ISSN (Online): 2582-7928

Indian Public Policy Review

A Journal of Economics, Politics, and Strategy

VOLUME 2 JULY 2021 ISSUE 4

ARTICLES

Emerging Market Sell-Offs: India and the World
POONAM GUPTA & DHRUV JAIN 01

A Brief Economic History of Swadeshi
NITIN PAI 42

Criticising a Despotic Colonial Government: How much is too much?
MICHAEL D. METELITS 59

Breaking the Law: Rule Violations as Social Norms on India's Roads
ANIRUDH TAGAT, NIKHIL GEORGE, NIDHI GUPTA & HANSIKA KAPOOR 76

Advocating Credible Naval Power
ADITYA PAREEK 98

INDIAN PUBLIC POLICY REVIEW

IPPR is a peer-reviewed, bi-monthly, online, and an open-access journal. The objective of the journal is to further the cause of both research and advocacy by providing a publication space for articles in economics, politics, and strategic affairs. The journal publishes analytical papers – both theoretical and applied, with relevance to Indian public policy issues.

We welcome original papers, book reviews, and commentaries across the following topics: Economics, Political Science, Public Finance, International Relations and Security, Political and Defence Strategy, Public Enterprises, and Science and Technology Policy, among others.

Contact: editor@ippr.in

Journal Publishers

The Takshashila Institution,
2nd floor, 46/1, Cobalt Building, Church St, Haridevpur,
Shanthala Nagar, Ashok Nagar, Bengaluru - 560001

Indian Public Policy Review 2021, 2(4): 01-41

Emerging Market Sell-Offs: India and the World

Poonam Gupta

Dhruv Jain[**]

Abstract

Capital flows to emerging markets are generally volatile, resulting in periodic "sudden stop" episodes – when capital inflows dry up abruptly, with significant negative effects on the economy and on financial variables. This paper reviews India's experience with capital flows. The relative volatility of different kinds of capital flows in India is similar to that in other emerging markets. Our analyses suggest putting in place a medium-term policy framework that includes sound fiscal balance, a sustainable current account deficit, an environment conducive to investment, an appropriate level of reserves, avoidance of excessive appreciation or volatility of the exchange rate (through the use of reserves and macroprudential policy) and prepares the banks and firms to handle greater exchange rate volatility. In addition, it would be good for India to change the capital flow mix toward FDI flows and find ways to diversify the investor base toward investors with a longer-term view. It would also be useful to eventually graduate from the emerging market asset class. Finally, adopting a clear communication strategy to interact smoothly and transparently with market participants – involving regularly reasserting the commitment to sound policies, and reminders of the resilient underlying fundamentals – are likely to be helpful in risk-off times.

JEL: F30, F44, F65

Keywords: Capital flows, India, Emerging markets, Sudden Stops

Publication Date: 02 July 2021

[**] Poonam Gupta is at NCAER, and Dhruv Jain is at Toulouse School of Economics.

I Introduction

This paper reviews India's experience with capital flows, analysing their evolution and placing them in an international perspective. Examining the pattern of capital flows to emerging markets first, it establishes the following stylized facts.

The experience of emerging markets shows that capital flows are generally volatile.1 Different kinds of capital flows exhibit different levels of volatility. Portfolio capital flows and credit flows are more volatile than flows of foreign direct investment (FDI), while, within portfolio flows, debt flows are more volatile than equity flows. This volatility partly stems from the fact that portfolio flows correlate more closely with external factors than with domestic factors. In contrast, FDI flows correlate more strongly with domestic factors, such as economic outcomes and policy frameworks. An implication is that while emerging market economies may be able to influence FDI flows, they have little control over other forms of capital flows.

Volatility in capital flows is reflected in periodic "sudden stops", as episodes when capital inflows dry up abruptly are known. Sudden stops have significant negative effects on the economy and on financial variables. Typical sudden stops last for about a year, that is, four quarters. Their financial effects materialize first. The exchange rate depreciates; reserves decline; and equity prices fall. The GDP growth then decelerates; investment slows; and the current account strengthens. The growth of GDP falls by roughly 4 percent year-on-year over a typical, four-quarter-long sudden stop.

The incidence of sudden stops has changed over time (Eichengreen and Gupta 2018). During the 1990s and until about the early 2000s, they seemed to correlate with both country-specific factors and external shocks. In the period since then, they have been influenced more by external than domestic factors. As a result, sudden stops now tend to affect different parts of the world simultaneously, rather than bunching regionally. Sudden stops remain frequent and severe, despite the fact that many emerging markets have strengthened their fundamentals and policy frameworks.

The broad pattern of capital flows to India mirrors those in other emerging economies. The relative volatility of different kinds of capital flows is similar to that in other emerging markets, and external or common factors play an important role in their fluctuations. Because of India's initially closed capital account and a calibrated pace of liberalization, it has experienced only two sudden stops in the last three decades. The first one was a classic sudden stop in 1991, which coincided with deteriorating domestic economic fundamentals and an unsustainable macroeconomic outlook. The episode occasioned the country's far-reaching economic reforms. A second sudden stop that India experienced was in 2008–09, when capital flows reversed during the global financial crisis. Keeping with the experience of other emerging markets, this episode can be attributed more to external factors than to domestic factors.

While India has not experienced any other episodes of disruptive sudden stops in the last decade, it has experienced two milder episodes of capital flow reversals, each resulting in financial disruption and volatility. The first of these events was in 2013, at the time of the "taper tantrum", when then-

[1] Bluedorn et. al (2013) show that private capital flows are volatile for all countries-advanced or emerging. They also suggest that fickle capital flows are unavoidable.

Federal Reserve Chairman Ben Bernanke mooted the possibility that the U.S. central bank might begin to reduce its asset purchases. The second event occurred when the Federal Reserve continued with interest rate normalization in 2017 and 2018, and it became clear that the Fed was intent on raising the rates further. The specific periods associated with the two episodes are May–September 2013 and April–October 2018, respectively.

Although these events resulted in a temporary sharp decline in capital inflows, they did not rise to the level of sudden stops as conventionally defined.[2] We refer to them as emerging market sell-offs. Both sell-offs were marked by exchange rate depreciation, declining equity prices, rising bond yields, and falling reserves in emerging markets. India was among the countries that were impacted sharply during both events.

We ask three questions about these episodes, as follows:

(1) How did the impact on India compare with that on other emerging markets?

(2) What country-specific factors shaped that impact?

(3) How effective were the policies adopted in response, and what might be an ideal policy outlook to address the impact of similar events?

An analysis of the effects of the Fed's talk of tapering in the summer of 2013 (Eichengreen and Gupta 2015) showed that emerging markets that allowed the largest appreciation of their real exchange rates and the largest increase in their current account deficits in the prior period of quantitative easing experienced the sharpest currency depreciation, reserve losses, and stock market declines during the tapering talk. Another important determinant of the differential impact was the size of a country's financial market. Countries with larger and more liquid markets experienced sharper impacts. This is interpreted as investors seeking to rebalance their portfolios being able to do so more easily and conveniently if the target country has a large and liquid market and the presence of foreign capital. This suggests that having a large and liquid market can be a mixed blessing when a country is subject to financial shocks from beyond its borders.

Although the 2013 tapering episode affected a large number of emerging markets, commentary focused on Brazil, India, Indonesia, South Africa, and Turkey, which were christened the *fragile five*. In all five countries, currencies depreciated; reserves declined; and equity prices declined (except South Africa). The largest depreciation was in Brazil; the largest decline in stock prices, in Turkey; and the largest reserve loss, in Indonesia. India had the second-largest exchange rate depreciation (nearly 16 percent) and the second-largest decline in reserves (about 6 percent).

The large impact on India during the 2013 episode was not surprising (Basu, Eichengreen, and Gupta 2015). The country had received large capital flows in prior years, and its large and liquid financial markets were a convenient target for investors seeking to rebalance away from other emerging markets. In addition, macroeconomic conditions had weakened in prior years, reflected in an increase in inflation, the fiscal deficit, and the current account deficit, rendering the economy vulnerable to capital outflows, and limiting the policy room for manoeuvre.

[2] Extensive press coverage notwithstanding, interruptions to capital flows during the sell-off events of 2013 and 2018 were milder than the sudden stops of prior years. The sell-off episodes were shorter, entailed smaller reversals, and had a milder impact on financial and real variables. One might call them sudden pauses rather than sudden stops.

A similar set of countries was affected again during the 2018 episode.[3] The Turkish lira depreciated by 49 percent while the Central Bank of Turkey lost 21 percent of its reserves. In South Africa's case, the rand depreciated by 23 percent, and the reserves fell by 18 percent. The impact on India was significant, though slightly milder relative to other countries. The rupee depreciated by 13 percent, while the reserves of the Reserve Bank of India (RBI) declined by about 8.0 percent. Equity prices actually rose by 3.5 percent during this period.[4]

In the analysis below, we use a framework similar to the one used for the 2013 episode to assess the impact of the 2018 sell-off across countries. It shows a positive correlation among the variables described above (size of financial markets, prior capital inflows, the current account deficit, and prior exchange rate appreciation), on the one hand, and the extent of the sell-off, on the other. Similar to the experience of the 2013 event, countries with lower debts and more reserves were not rewarded with smaller impacts on exchange rates, reserves, and stock prices.

In India's case, the macroeconomic fundamentals were stronger at the onset of the 2018 event than during the 2013 event. Inflation was lower, the current account deficit and fiscal deficit were smaller, and the growth rate was higher. Yet, India was affected sharply again in 2018. These results underscore the importance of external factors in impacting capital flows, and the relevance of the size of financial markets and prior capital inflows in determining the impact during the sell-off events.

India's response to the 2013 sell-off consisted of monetary policy tightening, imposing import duties on gold, restricting capital outflows by residents, expanding a swap line with the Bank of Japan, adopting a new scheme to raise resources from the diaspora, reassurance from the RBI about India's sound fundamentals, and the creation of a special facility to accommodate the demand for foreign exchange from oil-importing companies. A similarly conventional set of measures was then implemented in response to the 2018 sell-off. These consisted of allowing significant exchange rate depreciation, while using reserves to smooth unduly large exchange rate fluctuations; raising the policy rates; careful and selective opening-up of the capital account for foreign inflows; stressing the sound fundamentals of the country through active communication; and reiterating and maintaining a prudent fiscal stance.

An event-study analysis suggests that, although such measures are conventional and globally implemented, they are not effective in stabilizing the financial markets and restoring confidence in the short run. This implies that there may not be any easy choices if a country is caught in the middle of a rebalancing of global portfolios. *Ex ante* policy frameworks, that limit vulnerabilities in advance and maximize the policy space for responding to shocks, are of more value than *ex post* measures to limit the impact.

The results suggest the appropriateness of putting in place a medium-term policy framework that limits vulnerabilities in advance, while maintaining the RBI and Finance Ministry's room for manoeuvre. Elements of such a framework include sound fiscal balance, a sustainable current account deficit, and an environment conducive to investment. In addition, India should continue to

[3] During both episodes, the Indian stock market was not impacted by capital flow reversals initially, and it increased instead. Equity prices reacted negatively later during the episodes, but, even then, the cumulative impact was smaller than in other countries.

[4] Refer to Table 4 for details on top 5 most affected countries.

encourage stable longer-term capital inflows, while discouraging volatile short-term flows; hold an appropriate level of reserves; avoid excessive appreciation or volatility of the exchange rate through the use of reserves and macroprudential policy; and take steps to prepare banks and firms to handle greater exchange rate volatility.

In addition, it will reduce the impact of volatility if India were to change the capital flow mix toward FDI flows, find ways to diversify the investor base toward investors with a longer-term view, and strengthen the current account, including by improving the competitiveness of exports. While such *ex ante* measures can help limit adverse impacts, they are still not a guarantee against sell-offs. If the latter occur, they should be used as an opportunity to build consensus for reforms (and for putting in place these *ex ante* measures, as a way to prevent a repetition of such episodes). Eventually, it will be useful to graduate from the emerging market asset class.

Finally, while implementing this medium-term framework, India could also adopt a clear communication strategy, to interact smoothly and transparently with market participants. Regular communications to reassert the commitment to sound policies and reminders of the resilient underlying fundamentals are likely to be helpful in such risk-off times, i.e., times when investors have lower risk tolerance.

II The Magnitude and Volatility of Capital Flows: Emerging Markets

According to conventional wisdom, capital flows are fickle. We analyse the trends in capital flows and the incidence of sudden stops since the 1990s in emerging markets in an attempt to confirm this conventional wisdom.[5] We make a distinction between FDI and non-FDI flows, and decompose the latter into portfolio equity, portfolio debt, and other flows. The other category, also commonly referred to as credit flows, includes flows through the banking sector (loans, deposits, and banking capital), loans raised by the private sector, and trade credits. We confirm the following stylized facts about capital flows.

FDI and non-FDI inflows that emerging economies receive are roughly equal in magnitude.[6] Within non-FDI flows, credit flows are the largest, followed by portfolio debt. The relative magnitude of credit flows has declined, while portfolio debt flows have increased, since the global financial crisis. Portfolio equity flows remain relatively small, averaging 0.16 percent of GDP a year over the entire period and only 0.12 percent a year in the last five years.

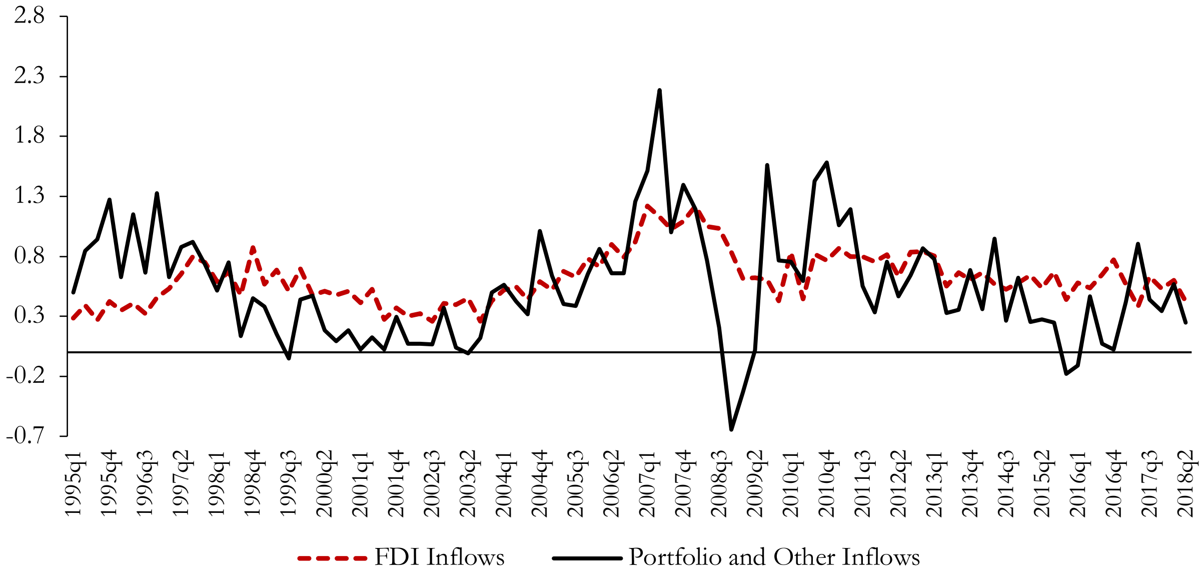
FDI inflows are definitely more stable than non-FDI inflows (Figures 1 and 2; Table 1). Within non-FDI inflows, portfolio debt and bank-intermediated flows remain the most volatile.

---

[5] Our sample includes 34 emerging countries, the same set of countries included in Eichengreen, Gupta and Masetti (2018), based on the availability of quarterly capital flows data.

[6] Annual average flows of FDI and non FDI flows to an emerging market economy are 2.6 percent and 2.7 percent of GDP respectively (unweighted averages).

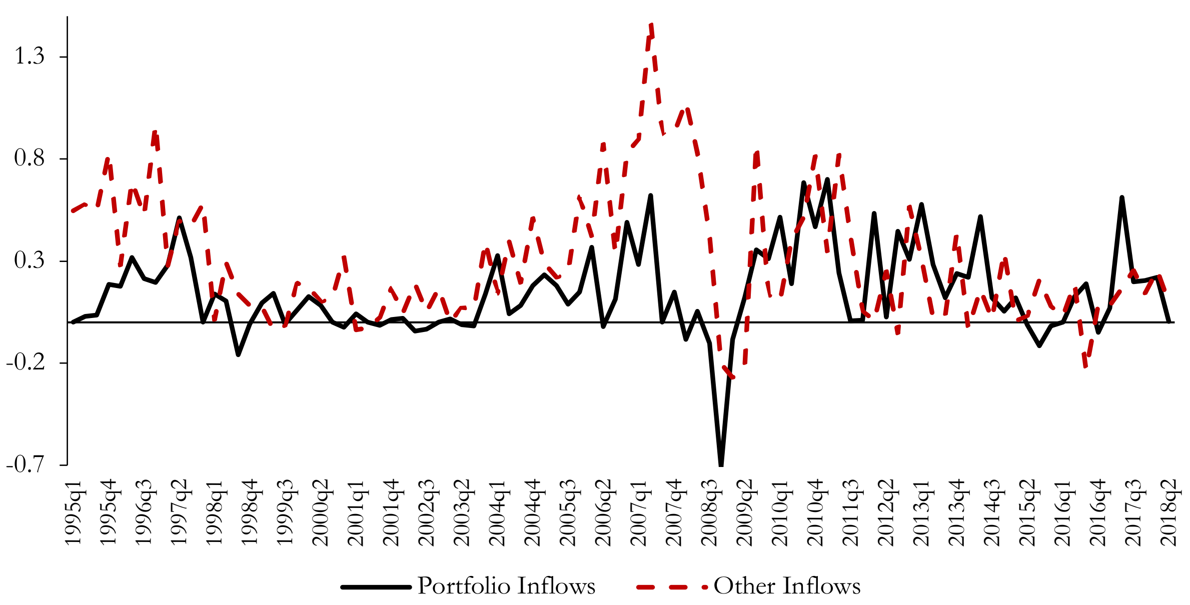
Figure 1: Magnitude of FDI and non-FDI flows
(Median flows for all emerging markets in % of Trend GDP)



Sources: Haver and authors' calculations.

Note: Calculated as a percent of annual trend GDP.

Figure 2. Portfolio and Other Capital Flows
(Median flows for all emerging markets in % of Trend GDP)



Sources: Haver and authors' calculations.

Note: Calculated as a percent of annual trend GDP.

Table 1. Trends in the Magnitude and Volatility of Capital Inflows and Outflows

			1991–95	1996–00	2001–05	2006–10	2011–18
FDI	inflows	Mean (quarterly average)	0.23	0.76	0.55	0.92	0.68
		Standard deviation	0.15	0.5	0.38	0.59	0.42
		Coeff. of variation	0.61	0.71	0.7	0.57	0.65
Portfolio equity	inflows	Mean (quarterly average)	0.06	0.05	0.03	0.05	0.03
		Standard deviation	0.1	0.12	0.09	0.21	0.15
		Coeff. of variation	1.35	1.56	2.21	1.99	2.48
Portfolio debt	inflows	Mean (quarterly average)	0.03	0.11	0.1	0.2	0.27
		Standard deviation	0.23	0.39	0.4	0.63	0.59
		Coeff. of variation	1.52	1.72	1.58	2.64	2.26
Other flows	inflows	Mean (quarterly average)	0.39	0.33	0.16	0.55	0.25
		Standard deviation	0.96	0.73	0.62	1.16	0.74
		Coeff. of variation	0.8	1.47	1	1.53	2.18

Note: The mean, standard deviation, and coefficient of variation reported in this table are the median values across all countries in the sample during the respective time periods. The coefficient of variation is the standard deviation, divided by the mean. Data are quarterly from 1990 Q1 to 2018 Q2. All capital flows are expressed as a % of annual trend GDP.

