measures for Foreign Investment (2018 Negative List)".
- Australia and Canada have also increased the thresholds for their FDI review mechanisms
 for investment originating in certain countries. The measures taken were in the context of
 Regional Trade Agreements and hence only apply to investors from the respective treaty
 partners. Western Australia also increased levies for real-estate acquisitions by foreigners.
- India modified rules on the opening of certain project offices and clarified its policies for FDI in inventory-based e-commerce.

Steps Taken by India

G20 members have taken above-mentioned investment policy measures during the 7-month reporting period from mid-October 2018 to mid-May 2019.

India is keen to increase its FDI inflow, and so has taken a few steps in that direction after the G20 summit-2018. Effective 21 January 2019, the Indian Government has abolished the requirement to obtain government approval for the opening of a project office by a non-resident who has entered into an agreement with or was awarded a contract with the Ministry of Defence, Service Headquarters or Defence Public Sector Undertakings.

On 1 February 2019, a review of the Consolidated FDI Policy Circular of 2017 came into effect. The review, announced in Press Note 2 (2018), clarifies the conditions under which foreign investors can carry out e-commerce in India.

Effective 15 February 2019, the Reserve Bank of India abolished the restriction hitherto imposed on foreign portfolio investors that no investor may hold more than 20% of its corporate debt portfolio in a single enterprise.

On 1 March 2019, a new scheme for foreign portfolio investors' access to Indian debt – the 'Voluntary Retention Route' – became effective. Under this route, macro-prudential and other requirements are relaxed for investments of which a certain percentage is voluntarily committed for a certain period of time.

On 25 April 2019, the Reserve Bank of India allowed foreign portfolio investors to invest in municipal bonds.

In the reporting period, the rules governing External Commercial Borrowing underwent a series of changes; the overall framework out in a Master Direction issued on 26 March 2019. The changes that were made are:

- Reduced the minimum average maturity requirement of ECBs in the infrastructure space from 5 to 3 years for hedged and from 10 to 5 years for unhedged loans;
- Reduced the mandatory hedge coverage ratio from 100% to 70% of ECBs for ECBs with maturities between 3 and 5 years; and
- Broadened the scope of eligible borrowers, allowed ECBs of up to USD 750 million per financial year under the automatic route, i.e. without prior approval, and set the minimum average maturity period to 3 years for most cases, and to 5 years in some cases.

Below is a table showing the FDI inflow in India from different nations which are a part of the G20. India has been focusing on increasing its FDI inflow and working towards it. It has used the G20 summit to improve its trade relations with other countries and thus increase its FDI inflow from these countries.

Foreign 1	Direct	Investment	Flows	to	India
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(US\$ million)									
Source/ Industry	2013- 14	2014- 15	2015- 16	2016- 17	2017- 18				
Total FDI	16,054	24,748	36,068	36,317	37,366				
Cou	Country-Wise Inflows								
USA	617	1,981	4,124	2,138	1,973				
Japan	1,795	2,019	1,818	4,237	1,313				
Germany	650	942	927	845	1,095				
United Kingdom	111	1,891	842	1,301	716				
France	229	347	392	487	403				
China	121	505	461	198	350				
Italy	185	167	279	364	308				
South Korea	189	138	241	466	293				
Canada	11	153	52	32	274				

Conclusion

Though India has taken a lot of steps to improve its business environment and has made it friendlier for foreign investors, it has not been able to meet the expectations in terms of the total amount of FDI inflow in any given year in the past. Thus the coming G20 summit become all the more important from India's perspective, as it gives India a platform to strengthen its bilateral ties, and increase the FDI inflow required to provide the much needed impetus to India's growth.

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India's Next Mission: A Welfare State

- Bhaskar Kasera Department of Economics, 2nd Year

Abstract

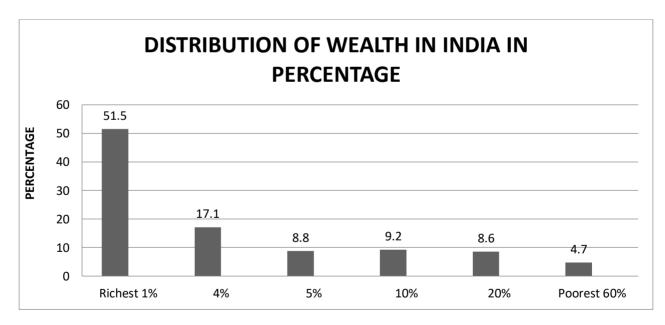
India is projected to be the fastest growing economy in the world (International Monetary Fund October 2018 database), huge challenges as well as opportunities lies in front of India in terms of employment generation which has been a global concern and improving the quality of life of its citizens. This study suggests us the various ways in which welfare of citizens can be achieved by creating more employment opportunities along with equal distribution of income and wealth. With the support of all G20 members even this hurdle can be crossed through strategic planning and execution.

JEL Classification:

E03, E04, E05, E06, G01, G03, H02

Introduction

A welfare state refers to a type of governing in which the national government plays a key role in protection and promotion of the economic and social well-being of its people. It aims at providing equal distribution of wealth with equitable opportunities to all its citizens.



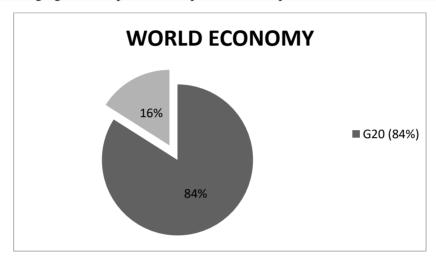
POPULATION PERCENTAGE

Source: Credit Suisse¹ ¹ Credit Suisse (2019, July). Retrieved from: https://www.credit-suisse.com/in/en.html (Accessed: 25th July, 2019)

Contribution of G20

Improvement in the governance of labour market, legal framework, institutions, policy approaches to increase productivity and to maximize benefits for workers and employers have been discussed at the G20 Osaka Summit in June, 2019. Three pillars of discussion were:

- (1) Adapting to demographic change
- (2) Promoting gender equality in labour markets
- (3) Exchanging national policies and practices in response to the new forms of work.



Source: G20 Studies Centre²
² G20 Studies Centre (2019, July). Retrieved from:
https://www.contributionofG20toworldeconomy.com (accessed: 25th July, 2019)

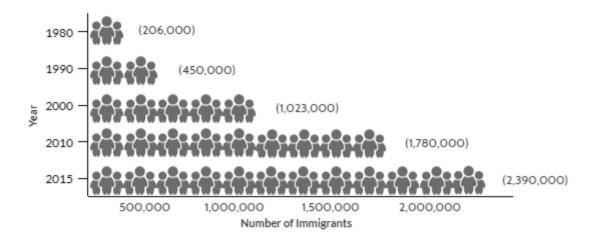
Roadmap

Being the world's second largest population, India has always faced the issue of employment generation even though millions of jobs are being created each year. It can be solved by creating more job opportunities through globalisation and inducting more MNC's (Multinational Corporations) through flexibility of laws on them and by introducing more working visas for Indians to work abroad.

In recent decades the population has grown substantially, with 2.4 million Indian immigrants residing in the United States of America as of 2015. This makes the foreign born from India the second-largest immigrant group after Mexicans, accounting for almost 6 per cent of the 43.3 million foreign-born populations. In 2016, Indians were the top recipients of high-skilled H-1B temporary visas and were the second-largest group of international students in the United States of America.

From 1980 to 2010, the population grew more than eleven-fold, roughly doubling every decade. In 2013, India and China supplanted Mexico as the top sources of newly arriving immigrants in the United States of America.

Indian immigrants to USA



Source: 2015 American Community Surveys (ACS)³ ³ 2015 American Community Surveys (ACS) (2019, July). Retrieved from: https://www.indianimmigrantstousa.com (accessed: 26th July, 2019)

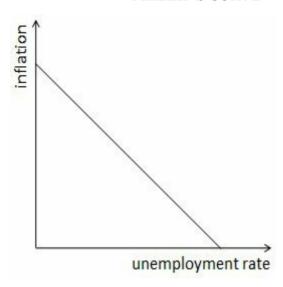
The H-1B Visa Issue

The H-1B visa is a non-immigrant visa that allows U.S.A companies to employ foreign workers in speciality occupations that require theoretical or technical expertise. According to the External Affairs Ministry Indian nationals have received between 67 and 72 per cent of the total H-1B visas issued by U.S.A in the last five years. It has played a major role in facilitating the movement of talented Indian professionals. With constant decline in issue of H-1B visas by the United States of America in the past two years there have been constant efforts made by India to maintain good relations with the superpower to ensure more talented Indians get their desired and satisfactory jobs so that there is less burden on underemployed workers in India.

Low Inflation in India- An Alert Signal?

Due to demonetisation and inclusion of GST (Goods and Services Tax) in our economy investment expenditures have slowed down bringing down our GDP (Gross Domestic Product) and is expected to continue in the short-term. Consumer-price growth has steadily declined over time to hover around 3 per cent now. While much of the recent slowdown was due to a slump in food prices, businesses are worried that the data might be signalling a worsening in the economy's growth outlook. Low inflation can be a signal to increase in unemployment in the future. Phillip's curve shows us the trade-off between inflation and unemployment.

PHILLIP'S CURVE



To ensure price stability and sustainable level of employment in an economy, policy makers use Taylor Rule which links the central bank's policy rate to economic conditions i.e. unemployment level and inflation.

Taylor's Rule:

 $r = R + \pi + 0.5 (\pi - \pi^*) + 0.5 (y - y^*)$

r= central bank policy rate implied by Taylor Rule

R= neutral real policy interest rate

 π = current inflation rate

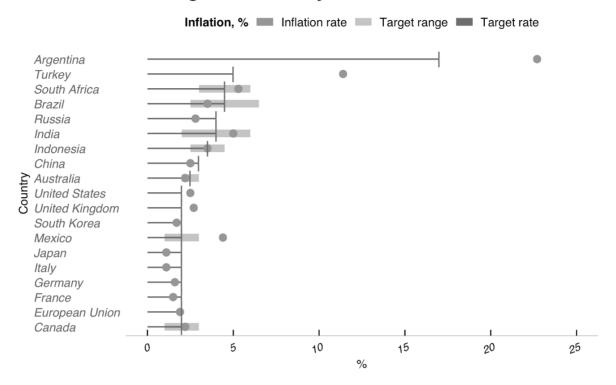
 π^* = central bank's target inflation rate

y= log of current level of output

y*= log of central bank's target(sustainable) output

Inflation directly affects the employment rate in an economy and the employment rate in turn affects the welfare situation in an economy. The following chart shows us how the actual inflation rate deviates from its target rate in all the G20 economies. It acts a reality check as to which economy ensures that the target inflation rate is achieved.