Eichengreen, Gupta, and Masetti (2018) explore correlates of capital flows by estimating regressions in which different types of capital inflows for country-quarter pairs are regressed on global factors, such as the Federal Funds Rate and the VIX (a commonly used measure of global risk aversion), and country-specific variables such as GDP growth, capital account openness, financial sector depth, and proxies for the business environment. An analysis of the factors correlated with capital flows reveals that, while FDI inflows are driven mainly by pull factors, portfolio debt and equity are driven mainly by push factors. Credit flows are driven by a combination of push and pull factors. A better investment climate, for example, is associated with larger FDI inflows. In contrast, growth and investment climate do not appear to act as pull factors on portfolio flows, which seem to be driven mainly by external factors. An increase in the U.S. policy rate predictably dampens portfolio debt flows. Higher global risk aversion reduces non-FDI, but not FDI inflows.[7]

To further highlight the volatility of capital flows and the impact such volatility can have on an economy, we identify sudden stops, that is, instances in which capital inflows dry up abruptly. These are defined as instances when FDI, portfolio equity and debt, and other inflows from non-residents:
1) fall below the average in the previous 20 quarters by at least one standard deviation,
2) this decline lasts for more than one quarter, and
3) when flows are two standard deviations below the prior average in at least one quarter.[8]

While FDI, portfolio equity, portfolio debt, and other inflows all decline during sudden stops, the decline is sharpest among credit flows and smallest in FDI. Credit flows recover most slowly. Sudden

[7] Global risk appetite is measured using the VIX.
[8] Episodes end if flows recover to at least the prior mean, minus one standard deviation.

stops have negative real and financial impacts, starting with the exchange rate depreciating; reserves declining; and equity prices falling. GDP growth then decelerates, investment slows, and the current account strengthens. On average, GDP growth falls by roughly 4 percent year-on-year in the first four quarters of a sudden stop (see Annex 1A, Table 1A.4). The experience of emerging markets with sudden stops exemplifies the volatility of capital flows and the real and financial impacts such volatility can bring about.

The next question to ask is what causes such episodes of sudden stops – and what, if anything, a country can do to avoid these. Eichengreen and Gupta (2018) analyse the correlates of sudden stops, their impacts, and the policy response to them since the 1990s. They compare the incidence of sudden stops in two periods: one lasting from the early 1990s until the early 2000s, and the other lasting from 2003 to 2016. One of the major findings of this work is that the relative importance of various factors in the incidence of sudden stops has changed even as the frequency and duration are largely unchanged. Global factors have become more important relative to country-specific characteristics and policies in their incidence. Incidentally, better economic outcomes and macroeconomic stability does not guarantee insulation from sudden stops. In addition, sudden stops now tend to affect different parts of the world simultaneously, rather than bunching regionally, further pointing to common factors – external to any of the affected countries – playing a key role in their incidence.

In accordance with the changing nature of sudden stops, the policy response to sudden stops has evolved, too. During the 1990s, countries responded to sudden stops by stepping down the exchange rate or floating the currency, and then supporting that new exchange rate or float with tighter monetary policy. In some cases, countries would also resort to programs with the International Monetary Fund (IMF), which were often conditional on trade reforms, fiscal tightening, and the privatization of public enterprises. Since the early 2000s, there has been less of a tendency to tighten monetary and fiscal policies. Less monetary stringency and some currency depreciation were feasible because countries maintained lower foreign currency mismatches, limiting balance-sheet damage from depreciation. Budgets being stronger, governments were able to respond with less fiscal consolidation. Recourse to the IMF was also less frequent in the 2000s, partly because countries had accumulated larger international reserves and had moved to more flexible exchange rates.

These findings point to the fact that stronger fiscal positions, more flexible exchange rates, deeper financial markets, and less foreign currency mismatch has not insulated emerging markets from sudden stops. It seems as if any benefit from stronger country fundamentals has been offset by larger external shocks. A more flexible and wider policy space, which means that the countries can afford to address the impact of sudden stops, has not limited the negative output effects either. While such stronger frameworks have allowed policy makers to respond more flexibly to the phenomenon, these more flexible responses have not mitigated the impact of the sudden stops. These results indicate that, because of the continued growth of international financial markets and transactions, countries are now exposed to larger capital flow reversals, and these larger reversals have more disruptive output effects. In other words, the challenge of understanding and coping with capital-flow volatility is far from fully met.

III India's Experience

How does India's experience fit in with these international patterns? Until the early 1990s, India maintained a fixed exchange rate, a relatively closed capital account, and a financially repressed financial sector. As a result, its capital account and financial markets were largely insulated from external shocks. Nonetheless, large fiscal and current account deficits and dwindling external reserves culminated in a balance of payments crisis in 1991, when India had to negotiate a program with the IMF to bridge the financing gap. Sweeping structural reforms were introduced in the aftermath, in conjunction with the IMF program.

One of the reforms that India introduced was to move gradually to a more flexible exchange rate. Another was to steadily liberalize capital flows in subsequent years. As a result, limits on inward FDI have been raised incrementally across sectors and eventually completely removed from some sectors. Restrictions on portfolio equity flows have been relaxed by raising the firm-specific and sectoral limits on shares of portfolio equity held by foreigners, by raising the ceilings on foreign investment in government and corporate debt, and by liberalizing external commercial borrowings (ECBs), that is, borrowings by Indian corporates in foreign currency.

Consequently, capital flows to India have evolved in three phases since the early 1990s. During the first phase, from the early 1990s through the early 2000s, capital flows rose steadily, but remained modest in magnitude. During this period, India managed to navigate a series of high-profile crises in Asia, Latin America, and elsewhere relatively unscathed, likely because of its relatively closed capital account.

In the second phase, from the early 2000s through 2007, the growth of inflows outpaced the growth of GDP and monetary aggregates, reflecting liberalization measures, but also the prevalence of easy liquidity globally. India rapidly integrated with international capital markets during this period.

The third phase started in 2008 and saw increased capital-account volatility. There was a sell-off of equities across emerging markets in 2008–09 following the collapse of Lehman Brothers. Outflows from India by portfolio investors amounted to nearly US$10 billion in three quarters starting in 2008 Q3, while equity markets declined by 33 percent during this period. The rupee depreciated by nearly 16 percent, and external reserves declined by US$36 billion, or about 13 percent of the initial stock, between September 2008 and March 2009.[9] GDP growth year-over-year declined to 0.2 percent in 2009 Q1 from above 8 percent growth in the preceding years, while inflation and the current account deficit increased.[10] In keeping with the experience of other countries, policy rates were lowered sharply; the repo rate was reduced from 7.8 in 2008 Q2 to 4.8 percent in 2009 Q2. Another policy response was to liberalize the economy additionally to foreign inflows, particularly the liberalization of sovereign and corporate debt flows.

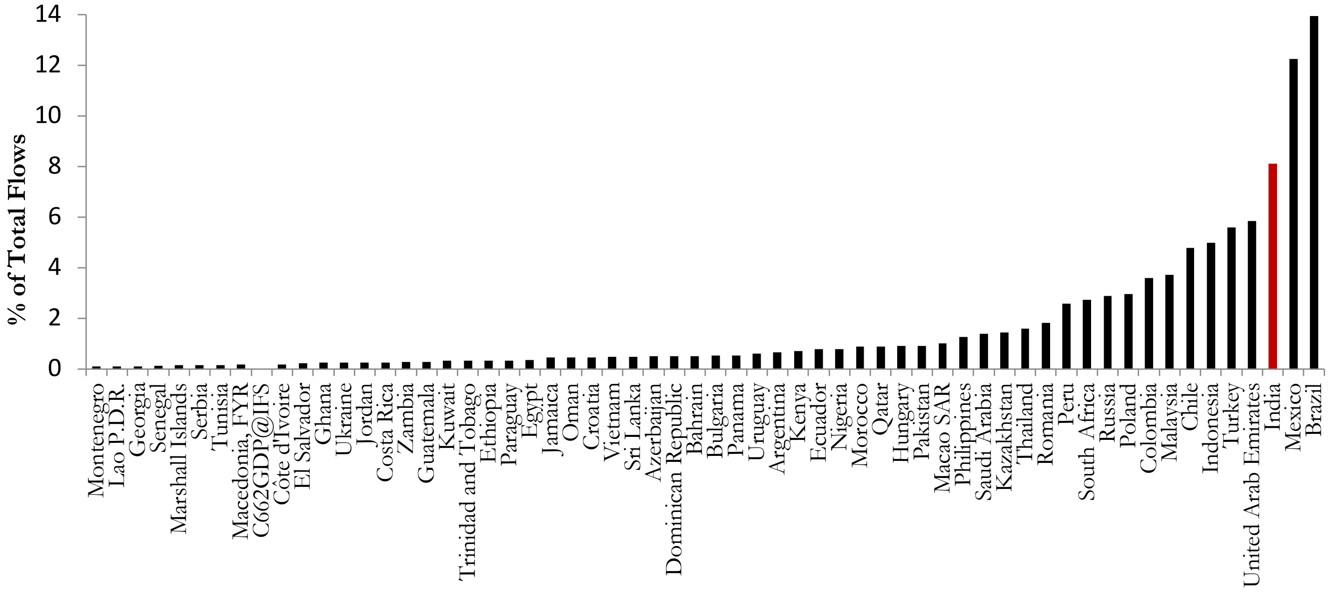
---

[9] Calculated using daily data on September 1, 2008 to March 31, 2009 in CEIC Data (database), CEIC, New York, https://www.ceicdata.com/en.

[10] This is based on data in a 2004–05 series. A back series of the 2011–12 series is currently unavailable at quarterly frequency. Additionally, 2009 Q1 in the text refers to Q4 2008–09.

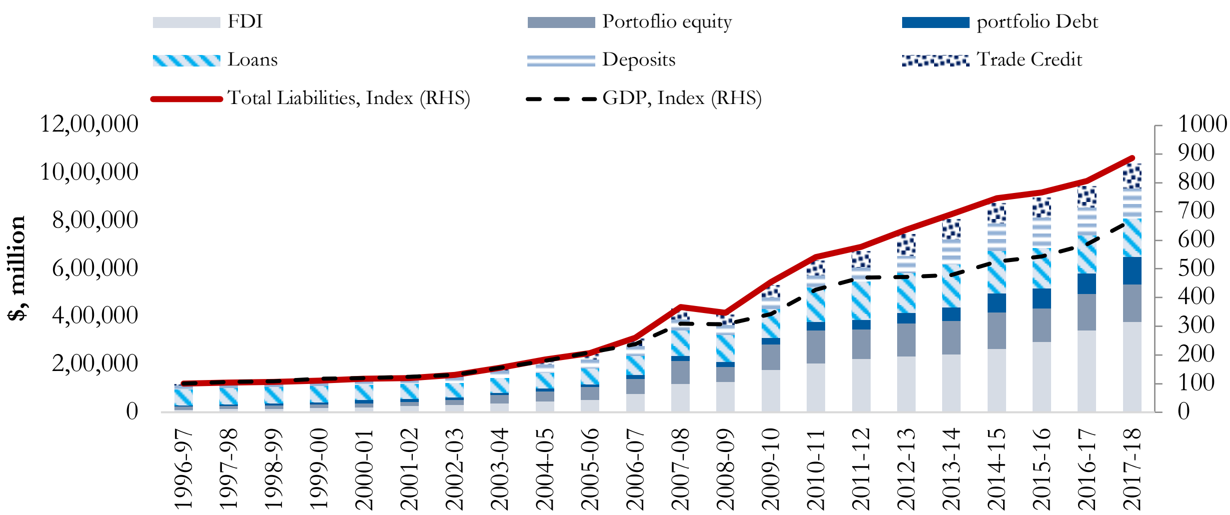
Today, at the end of this process, India is highly integrated into the global financial system. It is one of the largest recipients of private capital flows among emerging markets (Figure 3), attracting about 8 percent of the private capital flows and loans to emerging countries, excluding China, which attracts almost a third of total private capital flows to all emerging markets.[11] It follows that the stock of external liabilities has grown more quickly than GDP (Figure 4).

Figure 3. Allocation of Private Capital Flows (Equity, Bonds and Loans) across Emerging Markets, 2014 (% of flows to all emerging markets, excluding China)



Source: Global Financial Stability Report, IMF 2015.

Figure 4. Total External Liabilities Relative to GDP



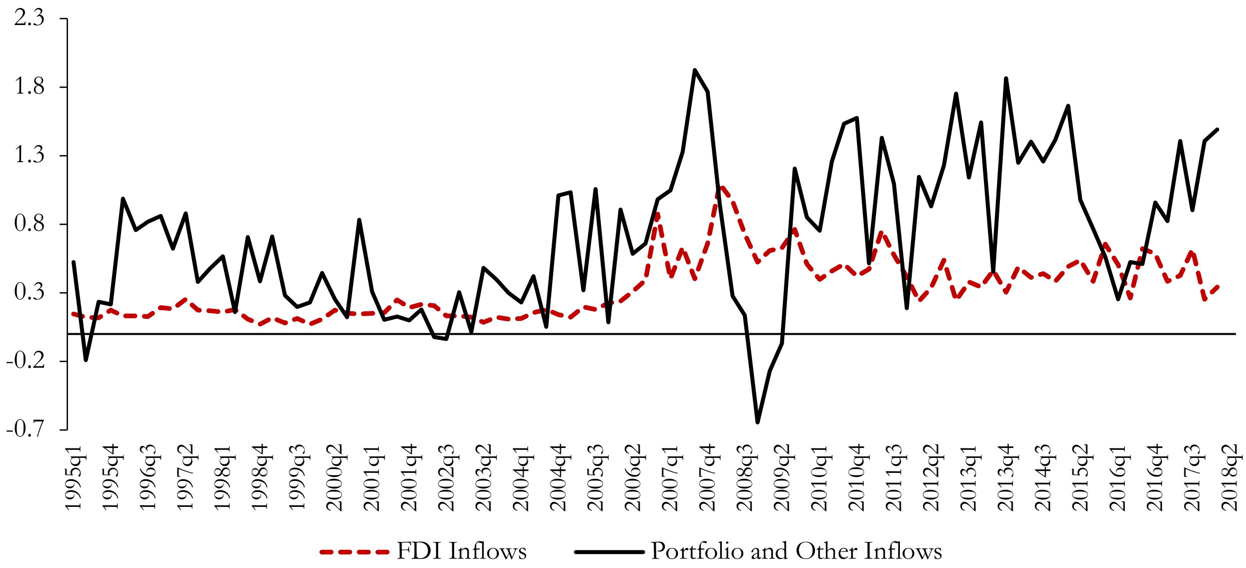
Source: RBI Handbook of Statistics on the Indian Economy; World Development Indicators, World Bank.
Note: Capital flows refer to net capital flows.

[11] This is as of 2015. Updated data are not available.

As in other emerging markets, FDI flows into India are less volatile than non-FDI flows (Figure 5). But capital flows into India are tilted away from FDI (Table 2). Annual FDI inflows average 1.1 percent of GDP, compared with non-FDI inflows of 3.5 percent of GDP since 1995. Even as the share of FDI flows has become larger in recent years, it still remains less than half the level of non-FDI capital flows. In comparison, the 34-country average is 2.5 percent of GDP for FDI inflows and 2.1 percent for non-FDI inflows. This may be one reason why India experiences relatively high levels of capital-flow volatility.[12]

Figure 5. Magnitude of FDI and non-FDI flows

(India, % of Trend GDP)

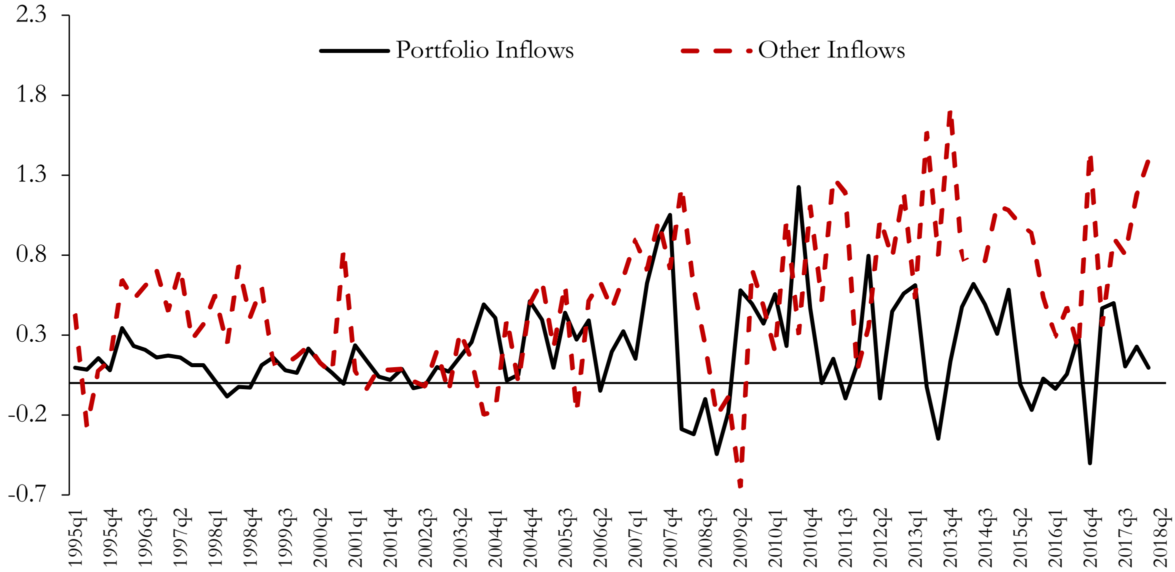


Sources: Haver and WB staff calculations.

Note: Calculated as a percent of annual trend GDP.

[12] That India receives a smaller share of inflows in the form of FDI may be attributed in part to residual restrictions on foreign ownership (Rao and Dhar 2018), but possibly even more to the regulatory environment and business climate or to the perceived low returns on FDI in India.

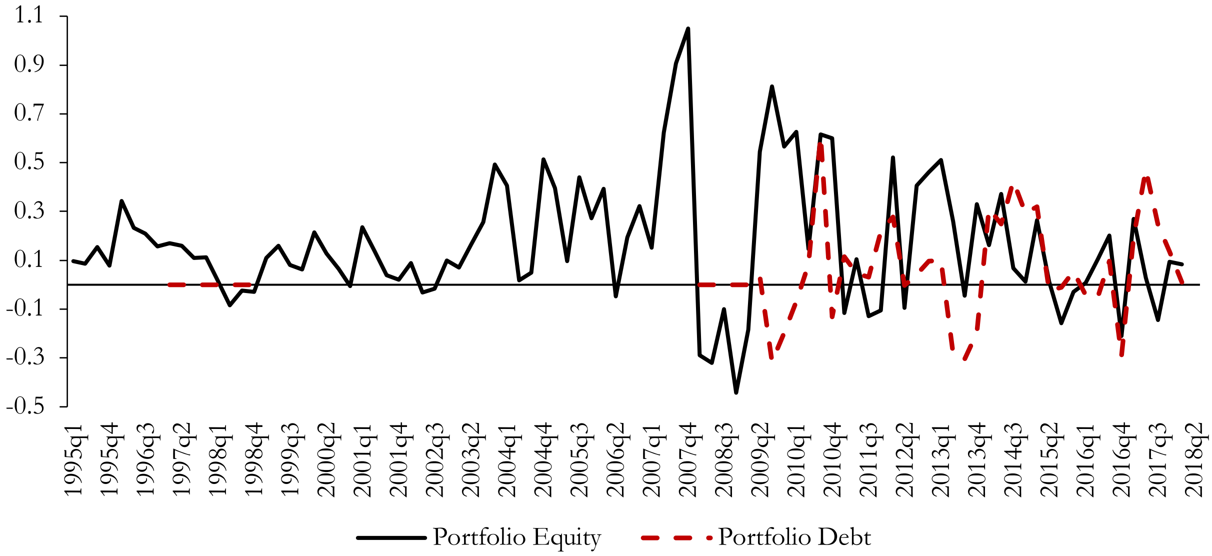
Figure 6. Portfolio and Other Capital Flows
(India, % of Trend GDP)



Sources: Haver and WB staff calculations.

Note: Calculated as a percent of annual trend GDP.

Figure 7. Portfolio Equity and Portfolio Debt Flows
(India, % of Trend GDP)



Sources: Haver and WB staff calculations.

Note: Calculated as a percent of annual trend GDP.

Table 2. Trends in the Magnitude and Volatility of Capital Inflows, India

			1991–95	1996–00	2001–05	2006–10	2011–18
FDI	inflows	Mean (quarterly average)	0.05	0.14	0.16	0.59	0.46
		Standard deviation	0.05	0.04	0.04	0.23	0.14
		Coefficient of variation	0.88	0.32	0.28	0.39	0.30
Portfolio equity	inflows	Mean (quarterly average)	0.12	0.11	0.19	0.32	0.12
		Standard deviation	0.16	0.10	0.18	0.45	0.22
		Coefficient of variation	1.34	0.94	0.95	1.41	1.89
Portfolio debt	inflows	Mean (quarterly average)	-	-	-	0.00	0.09
		Standard deviation	-	-	-	0.23	0.21
		Coefficient of variation	-	-	-	--	2.29
Other flows	inflows	Mean (quarterly average)	0.23	0.41	0.14	0.54	0.90
		Standard deviation	0.30	0.24	0.25	0.48	0.44
		Coefficient of variation	1.31	0.58	1.83	0.89	0.49

Note: The coefficient of variation is the standard deviation, divided by the mean. Data are quarterly from 1990 Q1 to 2018 Q2. All capital flows are expressed as a percentage of the annual trend GDP.

Within non-FDI flows, credit flows are the largest to India, averaging 1.8 percent of GDP, followed by portfolio equity of about 0.6 percent of GDP. The corresponding numbers for the 34-country average are 1.3 percent for credit inflows and 0.2 percent for portfolio equity. Portfolio debt flows, having been liberalized in the last decade, are now as large and at least as volatile as portfolio equity flows (Figures 6 and 7). This tilt toward portfolio flows may be another reason why India experiences capital flow volatility.

IV Emerging Market Sell-offs

While India has not witnessed another sudden stop since the global financial crisis, the period since then has been marked by emerging market sell-offs in 2013 and 2018. These events were milder than the full-blown sudden stops, as defined above. Their impact was notable nonetheless. It is to these episodes that we now turn.

The first of the sell-off events took place in 2013 when then-Federal Reserve Chairman Ben Bernanke unexpectedly mooted the possibility that the U.S. central bank might begin to reduce (taper) its asset purchases. The event is widely known as the taper tantrum. The second event was in 2018 when the Federal Reserve continued with interest rate normalization, and it became clear that the Fed was intent on raising the rates further. Combined with renewed trade tensions between China and the United States and rather large financial volatility in Argentina and Turkey, this resulted in capital flow reversals and financial volatility in several emerging markets.

The specific periods associated with the two episodes are considered to be May–September 2013 and April–October 2018, respectively. Although these events resulted in temporary sharp declines in capital inflows, the declines did not rise to the level of sudden stops as conventionally defined.[13] These episodes are referred to here as emerging market sell-offs. Both sell-offs were marked by exchange rate depreciation, declining equity prices, rising bond yields, and falling reserves in emerging markets. India was among the countries that were impacted sharply during these events.

This article examines three questions about these episodes: (1) How did the impact on India compare with that on other emerging markets? (2) What country-specific factors shaped that impact? and (3) How effective were the policies that were adopted in response, and what might be the ideal policies to address the impact of similar events?

Table 3. Cumulative Percentage Changes in Capital Market Conditions during Emerging Market Sell-Off Events

	2013 (April–August)	2018 (March–October)
Exchange rates		
Share of countries in which exchange rates depreciated	30/53	48/51
Mean depreciation	6.21	10.29[a]
Median depreciation	5.62	7.52
Foreign reserves		
Share of countries in which reserves declined	29/51	28/35
Mean decline, %	−6.21	−7.25
Median decline, %	−4.55	−6.57
Stock market index		
Share of countries in which stock market indexes declined	25/38	31/37
Mean decline, %	−6.94	−9.42
Median decline, %	−6.21	−8.45
Sovereign bond spreads		
Share of countries in which bond spreads increased	23/31	23/31
Mean increase, basis points	61.39	112.6
Median increase, basis points	58	78.5

Source: Calculated based on data of the Global Economic Monitor database, World Bank.

Note: Average exchange rate depreciation during 2018 episode includes Argentina (depreciation of 83.2 percent) and Turkey (depreciation of 49.3percent), making the mean larger than during the tapering event. Mean depreciation is 7.86 percent if these 2 countries are dropped from the calculation.

In the case of the 2013 tapering episode, the analysis first considers the data on 53 emerging countries, following the work of Eichengreen and Gupta (2015). The analysis shows that 30 of the 53 countries experienced some exchange rate depreciation between the end of April and the end of August 2013 (Table 3). The average rate of depreciation was over 6 percent, and the exchange rates of

13 Excitable press coverage notwithstanding, interruptions to capital flows during the sell-off events of 2013 and 2018 were milder than the sudden stops of prior years. The sell-off episodes were shorter, entailed smaller reversals, and had a milder impact on financial and real variables compared with sudden stops..

half the countries depreciated by more than 5.5 percent.[14] Some of the largest changes were in Brazil, India, and South Africa.

The data on stock market indexes are available for fewer countries. Stock markets declined in 25 of the 38 countries on which data are available. The cumulative decline between April and August 2013 averaged 6.9 percent, and the median decline was 6.2 percent. The effect is seen to be much more heterogeneous on stock markets than on exchange rates. In several emerging markets (Chile, the Czech Republic, Indonesia, Kazakhstan, Peru, Serbia, and Turkey), the decline in the stock market was more than 10 percent, and it was much smaller in others.

Data on sovereign bond spreads are available for a subsample of the countries, but almost three-quarters of countries on which there are data experienced an increase in spreads; the mean effect was about 60 basis points. The countries with the largest increase in bond spreads were Ghana, Indonesia, Morocco, Ukraine, and Venezuela; the latter two experienced increases in spreads of over 150 basis points.

The impact of the 2018 episode was even more widespread. Of the 51 countries tracked for this analysis, 48 experienced some depreciation. The mean depreciation was 10 percent (after including Argentina and Turkey, but 7.9 percent excluding them). Similarly, a larger number of countries, 31 of the 37 on which data are available, experienced a decline in equity prices. The average decline was to the tune of 9.5 percent. Increase in bond yields and the decline in reserves, too, was larger during the 2018 episode.

Table 4: Fragile Five during the Selloff events

	Fragile Five during the 2013 Selloff				**Fragile Five during the 2018 Selloff**		
	% Change in Nominal Exchange Rate	% Change in Stock Indices	% Change in External Reserves		% Change in Nominal Exchange Rate	% Change in Stock Indices	% Change in External Reserves
Brazil	17.01	-5.28	-3.07	Argentina	83.21	-5.19	-
India	15.7	-3.32*	-5.89	Turkey	49.36	-18.3	-21.85
South Africa	10.6	6.81	-5.05	South Africa	22.81	-8.46	-18.3
Turkey	9.21	-15.38	-4.56	Russia	15.24	-9.35	0.34
Indonesia	8.33	-14.21	-13.3	Brazil	14.71	-1.17	0.19
				India	13.11	3.58	-7.64

Source: Calculated based on data of the Global Economic Monitor database, World Bank.
Note: Percent change calculated between April to August 2013; and between March to October 2018 respectively, using monthly averages from the Global Economic Monitor database of the World Bank. * Decline in stock prices in India was 10 percent if calculated using daily data between May 22 and August 31, 2013; and about 11 percent if calculated using daily data between August 31 and October 31, 2018.

[14] A larger number of countries experienced depreciation initially, but then recovered by August.

Although the 2013 tapering episode affected a large number of emerging markets, commentary focused on Brazil, India, Indonesia, Turkey, and South Africa, which were christened the fragile five. In all five countries, currencies depreciated, and reserves declined. Equity prices declined in all but South Africa (Table 4). The largest depreciation was in Brazil; the largest decline in stock prices was in Turkey; and the largest loss in reserves was in Indonesia. India had the second largest exchange rate depreciation and the second largest decline in reserves.

Three of these five countries were impacted the most in 2018. The Turkish lira depreciated by 49 percent while the Central Bank of Turkey lost 21 percent of its reserves. In South Africa's case, the rand depreciated by 23 percent, and the reserves fell by 18 percent. The impact on India was comparable with that during the 2013 event. The rupee depreciated by 13 percent, while the RBI's reserves declined by about 8 percent. Equity prices were not initially affected; they did decline eventually, albeit much later during the episode.[15]

V Who Was Hit – and Why

Eichengreen and Gupta (2015) relate the movement of exchange rates, reserves, and equity prices during the 2013 sell-off to (1) observable macroeconomic fundamentals, such as the budget deficit, public debt, foreign reserves, and GDP growth in the prior period; (2) the size and openness of financial markets; and (3) capital flows and the extent to which capital flow–sensitive indicators (such as the real exchange rate and the current account balance) moved in the prior period. Because potential explanatory variables within each category are correlated, the authors include only one variable from each category in their regressions.[16]

Their results indicate that countries with stronger macroeconomic fundamentals (smaller budget deficits, less debt, more reserves, and stronger growth rates in the immediately prior period) were not rewarded with smaller falls in exchange rates, foreign reserves, and stock prices. The stance of fiscal policy or the intensity of capital controls in the prior period did not exert a consistently significant impact on the effects of tapering. The results do not support the presumption that countries with smaller budget deficits, less debt, more reserves, and stronger growth rates in the prior period were impacted less by the emerging market sell-off in 2013.

What mattered more was the size of the financial markets of the countries. Investors seeking to rebalance their portfolios concentrated on emerging markets with relatively large and liquid financial systems; these were the markets where they could most easily sell without incurring losses and where there was the most scope for portfolio rebalancing. The results also indicate that the largest impact of tapering was felt by countries that attracted large volumes of capital flows and that allowed exchange rates to appreciate and current account deficit to widen most dramatically during the earlier period when large amounts of capital were flowing into the economies.

---

[15] During both episodes, the Indian stock market was not affected by capital flow reversals initially, and it grew. Equity prices reacted negatively later during the episodes, but, even then, the cumulative impact was smaller there than in other countries.

[16] The robustness tests conducted by the authors confirm that the results are comparable if alternative measures of size are included.

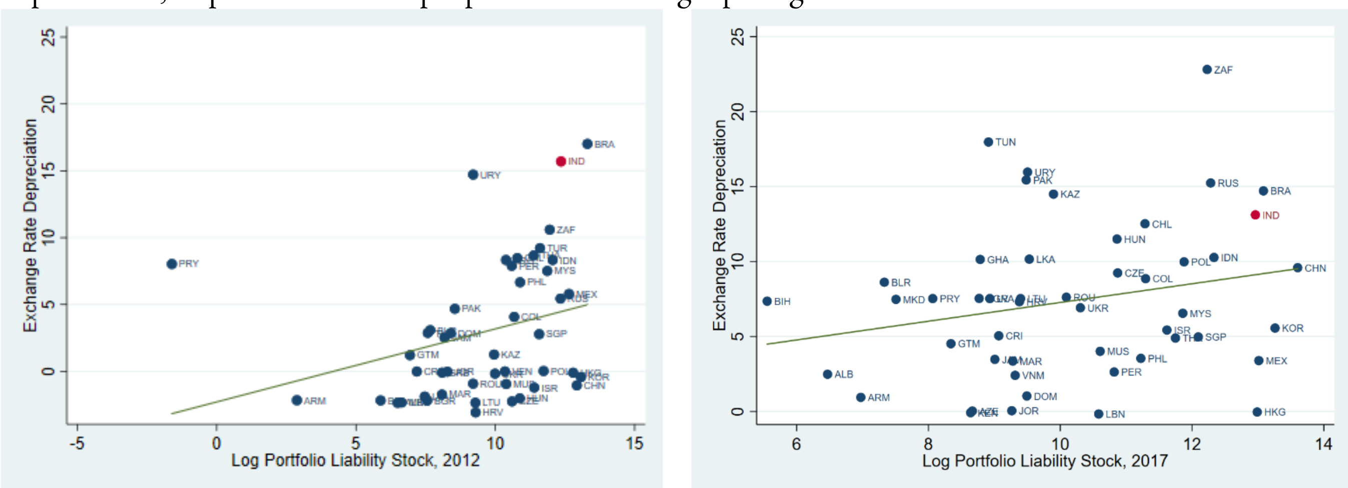
This experience contrasts with the frontier markets with smaller and less liquid financial systems. Eichengreen and Gupta (2015) consider this a reminder that success at growing the financial sector can be a mixed blessing. Among other things, it can accentuate the impact on an economy of financial shocks emanating from outside the country.

In this article, we use a similar approach to analyse the impact of the 2018 sell-off (Figures 8 and 9). The experience turns out to be similar to the one in 2013. The correlation between the size or liquidity of financial markets and the extent of exchange rate depreciation continues to be positive and significant.[17] Countries with less debt and more reserves were, once again, not rewarded with significantly smaller falls in exchange rates, reserves, and equity prices, whereas inflation and the current account deficit were again positively correlated with exchange rate depreciation.

Figure 8. The Size of Financial Markets and the Effect on Exchange Rates during the Sell-Off Event

2013	2018

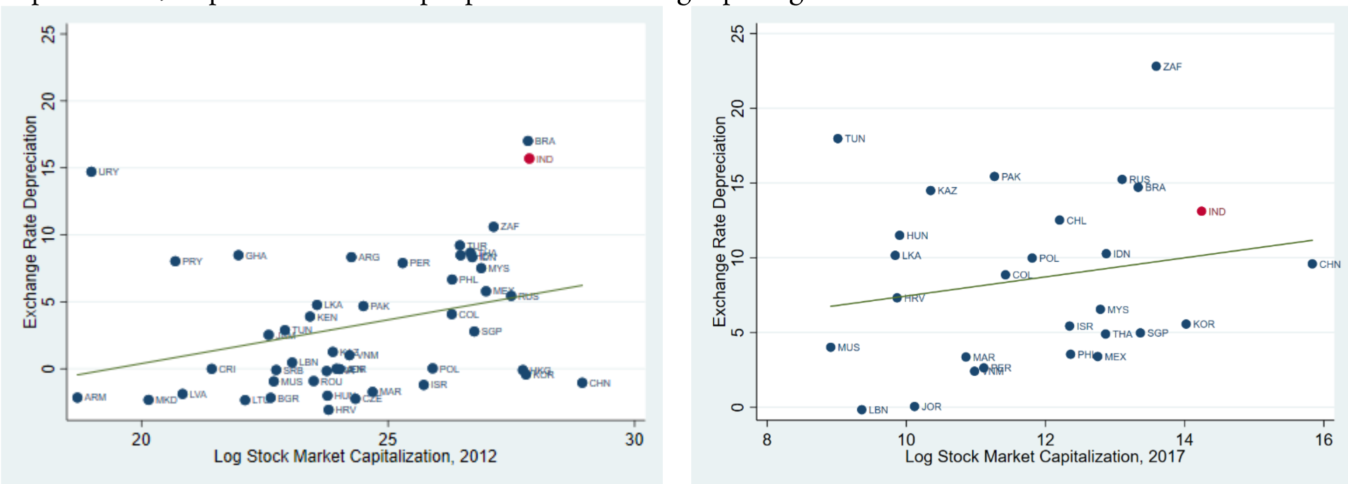
a. Larger financial markets, proxied by stock of portfolio liabilities, witnessed larger exchange rate depreciation; impact on India disproportionate during tapering talk



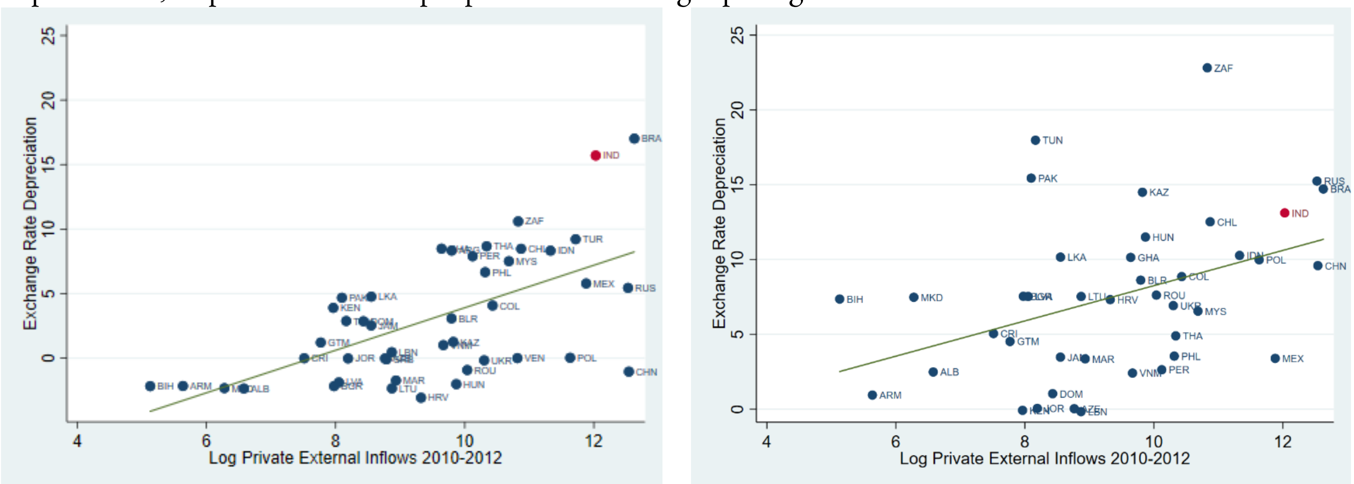
---

17 The analysis establishes this correlation in the entire sample that includes Argentina and Turkey, countries with the largest exchange rate depreciation, and also in the sample excluding these countries. As in Eichengreen and Gupta (2015), the analysis considers several measures of the size of a financial market, such as total external private financing received via inflows of equity, bonds, and loans during 2010–12 (from IMF 2015); the stock of portfolio liability (from Lane and Milesi-Ferretti 2017); cumulative portfolio capital flows in three prior years; stock market capitalization; stock market turnover; and aggregate GDP. The various measures are highly correlated, and the use of these alternatives has little material impact on the results.

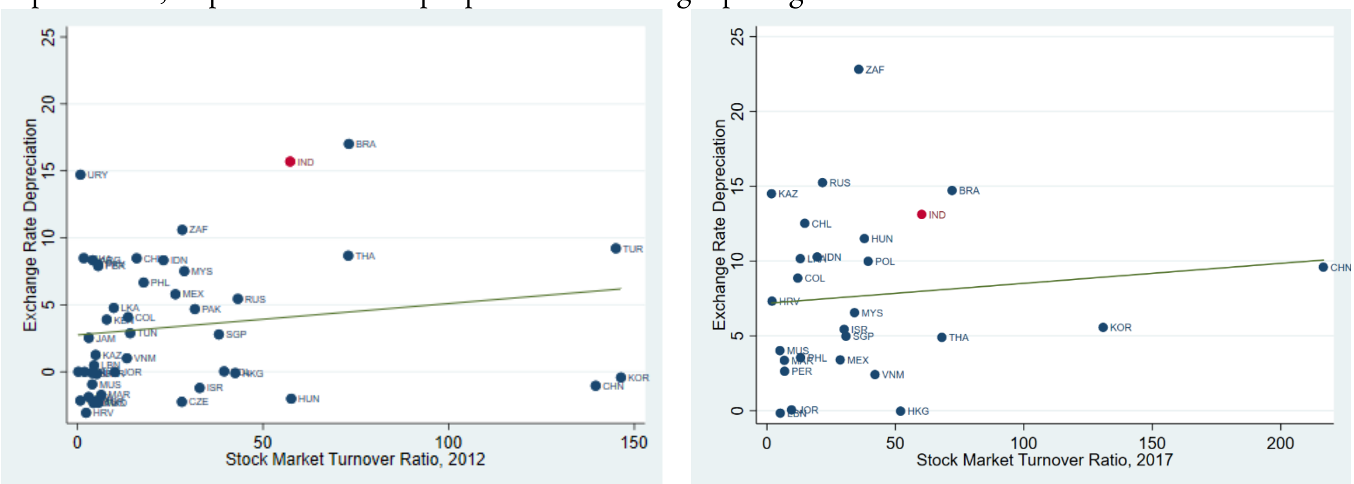
b. Larger financial markets, proxied by stock market capitalization/GDP, witnessed larger exchange rate depreciation; impact on India disproportionate during tapering talk



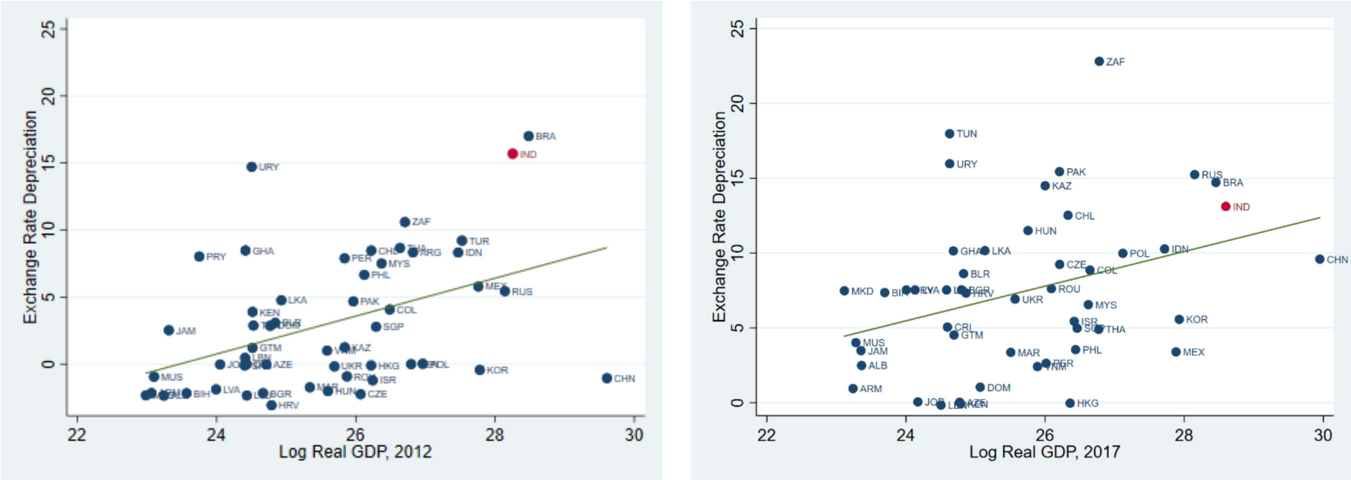
c. Larger financial markets, proxied by private external financing, witnessed larger exchange rate depreciation; impact on India disproportionate during tapering talk



d. More efficient financial markets, proxied by stock market turnover ratio, witnessed larger exchange rate depreciation; impact on India disproportionate during tapering talk



e. Larger economies witnessed larger exchange rate depreciation; impact on India disproportionate during tapering talk