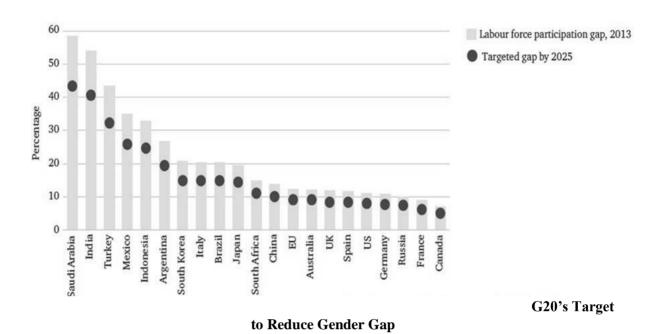
On Target? - A Reality Check for G20 economies



Source: IMF (International Monetary Fund) Database, April 2018⁴ ⁴ IMF (International Monetary Fund) Database, April 2018 (2019, July). Retrieved from: https://www.imfdatabaseg20inflationtarget.com (accessed: 27th July, 2019)

Narrowing Gender Gap

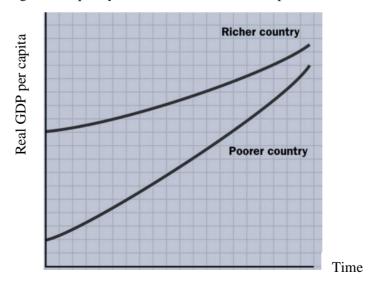
Gender inequality is considered to be the biggest barrier of a welfare State. All G20 members have pledged to reduce gender gap for greater economic prosperity and to enhance social welfare of the nation. All developed countries for example- U.S.A, Russia, France etc. ensure that there is gender equality and equal opportunity is given to everyone.



Source: Chatham House⁵
⁵ Chatham House (2019, July). Retrieved from: https://www.indianimmigrantstousa.com
(Accessed: 28th July, 2019)

Convergence Hypothesis Theory

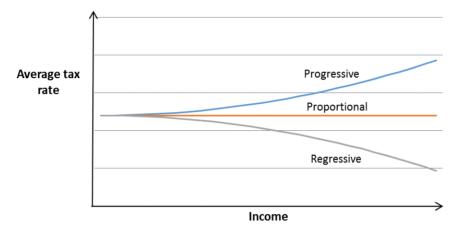
It states that the standard of living of less developed countries will converge to the standard of living of developed countries through globalisation and removing all trade barriers. If all G20 members remove trade restrictions then according to the Convergence Hypothesis Theory all developing countries shall converge to the quality of life of citizens of developed countries.



Convergence Theory

Move to Equal Distribution of Wealth

In the recently concluded Budget Session of 2019, a 2% TDS (Tax Deducted at Source) was introduced on a cash withdrawal of over INR 1 Crore which was the second largest step taken after demonetisation to harbour cashless economy. Progressive taxation was introduced whereby the rate of tax increases as the taxpayer's income increases. On one hand this move could slow down our economy but it can ensure greater transparency in our economy with equal distribution of income and wealth. With this move more productive schemes can be introduced for the underprivileged and backward classes through greater tax collection.



Progressive, Proportional and Regressive Taxes

Conclusion

This dream of a welfare nation can only be achieved when there is peace and stability in the entire region with constant support from our country's neighbours and all the G20 members. Today the G-20 faces perhaps its most serious challenges since it first met in November 2008 to tackle the financial crisis, with a primary mandate of preventing future international financial crises. As trade tensions escalate among major powers and global growth decelerates, the G-20 countries will find it hard to present a common framework to tackle global challenges, something the group was able to do after the 2008 financial crisis when it not only consolidated IMF's (International Monetary Fund) budget, but also prevented protectionist tendencies from taking root.

Being the largest democracy in the world, the desire to become a welfare state is not far if the government and the citizens work together and assist each other in transforming this nation into a transparent economy with economic, social, political and legal stability.

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India's External Engagements

- Dr. Samrat Roy Head of Department – Economics, B.Com (Morning)

> - Jayesh Jaiswal, Anand Navin Baid Department of Commerce (Morning), 3rd Year

Abstract

The world today faces the threat of a global recession. Investments in developing economy are on a steady decline and pose the risk of a financial crisis. The political issues have only exemplified matters of trade tensions between the powerful players of the world. Another concern is rising debt, which may make it difficult for them to respond to adverse developments and to finance growthenhancing investments. Reforms are needed to boost private investment and productivity growth, particularly in low-income countries, which face significant challenges in the form of vicious cycles of poverty and depression. Amidst this period when the world is struggling, India seeks for economic firmness and global supremacy.

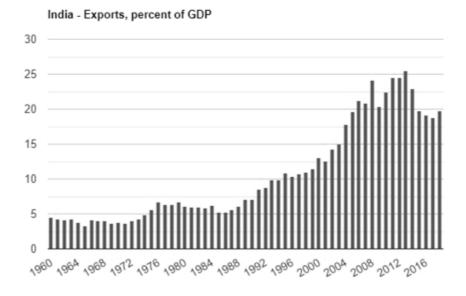
JEL Classification

F13, F51, F53

Introduction

Being the fastest-growing trillion-dollar economy in the world and the seventh-largest with a nominal GDP of \$2.7 trillion, India faces innumerous opportunities and threats for its economic growth. India's exports amounted to approximately USD 535.45 Billion, while it billed imports worth USD 631.29 Billion in the same period. The figures indeed look promising, but the dynamic nature of the world economy is putting every player on the hook. The United States is yet to achieve economic equality; the Chinese economy has reached a point of stagnation post its unprecedented rapid growth for the past few decades; and the European Union is still facing its ill-effects of the Brexit. This is where the other participants can march into the global scene and find a place for themselves. Herein, lays India's chance to emerge as a true superpower. India relies on exports for 19.7 percent of its total Gross Domestic Product.

This value though may be on the lower side as compared to some of the smaller economies, still signifies India's involvement in foreign trade. India maintains cordial trade relations with allies like US, UK, Australia, UAE, Saudi Arabia and more. India has been actively participating in global summits like the G-20 summit, the BRICS summit, APEC, SAARC and more to encourage foreign trade and gain economic benefits.



Source: The Global Economy.com, The World Bank

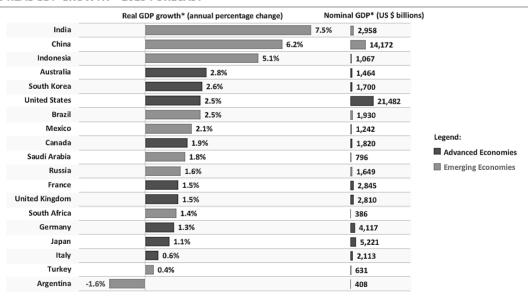
The G-20 is the world's most dominant economic club, uniting the 20 most influential and powerful economies of the world. The G-20 nations contribute around 90 per cent of the worldwide Gross Domestic Product, 80 per cent of the world exchange and more than two-thirds of the world's populace. Thus, there is no denying that its impact is not only limited to its members but also shapes the global scenario.

The fourteenth G20 summit was held on the 28th and 29th of June 2019 at the International Exhibition Centre in Osaka. At this present time of global distress, the momentousness of such an event cannot be disregarded. Among the other burning affairs of the world such as the US-Iran standoff over the latter's nuclear ambitions and the trade war between the US and China, India voiced its opinion and raised key issues such as financial stability, opposing fugitive economic defenders, artificial intelligence, reforming and restructuring the World Trade Organization (WTO), energy security, reforming multilateralism and common efforts to address terrorism at the summit. Some of these are discussed below -

- Following the multiple instances of fraudulence in the country, India pitched strongly to fight fugitive economic defenders escaping to other nations. India proposed that each country have a law to fight against such corruption. It was suggested that the G20 forum should consider commencing work on locating properties of economic delinquents who have tax debt in the country of their residence for its recovery. Last year, the Indian government had also passed a law to crack down on fugitive economic offenders who refused to get back to the country to avoid investigation by India authorities.
- Two weeks before the summit took place, the President of the United States, Mr. Donald Trump took to social media to target India's tariff regime, calling it "unacceptable". These tariffs were imposed as retaliation to the punitive duties imposed by the US on Indian steel and aluminium. At the moment, the US wants India to remove price restrictions on medical equipment and labelling restrictions on dairy products and also lower duties on smartphones and other IT and telecom products.

- As a reaction to the imposition of unilateral punitive tariffs by the US to India and other nations, India suggested the empowerment of the WTO in regulating world trade.
- The Indian economy has opened itself radically over the past couple of decades by inviting Foreign Direct Investments, setting up favourable infrastructure and liberalizing foreign trade. India thus also demands and deserves reciprocal treatment from other nations.
- The summit saw India advance its agenda of 'reformed multilateralism' in India's favour. The issue to constructively reform the world's trading system was brought up in the earlier summit as well and was once again in the spotlight this year. The matter is now even more significant, keeping in mind the US-China trade spat.
- India and Indonesia set a USD 50 billion target for bilateral trade over the next six years as
 ways were discussed to deepen cooperation in a number of key areas including economy,
 defence and maritime security.
- The BRICS nations also engaged into informal discussions over key affairs such as importance of access to energy, energy security, making WTO mechanisms stronger and fighting protectionism and close cooperation to eliminate forces of terror.
- Prime Minister also participated in several side-line meets such as the RIC (Russia China India)
 meet. The trilateral Indo-Japan-US meet was also held to discuss Indo-Pacific relations,
 discussing how the 3 countries can work together addressing subjects of connectivity,
 infrastructure, ensuring peace and security, and strategizing to work together in order to build
 upon this concept.