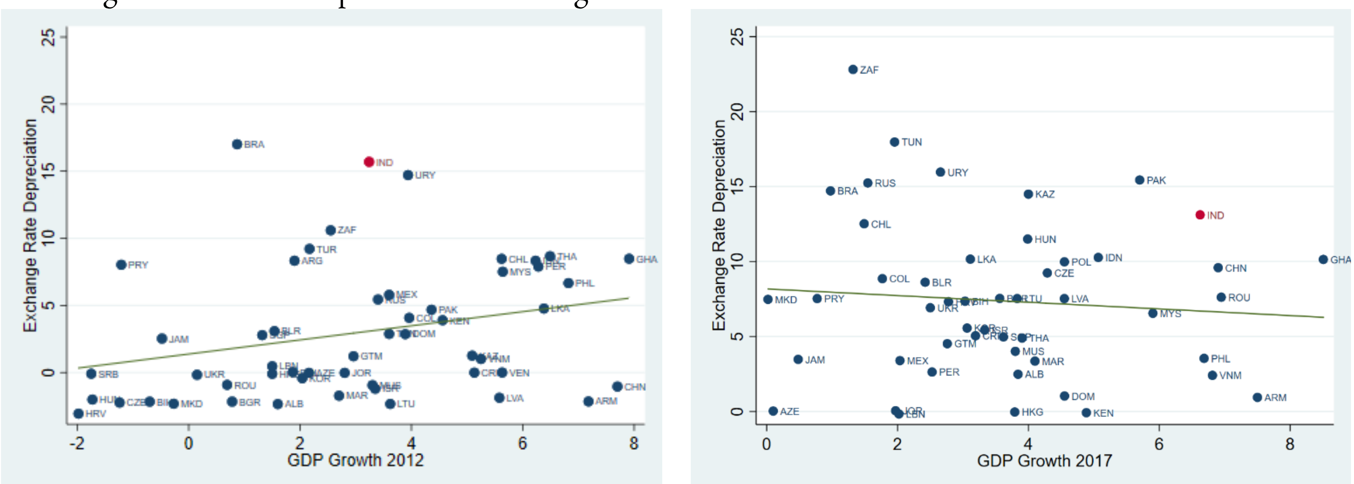
f. Economies with greater portfolio inflows in the preceding years witnessed larger exchange rate depreciation; impact on India disproportionate during tapering talk

Note: See Annex 1C for variables and sources. The panels exclude Argentina and Turkey from the 2018 event.

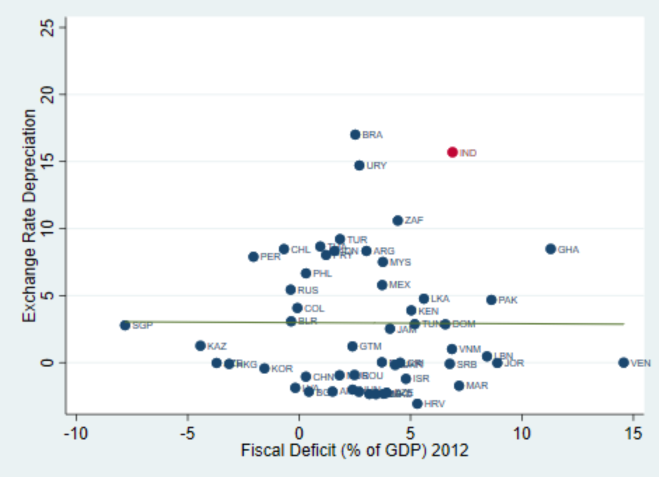
Figure 9. Additional Correlates of the Impact of the Two Sell-Off Events

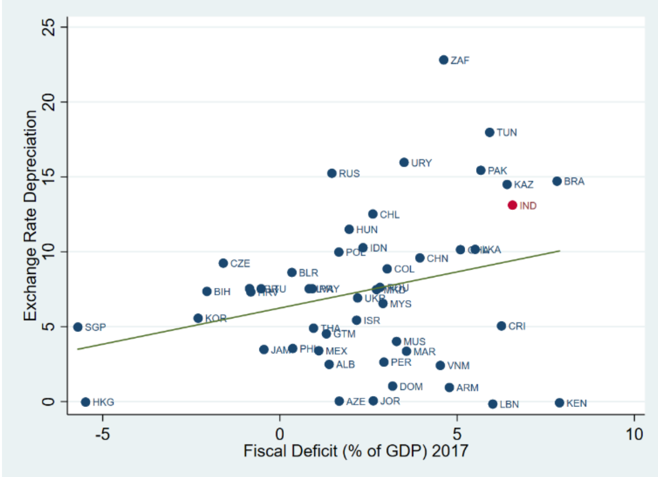
2013	2018

a. GDP growth and the impact on the exchange rate are not correlated

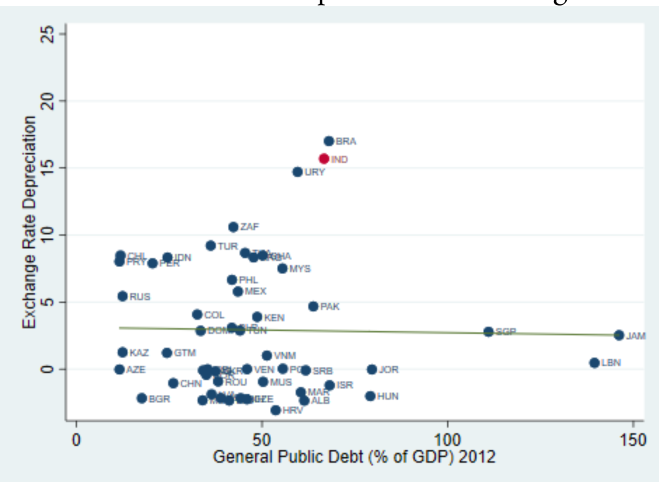


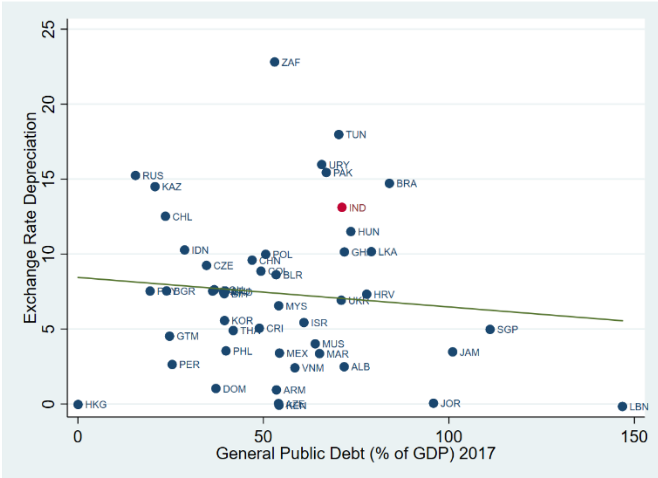
b. The fiscal deficit and the impact on the exchange rate are not correlated in 2013, but seem corelated in 2018



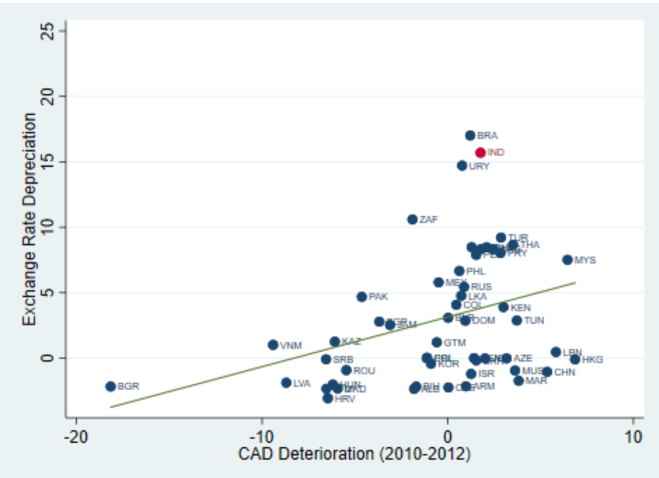


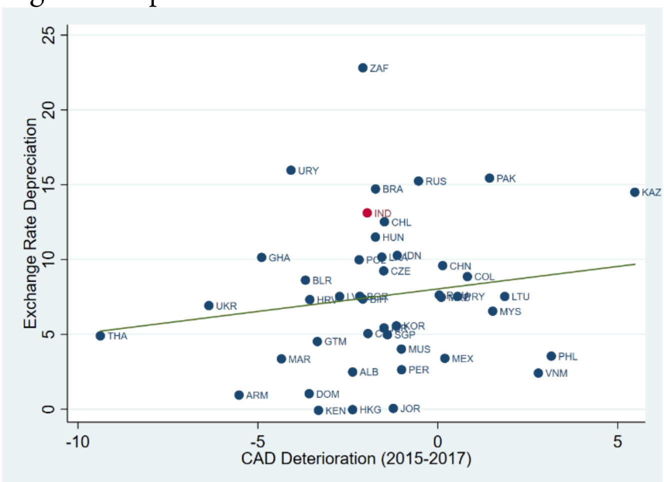
c. Public debt and the impact on the exchange rate are not correlated



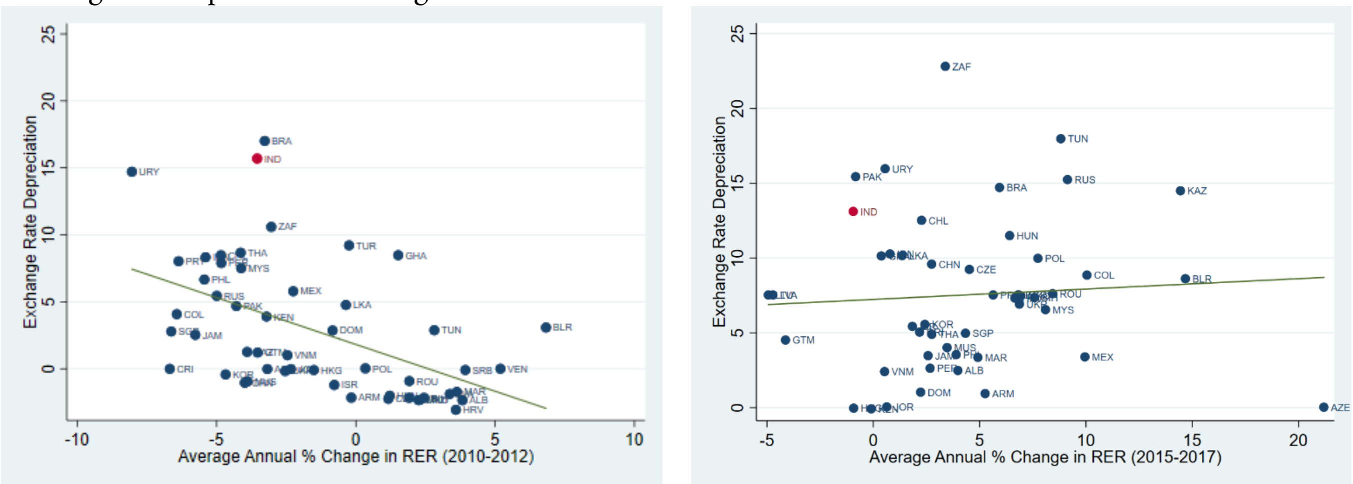


d. The increase in the current account deficit and exchange rate depreciation seem correlated

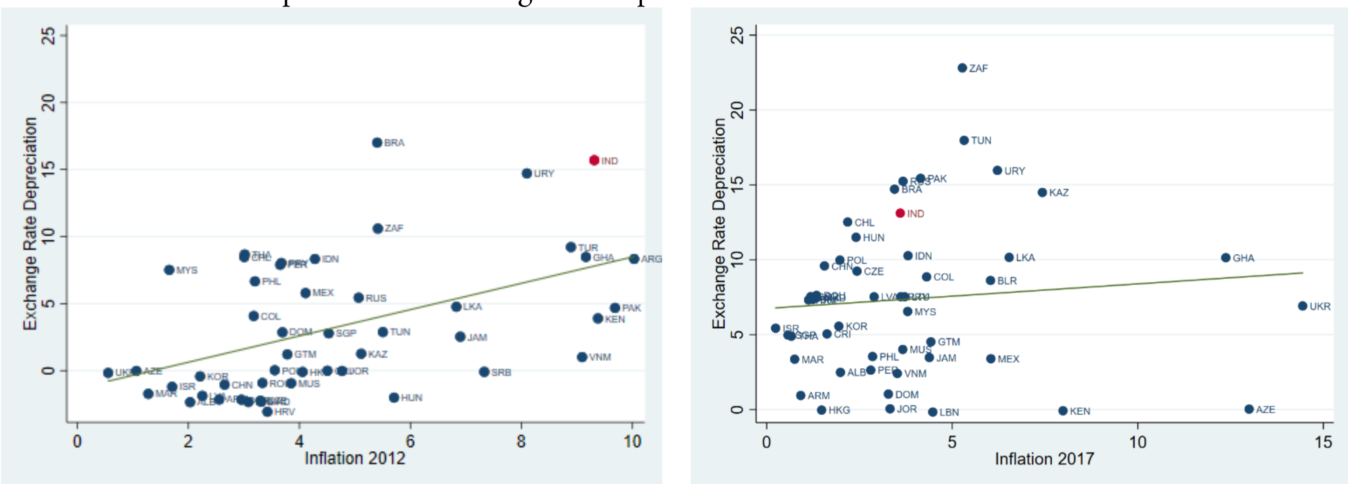




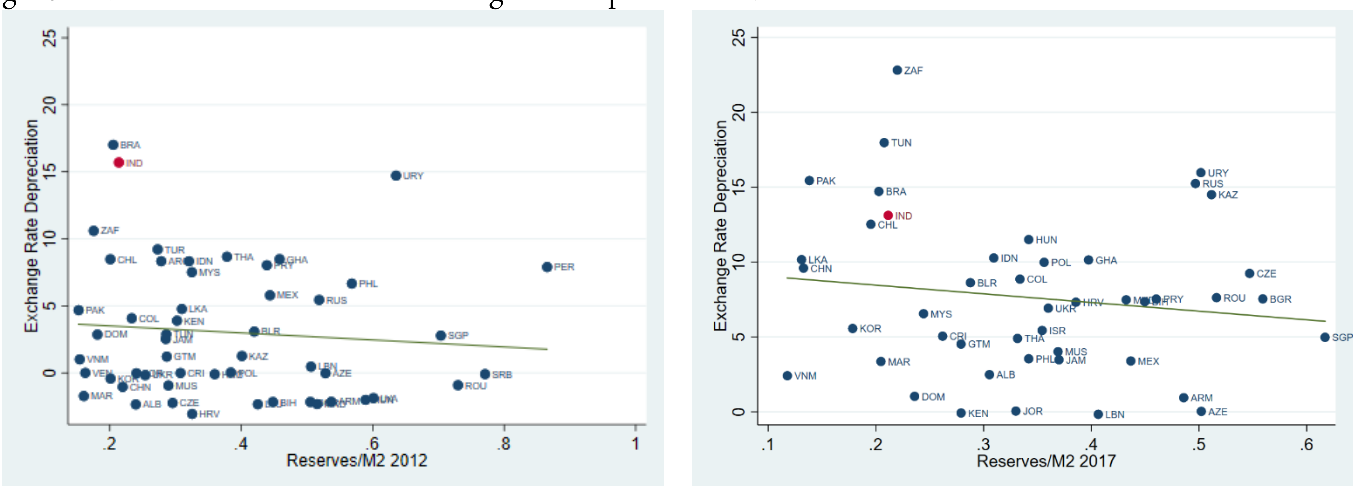
e. There is no apparent correlation between the real exchange rate appreciation in prior years and the exchange rate depreciation during the sell-off events



f. Inflation and the impact on the exchange rate depreciation are correlated



g. Reserves to the M2 ratio and exchange rate depreciation does not seem to be correlated



Note: See annex 1C for source. The panels exclude Argentina and Turkey from the 2018 event.

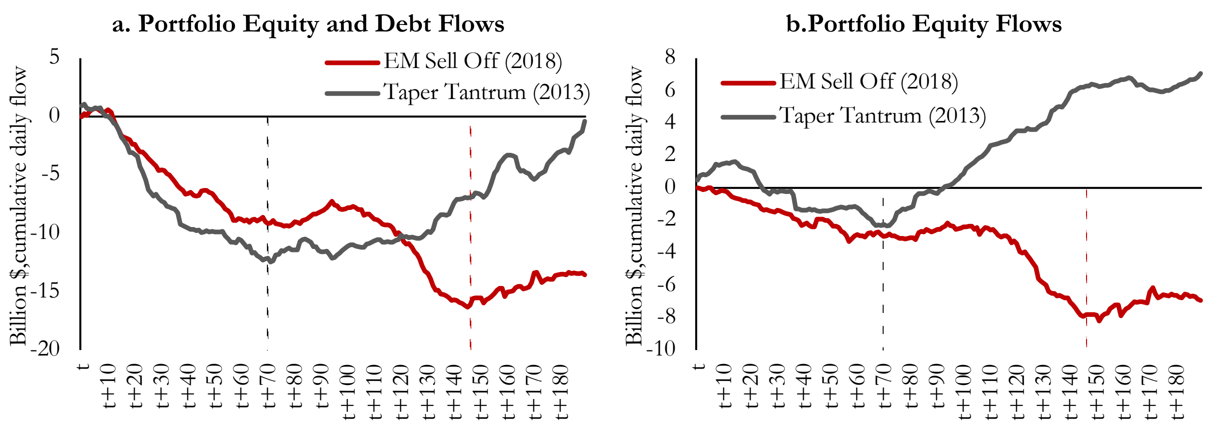
VI The Impact on India

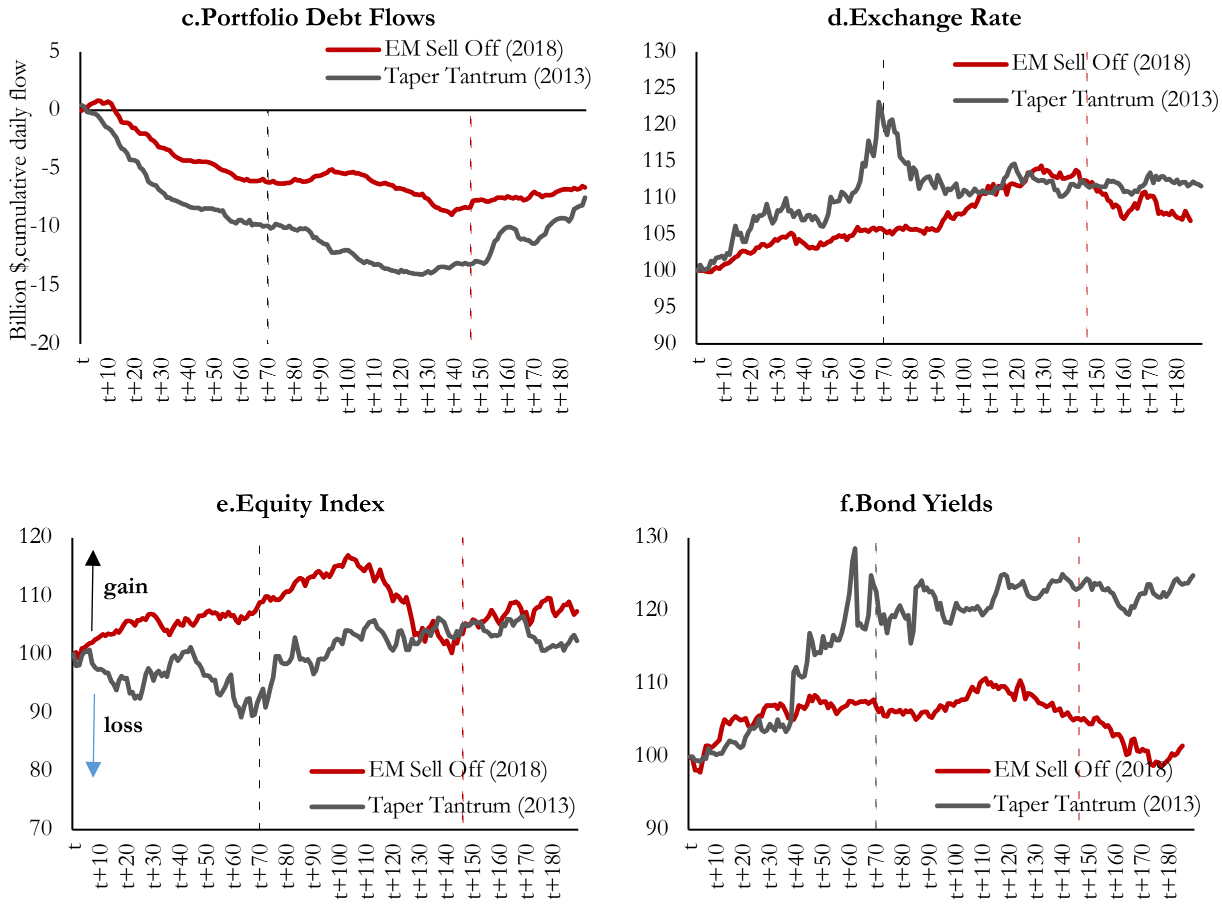
Capital flows to India reversed, and Indian financial markets reacted negatively during both sell-off events (Figure 10). Cumulative capital flow reversal was slightly larger in 2013, when the cumulative withdrawal of capital totalled about US$10 billion during the first 50 days of the event, compared with US$7 billion during the corresponding period in 2018. This was due to larger withdrawal of debt flows initially during 2013, even though the withdrawal of equity flows was similar across the two episodes. As a result, there was a larger increase in bond yields and large exchange rate depreciation during the first two months of the 2013 event.