G20 NATIONS REAL GDP GROWTH - 2019 FORECAST



Data Source: IMF World Economic Outlook, October 2018 and January 2019

Data Analysis by: MGM Research

* Real GDP growth is computed from constant price GDP in national currency. Nominal GDP data is shown to indicate the size of the economy.

The entire idea of participating in global summits like that of the G20 is about balancing competing interests and developing a global framework for economic engagement. Born in the adversity of the 2008 global economic crisis, the G20's agenda has moved beyond crisis management to enhanced global macroeconomic coordination for creating a new equilibrium and stability in the global economy.

Across the summits, India has portrayed itself as a fine balancer, delicately integrating its national interests with the objectives of global economic advancement. With optimistic projections about India's economic growth in the years to come, one can expect India to contribute substantially to global economic growth and be a more proactive player in shaping the G20 process.

Closely following India's recent activities in the field of trade and investment, it can be easily inferred that India is definitely making its presence felt at the global level. India is playing a balanced game by not only strengthening its foreign ties, but also boosting up its domestic industry at the same time. The 'Make in India' initiative is already in full swing. India aims to transform itself into a global design and manufacturing hub. With global economic winds blowing eastward, and with the subcontinent's strategic importance on the rise, India has the opportunity to attract jobs, get more exports sailing, alongside fast-tracking to next-gen military capabilities. Conditions are even more favourable with the Indian political climate being the most stable since the 1950s, giving foreign powers the impetus to negotiate landmark trade and defence deals with the country. Against the backdrop of an uneven global economic growth, marked by distinct asymmetries across economies, the world is destined to witness India's economic resurgence.

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E-Vehicles: Charging into the Future

- Yash Raj Sureka, Thomas Souvik Perris Department of Economics, 2nd year

"To think about technology is to think about the future"

Abstract

In the present era, the issue of environment and its conservation is making headlines with the active participation of the Government and International Forums like the UN and the G20. A group of 20, popularly known as the G20 is an international forum with participants and leaders from 19 countries and the European Union (EU). As the premier forum for international economic cooperation, G20 represents more than 80% of the global GDP, and is continuously striving to achieve a robust economic growth and well-being. With population streaming northwards and environmental issues surging to an all-time high, it's time for E-Vehicles (EVs) to take over the conventional internal combustion engines and form a primal part of the agenda at the G20. EVs are booming in popularity and certainly in mind space. They are cleaner and much more efficient than the conventional ones. They offer several advantages over the traditional fuel-based vehicles besides lower emissions, higher energy efficiency, and decreased dependence upon oil. In this article we unfetter, unfold and unleash the haunting effects of traditional vehicles and discuss how EVs are needed to drive us into the future!

JEL Classification

J11, L62, L11, O13, O31, R41

Introduction

Emissions have continued to increase despite efforts to improve fuel efficiency and reduce the emission of toxic chemicals in vehicles. When gasoline combusts, it releases the end products of carbon dioxide, carbon monoxide, and nitrogen oxides, which may contribute to climate change and global warming. Vehicular emissions contribute to a lion's share of the ozone layer depletion in the atmosphere. Global warming endangers our health, climate, national security, and other basic human needs. Some impacts—such as record high temperatures, rising seas, and severe flooding—are already increasingly common. For leaders surveyed for the latest edition of the World Economic Forum's Global Risks Report, environmental threats dominate the list for the third year in a row both in terms of impact and likelihood.

A Cleaner Alternative-

A battery electric vehicle has far fewer moving parts than a conventional gasoline-powered vehicle. There's no need for fuels or oil changes. There's no transmission or timing belt to fail when you least expect it. Opulent features like immediate torque, silent ride, and premium performance, EVs also have lower fuel and maintenance costs. And users ultimately garner social pride and

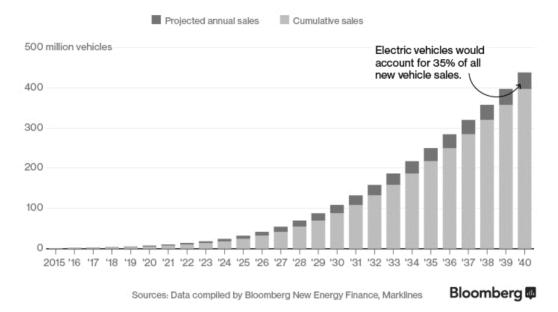
responsibility from creating a better and a healthier planet. For all of these reasons, EVs have caught the attention of car-lovers and commuters alike, leaving the question: what drives you? Companies now need to sprint to keep up with the industry's pace of change in an increasingly complicated and emerging market.

The Government on its Way to Turn the Nation Electric-

- 1. The Centre, in its effort to support mass adoption of eco-friendly rides, has come up with a string of policies and plans as discussed below-
- 2. GST Rates on green vehicles slashed from 12% to the lowest slab 5%. On the other hand, traditional vehicles attract a base GST rate of 28%, over and above which there is additional cess in line with the size and engine capacity of a vehicle.
- 3. Moreover, to expand the eco-system of EVs the GST Council also made it clear that the GST rates on charger or charging stations for EVs would be reduced from 18% to 5%.
- 4. Manufacturers of components such as solar electric charging infrastructure and lithium storage batteries will be offered investment-linked income tax exemptions under Section 35 AD of the Income Tax Act, and other indirect tax benefits.
- 5. The Union Budget had introduced an additional income tax deduction of INR 1.5 lakh on the interest paid on a loan taken to purchase an e-vehicle.
- 6. The central government has committed to reducing air pollution by doubling down on electric vehicles. The road-map foresees all vehicles sold after 2030 being electric. Niti Aayog wants all sub-150cc two-wheelers sold in India after March 31, 2025, to be electric. For three-wheelers, the suggested deadline is March 31, 2023.
- 7. The EV plan also assumes importance given the rising tensions in the Gulf region, where a squabble could trigger an oil price shock, landing a stellar blow on India's fiscal numbers. As India imports over 80% of its oil, and about 18% of its natural gas, its vulnerability to oil spike is especially conspicuous.

The Rise of Electric Cars

By 2022 electric vehicles will cost the same as their internalcombustion counterparts. That's the point of liftoff for sales.



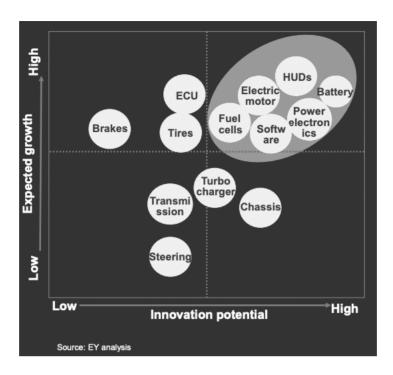
Challenges and Opportunities-

Opportunities-

- 1. 2Ws, 3Ws and intra-city buses offer early deployment opportunities.
- 2. While the total cost of ownership (TCO) for car fleets favours Immigration and Customs Enforcements (ICEs) today, post BS6 to shift in favour of EVs.
- 3. Reduction in import bill.
- 4. The urgency to improve air quality.

Challenges-

- 1. Insufficient incentives to make the switch: Limited models, vehicle range
- 2. EV vs ICE price premium in CVs and PV (private users)
- 3. Absence of EV supply chain
- 4. Inadequate charging and energy infrastructure



Trends, Drivers and Forecasts-

Trends-

- 1. According to the International Energy Agency (IEA), EV sales surpassed 1 million in 2017 and a 3% share of the global car stock. Figures for 2018 from the Electric Vehicle World Sales Database show a doubling in overall sales from the previous year and even higher year-on-year growth.
- 2. EV sales have been growing at 40-50% per annum
- 3. Growth is concentrated in a handful of countries with China accounting for more than half of global sales, more than double that of the US which is the second largest market. EV sales in China increased 72% in 2017. The largest market share is in Norway where EVs accounted for 50% of sales in 2018, followed by Iceland and Sweden.
- 4. The market share of EVs in the country stands at a meagre 0.06%, compared with over 30% in several developed nations.
- 5. 80% of India's oil needs are met through imports
- 6. 4 Indian cities in top 10 most polluted globally
- 7. 200 Public charging points in India compared to over 1,50,000 in China

Drivers-

The lack of readiness for a high EV scenario could amplify the risk of geo-political anxiety in the near future. Based on the survey undertaken for this study, several propositions are suggested with the goal to strengthen rules-based international cooperation to help diminish the risk of geopolitical tensions and an unsystematic energy transition.

Proposition 1: G20 Energy Ministers should initiate a task force on trade and EVs- EVs have the potential to amplify existing threats to the open global trade regime if subsidized industries abroad result in, or are perceived to result in, domestic job losses. This could follow a similar pattern as the recent tit-for-tat reprisals around solar subsidies. Such a political backlash could stall the transition to electrification of transport and risk overshooting climate targets. One of the key outturns of this task force should be to lay out a set of suggestions elucidating what type of Government support enumerates as unbiased trade based on a detailed deliberation of just transition issues.

Proposition 2: G20 trade task force should instigate a functional group on coordinating regulatory approaches on EV standards. The low carbon transition, including electrification of the automobile sector, will mean that battery supply and storage capacity become more vital relative to fuel access. The most rational approach would be the regulatory unification of EV standards – including standards for "e-highways" for electric trucks.

Proposition 3: The US, EU, China, Japan, and Korea should agree to increase support to international R&D initiatives such as the EV Initiative, including more funding for next-gen battery technologies. Overcoming the largest hurdles to EV adoption will probably require advances in battery technology. This challenge is also a pathway for international cooperation. Most countries assessed here have domestic R&D programs, for example solid state batteries, and bilateral initiatives already exist for example between France and Germany, and Japan and China. Multilateral R&D support on the next-gen of battery technologies should be amplified through the Clean Energy Ministerial (CEM).

Proposition 4: The EU and China should stress test their security and economic blueprint against a high EV environment. Any major changes in the price of oil or increased volatility in regions such as the Middle East North Africa (MENA), Southeast or Central Asia would have inferences for the EU and China, which already share concerns about vulnerability to resource shocks and instability to their neighbourhoods and investments. Existing economic and security plans recognize these risks but do not account for the impacts of the abrupt adoption of EVs.

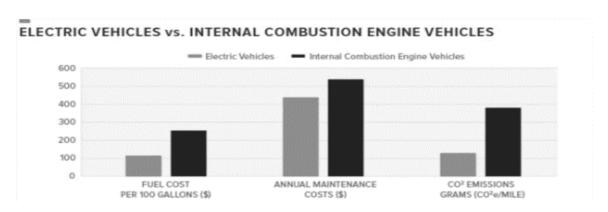
Proposition 5: The EU should work efficiently with countries with deposits of EV metals and minerals to improve resource management including thorough capacity building and technical support. Growing demand for minerals used in EVs including lithium and cobalt have economic interests for developing countries; but the costs can also be unreasonable, as decades of evidence on the 'resource curse' has shown.

Proposition 6: G20 should amalgamate with the International Monetary Fund (IMF) to identify the risk that EVs pose to the economic stability of oil producers. Fall in oil demand arising from EV deployment could lead to a massive drop in public revenue for large and small oil producers. There is a restricted understanding of the full scope of these effects on the economy as a whole. G20 has a stated interest in maintaining regional and global stability during a period of low carbon transition. The IMF has the capabilities required to conduct a systematic analysis of the risk EVs pose to macroeconomic stability in oil producing countries. G20 should request that the IMF conduct an analysis and release the results publicly.

Forecasts-

- 1. Global EV sales to reach over 30m by 2026, driven by China, Europe, and North America.
- 2. Adoption of EVs will alter the supply chain, offering opportunities for growth and innovation in the short and medium-term
- 3. Cities will become the economic units for future mobility adoption.

4. Emission targets of US, EU, China, India, Japan and South Korea are converging near 100-120g CO2/km by 2020.



SOURCE- UNION OF CONCERNED SCIENTISTS, 2018

CONCLUSION

The future of the automobile sector will emerge from a complex interaction of factors including technological and regulatory change, geo-strategic manoeuvring, environmental policy, societal and cultural shifts and domestic and global politics. Landslide fall in battery costs, emission objectives and other environmental policies, concerns within governments about urban and rural air pollution and industry desire to seize a new market are all enthralling drivers of EV growth. Technological and economic scenarios should not be overlooked or understated. But if key barriers, including echarging infrastructure and battery range can be overcome, the transition to the electrification of the automobile sector could happen very smoothly.

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G20: In the Realm of Climate Change

- Adita Agarwal, Yashvardhan Maheshwari Department of Economics, 3rd Year

"Our Planet is in crisis. But until we call it a crisis, no one will listen"

- The Guardian Headline.

Abstract

Climate Change, currently recognised as a burning problem, has demanded attention from all corners of the world. Research on climate change picked up in the recent past and researchers have emerged with an array of disruptions caused by it. The list is not an exhaustive one. Diplomatic attempts to curb climate change have been made so as to prevent the worsening of the situation. Rapid industrialisation using the underdeveloped pollution-inducing dirty technology can be construed to be a major contributor to global climate change. Resolutions by an international forum like the G20 has made it pretty evident that such a global crisis cannot be dealt with by a standalone aggressor. The following composition, therefore, intends to analyse the performance of the G20 with respect to an outlook that doesn't guarantee direct material gains rather affirms a better overall standard of living. With this inevitable devastation at hand, every failed endeavour to rectify it, takes us deeper into the pit of earthly hell.

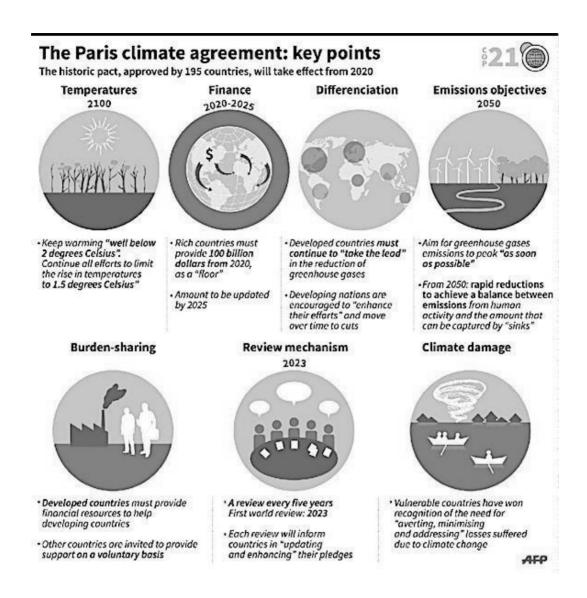
JEL Classification

Q54, Q56

Introduction

The Earth's climate has changed throughout history. The current warming trend is of particular importance since a major portion of it is borne of human activity. Humongous piles of data, collected over many years, reveal the signs of a changing climate. Year by year, we're astonished by the increasing daily temperatures. Climate Change, as a tangible offspring of a reckless drive to industrialise, wasn't taken seriously until recently. Great many feeble attempts had been taken up to combat climate change when it all boiled down to diplomatic negotiations and agreements to overpower a humane problem i.e. Climate Change. The developed countries can assist the growth and development of the third world countries with their own development experience and green technology initiatives.

Paris Agreement, also called Paris Climate Agreement or COP21, is an international treaty, adopted in December 2015, aimed to reduce the emission of gases that contribute to global warming and to improve upon and replace the Kyoto Protocol, an earlier international treaty designed to curb the release of greenhouse gases. It has been signed by 197 countries and ratified by 185 as of January 2019.

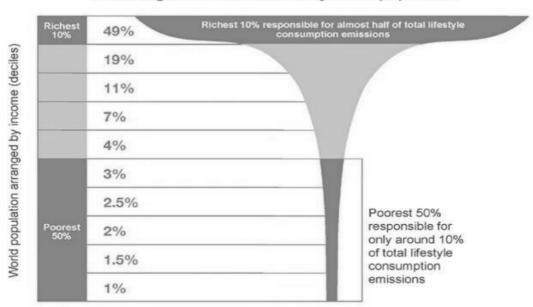


Article published by Agence France-Presse (AFP) on 13th December, 2015

Prior to the Paris agreement, the world had been unsuccessful in reaching a functional global agreement on climate change despite attempts being made for decades. The reasons for such a collective failure are complicated, but it necessarily boils down to two issues.

The first one being that climate change presents a substantial coordination problem because every country has an economic incentive to underinvest in reducing emissions which like any investment, requires near-term expenditures for long-term gains—both domestic economic benefits such as reduced energy costs and improved air quality and global benefits from addressing climate change. Secondly, the disagreements ensuing underway a negotiation as to what should constitute a preliminary investment to ensure a sustainable global economy. This arises majorly because the developed economies have been the ones responsible for global economy till date, but the nascent economies shall be the ones accounting for most of the future emissions.

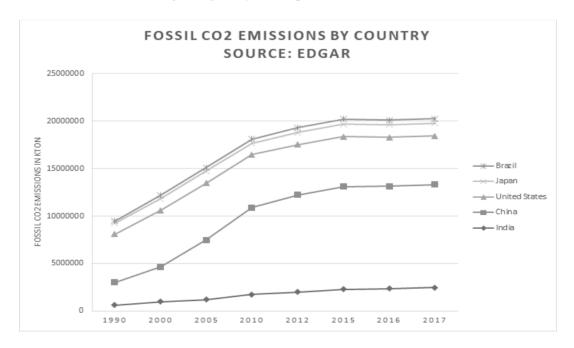
The leaders have been discussing and contemplating opportunities to develop and adopt green and clean technology, ultimately paving the way for sustainable development. To achieve the G20's longterm target of a 1.5°C rise in temperature, the member nations are expected to halve their emissions. The latest report on the steps undertaken by the member nations highlight that the initiatives are in line with a 3.2°C rise in temperature.



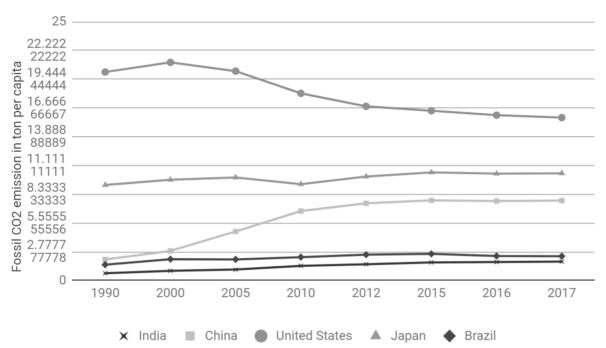
Percentage of CO₂ emissions by world population

Source: Oxfam

Under the Paris Agreement, each country must determine, plan and report the actions undertaken by it to deal with Global Warming. Since its implementation, the fossil CO2 emissions seem to have somewhat stabilised owing to ingenuity on the part of the member countries.







There has been evidence which supports the environmental Kuznets Curve i.e. emissions per capita stops increasing once a certain GDP per capita is reached. The idea is basically that pollutioninducing dirty growth eventually provides the resources to switch to cleaner options.

China has had the world's largest carbon footprint since 2004 and was responsible for 28.3 per cent of global carbon dioxide emissions in 2017. China's large population and rapid industrialization process launched it into position as the top-emitting nation. This means that China's future trajectory will have a huge influence on the global trajectory. China's emissions may peak up to a decade earlier than what it had pledged under the Paris Agreement. As its cities grow wealthier, they witness a fall in the per capita carbon dioxide emissions.

India may have the lowest per capita carbon dioxide emissions among the G20 nations but its emissions are growing at a rate faster than that of the USA and China. Being the third largest emitter of Greenhouse gases, India has been successfully able to reduce its energy subsidies by over Rs. 82,000 crores in 3 years. Most notably, it improved its performance in renewable energy category wherein it joined the medium performers' category in comparison to the last decades. Substantially low- level of per capita GHG emissions and a relatively ambitious target for 2030 give India an overall high-rating in the emissions category.