The pattern evolved later during the event as equity outflows accelerated in 2018, and total capital flow reversals surpassed the level seen in 2013. As a result, at its peak, the total withdrawal of capital was US$12.5 billion during 2013 and about US$16.3 billion during the 2018 episode. Exchange rate depreciation and equity market correction increased toward the end of the 2018 episode.

Another comparison worth making is in the state of macroeconomic conditions prior to the two events (Figure 11). Economic growth had weakened noticeably in the period prior to the 2013 episode, and the economy was running a high current account deficit, high inflation, and an overvalued exchange rate. In contrast, India exhibited somewhat stronger fundamentals prior to the 2018 sell-off event. These were reflected in a higher growth rate, a lower current account deficit, a lower and declining inflation rate, and a stable fiscal deficit.

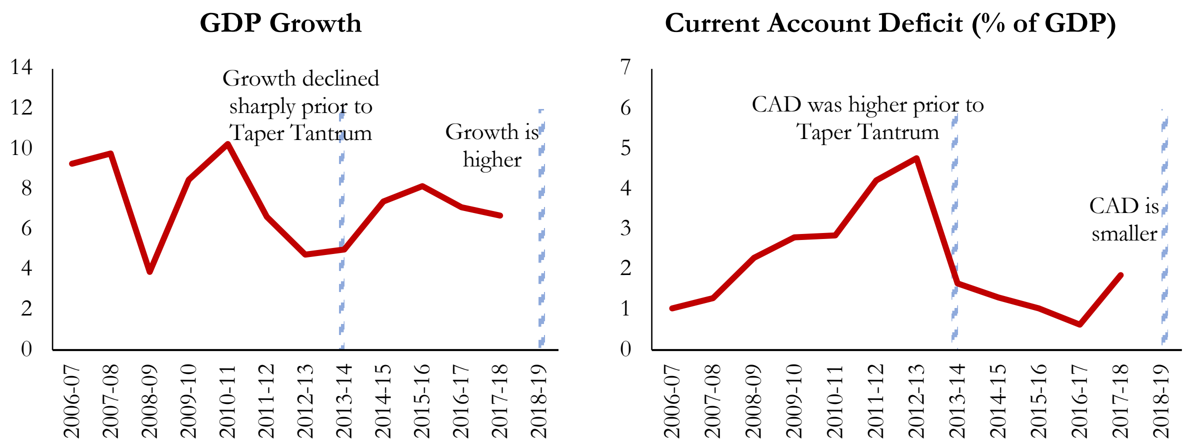
Figure 10. The Impact of Emerging Market Sell-Off Events on Indian Financial Markets

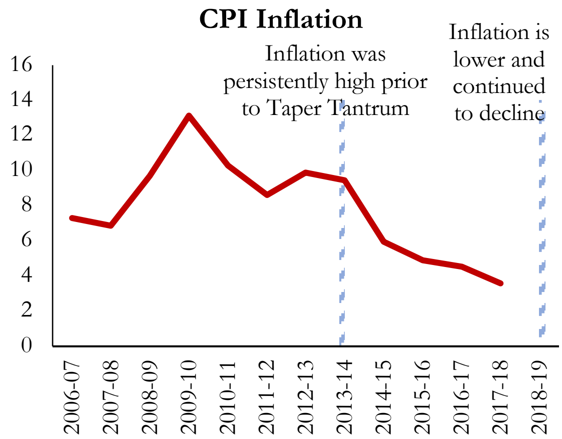


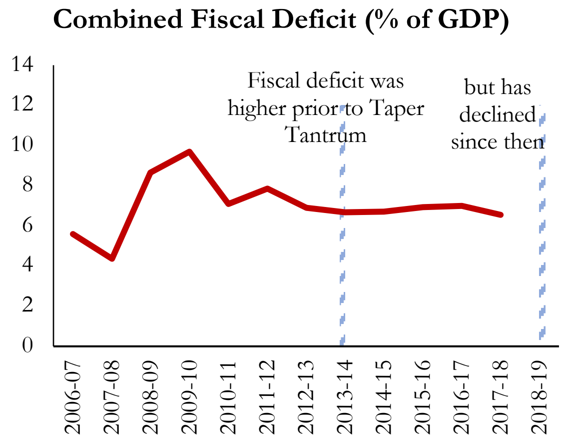


Sources: Haver Analytics and CEIC.
Note: The 2013 episode started on May 22, 2013 (t = 1), and the 2018 event started on April 1, 2018 (t = 1). The vertical lines in the panels indicate the end of the respective sell-off events, which are end-August 2013 and end-October 2018, respectively.

Figure 11. Macroeconomic Fundamentals around the 2013 and 2018 Sell-Offs







Source: CEIC

VII The Policy Response

India announced a number of conventional policy measures to cope with the impact of the 2013 event. The RBI intervened to limit exchange rate depreciation, using some US$13 billion of reserves between end-May and end-September; and increased the marginal standing facility rate (its overnight lending rate) by 200 basis points to 10.25 percent. Because gold imports were partly responsible for a large current account deficit, the government raised the import duty on gold from 6 percent to 15 percent cumulatively. India being an oil importing country, the demand for foreign exchange from companies that import oil apparently added significantly to the overall demand for foreign currency. The RBI opened a separate swap window for three public sector oil marketing companies to remove their demand from the private foreign exchange market and reduce exchange rate volatility.[18]

In addition, new measures to attract capital through deposits targeted the Indian diaspora.[19] The duration of an existing swap line with Japan was extended, and its limit was raised from US$15 billion to US$50 billion. The RBI increased the foreign borrowing limits for banks with capital ratios of at least 12 percent, from 50 percent of unimpaired Tier-I capital to 100 percent (for borrowings of at least three years); the RBI offered to swap these borrowings at a concessional rate of 100 basis points below the market swap rate. It imposed new measures to restrict capital outflows, including reducing the limit on the amount residents could invest abroad or repatriate.

Basu, Eichengreen, and Gupta (2015) have conducted event-study regressions to assess the effectiveness of these measures. The regressions compare the values of the exchange rate and financial market variables in a short window after the policy announcement with those prior to the

[18] None of these policy measures were novel in the Indian context, having been implemented at different times in the past. For example, the import duty on gold was prevalent until the early 1990s; deposits from the Indian diaspora (described below) were attracted in a similar fashion twice in the past, in 1998 and in 2000; a separate swap window was made available to oil-importing companies in 2008 to reduce volatility in the foreign exchange market after the collapse of Lehman Brothers.

[19] The RBI offered a swap facility to the banks to swap their exchange rate risk; the banks could buy this exchange rate risk coverage at a cost of 300 basis points, and they then offered around a 4 percent or 5 percent interest rate on dollar deposits to the diaspora. The total cost of these deposits thus worked out to about 7.5 percent.

announcement. They deployed a five-day post announcement window in their baseline regressions, but also considered shorter windows of two or three days, which yielded similar results. For the control period, they considered two options: first, the entire tapering period from May 22 until the day of the policy announcement and, second, a shorter control period of one week prior to the announcement.

The regression specification is given in equation 1.1, in which *Y* is the log exchange rate, the log stock market index, portfolio debt flows, or portfolio equity flows (portfolio flows are in US$ millions)

$$\mathbf{Y_t = constant + \mu \text{ Bond Yield in the } US_t + \alpha \text{ Tapering Talk } Dummy_t + \beta \text{ Dummy for a week prior to Policy } Announcement_t + \gamma \text{ Dummy for Policy } Announcement_t + \varepsilon_t} \quad \mathbf{(1.1)}$$

The regressors include U.S. bond yields to account for global liquidity conditions and three separate dummies, one each for the tapering period (from May 23, 2013, until a week before the policy announcement was made), for the week prior to the policy announcement, and for the week after the policy announcement. The authors estimate these regressions using data from January 1, 2013, up to the date the policy dummy takes a value of 1, dropping subsequent observations.[20]

Based on the results they conclude that, overall, these measures, including a separate swap window for oil-importing companies, were of limited help in stabilizing financial markets. Some initiatives, such as restricting capital outflows, were counterproductive – they seemed to have undermined investor confidence.

Policy makers have responded similarly to the 2018 sell-off event. The RBI again intervened in the foreign exchange market, expending nearly US$34 billion of reserves, about 8.0 percent of the initial stock, between mid-April and October 2018.[21] It raised policy rates twice, by 25 basis points each time. It relaxed limits on foreign purchases of central government securities and norms on External Commercial Borrowings (ECBs). To ease the pressure of rising crude oil prices, oil marketing companies were allowed to raise ECBs under easier terms. In addition, a US$75 billion swap line was signed with Japan, under which India can acquire dollars from Japan in exchange for rupees.

We assessed the short-run impact of some of these policies announced and implemented by India during the 2018 emerging market sell-off using a framework similar to the one deployed in Basu, Eichengreen, and Gupta (2015).[22]

The RBI increased the repo rate twice during the 2018 sell-off episode, each time by 25 basis points, once on June 6, 2018, and again on August 1, 2018. The results from event study regressions show

[20] They acknowledge the limitations involved in identifying causality using these regressions because of the difficulty in establishing the counterfactual and in controlling for all the relevant factors that may affect the financial markets.
[21] The decline in reserves is based on daily data from CEIC. The reserves declined from $426 bn on April 13, 2018 to $392 bn on October 26, 2018.
[22] Like Basu, Eichengreen, and Gupta (2015), the acknowledgment is made here of the limitations in establishing causality with these regressions.

that the rate of rupee depreciation and portfolio outflows did not stabilize in a few days following the increase in interest rates (Table 1B.2).[23]

Various policy announcements were made between April and October 2018 to liberalize ECBs, portfolio investment in government securities, and masala bonds[24]. On April 6, 2018, the RBI increased the limit for foreign portfolio investment in government securities by 0.5 percent (each year) to 5.5 percent of the outstanding stock of securities in 2018–19 and 6 percent of the outstanding stock of securities in 2019–20. On April 27, 2018, the norms for ECBs were liberalized to include housing finance companies, port trusts, and companies engaged in the business of maintenance, repair and overhaul, and freight (with conditions) as eligible borrowers.

The ECB policy was liberalized further on September 19, 2018, to allow borrowers in the manufacturing sector to raise up to US$50 million or its equivalent with a minimum average maturity period of one year. Additionally, to incentivize the inflow of foreign exchange in the economy, exemption was granted for the interest payable by an Indian company or a business trust to a non-resident, including a foreign company, in respect of rupee-denominated bonds (masala bonds) issued outside India from September 17, 2018, to March 31, 2019. Consequently, the payment of interest in respect of these bonds would become tax free.

On October 3, 2018, a policy was announced to permit public sector oil marketing companies to raise ECBs for working capital purposes with a minimum average maturity of three to five years from all recognized lenders under the automatic route. Furthermore, the individual limit of US$750 million or the equivalent and mandatory hedging requirements according to the ECB framework were also waived for borrowings under this dispensation. The overall ceiling for such ECBs was kept at the equivalent of US$10 billion (Tables 1B.3, 1B.4 and 1B.5).

While the government occasionally communicated its resolve to maintain fiscal discipline and highlighted the strength of the Indian economy rooted in its macroeconomic fundamentals, there was little additional guidance from the central bank during the 2018 sell-off episode. On September 14, 2018, Finance Minister Arun Jaitley announced a five-point strategy to boost market confidence and encourage capital flows against the backdrop of a widening current account deficit and reiterated the commitment to the fiscal target. This inspired some confidence in the market, which was reflected in intraday financial market data. However, such announcements may not be sufficient to soothe the markets for much longer. This underscores the importance of more active communication, especially by the central bank.

Event-study regressions show that the measures adopted to handle the impact of the 2018 sell-off did not stabilize the financial markets immediately, implying that there may not be any easy choices if a country is caught in the midst of a rebalancing of global portfolios. Hence, the analysis highlights the benefits of putting in place a medium-term policy framework that limits vulnerabilities in advance, while maximizing the policy space for responding to shocks.

Elements of such a framework include holding an appropriate level of reserves, avoiding excessive appreciation of the exchange rate through interventions using reserves and macroprudential policy,

[23] The regressions for the rate increase on August 1, 2018, yield similar results; they are available upon request.

[24] Masala bonds are rupee denominated debt instruments introduced in foreign markets, which shifts the currency risk to the investors.

signing swap lines with other central banks where feasible, preparing banks and the corporates to handle greater exchange rate volatility, adopting a clear communication strategy, avoiding measures that could damage confidence (such as restricting outflows), and managing capital inflows to encourage relatively stable longer-term flows, while discouraging short-term flows.[25] A sound fiscal balance, sustainable current account deficit, and an environment conducive to investment are other closely correlated elements of this policy framework.

VIII Conclusion

In this section we reviewed the experiences of emerging markets with capital flows and placed India's experience alongside. We noted that capital flows to emerging markets are generally volatile. Portfolio capital flows, and credit flows are more volatile than FDI flows, while, among portfolio flows, debt flows are more volatile than equity flows. Volatility in capital flows gets manifested in periodic episodes when capital inflows dry up abruptly, with significant negative real and financial effects.

Capital flows to India conform to these stylized facts. The relative volatility of different kinds of capital flows is similar in India to that in other emerging markets, and external or common factors play an important role in the related fluctuations. India has experienced two sudden stops in the last three decades, in 1991 and in 2008-09.

India has also experienced two milder episodes of emerging market sell-offs – in 2013 and 2017-18. India was among the countries that were sharply affected during both events. The sell-offs resulted in exchange rate depreciation, a decline in equity prices, a rise in bond yields, and a fall in reserves in India and several other emerging markets.

An important determinant of the differential impact across emerging markets was the inflow of capital in prior years, the run-up of the real exchange rate and current account deficit, and the size of a country's financial market. Countries with larger and more liquid markets experienced a sharper impact. This is interpreted as evidence that investors seeking to rebalance their portfolios being able to do so more easily and conveniently when the target country has a large and liquid market and a larger presence of foreign capital.

India's response to the 2013 sell-off consisted of conventional policy responses, as detailed in the previous section. A similar set of measures was then implemented in response to the 2018 sell-off: a significant exchange rate depreciation, using reserves to smooth unduly large exchange rate fluctuations, raising policy rates, raising import duties, a swap line with the Bank of Japan, the selective opening-up of the capital account for foreign inflows, stressing the sound fundamentals of the country through active communication, and reiterating and maintaining a prudent fiscal stance.

Though establishing the effectiveness of the policy responses undertaken during a sell-off is difficult, an event-study analysis suggests that, even though such measures are conventional and

[25] See Zhang and Zoli (2014) and the literature cited therein for the recent contributions on the use of macroprudential policies, in particular, the loan to value ratio, the debt to income ratio, the required reserves ratio, and the countercyclical provisioning and countercyclical capital requirements in Asian economies. See Cordella et al. (2014) on the use of reserve requirements as a countercyclical macroprudential tool in developing countries.

globally implemented, they are not effective in stabilizing financial markets and restoring confidence in the short run.

This implies that there may not be any easy choices when a country is caught in the midst of a rebalancing of global portfolios. *Ex ante* policy frameworks that limit vulnerabilities in advance and maximize the policy space for responding to shocks are of more value than *ex post* measures to limit the impact.

Elements of such a framework include a sound fiscal balance, a sustainable current account deficit, and an environment conducive to investment. In addition, India should continue to encourage stable longer-term capital inflows, while discouraging volatile short-term flows, hold a larger stock of reserves or other safety nets, avoid excessive appreciation of the exchange rate through interventions with the use of reserves and macroprudential policy, and prepare banks and firms to handle greater exchange rate volatility. In addition, it will be beneficial if India were to gently change the capital flow mix toward FDI flows; find ways to diversify the investor base toward investors with a longer-term view; and strengthen its current account, including by improving the competitiveness of exports.

Those who implement a medium-term framework and emergency crisis management measures need to adopt a clear communication strategy to interact smoothly and transparently with market participants. When markets are in a risk averse (risk-off) mode, there is a premium to following conventionally prudent policies. Regular communication to reassert the commitment to sound policies and reminders of the resilient underlying fundamentals are likely to be helpful.

The recent experience has also given rise to the following important policy questions.

First, what role does the exchange rate play as an automatic stabilizer during such events and to what extent should central banks defend their currencies? On the one hand, exchange rate depreciation makes exports more competitive (though possibly with a lag), but also increases the risk of balance sheet impacts, especially if there are currency mismatches. But a sudden and steep exchange rate depreciation could lead to self-fulfilling expectations of further exchange rate depreciations.

Second, what cushion do various safety nets, such as reserves, swap lines, and diaspora deposits or bonds, provide during such sell-off events and how may they be best deployed?

Third, what role do other policies, such as policy rates, exchange rate intervention, or communication, play when a country is undergoing capital flow reversals during sell-off events? Is there any guidance, theoretically or from other countries experiences, on the pace or sequencing of such measures?

Finally, what is the real impact of such sell-off events? While we know from previous analyses that sudden stops are disruptive, do shorter and less-severe sell-off events have any significantly negative real impacts? Our preliminary analysis shows that sell-off events have a relatively milder real impact. If, indeed, they do not have a large adverse impact on growth, should market participants or policy makers worry about them all that much?

While we did not have the space or scope to address these important policy questions in this article, we hope to address them in our future work.

References

Banerjee, Abhijit, Pranjul Bhandari, Sajjid Chinoy, Maitreesh Ghatak, Gita Gopinath, Amartya Lahiri, Neelkanth Mishra, et al. 2018. "An Economic Strategy for India." University of Chicago Center, New Delhi. https://uchicago.app.box.com/s/f47rz9hwbw9z7lu41f7hnunwxsj58xhp.

Basu, Kaushik, Barry Eichengreen, and Poonam Gupta. 2015. "From Tapering to Tightening: The Impact of the Fed's Exit on India." *India Policy Forum 2014/15*, vol. 11, edited by Shekhar Shah, Arvind Panagariya, and Subir Gokarn, 1–66. New Delhi: Sage.

Bluedorn, John, Rupa Duttagupta, Jaime Guajardo and Petia Topalova. 2013. "Capital Flows are Fickle; Anytime, Anywhere," IMF Working Papers 13/183, International Monetary Fund.

Cordella, Tito, Pablo M. Federico, Carlos A. Vegh, and Guillermo Vuletin, 2014. "Reserve Requirements in the Brave New Macroprudential World." World Bank Study Series, World Bank, Washington, DC.

Eichengreen, Barry, and Poonam Gupta. 2015. "Tapering Talk: The Impact of Expectations of Reduced Federal Reserve Security Purchases on Emerging Markets." *Emerging Markets Review* 25 (December): 1–15.