Donald Trump, the US president has announced that the US would cease all participation in the 2015 Paris Agreement on climate change mitigation stating that the pact puts the US at a permanent disadvantage. Although participation in the agreement is voluntary, it does pose a problem to the

G20 since the US has been a major contributor to the Green Climate Fund. The US has been a pioneer in the development of green technology.

Despite our major emphasis on presenting the case for India, China and the US, the story remains the same for the other G20 members adhering to the Paris Agreement.

The pledge of full commitment by nineteen of the G20 members said that a paradigm shift is needed where the virtuous cycle of environment and growth is accelerated through innovations, and with business communities playing an important role, in synergy with the public sector. To this end, they stressed the importance of accelerating this benign cycle and leading transformations to a resilient, inclusive, and sustainable future. They emphasised the importance of taking concrete and practical actions and collecting international best practices and wisdom from around the world, mobilizing public and private finance, technology and investment and improving business environments. They also emphasised the importance of providing financial resources to assist developing countries with respect to both mitigation and adaptation in accordance with the Paris Agreement. They recognised that improving resource efficiency through policies and approaches, such as circular economy, sustainable materials management, the 3Rs (reduce, reuse, recycle) and waste to value, contributes to the SDGs, as well as to addressing a wide range of environmental challenges, enhancing competitiveness and economic growth, managing resources sustainably, and creating jobs.

The reduction in global inequality has been one of the most crucial achievements of the 21st century. But the wealth gap between the countries could have closed even further if not for climate change. Over the past few decades, global warming has resulted in robust and substantial declines in economic output in hotter, poorer countries and increases in cooler, wealthier countries in contrast to what would have happened in a world without human-caused climate change. "The global warming caused by fossil fuel use has likely exacerbated the economic inequality associated with historical disparities in energy consumption," write the authors, Noah Diffenbaugh and Marshall Burke, both of Stanford University.

Conclusion

The G20 is an on-going process. The member countries have a chance to focus the world's attention on emerging opportunities to expedite climate action, including matters like adaptation (making meteorological data available for developing countries and small-to-medium enterprises) and best applications and standards for low-carbon technology. The G20 provides plenty of opportunity for world leaders to demonstrate that they are serious about climate change. Sustainable development and climate action will not be efficacious until the world's biggest economies—and polluters—are fully summoned for the course-of-action.

The international community should encourage a mix of policies to support global recovery and create employment through reducing carbon dependency, ecological degradation and poverty as remedy to economic crisis. Such a Global Green New Deal (GGND) demands implementation and coordination of green investments by the G20, which also requires them to take up complementary pricing policies and stimulate international aid and other actions in support of the pact. Developing economies should dispense clean water and sanitation for the poor, create safety nets, invest in health and education, and aim energy and water poverty. Such global strategies can revive economies, generate employment and improve the sustainability of world development.

The quest for development and industrialisation is a very important one for an economy but the same should not be undertaken at the cost of the ecosystem. The environmental Kuznets curve illustrates that the extent of degradation of the environment ought to peak sometime in the industrialisation process. This peaking concept has to be pushed to the past and the industrialisation process needs to

be made eco-friendly. This is where, the importance of the developed and industrialised economies of the globe, creeps in.

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India in the G20: Words and Works

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Abstract

India has attended all the G20 summits held so far. The latest G20 summit in Osaka, (28th-29th June) for which Indian Prime Minister was in Japan was held at a time when the very idea of multilateral talks to manage global affairs and resolve disputes is a threat. Multiple clashes threatening to derail the global order and there is no leadership around the world that seems capable of rising up to the challenges of our times. Even so, India had a chance to voice itself on affairs affecting itself and the other countries of the world, in this forum. The article aims to scrutinize the key decisions taken and analyse them to make an effective conclusion on India's success in attaining its objectives.

JEL Classification

F00, F50, F51, F52, O31, Q14, Q55

History And Role Of G20

The G-20 is an international forum for the governments and central bank governors. It is the main opportunity for discussing opinions on international economic cooperation and critical issues like terrorism, human trafficking, global warming, etc. G-20 was formed in 1999, aimed at discussing policies pertaining to the promotion of international financial stability. The G20 Summit is officially considered to be the "Summit on Financial Markets and the World Economy". It is worth mentioning that G20 members represent around 90% of the World Gross Product, 85% of global GDP, around 75-80% of global trade, two-thirds of the world's population and half of the world land area. G-20 members are Argentina, Australia, Brazil, Canada, China, the European Union, Germany, France, Indonesia, India, Italy, Mexico, Japan, Saudi Arabia, Russia, South Africa, Turkey, South Korea, the UK, and the US.

G20 Objectives

There is a sense of bewilderment about the real aims of this platform and if it has any current-day relevance. Today the G-20 faces perhaps its most serious challenges since it first met on November 2008 to resolve the financial crisis, and prevent future international financial crises. As trade tensions escalate among major powers and global growth decelerates, the G-20 countries find it hard to present undisputed frameworks to handle global hurdles, something the group succeeded in doing, during the 2008 financial crisis when it not only consolidated IMF's budget but also prevented protectionist tendencies from taking root.

India's Objective At The G20 Summit

At this forum, back in 2008, the then Prime Minister Manmohan Singh had spoken about countering the Great Recession as an economist, prompting global commentators to commend the expansion of what was earlier a smaller group of countries with large economies. While combined efforts to rescue the global economy was the challenge ten years ago, now it is mostly about issues on which a

convergence of views is far more difficult. Still, there are some issues that India is expected to push that could find listeners.

The Summit is an ideal platform for India to advance its agenda of 'reformed multilateralism' in India's favor. The Indian PM called for it in the 13th G20 Summit and reiterated it in the 14th chapter of the Summit (28th June) that the world's trading system should undergo constructive reform, serving India's interests. Supporting reformed multilateralism is even more relevant in the backdrop of US-China trade tensions. According to PTI, the current PM of India, in his departure statement said that issues such as financial stability, WTO reforms, black money, women empowerment, artificial intelligence, energy security, reforming multilateralism and common efforts to address challenges like terrorism will be high on his agenda. Among other issues that India raised during the summit were on climate change, environment protection, tourism, clean energy, agriculture, and systemic shift towards providing social security and financial benefits for the aging population. Indian PM observed that the global economy is being ruled by one-sided decisions. During the Japan-America-India trilateral meeting, he emphasized the importance India attaches to the grouping. In general, balancing relations appears to be the objective. In a world turning too fragmented for its own good, neutrality could reign supreme.

Economic Offenders And Fugitives

According to Suresh Prabhu, India's G20 Sherpa, India strongly put forward the need to deal with fugitive economic offenders. They had been working on tax evasion, corruption, economic offenses and fugitive offenders who fled the country. They have also been very strongly campaigning this. India has campaigned strongly against fugitive economic offenders. India's PM has flagged and raised these issues at all global forums; Prabhu said at a media conference, detailing about the deliberations of the meeting. Prabhu highlighted the need for anti-corruption measures and fight against corruption to be done at all levels by all the G20 members by combating foreign bribery and ensure each G20 country has a law to enforce it. People committing economic crimes in one country will not be able to run away to the other and escape the clutches of law.

The bilateral ties between India and UK have been tested multiple ties over issues of such fugitives. However, there have been instances where such fugitives have been denied Indian citizenship, so they adopted citizenship of other countries.

Terrorism

India's PM discussed terrorism threat at an informal BRICS meet on G20 Summit side-lines, where he said that terrorism is the biggest threat to humanity. Besides taking the lives of the innocents, it negatively affects economic development and communal harmony. Stopping all mediums of support to terrorism and racism is important.

India has conducted joint military operations with foreign countries against terrorism, the most recent being in 2019. The Indian army has often provided hardware and equipment for such missions.

Innovation

Prabhu said innovative technology created economic opportunities, bridging the digital divide and improving the quality of life. He said India put emphasis on building a setup that is necessary for growth. Quality infrastructure plays a significant role. Finance is important. Hence issues concerning global finance whether it is related to the sustainable and modern tax system, whether related to technological innovation, which can deliver benefits in the financial market, all were discussed.

The World Bank and the Indian Government signed a \$200 million loan agreement for the Assam Agribusiness and Rural Transformation Project, on October 30, 2017. The Project will support Assam in agri-business investments, increase agricultural output and market entrée, and allow small farm holders to produce crops that are resistant to persistent floods or droughts. The project will be implemented in over 16 districts of Assam. Over 500,000 agricultural households will directly gain from the project. At least 30% of women are expected to participate in project activities. Special focus will be provided to women-led enterprises and their contribution to the decision-making procedure of farmer producer organizations.

The Environment

Indian PM raised several Indian concerns at the G-20 deliberations, such as climate change funding. Prabhu also said that India strongly believed that climate change was a reality, the biggest threat to humanity and the country was focusing on clean and renewable energy (green energy) to generate power. India's emphasis on the importance of finding solutions to climate change effects come at a time when the world's largest economy, the US, in 2016 is determined to pull out of the Paris Agreement. US President Donald Trump had in 2017 announced his decision to pull out of the accord saying it was unfair to the US.

India is taking aggressive steps to mitigate the effects of climate change and is expanding its renewable energy generation rapidly. It is also encouraging its automobile industry to shift to electric mobility in a big way. Asia's third-largest economy, which frequently faces drought and flood situations, has also assumed headship in discovering solar power solutions to decrease fossil fuel dependence under the International Solar Alliance.

International Trade Relations

India and Indonesia set ambitious USD 50 billion targets for bilateral trade over the next six years, as President Joko Widodo and Indian PM discussed ways to deepen cooperation in key areas including economy, defence, and maritime security. The two leaders met in the morning and discussed ways to boost bilateral ties and enhance cooperation in trade and investment. "Ministry of External Affairs" spokesperson Raveesh Kumar said, India and Indonesia set a target of USD 50 billion for bilateral trade by 2025. Trade between India and Indonesia in 2016 was USD 12.9 billion. It rose 28.7 percent to USD 18.13 billion in 2017 with Indonesia's exports to India amounting to USD 14.08 billion and its imports from India reaching USD 4.05 billion, as per Indonesia's Central Statistics Agency.

India has taken over operations of the strategic Chabahar port in the Sistan-Balochistan province of energy-rich Iran's southern coast during a trilateral meeting of officials from Afghanistan, Iran and India held on Monday. This is the first time India will be controlling a port outside its area. According to the Shipping Ministry, The Government of India assumed charges of the operations of a section of Shahid Beheshti Port, Chabahar, in Iran during the Chabahar Trilateral Agreement meeting, on December 24, 2018. The first stage of the Chabahar port was inaugurated in December 2017 by Iranian president Hassan Rouhani, opening a fresh tactical route linking Iran, India, and Afghanistan bypassing Pakistan.

India's Word on Data Transfer

India sent a tough message by refusing to attend the digital economy power summit pushed by Japanese Prime Minister Shinzo Abe, as his plan for "data free flow with trust", mentioned in the G-20 declaration, contradicts the proposed data localization guidelines by RBI.

On the query that why India didn't join the Osaka declaration on the digital economy, Prabhu said the reasons have been communicated to the Japanese Prime Minister Shinzo Abe. He said that India has a huge program on digital transactions. India has opened bank accounts for many people. Many transactions are happening through digital forms. Prabhu, who was the Railways minister in the first term of the NDA government, also informed that the country's railways have almost 8.1 billion passengers per year, many of them buying tickets online. Digital is something which Indians believe in, with a growing e-commerce market. Therefore, India believes in the digital economy and at the same time share a close relationship with Japan but the reasons for the denial have already been communicated.

Conclusion

The G-20 is a significant forum to discuss pressing issues. It must not be distracted from its original purpose of promoting sustainable growth and financial stability. According to the Indian PM, the two-day Osaka summit will also be an important stepping stone for India in the G20 summit in 2022. With Saudi Arabia hosting the succeeding G-20 in 2020, followed by Italy in 2021, the spotlight will be on the agenda India plans to highlight when it holds the G-20 summit in 2022. India should lead the exercise in making the G-20 more effective in dealing with some of the inequities in its system. Osaka is an opportunity for India to promote its national interests in an international context.

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India and the G20: Opportunities and Threats

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Abstract

Diplomatic visits and multilateral meetings with various countries are quintessential to foster and consolidate theglobal development agenda. While bilateral meetings take place quite often between countries of 'like-minded' nature, a platform like the G20 is a medium to stress upon issues which are holistic to the world as such. Though this summit is overly dominated by some of the largest economies, it can be fairly justified that it represents the problem of each continent adequately and sets a mechanism to work unanimously towards a common goal. The great sub- prime loan crisis of the United States in 2008 brought about the idea for this summit in the current form.

Keyword(s):

Diplomatic visit; bilateral; common goal; sub- prime loan.

JEL Classification

F01, F50, F51, F53

Introduction

The G20 is an international forum of governments and central bank governors from 19 countries and the European Union (EU). This was founded in 1999 with the aim to discuss policy pertaining to the promotion of international financial stability. Since 2008 the G20 summit has also included heads of international organizations, heads of three states and finance and foreign ministers of the member nations. The Osaka Summit was the fourteenth G20 summit.

As of 2019, there are 20 members in the group: Brazil, Argentina, Australia, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, United Kingdom, United Nations and the European Union. Spain is a permanent invitee to the Summit.

The G20 2019 Summit

The 2019 G20 Osaka summit was the fourteenth meeting of the G20 and was held on 28-29th June 2019 at the International Exhibition Centre in Japan. Amid global concerns of recent times and the growing tensions in the international relations, trade and other issues, the leaders of the member nations and international organizations gathered for discussions to ensure Global Sustainable Development. The eight themes of the Summit were 'Global Economy', 'Trade and Investment', 'Innovation', 'Environment and Energy', 'Employment', 'Women's Empowerment', 'Development' and 'Health'.

Indian Prime Minister Modi attended his 6th G20 summit as the country's leader. Minister of External Affairs, Dr. S. Jaishankar, and National Security Advisor (with Cabinet Minister rank), Ajit Doval, were among the others who represented India at the meeting. Suresh Prabhu was appointed as India's Sherpa to the G20 summit this time.

Highlights of the G20 2018 Summit and the Pre-Summit Situation

At the thirteenth G20 summit in 2018 in Buenos Aires, India had stressed upon how India was using pragmatism in driving its economic policies. At the conclusion of that event he had also ignored the global opprobrium directed towards the Saudi Crown Prince, Mohammed bin Salman, when his country was facing a backlash from the western world for the gruesome murder of journalist Jamal Khashoggi. Saudi Arabia had then offered to cater to India's growing energy demands at stable rates amidst great volatility in the oil market.

However, things have taken a turn since then with the United States imposing sanctions against Iran on crude oil and increasing tensions in global trade relations. The summit, as can be remembered, started on a sour note on the back of a controversial tweet by the US President Donald Trump. However, it was the joint effort of both the countries through the recently concluded meet between the US Secretary of State Mike Pompeo, and India's Minister of External Affairs, that helped douse tensions. On the very moment of the summit, it can easily be put on record that India had to tactfully negotiate between many "allies", many of whom were not on the same page, mentioned earlier. While India can never be in the hit zone of the United States, it could not affect the recent friendship and a growing relationship with Russia.

India's Proposed Agenda at the Summit

This year's summit was an ideal opportunity for India to advance its agenda of 'reformed multilateralism'. India had first called for it at the 13th summit and reiterated it in the Osaka Summit, insisting that the world trading system needed constructive reforms which would also serve India's purpose. Amid the US-China trade tensions and rift with the Middle-Eastern countries over oil prices, the call for a change was even more significant.

The Indian Prime Minister, in his statement ahead of the meeting had said that the Osaka Summit would witness India addressing issues like women empowerment, artificial intelligence and the need for a common stand against terrorism in its top agenda.

It was also expected that the summit would allow India to indulge in crucial talks with United States to find a solution to the US sanctions on Iranian crude, data localisation and the S-400 deal as India has seen a rather 'old wine in a new bottle' friend in Russia in the recent times. Adding to that was the Indian Prime Minister's participation in three crucial plurilateral: Russia, India, China (RIC); the BRICS and Japan, America, India (JAI) as a follow-up on key agreements.

India's Take Away from the Summit

India's most significant move in the meeting was the refusal to sign the declaration on 'Osaka Track'- an overarching framework launched by Japan's Prime Minister Shinzo Abe, promoting cross-border data flow at the recently concluded G20 Summit in Japan. The initiative seeks the removal of prohibition on data localisation and urges nations to negotiate rules on data flows, cloud computing, among others. India, on the other hand, has affirmed its stance on data localisation asserting that data should be stored in the native country rather than in any other country.

It is also worth mentioning here that this year's G20 Summit came right after the Shanghai Cooperation Organisation Summit of Bishkek, which helped in consolidation of the discussions held with China about the listing of more wantedterrorists on the global platform, and that with Russia about manufacturing and trade in defence goods and more student exchange programmes between the two countries.

Another key meeting from this summit was that of the interaction with Saudi Crown Prince Mohammad Bin Salman. This was important amidst the tightening of sanctions against Iran by the United States, which thereby compels India to buy more oil from Saudi (*recent data also shows that Iranian oil imports into India has dropped by 35%*). Although it should be known that the project of Chabahar Port was a different project, and no sanction was put upon that by the US, as this is a part of the flagship project in retaliation to China's Belt and Road Initiative (BRI).

Analysis and Criticisms

The G20 was an essential platform for India in its pursuit to become a global power. India's stance against the 'Osaka Track' is a major strategic move against data piracy, a problem which has been a concern for some time now, as data- the 'new wealth'- is being used by foreign entities. This has posed serious threats to a country and its citizens' sovereignty. India also held negotiations with the US and the BRICS nations in informal meetings.

Threats Ahead for India

India has maintained cordial relations with all nations within the ambit of G20, but it is notable here that it has been made possible only due to the fact that India has produced a huge penetrable market for each type of product—be it low cost or premium. However, the recent trade war and tariff rule has really brought a standstill to trade and economy, as a whole. Retaliatory tariffs and trade restrictions have been common nowadays. India recently has also been excluded from the United States' Preferential Trade Status, and the US also imposed stricter H-1B visa rules, which in turn, has reduced fortunes for Indian companies operating in the US. India, in return has started imposing higher duty on almonds, which again has fired up American counterparts as India was arguably the largest almond importer in the world from the US. Coupled with that, India has formed more stringent e-commerce rules to safeguard her own companies. Given pending elections next year, it is highly unlikely that Trump is going to move away from his 'America First' policy and India thus should hold onto to her stance firmly.

Again, the rising threats of oil tankers being captured, coupled with the terror driven Middle East and West Asia along with tensions across the SAARC regions have been the cause for many concerns leading to a topsy-turvy situation for the rest of the world.

India, thus by the theory of low penetration, high growth strategy needs to find a place for itself in the global environment. Otherwise, if it falls in the clutches of global distress, it will not be long enough before India loses the tag of the 'fastest growing economy'.

Opportunities for India

While threats are looming large for a developing economy like India, the major source of opportunity comes from the fact that India still has an ever growing customer base which is far from

saturation levels. As also the gradual upliftment of a neo-middle class people has been instrumental in bringing new companies to the market. India can use this as a future opportunity for inviting more and more global giants to produce and sell in the Indian markets. Reduction of cross border terrorism through a planned electrification of the border areas and updating of armed forces technology can thwart any undue disturbances in the years to come. India is slated to become a US\$5 trillion economy by 2025, and surpassing that to emerge as the third largest economy by 2030. Also, per capita carbon emissions of India is far less than many of the developed countries which is due to its ambitious solar projects and complete electrification of two-wheelers by 2023 and transport vehicles by 2025. This will not only help in creating a sustainable environment for the country but also open the doors for India becoming a global giant in the near future.