———. 2018. "Managing Sudden Stops." In *Monetary Policy and Global Spillovers: Mechanisms, Effects, and Policy Measures*, edited by Enrique G. Mendoza, Ernesto Pastén, and Diego Saravia, 9–47. Central Banking, Analysis, and Economic Policies Book Series. Santiago, Chile: Central Bank of Chile.

Eichengreen, Barry, Poonam Gupta, and Oliver Masetti. 2018. "Are Capital Flows Fickle? Increasingly? And Does the Answer Still Depend on Type?" *Asian Economic Papers* 17 (1): 22–41.

IMF (International Monetary Fund). 2015. *Global Financial Stability Report: Vulnerabilities, Legacies, and Policy Challenges; Risks Rotating to Emerging Markets*. October. Washington, DC: IMF.

Lane, Philip, and Gian Maria Milesi-Ferretti. 2017. "International Financial Integration in the Aftermath of the Financial Crisis." IMF Working Paper 17/115, International Monetary Fund, Washington, DC.

Rao, K. S. Chalapati, and Biswajit Dhar. 2018. *India's Recent Inward Foreign Direct Investment: An Assessment*. New Delhi: Institute for Studies in Industrial Development.

Rey, Hélène. 2018. "National Monetary Authorities and the Global Financial Cycle." Sixteenth L. K. Jha Memorial Lecture, RBI Center, Reserve Bank of India, New Delhi, December 14.

Zhang, Longmei, and Edda Zoli. 2014. "Leaning against the Wind: Macroprudential Policy in Asia." IMF Working Paper 14/22, International Monetary Fund, Washington, DC.

Annex 1A. Sudden Stops: Incidence, Correlates, Impact, and Policy Response

Following Eichengreen, Gupta and Masetti (2018), we identify sudden stop episodes when total capital inflows (FDI, portfolio equity and debt, and other inflows by non-residents) decline below the average in the previous 20 quarters by at least one standard deviation, when the decline lasts for more than one quarter, and when flows are two standard deviations below their prior average in at least one quarter.[26] Episodes end when flows recover to at least their prior mean minus one standard deviation.

We analyse the experience of 34 emerging countries over 1990:Q1 to 2018:Q2. We summarize the behaviour of capital flows around country-specific stops by estimating the panel regression,

$$Y_{ict} = \beta SS_{ct} + \theta_c + t_{ct} + \varepsilon_{ict} \quad (1A.1)$$

where *i* refers to specific capital flows, c to the country and t to quarter-year.

We regress capital flows of type *i*, denoted Y_{ict}, on a dummy variable for the country-specific sudden stop, SS_{ct}, country-fixed effects, θ_c, and country-specific time trends, t_{ct}. For ease of comparison, we normalize Y_{ict} by subtracting from each observation its country specific mean and dividing it by the country-specific standard deviation.

Portfolio equity, portfolio debt, and other inflows all turn negative during sudden stops (table 1A.1). The decline in inflows is sharpest for other flows and smallest for FDI.

Table 1A.1. Capital Inflows in Sudden Stops

	FDI	Portfolio Equity	Portfolio Debt	Other flows
$Stop_{ct}$	-0.373***	-0.680***	-0.997***	-1.303***
	[2.82]	[3.60]	[7.26]	[9.02]
Country fixed-effects	Yes	Yes	Yes	Yes
Country specific trends	Yes	Yes	Yes	Yes
Observations	2,655	2,627	2,655	2,655
# of countries	34	33	34	34
R-squared	0.090	0.035	0.076	0.113

Notes: The dependent variables are capital flows of the respective type as a percentage of trend GDP. They are standardized by subtracting the country-specific mean and dividing by the country-specific standard deviation. The sample spans from 1990 Q1 to 2018 Q2. Robust t-statistics are reported in brackets. ***, **, * indicate significance at the 1%, 5% and 10% level.

[26] Eichengreen and Gupta (2018) similarly defined sudden stops but only for non-FDI flows.

These patterns are further below summarized as panel regressions:

$$Y_{ict} = \sum_{j=-4}^{j=4} \beta_j \, SS_{ct+j} + \theta_c + t_{ct} + \varepsilon_{ict} \tag{1A.2}$$

where we regress capital flows (normalized by country specific mean and standard deviation) of type i, for country c in time period t, Y_{ict}, on dummy variables for different quarters before, during and after country-specific sudden stops, on country-fixed effects, θ_c, and on country-specific time trends, t_{ct}.

The results are summarized in table 1A.2.

Table 1A.2. Capital Inflows during Sudden Stops

	FDI	Portfolio Equity	Portfolio Debt	Other flows
Stop -4	0.252	0.146	0.171	0.470***
	[1.45]	[0.51]	[0.66]	[3.20]
Stop -3	0.396*	-0.393*	0.413*	0.303
	[1.83]	[1.88]	[1.78]	[1.61]
Stop -2	0.193	0.091	0.000	0.577***
	[1.05]	[0.45]	[0.00]	[3.19]
Stop -1	0.302	-0.486**	0.131	0.498***
	[1.51]	[2.19]	[0.65]	[2.95]
Stop	-0.425**	-1.227***	-1.032***	-0.933***
	[2.64]	[3.94]	[5.29]	[4.55]
Stop +1	-0.316*	-0.694***	-0.969***	-1.650***
	[1.85]	[2.77]	[4.99]	[8.19]
Stop +2	-0.150	-0.465**	-0.317	-0.818***
	[0.57]	[2.47]	[1.59]	[3.16]
Stop +3	-0.081	-0.114	-0.445***	-0.783***
	[0.63]	[1.00]	[3.32]	[3.46]
Stop +4	-0.229	0.140	-0.187	-0.482***
	[1.59]	[1.10]	[1.20]	[2.76]
Country fixed-effects	Yes	Yes	Yes	Yes
Country specific trend	Yes	Yes	Yes	Yes
Observations	2,655	2,627	2,655	2,655
# of countries	34	33	34	34
R-squared	0.093	0.048	0.071	0.122

Notes: The dependent variables are capital inflows of the respective type as % of trend GDP. Variables are standardized by subtracting the country-specific mean and dividing by the country-specific standard deviation. Capital flows are regressed on country-specific sudden stops and dummies indicating 1-4 quarters before, the quarter when the sudden stop starts, and 1-4 quarters after the start of a sudden stop period. The sample spans from 1990 Q1 to 2018 Q2. Robust t-statistics are reported in brackets. ***, **, * indicate significance at the 1%, 5% and 10% level.

The estimated coefficients indicate that all inflows drop significantly at the start of a sudden stop period. The coefficient is largest for other inflows and portfolio debt inflows. Although the drop at t = 0 is sharp, inflows recover and are back to pre-crisis levels within four quarters. The impact lasts longer for portfolio debt flows and other flows, with the coefficient remaining significantly negative for 3 and 4 quarters, respectively, after the start of the episode. Other flows recover more slowly than portfolio equity and debt flows, and remain negative for four quarters after the beginning of the sudden stop episode.

Eichengreen and Gupta (2018) analyse the determinants of sudden stops to emerging markets since 1991. They show that the frequency and duration of sudden stops have remained largely unchanged since 2002, but that the relative importance of different factors in their incidence is now different. Global factors appear to have become more important relative to country-specific characteristics and policies. In addition, sudden stops now tend to affect different parts of the world simultaneously, rather than bunching regionally.

Table 1A.3. Incidence of Sudden Stops, 1991–2002 vs. 2003–18

	1991-2002	2003-2018
# of sudden stops	16	32
# of sudden stops as percent of available nonstop observations	1.8 % (16/903)	1.79 % (32/1792)
# of quarters for which the sudden stops last	4.5	3.7
Capital flows during Sudden stops (% of GDP), first quarter	-1.62	-1.17
Capital flows during sudden stops (% of GDP), average for first four quarters	-1.79	-1.28^
Capital flows in the four quarters preceding Sudden stops (% of GDP)	1.28	1.92
Portfolio flows in the four quarters preceding Sudden stops (% of GDP)	0.68	0.37**
Other flows in the four quarters preceding Sudden stops (% of GDP)	0.60	1.54^^
Capital flow turnaround: Avg. capital flows during four quarters of sudden stops- Avg. capital flows in the four preceding quarters	-3.06	-3.28
Capital flow turnaround: Avg. Capital flows during all quarters of sudden stops- Avg. capital flows in the four preceding quarters	-2.28	-2.86*

Source: Updated values in Eichengreen and Gupta (2018). The sample spans from 1991-Q1 to 2018-Q2. *, **, *** indicate that the value is significantly lower in the second column, compared to its value in the first column at 10, 5 or 1 percent level of significance (in a one tailed test). ^, ^^, ^^^ indicate that the value is significantly higher in the second column, compared to its value in the first column, at 10, 5 or 1 percent level of significance (in a one tailed test).

Table 1A.4. Impact of sudden stops on Real and financial variables

VARIABLES	(1) Exchange Rate Depreciation	(2) REER (% change)	(3) % Change in Reserves	(4) % Change in Equity prices (real)	(5) GDP growth (quarterly yoy)	(6) Investment Growth (quarterly yoy)	(7) Current Account Balance % GDP
Sudden Stop Dummy	11.08**	8.94***	-11.88**	-3.51	-4.02***	-12.40***	1.33
	[2.59]	[3.48]	[2.48]	[1.08]	[3.61]	[3.45]	[1.21]
Dummy 2003-2018	-4.01***	-0.56	3.17***	8.17***	3.13***	5.76**	-2.33*
	[6.29]	[1.11]	[3.67]	[7.59]	[4.30]	[2.32]	[1.99]
Sudden Stop*Dummy for 2003-2018	-3.42	-5.71**	4.85	-5.95	-0.66	2.92	-0.61
	[0.76]	[2.15]	[0.93]	[1.50]	[0.45]	[0.49]	[0.51]
Constant	3.83***	-0.53	10.51***	12.18***	9.35***	29.41***	-3.93***
	[6.65]	[1.40]	[16.37]	[12.74]	[21.33]	[18.37]	[6.38]
Country Specific Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,022	2,601	3,050	2,528	2,578	2,458	2,362
R-squared	0.148	0.097	0.020	0.061	0.187	0.225	0.253
Number of Countries	34	30	34	31	32	30	30
Adj. R-squared	0.138	0.0858	0.00837	0.0481	0.175	0.214	0.243

Note: Data are quarterly over the period 1991-2018 (Q2). Dependent variables are as indicated in the first row. All variables are in percentage. GDP growth and investment growth are year-over-year. Regressions include country fixed effects and country-specific trends. Robust t statistics are in parentheses. *, **, or *** indicate the coefficients are significant at 10, 5 or 1 percent level of significance. Regressions with year fixed effects instead of a different intercept for post 2003 period yield similar coefficients.

Stronger macroeconomic and financial frameworks in emerging countries have not lowered the probability of a sudden stop. While such stronger frameworks have allowed policy makers to respond more flexibly to the phenomenon, but these more flexible responses have not mitigated the impact of the sudden stops. These findings suggest that the challenge of understanding and coping with capital-flow volatility is far from fully met.

Annex 1B. Policy Actions during Sell-Off Events, 2013 and 2018

Table 1B.1. Policy Actions during Sell-Off Events, 2013 and 2018

Policy	2013	2018
Reserve management	(i) Reserves declined by US$13 billion (~ 5% of initial stock) between end-May and end-September 2018 (ii) The RBI opened a separate swap window for three public sector oil companies to remove their demand from the foreign exchange market (August 28, 2013)	(i) Reserves declined by US$34 billion (~ 8.0 % of initial stock) between mid-April and end-October 2018
Interest rates	(i) The RBI raised the marginal standing facility rate by 200 basis points above the policy repo rate under the Liquidity Adjustment Facility to 10.25 % to "restore stability to the foreign exchange market" (July 15, 2013) (ii) RBI increased the policy rate by 25 bps to 7.5% (September 20, 2013)	(i) Monetary Policy Committee raised the repo rate twice by 25 basis points each on June 6, 2018 (to 6.25%) and August 1, 2018 (to 6.5%). 2) The Marginal Standing Facility was increased twice by 25 basis points each on June 6, 2018 (to 6.5%) and August 1, 2018 (to 6.75%).
Capital flow management	1) Limit on Overseas Direct Investment under automatic route lowered from 400% of the net worth of individuals to 100% on August 14, 2013 (later reinstated to 400% on September 4, 2013). 2) The limit on remittances by resident individuals under the Liberalized Remittances Scheme was reduced from US$200,000 to US$75,000; abolished its use for acquisition of immovable property outside India (August 14, 2013) 3) A swap window was offered to the banks to swap their fresh FCNR (B) dollar funds, mobilized for a minimum tenor of three years; at a fixed rate of 3.5% per annum (September 4, 2013) 4) The overseas borrowing limit of 50% of the unimpaired Tier I capital raised to 100%; the borrowings mobilized under this provision could be swapped with the RBI at the option of the bank at a concessional rate of 100 basis points below the ongoing swap rate prevailing in the market; the schemes was to remain for three months (starting on September 4, 2013)	1) The limit for foreign portfolio investment in central government securities was increased by 0.5% each year to 5.5% of outstanding stock of securities in 2018-19 and 6% of outstanding stock of securities in 2019-20. (April 6, 2018) 2) External commercial borrowings (ECBs) were liberalized (i) to include Housing Finance Companies; Port Trusts and Companies engaged in the business of Maintenance, Repair and Overhaul and Freight as eligible borrowers (April 27, 2018); (ii) to allow borrowers who are into manufacturing sector to raise up to USD 50 million or its equivalent with minimum average maturity period of 1 year (September 19, 2018); and (iii) to permit public sector Oil Marketing Companies to raise ECB for working capital with minimum average maturity period of 3/5 years from all recognized lenders under the automatic route. Further, the individual limit of USD 750 million or equivalent and mandatory hedging requirements as per the ECB framework was waived for borrowings under this dispensation. The overall ceiling for such ECBs was kept at USD 10 billion equivalent. (October 3, 2018) 3) The RBI also made changes in norms wherein Indian banks can market masala bonds overseas. At present, Indian banks can act only as arrangers or underwriters for such bonds and in case of underwriting an issue, their holding cannot be more than 5 per cent of the issue size after six months of the issue. Now, banks can "participate as

		arrangers/underwriters/market makers/traders in rupee-denominated bonds issued overseas, subject to applicable prudential norms". (September 19, 2018) 4) To boost inflows of forex, exemption was granted for interest payable by an Indian company or a business trust to a non-resident, including a foreign company, in respect of rupee-denominated bond (masala bond) issued outside India during the period from September 17, 2018, to March 31, 2019, and, consequently, no tax shall be deducted on the payment of interest in respect of the said bond (September 19, 2018)
Current Account Management	Import duty on gold was raised three times (i) from 6% to 8% (June 5, 2013); (ii) to 10% (August 13, 2013); (iii) to 15% (September 18, 2013)	The customs duty was increased on 19 items to narrow the current account deficit (September 26, 2018)
Currency Swap Lines	India signed a USD 50 billion bilateral currency swap agreement with Japan (September 6, 2013)	India signed a USD 75 billion bilateral currency swap agreement with Japan (October 29, 2018)
Communication	New RBI governor Raghuram Rajan issued a statement outlining priorities and reiterating trust in the health of the economy; laid out the blueprint of further financial sector reforms (September 4, 2013)	(i) Finance Minister Arun Jaitley announced a five-point plan consisting of boosting foreign portfolio investor participation in the corporate bond market, easing rules on ECBs and masala bonds to encourage capital flows against the backdrop of a widening current account deficit; asserted that the government would meet the fiscal deficit target (September 14, 2018) (ii) Secretary, Department of Economic Affairs reiterated the government's commitment to fiscal discipline; allayed fears of rupee 'free fall' terming the recent rupee depreciation a 'temporary phenomenon' (Sep 9, 2018; Sep 19, 2018)

Sources: Basu, Eichengreen, and Gupta 2015; RBI; government notifications.

Event Study Regressions

We assess the short run impact of policies announced and implemented by India during the 2018 emerging market sell off using an event study framework. The framework is similar to the one used in Basu, Eichengreen and Gupta (2015) to assess the impact of policies announced during the 2013 sell off event.

The regression specification is given in Equation 1, in which Y is either log exchange rate, log stock market index, portfolio debt flows, or portfolio equity flows (portfolio flows are in millions of US$).

$$\begin{aligned} Y_t = {} & \text{constant} + \mu \text{ Bond yield in the US}_t + \alpha \text{ EM sell-off Dummy}_t + \\ & \beta \text{ Dummy for 6 working days centered around the policy announcement}_t \\ & + \gamma \text{ Dummy for 3 days since the policy announcement}_t + \varepsilon_t \qquad (1) \end{aligned}$$

The regressors include US bond yields to account for global liquidity conditions and three separate dummies. First, we include a dummy for the sell-off period (from April 1, 2018, until 6 days before the policy announcement was made). Second, we include a dummy for a 6-day period centred around the policy announcement.[27] Lastly, we include a dummy for 3-days since the announcement of the policy.[28] We estimate these regressions using data from January 1, 2018, up to the date the policy dummy takes a value of 1, dropping subsequent observations.[29]

The results of these regressions for various policies are presented below.

Table 1B.2. Effect of the Increase in the Policy Rate on June 6, 2018

VARIABLES	(1) Log Exchange Rate	(2) Log Stock Market Index	(3) Portfolio Equity, $ million	(4) Portfolio Debt, $ million
US Bond Yield	0.0694***	-0.0288	-228.8*	-410.3***
	(9.160)	(-1.539)	(-1.843)	(-3.459)
Dummy for EM Sell Off-April 1 to May 31 (α)	0.0233***	0.0163***	-49.96	-38.84
	(9.868)	(2.804)	(-1.293)	(-1.051)
Dummy for six days centred around the announcement (β)	0.0317***	0.0281*	127.2	63.54
	(5.463)	(1.964)	(1.338)	(0.699)
Dummy for 3 days since the policy announcement (γ)	-0.00105	0.00970	-140.0	-2.272
	(-0.134)	(0.502)	(-1.092)	(-0.0185)
Constant	3.973***	10.52***	668.9*	1,130***
	(189.9)	(203.6)	(1.951)	(3.447)
Observations	103	103	103	103
Adjusted R-squared	0.814	0.086	0.080	0.168
r2	0.821	0.122	0.116	0.201

Note: Data used in the regressions runs from January 1, 2018-June 8, 2018. *, **, *** indicates that the coefficient is significantly different from zero at 10, 5 and 1 percent level of significance, t statistics are in parentheses.

[27] If a policy was announced on date t, the dummy takes the value 1 for the period [t-3, t+2] where t is a working day.
[28] If a policy was announced on date t, the dummy takes the value 1 for the period [t, t+2] where t is a working day.
[29] We acknowledge the limitations in being able to establish causality using these regressions, due to the difficulty in establishing the counterfactual and in controlling for all the relevant factors that may affect the financial markets.

Table 1B.3 Effect of the Liberalization of External Commercial Borrowings on April 27, 2018

VARIABLES	(1) Log Exchange Rate	(2) Log Stock Market Index	(3) Portfolio Equity, $ million	(4) Portfolio Debt, $ million
US Bond Yield	0.0546***	-0.0675***	-280.7*	-418.7***
	(10.90)	(-3.235)	(-1.858)	(-2.873)
Dummy for EM Sell Off April 1 to April 23 (α)	0.0114***	-0.00169	-59.18	-32.67
	(6.830)	(-0.242)	(-1.171)	(-0.670)
Dummy for six days centred around the announcement (β)	0.0213***	0.0281*	-12.66	58.69
	(6.008)	(1.896)	(-0.118)	(0.568)
Dummy for 3 days since the policy announcement (γ)	0.00373	0.00996	-49.59	-242.6*
	(0.814)	(0.522)	(-0.359)	(-1.820)
Constant	4.014***	10.63***	812.1*	1,153***
	(290.3)	(184.3)	(1.946)	(2.864)
Observations	78	78	78	78
Adjusted R-squared	0.836	0.134	0.045	0.147
r2	0.845	0.179	0.0950	0.191

Note: Data used in the regressions runs from January 1, 2018-May 3, 2018. *, **, *** indicates that the coefficient is significantly different from zero at 10, 5 and 1 percent level of significance, t statistics are in parentheses.