India is also bidding for permanent membership in the United Nations Security Council (UNSC), a proposal that has been vetoed by China several times. If India can step up diplomatic relations with China apart from the vast trade interests that India already has, it can assist both of the economies as a whole. Another big opportunity that India has is to reduce the footprint created by China through the BRI, by spreading her own wings. Several parts of Africa have been protected by India through the Blue Hat UN peacekeeping army division of India. India's relation with the Gulf has seen ups and downs over time, but recent developments with Iran, Saudi Arabia, and the United Arab Emirates look bright. For instance, while India's investment overseas through the inclusion initiative is currently at US\$28 billion, China stands way ahead with an investment north of US\$150 billion through BRI. Here is an opportunity for India to ramp up investments in untouched areas to at least give the Chinese Premier a run for his money. India's ever increasing foreign reserves can aid in doing so, given the internal economy grows at the current pace.

The Way Forward

The Osaka Summit has been a way to look forward for India. India has been accorded the privilege to host the 2022 G20 Summit, the first one of its kind to be held in the country. Apart from the plurilateral with RIC, BRICS and JAI, India held important bilateral meetings with leaders of Indonesia, Brazil, Turkey, Australia, Singapore and Chile.

India has been stepping towards becoming a super-power, and in recent times such diplomatic strategies adopted by her in such global forums has been a major factor. The G20 has been a major platform for presenting common issues and as India under its present government look to make best use of opportunities, there's a bright future ahead.

Conclusion: Is the Group of 20 Still Relevant Today?

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Abstract

A little more than a decade after the Group of 20 (G20) appointed itself as the custodian of the global economy, effectively a board of directors for international finance, we are reaching the same crisis point that began this journey. If the 2008 economic crisis was a function of loose regulation in the US, the 2019 crisis in the making will be driven by the US trade war against China, Chinese response to that trade war, and the crumbling economies of smaller nations, squeezed between the aspirational and settled powers of the West or the fast-growing and emerging powers of the East. The G20 is slowly revealing its non-binding architecture and unaccountability cracks. It is imploding from within. What began well and delivered results in being able to collectively ward off the global economic crisis of 2008 has now become an institution that serves little more than a networking dance playing to a frozen economic tune for leaders, finance ministers, central bank governors. According to critics, "the G20 has lost not merely the plot but along with it the fig leaf of its legitimacy. The irrelevance of G20 has been slow, steady and certain, one Summit after another, one city at a time". This article analyses the changing relevance of the G20 as India prepares to take over the reins of the Group's Chairmanship in 2022.

JEL Classification: E00, E66, F02, F53

The Group of Twenty (G20) is a collection of twenty of the world's largest economies formed in 1999, in the wake of the Asian financial crisis, to unite finance ministers and central bankers from twenty of the world's largest established and emerging economies. A decade later, at the height of the global economic crisis when the world was facing the ripples of the 2008 financial pandemic, it morphed into a leader level body attended by heads of state and government. When the global financial crisis hit with such force and potentially devastating consequences in 2008, the Group of 20, was the logical forum to consider and coordinate responses. And so the G20 Leaders' Summit was born. Within the span of a year in 2008-09, three summits (Washington, DC, London, Pittsburgh) were held to respond to the crisis. Many observers claim this period to be a golden moment for the G20.

Faced with a crisis that threatened to spin totally out of control, leaders took a number of rapid and important decisions. Agreement was reached on a 47-point Action Plan including a large fiscal and monetary stimulus package; comprehensive support for the financial sector; establishment of the Financial Stability Board (FSB); US\$850 billion of resources to support emerging markets and developing countries; commitments to restrict protectionist measures; and reform of the international financial system. The collective and effective response by members of the G20 that mitigated the impact of the crisis, allowed confidence to be restored faster than many analysts had predicted.

By the fall of 2009, after confidence was restored, leaders declaring victory said the G20 would be "the premier forum for our economic cooperation" and turned their focus from the crisis to the medium term through establishing a Framework for Strong, Sustainable and Balanced Growth with

the Group being conceived as a bloc that would bring together the most important industrialized and developing economies to discuss international economic and financial stability.

The group acquitted itself well in responding to the global financial crisis, and, for a while, its emergence as a forum for international policy coordination seemed like one of the only silver linings of that mess. However, the G20 was slowly but surely allowing distractions to take charge of its primary mandate of ensuring economic stability and growth. Hosted by the UK Prime Minister Gordon Brown, the London Summit, expanded the pledges to "build an inclusive, green and sustainable recovery". By the Seoul Summit, the economic crisis mandate was lost on the leaders where discourse moved onto millennium development goals, global marine environment protection, climate change and anti-corruption. Finally, with the introduction of a G20 Business Summit, it was clear that now lobbies from the not-for-profits as well as for-profits were in action, with host governments becoming tools in their hands, and the G20 Summits degenerating into networking opportunities and populist fluff.

Since, the G20 is not a permanent institution with a headquarters, offices, or staff, its leadership rotates on an annual basis among its members, with decisions are made by consensus, and implementation of its agenda depending on the political will of the individual states. On one hand, the group looks like an appropriate vehicle for facilitating global dialogue while on the other it has proven utterly incapable of advancing any solutions to global challenges. Since the group's initial success, a decade ago, its agenda has been fluid, with each host country adding something new to the mix at every annual gathering. The Korean G20 Presidency in the second-half of 2010 started the tendency to broaden the G20 agenda. They moved beyond the emphasis on the economic recovery and international financial reform, by establishing the Seoul Development Consensus. Consequently, the G20 has become involved in diverse policy areas, as well as augmenting multilateral cooperation on core issues such as the Basel III Accords on financial sector reform. The G20 has also increased policy coordination and dialogue on anti-corruption, tax evasion, employment, gender issues, and sustainable development, while supporting the United Nations' agenda on climate change.

While it is true that countries operate with differing political timetables and priorities, in the absence of an overriding crisis, it is difficult to maintain a clear focus in global fora. What the world needs now is action, not empty words. The broadening agendas, expanding engagement groups and lengthening communiques, are creating a sense of adroitness within the G20 with it taking on more responsibilities every year without having found concrete solutions to the previous problems. In the case of the Osaka summit, the Japanese government introduced the goal of universal health care. No one doubts that universal health care is a worthy cause. But the G20 hasn't actually done anything to help individual member states expand the provision of health care. Worse, the time spent paying lip service to this new objective could have been used to discuss outstanding issues such as antimicrobial resistance, which was added to the G20 agenda in 2016. The language about AMR in the latest communiqué was notably similar to that of previous summits, which suggests that little progress has been made.

Another reason behind the G20 losing its relevance today could be attributed to the fact that it has a static membership that does not reflect the change of political and economic realities. The G20 membership was reputedly chosen in 1999 by Caio Koch Weser and Timothy Geithner, the deputies of the German and US Finance Ministers. There were no formal criteria but only a sense of importance of these economies to the world. According to the political economist Robert Wade, Geithner and Koch Weser went down the list of countries arbitrarily including and excluding

countries. However, the changing nature of the world economy has seen growth and markets shift towards developing and emerging nations with wealth and investment remaining in advanced countries. The continued dominance of the G7 (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States) is increasingly out of step with the complex world made worse by the presence of so many European countries. The inclusion of 10 emerging economies such as South Africa, Mexico, Argentina, Brazil, China, South Korea, India, Indonesia, South Arabia and Turkey in the consultative process has broadened the scope of the dialogue but it still excludes 170 nations from direct participation in this forum. The questions of the legitimacy, representative character, governance structure, voice and accountability of the G20 remain and pose certain dilemmas it. While it is true that the number of seats in this organisation should remain limited to ensure the effectiveness and continuity of its activity, the lack of transparency in the process and the choice of the countries invited to become members of the group causes some serious concerns. The forces of globalisation are spreading so widely and rapidly and the importance of international public goods is becoming so palpable that a new international governance structure is needed. it is not obvious that the G20 can fill this gap. The interests of the majority of countries are neither taken into account nor given due weight in the decision-making process.

Furthermore, there is an asymmetry between wealth, which is held by advanced economies, and production and markets, which are in the developing and emerging economies. As advanced economies attempt to use this as a stick to insist on political and economic adherence to their supremacy and ideology, emerging and developing economies are seeking to protect themselves from these kinds of shadows, by maintaining the existing international order, and building new regional, policy and trade organizations and bodies.

Protectionism has been on the rise ever since the global financial crash of 2008 shook the world, and disrupted trade and financial flows. The ongoing skirmish between the US and China over tariffs only marks a new phase in the global lurch towards protectionism. Moreover, the collapse of the global banking system, a deepening global recession and the massive intrusion of governments into national economies—a trend that can't help but politicize economic policy decisions—have all added fuel to the fire. Protectionism appears to have been more enthusiastically adopted by advanced countries, which have struggled to grow their economies in the wake of the global financial crisis. Among the largest economies in the G-20 group, China, the US and India have been hit the hardest by protectionist measures in the past year (403), followed by India (236). Trade financing, the essential lubricant of the entire commercial system, has dried up.

In this scenario, leading global player have been able to force the Group into dropping its usual commitment to "resist all kinds of protectionism" and merely noting that the global trade "system is currently falling short of its objectives and there is room for improvement."

At a time when these countries should ideally have served as a bulwark in the fight against protectionism, and could have worked to further the agenda of globalization, their own protectionist tendencies have precluded such a role for the countries. These measures have not only been counter-productive but have also invited further backlash. So, there is a widening gap between the two groups of economies in their demands and interests, for which effective solutions have yet to be found.

Finally, populist leaders and policies are on the rise as the middle classes in advanced and some emerging countries shrink due to a lack of real income growth. Despite the fact that over the last 30 years advanced countries took home nearly 2/3rds of the world's profit, the middle classes of these countries have languished. In 45 years, the size of the American middle class has shrunk from 61% in

1971 to 52% in 2016. Middle class voter anger in advanced countries rather than focusing on corporations that made but didn't share the profits has been aimed by populists in multilateral agreements and bodies that the advanced countries set up which strikes the G20 at its very core.

Conclusion

For the G20 to safeguard its relevance in the current scenario, it needs to challenge itself. To become more effective as a forum for economic policy coordination, the G20 needs to improve its working methods and resist the temptation to look continuously for new topics if it is unable to deliver concrete results in terms of economic policy coordination. It must refocus on its core business, namely economic policy coordination to ensure strong, sustainable and balanced growth, which also includes the 'new narrative' regarding the regulation and supervision of financial markets, the tax agenda and the reform of the international financial architecture. At the same time, a number of aspects which have been added lately should be dropped

The G20 has considerably strengthened capital standards with Basel III; it has moved forward on systemically important financial institutions. While global financial stability has been significantly strengthened, with the EU in the lead in implementation, the G20 needs to continue the necessary reforms and maintain the framework for sustained and permanent international cooperation in this area. Looking forward, it is important to make sure that financial reform remains a key plank of the broader G20 agenda and that G20 members remain committed to finishing the job that Leaders set out to do.

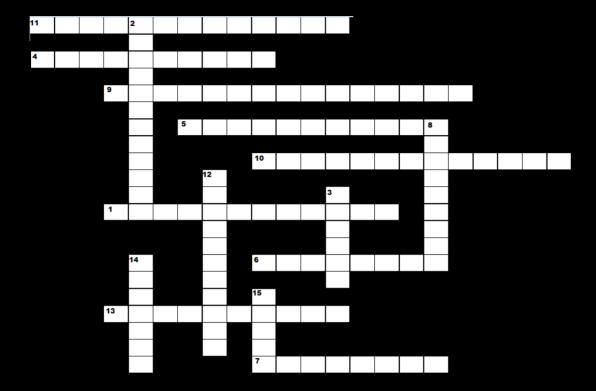
Another area where progress is needed is the strengthening of the G20's legitimacy, since, while the repercussions of its decisions have a global dimension, the majority of countries are not represented in the forum. Moreover, at least initially, non-governmental economic and social representatives were not involved in the work of the forum. Since 2010, however, all G20 Presidencies together with its wider membership made important efforts to increase the legitimacy of the G20, including through a rotating system of guest countries, and the preparation of outreach groups. Efforts to increase transparency of the G20 and to deepen outreach need to continue with the aim of taking into account more thoroughly the positions and views of the non-members as well as civil society. The G20 can also revalidate its relevance by building a sustainable growth regime. Here sustainability has two meanings: one related to the economy and the other to the environment. From an economic viewpoint, the G20 needs to bring under control at the global level the imbalances created before and during the crisis, in primis the burgeoning of government debt in advanced economies. It has also to put in place mechanisms able to avoid situations in which financial markets again bring the global economy in a tailspin, without unduly hampering financial innovation. Last but not least, the G20 must help and support emerging and developing economies in the redefinition of their growth models, which, despite the successes of the last two decades, are not any longer viable in the post-crisis world. From the environmental viewpoint, it is essential to provide new momentum to the green economy, to make it an engine of growth both in advanced and emerging economies, and reduce significantly the costs on the environment in emerging economies.

The durable reduction of global imbalances, global demand rotation, economically and environmentally sustainable growth, job creation, and the rebuilding of a resilient and stable financial sector are the key challenges that still require international economic cooperation and that the G20 will have to address. In the end, the future of the G20 will depend on the answers it will be able to provide to these challenges.



TRIVIA

ECO CROSS



Across:

- 1. 71st Secretary of US treasury and Former President of World Bank.
- 4. Indian Nobel Prize winner in economics.
- 5. Utility function where proportion of income spent on goods remains constant.
- 6. "Inflation is always and everywhere a monetary phenomenon."
- 9. Recipient of Padma Vibhushan and a University Professor of economics at Columbia University.
- 10. The governor of the Central Bank of India.
- 11. Economics.
- 13. A foundational theoretical text in materialist philosophy, economics and philosophy published in 1867.

Down:

- 2. An ancient Indian text dealing with political economy.
- 3. "In the long run we are all dead.".
- 7. Author of the 2019 book People, Power and Profits.
- 8. First American to receive Nobel Prize in Economics.
- 12. Members of 18th century French economic theory.
- 14. One of the most important British political classical economists.
- 15. He developed the IS-LM model and it was later extended by Alvin Hansen.

ANSWERS & FUN FACTS

1. Larry Summers

Lawrence Summers was born to two economists Robert Summers and Anita Summers who were both professors at University of Pennsylvania. But he is the nephew of two Nobel laureates- Paul Samuelson (Robert Summer's brother) and Kenneth Arrow (brother of Anita Summers).

2. Arthashastra

As Kaushik Basu has mentioned in his book *An Economist in the Real World*, Chanakya (or Kautilya) is claimed to have been an advisor to Chandragupta Maurya. He devised not only economic but military and strategic policies.

3. J.M. Keynes

John Maynard Keynes was a British economist whose thoughts on macroeconomic policies were combined with what was called neoclassical economics to give rise to neo-Keynesian economics.

4. Amartya Sen

Amartya Sen is not just an economist but a philosopher recognised widely for his work on social welfare. He was named by another Bengali Nobel Laureate, Rabindranath Tagore. He has two B.A.s in economics, one from Presidency College, Kolkata and another from Trinity College, Cambridge, in both of which he secured the first position.

5. Cobb-Douglas

It is a function of the form Y=AK^aL^b which is used to denote production functions as well as utility functions. It was developed and statistically tested by Charles Cobb and Paul Douglas, although this function is widely known as Cobb-Douglas, a similar form of the function (Y=AK^aL^{1-a}) had been used previously by Knut Wicksell, Philip Wicksteed and Leon Walras.

6. Milton Friedman

Milton Friedman received the 1976 Nobel Prize in Economics for his achievements in the fields of consumption analysis, monetary history and theory and for his demonstration of the complexity of stabilization policy. He belonged to a very humble background and received a scholarship to Rutgers university. He received his undergraduate degree in mathematics and was determined to become an actuary.

7. Joseph Stiglitz

Recipient of 2001 Nobel Prize in Economics, Joseph Stiglitz is an American Economist and professor at Columbia University. He was named as one of the 100 most influential people in 2011 by times magazine. Stiglitz is known not only for his contribution to economics but his involvement in political and macroeconomic debates concerning trade policies, globalisation etc.

8. Paul Samuelson

Paul Samuelson, born into a Jewish family, received the 1970 Nobel Prize in Economics for the scientific work through which he has developed static and dynamic economic theory and actively contributed to raising the level of analysis in economic science. He received international renown while he was still a graduate student at Harvard and wrote his first major work Foundations of Economic Analysis in 1947. Coincidentally enough, our previous clue Joseph Stiglitz and Paul Samuelson were both born in Gary, Indiana.

9. Jagdish Bhagwati

He was a student at Cambridge, Oxford and received his Ph.D. from Massachusetts Institute of Technology. He is known for his work on international economics and contribution to globalisation. He has taught at ISI, Kolkata as well as Delhi University. On his 70Th birthday, Paul Samuelson praised him by saying how Samuelson values a scholar by the content and quality of his academic work and not just number of publishings. Samuelson also commended his work on globalisation.

10. Raghuram Rajan

Raghuram Rajan has not only held the office of RBI governor but also Chief Economic Adviser of India and Chief Economist at International Monetary Fund. Currently he serves as a Professor of Finance at The University of Chicago, Booth School of Finance. He was subject to controversy for predicting the 2008-9 global financial crisis.

11.Dismal science

Dismal science is a term coined by Scottish writer, essayist, and historian Thomas Carlyle to describe the discipline of economics. The term is said to have been inspired by T. R. Malthus' gloomy prediction that population would always grow faster than food, dooming mankind to unending poverty and hardship. But originally economics was called the dismal science because it believed all people are equal and thus all entitled to liberty.

12. Physiocrats

Physiocracy etymologically denoted the "rule of nature," and the physiocrats envisaged a society in which natural economic and moral laws would have full play and in which positive law would be in harmony with natural law. They also pictured a predominantly agricultural society and therefore attacked mercantilism not only for its mass of economic regulations but also for its emphasis on manufactures and foreign trade. The movement was particularly dominated by François Quesnay (1694–1774) and Anne-Robert-Jacques Turgot (1727–1781). It was followed by the first modern school Classical Economics headed by Adam Smith.

13. Das Kapital

Much of Das Kapital spells out Marx's concept of the "surplus value" of labour and its consequences for capitalism. According to Marx, it was not the pressure of population that drove wages to the subsistence level but rather the existence of a large army of unemployed, which he blamed on the capitalists. He maintained that within the capitalist system, labour was a mere commodity that could gain only subsistence wages. There are 5 volumes of Das Capital and they were co-edited by Friedrich Engels.

14. David Ricardo

He wrote On the Principles of Political Economy and Taxation, which analyses the distribution of wealth among three classes- owner of land who receives rent, owner of capital who receives profit and owner of labour who receives wages. He was a proponent of laissez-faire economics and his questions in economics cropped up after reading Adam Smith's "An Inquiry into the Nature and Causes of Wealth of Nations".

15. John Hicks

Sir John Richard Hicks was a British economist who was considered one of the most important economists of the 20th century owing to his contributions to consumer demand theory and IS-LM model. Hicks presented the IS-LM model in a paper titled "Mr. Keynes and the 'Classics'" to formalise an interpretation of Keynes' theory as a balance between three commodities: money, consumption and investment. But in a later paper he himself dismissed the model as a 'classroom gadget'.

JOKES

- The government imposed an economy wide wage ceiling to generate revenue for financing R&D for a type of paper which can be "thrown away after being used". They initiated this project to put a check on pollution and the paper could also be used for printing purposes. But ironically, this left the workers in the unorganised sector with almost no 'disposable income'.
- An employee walks into his boss's office.
 - Employee: Sir, I need a hike in my salary. I can barely afford anything after saving up for my son's college.
 - Employer: Okay! I need you to stop saving for your son and spend recklessly.
- Leftists consider capitalism to be a weapon of Marxdestruction.
- What does a 'speech by a good orator' and liquidity trap have in common? There is no crowding out.
- Yesterday I sat on the second bench with my friend when the first bench was empty. Today I sat on the first bench while the second bench was empty. My economics professor observed this and said I was mis- 'behaving'. (WARP)
- What does Simple Keynesian Model and a mechanic have in common? Both need multi-pliers to function.



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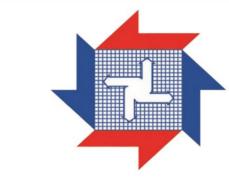
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