Table 1B.4. Effect of the Additional Policy Initiatives on External Commercial Borrowings and Masala Bonds by the RBI and the Government announced on September 19, 2018

VARIABLES	(1) Log Exchange Rate	(2) Log Stock Market Index	(3) Portfolio Equity, $ million	(4) Portfolio Debt, $ million
US Bond Yield	0.0447***	-0.0460*	-228.6**	-381.9***
	(2.931)	(-1.717)	(-2.036)	(-3.690)
Dummy for EM Sell Off-April 1 to September 13 (α)	0.0503***	0.0559***	-21.63	3.533
	(12.32)	(7.804)	(-0.720)	(0.128)
Dummy for six days centred around the announcement (β)	0.105***	0.107***	6.246	60.70
	(8.246)	(4.794)	(0.0668)	(0.704)
Dummy for 3 days since the policy announcement (γ)	-0.000789	-0.0211	-84.16	-16.34
	(-0.0472)	(-0.720)	(-0.684)	(-0.144)
Constant	4.041***	10.57***	668.4**	1,051***
	(95.85)	(142.8)	(2.154)	(3.677)
Observations	172	172	172	172
Adjusted R-squared	0.693	0.321	0.040	0.085
r2	0.700	0.337	0.0628	0.106

Note: Data used in the regressions runs from January 1, 2018-September 24, 2018. *, **, *** indicates that the coefficient is significantly different from zero at 10, 5 and 1 percent level of significance, t statistics are in parentheses.

Table 1B.5. Effect of the Liberalization of ECBs for Oil Marketing Companies on October 3, 2018

VARIABLES	(1) Log Exchange Rate	(2) Log Stock Market Index	(3) Portfolio Equity, \$ million	(4) Portfolio Debt, \$ million
US Bond Yield	0.0745***	-0.0284	-282.5**	-351.4***
	(4.578)	(-1.106)	(-2.599)	(-3.608)
Dummy for EM Sell Off-April 1 to September 26 (α)	0.0492***	0.0556***	-18.13	2.138
	(10.84)	(7.750)	(-0.598)	(0.0787)
Dummy for six days centred around the announcement (β)	0.0988***	0.0691***	-32.34	19.10
	(6.863)	(3.038)	(-0.336)	(0.222)
Dummy for 3 days since the policy announcement (γ)	0.00157	-0.0298	-129.1	62.03
	(0.0839)	(-1.009)	(-1.034)	(0.554)
Constant	3.959***	10.52***	817.0***	967.3***
	(87.97)	(148.0)	(2.720)	(3.593)
Observations	180	180	180	180
Adjusted R-squared	0.679	0.297	0.090	0.082
r2	0.686	0.313	0.110	0.102

Note: Data used in the regressions runs from January 1, 2018-October 5, 2018. *, **, *** indicates that the coefficient is significantly different from zero at 10, 5 and 1 percent level of significance, t statistics are in parentheses.

Table 1B.6. The Effect of the Increase in the Customs Duty on September 26, 2018

VARIABLES	(1) Log Exchange Rate	(2) Log Stock Market Index	(3) Portfolio Equity, $ million	(4) Portfolio Debt, $ million
US Bond Yield	0.0582***	-0.0346	-234.5**	-364.3***
	(3.633)	(-1.302)	(-2.093)	(-3.607)
Dummy for EM Sell Off-April 1 to September 20 (α)	0.0501***	0.0559***	-20.81	3.114
	(11.52)	(7.732)	(-0.684)	(0.114)
Dummy for six days centred around the announcement (β)	0.0999***	0.0782***	-72.15	28.20
	(7.177)	(3.382)	(-0.741)	(0.321)
Dummy for 3 days since the policy announcement (γ)	0.00415	-0.00735	-67.90	4.526
	(0.233)	(-0.249)	(-0.546)	(0.0403)
Constant	4.004***	10.54***	684.6**	1,003***
	(90.46)	(143.4)	(2.212)	(3.593)
Observations	176	176	176	176
Adjusted R-squared	0.679	0.301	0.059	0.082
r2	0.686	0.317	0.0809	0.103

Note: Data used in the regressions runs from January 1, 2018-September 28, 2018. *, **, *** indicates that the coefficient is significantly different from zero at 10, 5 and 1 percent level of significance, t statistics are in parentheses.

Annex 1C. Data

Table 1C.1. Variables

Variable, set of variables	Source	Notes
Exchange rate	World Bank GEM Database; Haver	Data expressed as local currency per USD. Original data are recorded as monthly averages. Daily data is from Haver.
Equity price index	World Bank GEM Database; Haver	Original data are indices of local currency, with the index = 100 in Jan 2010. Daily data is from Haver.
Reserves	World Bank GEM Database	Original data expressed in million USD
Bond yields	Investing.com	Daily data converted to monthly frequency.
Real exchange rate	IMF IFS Database and World Bank GEM Database	Real exchange rate is calculated as the nominal exchange rate (local currency to USD, period average) times the inflation index (2005=100) for the US divided by the inflation index for each country.
Stock market capitalization	World Bank Global Financial Development Database	Defined as total value of all listed shares in a stock market as a percentage of GDP
Stock market turnover ratio	World Bank Global Financial Development Database	Defined as total value of shares traded during the period divided by the average market capitalization for the period
Stock of portfolio liability	Lane and Milesi-Ferretti (2017)	Sum portfolio liability stocks for equity and debt; millions of current USD
GDP (nominal and real)	World Development Indicators	-
Private external financial flows	IMF Global Financial Stability Report	Calculated as total emerging market private external finance flows (bond, equities, and loans) between 2010 and 2012. Updated data not available.
Capital flows (FDI, portfolio equity, portfolio debt, other flows)	Haver	Original source is IFS. Old series BPM5 and new series BPM6 are spliced in the first year when the new series is available for each country; quarterly frequency. Annual figures are constructed using quarterly data
Trend GDP (US$)	Generated	Estimated using Hodrick-Prescott filter over annual GDP in USD
GDP growth	Haver	Real GDP in local currency seasonally adjusted, Year-on-Year growth in %; quarterly frequency

Indian Public Policy Review 2021, 2(4): 42-58

A Brief Economic History of Swadeshi

Nitin Pai*

Abstract

This paper traces the history of the swadeshi idea from its origins to the present day, identifies its political trajectory, assesses its impact on the Indian economy and outlines how it could be interpreted in the context of an independent, liberal democratic republic. It shows that swadeshi has always been a political project cast in economic terms and its empirical track record is far less impressive than its exalted place in the popular narrative. It concludes by arguing that India's national interest is better served by acquiring capability than self-reliance and most importantly, by embracing an open economy.

Keywords: Swadeshi, Economic Nationalism, Economic History, Import Substitution, Free Trade, Open Economy

Publication Date: 02 July 2021

* Nitin Pai is Director, Takshashila Institution

Part I – The story of a narrative

Prelude

"By June 1991, the balance of payments crisis had become overwhelmingly a crisis of confidence...A default on our payments, for the first time in our history had become a serious possibility. It became necessary to take emergency action...The Government loaded 20 tonnes of gold out of its stock to the State Bank of India to enable it to sell the gold abroad with an option to repurchase it at the end of six months. Reserve Bank of India (was allowed) to ship 47 tonnes of gold to the Bank of England in July." – Economic Survey 1991-92. (T. Roy 2011)

It is hard to find a more damning official indictment of the economic policies of independent India, which came to a head in the spring and summer of 1991. There are many reasons why the proud Indian Republic was literally brought to its knees that year: policies of recent governments, the first Gulf War, the fall of the Soviet Union, and the resulting inability of the government to juggle macro-economic levers are the proximate causes. Yet it was recognised (Rodrik and Subramanian 2005) that the real causes lay deeper — in the economic models that India adopted since 1947, and even deeper, in the ideas that led to their adoption. Chief among these were socialism as a way to redistribute wealth, the centrality of government in controlling economic activity, and the achievement of "self-reliance".

Despite being partly responsible for the crisis, the pursuit of "self-reliance" is almost always left out of the chargesheet. In fact, eminent economists of the time argued crisis came about because we did not "strive harder for self-reliance" (Y. Sinha 2007). Three decades later, "self-reliance" was back on the centre-stage of India's economic policy agenda: in the form of the "Make in India" initiative in the Narendra Modi government's first term and "Atma Nirbhar Bharat" in the second.

The ideas of self-reliance, self-sufficiency and indigenisation form part of the overall narrative of "Swadeshi", a word that literally means "of one's own country", but is much more than that. Underlying the economics is a challenge to social norms and values. More than being concerned with the purchase and production of Indian-made goods, it is an expression of economic nationalism within an idiom of resistance to outside powers.

This paper traces the history of the swadeshi idea from its origins to the present day, identifies its political trajectory, assesses its impact on the Indian economy, and outlines how it could be interpreted in the context of an independent, liberal democratic republic. It is divided into two sections. After a discussion on the definition of swadeshi, the first section gives an annotated historical timeline of the idea, its expression, and its influence on economic policy. The second section curates the intellectual debate over swadeshi and self-reliance among the Indian nationalist elite in the 19th century and the policy establishment of independent India. The paper then concludes by situating the idea in the context of the character of the Indian republic and the policy imperatives of the 21st century.

Section 1 – A historical timeline of Swadeshi

Definition

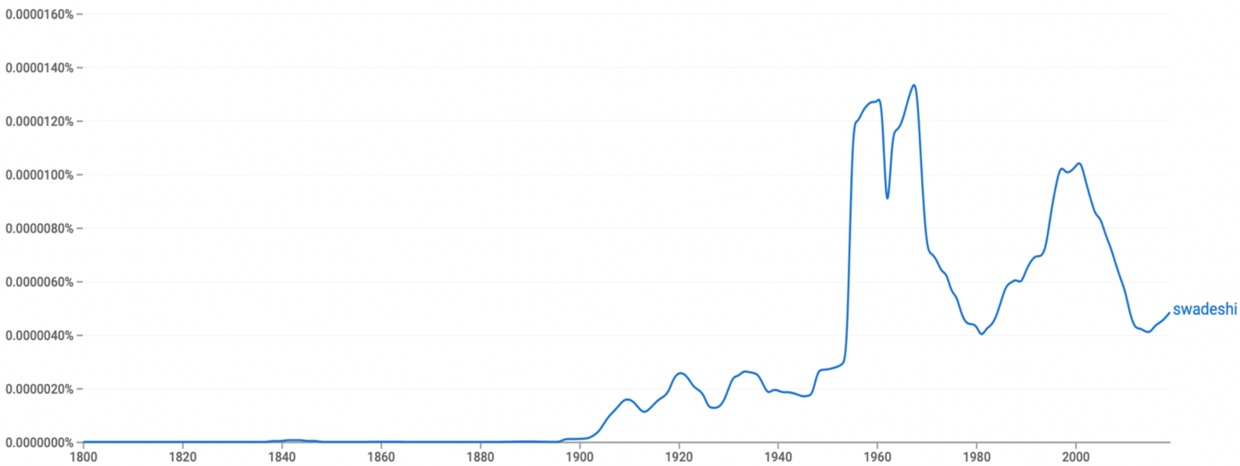
"Swadeshi" is a term that most people instinctively understand, yet it has meant different things to different people at different times.

According to Tirthankar Roy, it is "nationalistic self-reliance" (2020). Sumit Sarkar offers a more comprehensive and most accurate definition: "The sentiment — closely associated with many phases of Indian nationalism — that indigenous goods should be preferred by consumers even if they were more expensive than and inferior in quality to their imported substitutes, and that it was the patriotic duty of men with capital to pioneer such industries even though profits initially might be minimal or non-existent." (2011). To Dattopant Baburao Thengadi, founder of the RSS-linked Swadeshi Jagran Manch, swadeshi is "the practical manifestation of patriotism...a broad-based ideology embracing all departments of national life." (Mahajan 2020)

Gandhi offers perhaps the most extreme — and intellectually the most honest — definition. In his 1916 address to the Missionary Conference at Madras, he described swadeshi as "that spirit in us which restricts us to the use and service of our immediate surroundings to the exclusion of the more remote...I must restrict myself to my ancestral religion. In the domain of politics, I should make use of the indigenous institutions...In that of economics, I should use only those things that are produced by my immediate neighbours and those industries by making them efficient and complete where they might be found wanting." (Appadorai 1974). Almost a century later, another Indian leader compressed this into a very succinct "Vocal for Local" (2020)

History

Figure 1: Occurrence of the term "Swadeshi" in books over the last 200 years.



Source: Google Books Ngram Viewer

Although Gandhi is recognised as among the most prominent advocates of swadeshi in the past century, it was the Swadeshi Movement of Bengal (1903-1908) — over a decade before his arrival on the scene — that connected the idea to India's struggle for freedom from British colonial rule. That movement, in turn, politically picked up the threads of swadeshi from even earlier intellectual and social reactions in several parts of the subcontinent to the establishment of the British colonial state in the middle of the 19th century. The earliest mention of the word "swadeshi" in the English language dates back to 1825, to the time when the East India Company's rulers attempted social reforms in partnership with early Indian liberals like Raja Rammohun Roy (Google Books Ngram Viewer)

As Bipan Chandra notes "The idea of, and the agitation for, swadeshi are, in reality nearly as old as the rising national consciousness itself" (2016). In the family of ideas therefore, swadeshi like liberalism and nationalism is a grandchild of the Enlightenment (and perhaps a distant, estranged cousin of Communism).

Seven Phases of Swadeshi

Seven distinct (if sometimes overlapping) phases emerge while tracing the evolution of the swadeshi idea over the past two centuries: the proto-Swadeshi phase (1820-1857); the early phase (1857-1890) when it entered social consciousness in several parts of the country; the emergent phase (1890-1903) during which it was embraced by organised political associations across the subcontinent; the phase of mass political struggle for independence from British rule (1903-1947); the policy phase (1947-1992) when it became a goal of the Indian republic; the recession phase (1992-2016) when it was eclipsed by globalisation; and the current populist reprise (2016 onwards), where it has again been declared a national priority.

1. Proto-Swadeshi (1820-1857)

The earliest consciousness of the need to protect indigenous goods and industries is likely to have emerged as part of the orthodox Hindu reaction to the social reforms (like the abolition of Sati) promoted by Christian missionaries and liberal reformers like Rammohun Roy in the early 19th century, after the East India Company government began to enshrine them as the law of the land. Christopher Bayly sees an "early intimation" of swadeshi in an 1822 article in Chandrika Samachar, a conservative magazine, that complains that the foreign government had neither provided for training ayurvedic medical practitioners nor proper indigenous medical facilities (C. Bayly 2011).

In subsequent years, the advent of English education in 1835 and the proliferation of newspapers in Indian languages enabled individuals to acquire and spread political ideas and the developing national consciousness. Writing in a Pune Marathi publication, the English-educated Gopal Hari Deshmukh in 1849 was among the first intellectuals to advocate the use of Indian products instead of imported ones (Chandra 2016). It was mostly in this manner that the development of economic grievances continued alongside political and cultural ones in the years leading up to the uprising of 1857. Rebel manifestos of the period included accusations of how foreign imports had hurt native artisans. (C. A. Bayly 1986)

2. Early Swadeshi (1857-1890)

Following the brutal upheavals of 1857 and the transfer of power to the British Crown, swadeshi moved from idea to action. In Bengal, it found a champion in the form of "National" Nabagopal Mitra who, inspired by Rajnarain Bose, set up the National Paper, National Store, National Gymnasium, National School, National Theatre, and even a National Circus in quick succession in the latest 1860s. Significantly, he founded the "Hindu Mela" in 1867 "to promote national feeling and to inculcate a spirit of self-help among Hindus by promoting Indian products" (Sen 2010). Financed by the wealthy Tagore family, the annual festival ran up to 1880 and counted among its visitors, the young Rabindranath Tagore and Narendranath Dutta (later Swami Vivekananda), both of who made important contributions to the swadeshi discourse.

In the 1870s in Pune, inspired by Mahadev Govind Ranade's lectures, Ganesh Vasudeo Joshi started shops selling swadeshi goods in addition to spinning yarn every day for his own clothing, a practice that Gandhi made famous four decades later (Chandra 2016). The decade saw the sprouting of swadeshi stores in many cities across the country, with railways, the telegraph and newspapers accelerating the spread of the idea. The government's decision to abolish import duties on British cotton goods in 1882 added more fuel to the growing swadeshi fire, bringing Indian millowners into its fold.

One political mobilisation that featured swadeshi, boycotts and non-cooperation during this period was in Punjab in the 1860s, when Ram Singh, the Guru of the Namdharis, enjoined his followers to abjure everything British as he envisioned "driving the English out of Hindustan" (J. Singh n.d.). For the most part though, during this period, the swadeshi cause did not have an overt political instrumentality.

3. Emergent Political Phase 1890-1903

By the late 1880s, political associations began to take an interest in the swadeshi agenda. It first entered the deliberations of the Indian National Congress in 1891, but it was only in 1896 that it became a national cause, after the Government imposed excise duties on manufactured Indian cloth (Chandra 2016). In Bombay Presidency, Bal Gangadhar Tilak organised boycotts and public burnings of foreign cloth, attracting widespread public support across the country. In the event, the protests were insufficient to persuade the Government to lift the excise duties, which remained in place till 1925 (Encyclopedia of India 2020). It did, however, became a regular part of the Congress's agenda in the 1890s, with exhortations, appeals and actions – albeit without a formal endorsement.

By this time swadeshi had already became a social proxy against what many saw as political "mendicancy". As the temperature of nationalist sentiment outstripped the Congress's appetite for confrontation with the Government, 'atmasakti' or "self-reliance and constructive work" became the new slogans. This involved starting swadeshi enterprises and stores, trying to organise education on autonomous and indigenous lines, and emphasising the need for concrete work at the village level. Such efforts at self-help, together with the use of the vernacular and utilisation of traditional popular customs and institutions (like the mela or fair), were felt to be the best methods for drawing the masses into the national movement." (Sarkar 2011).

Most of the Indian capital in the mid-19th century was invested in land, agriculture, trade and arbitrage. The global economic changes of the time — the industrial revolution, abolition of slavery, the American Civil War, and the indigo and opium trade — did have an influence in changing the pattern of the deployment of Indian capital. The earliest Indian investments in industry were made in the mid-1860s. By the 1890s, nudged by swadeshi, the more entrepreneurial Indian capitalists started investing in cotton mills and consumer goods like soaps, locks and pharmaceuticals, as also in ventures in shipping and transportation.

4. The Mass Politics Phase 1903-1947

While swadeshi had been used as an instrument of protest against the colonial government and its policies at least since the Namdhari agitation in the 1860s Punjab, it was the partition of Bengal province that catapulted it into the pre-dominant method of mass protest. While historians contest both how much of a mass movement it really was and whether it was as effective as has been claimed, it is befitting that the anti-partition agitation in Bengal between 1903-1908 is described as the Swadeshi Movement. As Sarkar concludes, the movement leaves us with two contradictory impressions: "a sense of richness of promise, of national energies bursting out in diverse streams of political activity, intellectual debate and cultural efflorescence; and a feeling of disappointment, even anticlimax, at the blighting of so many hopes" (2011).

Indian goods, culture, art and education were energetically promoted in parallel with a boycott of imported goods in general, and British goods in particular. Implicit and explicit social coercion – and occasional violence – entered the scene, as people were exhorted to boycott foreign goods or face social ostracization. Although the movement – perhaps for the first time – extended across caste and religious lines in Bengal, it emanated from a Bengali urban upper caste core. By 1908, the movement subsided in the face of the colonial government's political repression on the one hand, and riots and revolutionary terror on the other. Rabindranath Tagore, hitherto an enthusiastic supporter of swadeshi and nationalism, turned away from them due to what he saw as their perhaps unavoidable excesses.

But the agitation defined the main political themes, sides and personalities that dominated national life for the next four decades. Differences between the moderate constitutionalists and the extremists came to a head, with a formal split in the 1907 Surat session of the Congress. Albeit at the margin, revolutionary terrorism gained traction. The Muslim League was formed in 1906 and the Punjab Hindu Sabha in 1909. The Minto-Morley reforms of 1909 introduced limited elections and gave Indians a share of political power, setting the stage for representative government and democracy.

Gandhi arrived in India in 1915 and made swadeshi an essential part of all his politics. In typical fashion, he argued that swadeshi was a moral end in itself, even as it was clearly an instrument of political mobilisation and economic coercion. As described above, his conceptualisation of swadeshi was expansive, covering religion, politics and economics; celebrating a romantic self-sufficient village life, rejecting modern industry. Ahead of launching himself in national politics at the head of his first major political campaign – the agitation against the Rowlatt Act of 1919 – he set up the Swadeshi Sabha, where he experimented with ways to best promote the practice. The organisation fizzled out, but Gandhi, Satyagraha, Swadeshi, Charka, and Khadi became icons of the freedom struggle and influenced the thinking of generations of Indians.

In Bayly's view "It was Gandhi's genius that notwithstanding the incoherence of his formal economic and political thought, he was able to enlist around a single issue a huge range of beliefs, aspirations and popular symbols." (C. A. Bayly 1986). Despite such genius, Gandhi didn't persuade everyone: as we shall discuss in detail later, intellectuals such as Tagore, political leaders like Nehru and Ambedkar, and ordinary citizens like Kantilal Amratlal disagreed with various aspects of Gandhi's swadeshi philosophy (Guha 2018). Nonetheless, it was the latter that prevailed.

5. Policy Phase 1947-1992

As India headed towards independence, swadeshi began to move from being an instrument of protest to a principle of economic policy of the new republic. Aashish Velkar points out that "as swadeshi's role to promote Gandhian self-sufficiency among the masses faded by the 1930s, the swadeshi principle of protectionism and capital controls filtered into the various national plans that were drawn up between 1938 and 1944" (Velkar 2020).

Visveswaraya's plan, one of the earliest such initiatives, called for centralised decision-making and investment in large-scale heavy industries as a path to economic self-sufficiency. The Gandhian plan called for the exactly the opposite: decentralised decision-making and small-scale cottage industry. All plans led to swadeshi, including the Bombay Plan proposed by the country's prominent business leaders. In the Constituent Assembly, Mahavir Tyagi introduced a motion to enshrine swadeshi as a Directive Principle of State Policy. Consequently, and as a result of the astute balancing acts that characterised its making, the Constitution of India enjoined governments to promote cottage industries.

Perhaps the most influential of all blueprints was the one drafted by the Congress under Jawaharlal Nehru's leadership. In was drafted in the context of "the Great Depression of the 1930s and the decline in foreign trade resulted in disillusionment with capitalism and the urge towards self-sufficiency. There was also a fear of 'economic imperialism' replacing political imperialism if India encouraged foreign investment and undue trade dependency" (Rosen 2013). Thus socialism and swadeshi were to animate the economic policies of independent India for the next four decades.

According to Vijay Kelkar, if the objective of self-reliance did not explicitly appear as a policy until the Third Five Year Plan (1961-66) it was because drafters of earlier plans "took that to be axiomatic" (Kelkar 1980). By the Fifth Five Year Plan (1974-78) self-reliance had formally joined growth and redistribution as a basic social objective (Tendulkar 1974).

In addition to the "socialistic pattern of society", a mixed economy with a large role of the public sector, the 1947-92 phase saw import substitution as a policy tool that eventually became an end in itself. Foreign investment and trade were controlled. Undue consumerism was discouraged. Small-scale and handicraft industries were protected from competition from large domestic firms; in turn, these were protected from foreign competition. Administratively, these policies were implemented through regimes of industrial licensing, quotas, administered prices and foreign exchange controls. There was some easing of controls beginning in the early 1980s, but the overall framework remained in place until it was shaken apart by the economic crisis of 1991.

6. Recession Phase 1992-2016

As Figure 1 shows, the frequency of the word swadeshi in English language publications, which had peaked around 1965, hit a trough in 1980 – perhaps an indication of popular disenchantment with the idea. In response to the economic crisis of 1991, the government of PV Narasimha Rao and Manmohan Singh opened up the Indian economy, abolishing industrial licensing, reducing the scope of the public sector, devaluing the rupee, removing import restrictions, reducing tariffs and excise duties. Although the reformers continued to profess commitment to swadeshi, government policy through the decade of the 1990s cautiously embraced an open economy. What followed is well known: over the next 25 years India experience unprecedented economic growth, massively reduced poverty and saw the emergence of globally competitive indigenous firms in several sectors.

Both the Left and the Hindu Right opposed the opening up of the Indian economy, albeit for different reasons. Gail Omvedt noted that the "leftists are defending a state-dominated economy, the BJP with its hatred of 'Nehruism'...are claiming to stand for some form of liberalisation. The official position is that there should be 'internal liberalisation' (freedom from government controls for industry within the country') but not 'external liberalisation' (removing trade barriers and exposing 'swadeshi' industry to foreign competition)" (Omvedt 1993). When the BJP came to power in the late 1990s – on a pro-swadeshi platform (Wolf and Houseman 1997) – the Atal Bihari Vajpayee government trod a tenuous balance between ministers who preferred greater openness and influential members of the Sangh Parivar who adhered to their interpretation of swadeshi. The title of Yashwant Sinha's book "Confessions of a Swadeshi Reformer" and the official embrace of the euphemism "disinvestment" to refer to privatisation indicates how the Vajpayee government executed the art of the possible (Y. Sinha 2007).

During the decade of the two UPA governments (2004-2014) the dominant policy narratives were of social justice and inclusive growth. Redistribution and sound macroeconomic management took priority over further liberalisation and structural reform of land, labour, administration and capital. Paeans were paid to swadeshi and self-reliance as usual, but neither the government nor the opposition took up its cause with any seriousness. As a prime ministerial candidate in 2014, Narendra Modi gave a non-committal response to a query on where he stood in the debate between pro-market reform and the Sangh Parivar's swadeshi ideas (2014).

7. Populist Reprise 2016-present

"India First", a feature of Modi's 2014 manifesto, was more than a slogan. The economic policies of the Narendra Modi governments follow Omvedt's description of the stance the BJP evolved in the early 1990s – encouraging of domestic business and entrepreneurship while being sceptical of international trade. The much publicised "Make in India" initiative exemplified this approach in the first term (Mehrotra 2020). The government liberalised foreign direct investment restrictions in many sectors, including defence, even as it hardened India's position in the World Trade Organisation's logjammed negotiations, and decided to stay out of the Regional Comprehensive Economic Partnership (RCEP) – at the risk of being marginalised in East Asian trade (Narlikar 2021). This was in the context of declining support for globalisation in the West, essentially due to the relative gains made by China, and to a lesser extent by India.

But it is in Modi's second term that the economic policy narrative dramatically shifted towards self-reliance and a resurgence in the popularity of swadeshi. The trigger was a combination of the impact of the Covid-19 pandemic and Chinese belligerence along the Himalayan frontiers. By disrupting global and national supply chains, the former made "vocal for local" a necessity through the year 2020. The government simultaneously turned it into a virtue. China's ill-considered aggression in Ladakh during the same year deepened public outrage to levels where calls for boycott of Chinese companies and imports became widespread. Many Chinese apps were banned. Imports faced greater official scrutiny and suffered delays. Chinese telecommunications equipment has been excluded from India's fifth generation networks on national security grounds.

In response to China's weaponising of the global supply chains it dominates, India joined the United States, Australia, Japan and other economies in a strategic initiative to shift them in ways that reduce vulnerability to Beijing. In the middle of 2021, after two centuries of ups and downs, swadeshi and "national self-reliance" rose to the top of India's economic agenda yet again, in the form of the "Atma Nirbhar Bharat" initiative.

Swadeshi had never really gone away. It just took a short break for a couple of decades, one on either side of the beginning of the new millennium.

Part II – Swadeshi and the National Interest

Situating Swadeshi

The timeline shows that the roots of swadeshi lie in the triple whammy encountered by 19th century India.

First, European colonialism resulted in the loss of political power to a foreign race and a sense of being dominated by the British overlords. Even if the Raj delivered better governance, integrated disparate provinces into a common market, invested in infrastructure, promoted social reform, and benefited Indian traders, it was resolute in keeping Indians as subjects and away from power. The contention that unrequited transfers of wealth to Britain impoverished India might not withstand the scrutiny of strict accounting (T. Roy 2019), but the drain theory nevertheless shows the British government's deliberate reluctance to admit qualified Indians into the corridors of political, bureaucratic and military power.

Part of the reason is that the rebellions of 1857 underlined the need to keep power concentrated in the hands of trusted British expatriates. It is difficult, however, to attribute a policy sustained over several decades to this reason alone. Britain saw itself as lord and the Indian colonies as subject – and the people of India were clearly aware of it. This perhaps explains the prevalence of an anti-British sentiment in many parts of India, including in those where the colonial administration was an improvement over native despotism. The seeds of Indian economic nationalism lay in the resistance to being ruled by foreign overlords and in the rejection of their norms.

Second, the era of globalisation and free trade of the mid-19th century affected economic players in different ways. Traders from communities that were capable and did not impose social restrictions on travel could benefit from national and international trade. The majority of the population, however, was unable to adapt to the changes in the international economic pattern and faced intense competition from foreign imports. The colonial government was unconcerned about helping this population make the transition and improve its productivity and competitiveness. Contemporary experience suggests that there is some merit in the argument that it just did not have the wherewithal to attempt economic and social reform of the type necessary to equip Indian farmers, artisans, traders and industrialists to compete with their international counterparts (T. Roy 2019). In any case, there is little evidence to show that the colonial government ever had an intention to do so.

Third, the Industrial Revolution transformed the relative competitiveness of goods produced in Britain and India. Where the colonial consumer had to be coerced into purchasing British-manufactured goods through tariffs on domestic goods before the 1850s, the picture changed dramatically by third quarter of the century. Not only were imported goods – fabrics, machinery and consumer goods, for instance – better than domestic products, they were cheaper.

Why did India not industrialise in the 19th century? The straightforward answer is that the colonial government either actively discouraged it, or failed to create the environment for it. Again, this is likely to be due to both intention and lack of capacity. Another answer is that Indian society was unable to create effective mechanisms to convert savings into capital and allocate it effectively. Traditional investments in gold and land locked capital up in unproductive assets. Local moneylenders and trade financiers, usually belonging to specific communities, did not have the scale, incentives and instruments to aggregate and allocate capital into entrepreneurial industrial ventures. Rothermund points out that Meiji Japan's industrialisation was underpinned by the creation of effective financial institutions, a factor missing in colonial India (1993).

Why didn't financial institutions emerge in 19th century India? Consider this hypothesis: Indian society of the time lacked adequate social capital to enable the emergence of broad-based financial institutions. Contract enforcement outside the major cities was accomplished by traditional means, favouring in-group transactions over out-group ones. The competitive behaviour of business communities would not be fundamentally different from that of corporations. The objective would be to keep a business within the community networks and away from rivals. Thus the lack of bridging social capital limited financial transactions to certain communities and cities, with few capitalists having the scale and appetite for investments in unfamiliar businesses and entrepreneurs. Surplus capital would be invested in land, gold, and government securities.

It was in this broad context that the disempowered elites of a subordinate polity sought to change consumer preferences – the only area they had influence over. We see this in the early phase of swadeshi, which was mostly pursued through increasingly organised social mobilisation.

The paradoxical political power of the swadeshi narrative

Swadeshi was – and remains – a political argument. Economic nationalism is nationalism applied to the economy. Its proponents accepted that it would result in costlier products of lower quality. They argued that the price is worth paying in order to achieve nationalist goals.

This came out starkly during the Swadeshi Movement of Bengal when the boycott of British goods was designed to hurt British economic interests and coerce the Curzon administration to reverse the partition of Bengal. Disputing the dominant view that the movement led to substantial decline in imported goods in Bengal, A K Biswas shows that on the contrary, there was consistent increase in imports of cotton piece goods, sugar, spices, woollen goods, apparel and salt during the period 1903-

04 to 1911-12, registering a dip only in the 1906-07 (A. K. Biswas 1995). Liquor imports rose nearly 30% during that period, with consumers switching to German beer instead of British ones. He criticises the movement for coercive tactics and argues that farmers, lower castes, and Muslims suffered disproportionate losses on its account. After observing its descent into political extremism and communalism, a disenchanted Tagore wrote that "peasants were expected to buy inferior and costly goods and face Gurkha lathis in the bargain for the sake of a cause that must have seemed rather distant and abstract to them, and they were being asked to do all this by 'babus' who had treated them so long with contemptuous indifference or at best with condescension' (Lahiri 2011).

As Sumit Sarkar concludes "A sense of anticlimax is in fact bound to haunt any historian of swadeshi Bengal. Partition was revoked, it is true, after six years; but by then Curzon's original folly had become a minor issue for most patriots. The reforms of 1909, too belated and paltry to really satisfy even the moderates, were vitiated by the simultaneous encouragement they gave to Muslim separatism. Boycott had come and gone, leaving hardly a dent in the rising curve of foreign imports; swadeshi industries and national schools petered out..." (2011).

Even so, in the subsequent years, swadeshi became an even more important instrument of anti-colonial political mobilisation and an essential part of Gandhi's toolkit. Apart from doubting its economic rationale, Tagore also criticised the technique as being "spiritually empty" and the charka – which became a metaphor for swadeshi ideology – as a symbol of unreflecting cultishness. "The charka does not require anyone to think; one simply turns the wheel of the antiquated invention endlessly, using the minimum of judgment and stamina" (Bhattacharya 2011). The political power of charka, however, lay not in its ability to generate adequate amounts of clothing for its spinners, but in giving them a sense of participation in the political struggle without having to leave their homes and risking arrest and incarceration.

Ambedkar, who took an independent line in politics and remained a fierce critic of Gandhi's politics to the end of his life, made his position clear when he made it a point to appear in Western attire and famously used foreign fountain pens (Debroy 2020). His refusal to don homespun was as much a political statement as was Gandhi's espousal of khadi. The swadeshi narrative encountered political resistance in Bengal and Bombay Presidency from social groups that bore its disproportionate burden and did not identify with many of its purported benefits.

Swadeshi also faced resistance from sections of indigenous traders and capitalists at least until the mid-1930s. Velkar points out that Bal Gangadhar Tilak's initiatives to promote swadeshi goods and reject foreign imports "were generally ignored by local textile millowners", and that Tilak and the mercantile elite shared a mutual antipathy. The attitude towards swadeshi was split along caste, religious and class lines, with non-Hindu communities and elite Hindu merchants staying away, and Marathi and Gujarati lower middle classes embracing it with great enthusiasm (Velkar 2020). Attitudes changed in the 1930s after swadeshi began to enter the policy phase, its meaning changing from demand-side rejection of foreign goods to supply-side industrial policy protecting indigenous firms from foreign competition.

If swadeshi and self-reliance has enjoyed enduring popularity over the past century, it is because it appeals both to popular sentiment and the commercial interests of Indian firms. The constituency for free trade and competitive markets remains weak and is easily disarmed by pointing to the East India Company, invoking colonial exploitation and evoking the imagery of sinister foreign conspiracies against India's sovereignty and autonomy. In response to Ranade's argument in favour of importing foreign skill and machinery until India acquires indigenous capacity, the pages of Tilak's journal *Kesari* branded him "a traitor to his country" for singing praises of foreign capital (Dasgupta 1993). Polemic easily defeats well-considered economic arguments, especially those that are counter-intuitive (A. Biswas 1995). Despite ideological opposition to economic nationalism, the anti-globalisation narrative favoured by the Left has the same effect of delegitimising calls for free trade and market competition as being inimical to societal welfare.

By 2020, swadeshi found a new wind in contemporary politics as a form of popular resistance to China's geopolitical power. While there is no evidence that Beijing's foreign policy is vulnerable to these actions, raising barriers to Chinese imports not only eats into India's consumer surplus, but disproportionately affects those lower down the income pyramid.

The paradox of political swadeshi lies in its continued popularity despite there being little evidence of its political effectiveness, and full knowledge of the burden that it imposes on the weakest segments of society.

Nationalist economic criticism of economic nationalism

Dominant as it has been for nearly two centuries, both the economic and political case for swadeshi has been contested in elite discourse within the broader public sphere. Rammohun Roy's espousal of free trade – which in his context meant the abolition of the East India Company's monopoly – foreshadowed the swadeshi idea and contributed to its emergence in the form of native Bengali reaction to early Company rule. It is understandable that there should be little native opposition to swadeshi in its early phase for it was itself in opposition to the dominant policy narrative of empire and free trade.

It was in the years leading up to its political emergence that there began a serious debate on the merits of the idea. Bankim Chandra Chatterjee, Gopal Ganesh Agarkar, and Ranade were the most prominent Indian critics of the nationalist economic narrative and were unpersuaded by the "drain theory" that underpinned the swadeshi idea. Chatterjee pointed out that the evidence shows that wealth was actually increasing in Bengal due to better rule of law and increase in the volume of trade. Foreign competition had changed the pattern of trade creating both winners and losers, and those who were not competitive ought to take up different trades (Dasgupta 2002). Agarkar ridiculed the fervour for Indian products merely on account of their native origin as a 'misplaced sense of patriotism' and that it was 'illusory economics' to argue that people benefit from buying a more expensive product just because it is swadeshi (Pande 2021).

Ranade saw the drain theory as a political red herring best left to politicians. What needed attention were the more serious impediments to India's industrial progress – organisation, leadership, banking systems, and a trained workforce (Dasgupta 2002). He identified overdependence on agriculture as the primary cause of poverty, and industrialisation and trade the solution. While the "permanent salvation of the country depends upon the growth of Indian manufactures and commerce and that all other remedies can only be temporary palliatives", this was to be achieved in an open economy (*ibid*). India needed foreign knowledge, capital and markets, and could not afford to cocoon itself into an autarky.

Chatterjee was a staunch nationalist, one of the earliest to speak out against British rule and the author of the poem *Vande Mataram* that became identified with 20th century freedom struggle. Despite right-wing allegations, Ranade and Agarkar are best described as liberal nationalists. It is therefore clear that there was a sophisticated economic debate on swadeshi among nationalists – before it was elevated into an unquestionable nationalist dogma at the turn of the century.

A few decades later, another nationalist was unimpressed by the autarchic logic of extant swadeshi: Jawaharlal Nehru. Writing in 1935 he argued that "…many of Gandhiji's activities might lead one to think that he wants to go back to the narrowest autarchy, not only as a self-sufficient nation, but almost a self-sufficient village. In primitive communities the village was more or less self-sufficient and fed and clothed itself and otherwise provided for its needs. Of necessity that means an extremely low standard of living." And while it might be possible that village industries might lead to slight improvement in the living standards of the masses, "we are tied up, as every country is tied up, with the rest of the world, and it…is impossible to cut adrift. We must think, therefore, in terms of the world, and in these terms a narrow autarchy is out of the question" (A. Appadorai 1973). He held it "undesirable from every point of view."

Nehru expressed his opposition to Gandhi's economic ideas within the bounds of political allegiance. It was also nuanced. His disagreement with Gandhi's extreme swadeshi apart, he was as much a votary of "self-reliance" as other political and business leaders of the time. He might have been responsible for changing the effective definition of swadeshi changed from boycott and Gandhian self-sufficiency to the ownership of capital by Indians. It was a smooth transition from there to the adoption of self-reliance as a key economic goal of independent India. Import substitution, foreign exchange controls, a prominent public sector and a deep suspicion of foreign trade were seldom questioned by the policy elite in the Nehru years.

One note of dissent was from B R Shenoy – who had little influence on policy, and was marginalised by the political establishment for his labours (Bauer and Shenoy 1998). Shenoy argued that exchange controls and import restrictions harmed India's growth and development by misallocating capital, hurting the balance of payments, and transferring incomes to beneficiaries of import licenses (P. Sinha 1970). In a 1970 critique of the first fifteen years of the planned economy, Jagdish Bhagwati and Padma Desai showed how protectionist policies created inefficient investment decisions, kept uncompetitive firms in business, and allowed the beneficiaries of protection to enjoy monopoly power and earn supernormal profits. Such firms also had little incentive to explore export opportunities and foreign markets (Bhagwati and Desai 1970). While the government establishment accepted the outcomes of the planned model had been suboptimal, they nevertheless swept aside the criticism as being unaware of ground realities (M. Singh 1972).

Quo Vadis

Swadeshi's greatest success has been in its ability to mobilise public opinion towards a political objective. It can be argued that swadeshi sentiment resulted in the promotion of Indian crafts and industries in the late 19th century, and that independent India's pursuit of self-reliance created a modern industrial core. Now as in the past, the sentiment has sparked a spirit of entrepreneurship and spurred investment in manufacturing. Counterfactual arguments are impossible to prove. It is difficult to prove whether swadeshi and self-reliance created new investment or merely shifted it to import substitution.

It is important, however, to ask what the opportunity cost of swadeshi was – and is – before arriving at a definitive judgement. Nationalists must be concerned with economic outcomes, rather than be wedded to dogmatic policy prescriptions. Strengthening a nation requires the rapid acquisition of widespread material prosperity, and swadeshi and self-reliance must be subject to critical examination. India's economic trajectory clearly shows that Ranade was right: Self-reliance is best achieved in an open economy.

The burden of boycotts and import restrictions falls disproportionately on those with lower incomes, subtracting a bigger share of their disposable incomes and savings. Neither nationalism nor patriotism can condone hurting the most vulnerable members of one's own population in the expectation that doing so will coerce a foreign government. The imperative against import controls is categorical even if the distributional effects are ignored. If the latter are included in our analysis, import restrictions amount to coercive transfers from consumers to domestic capitalists. Where the latter are relatively better off than the former – as is the case in India – such transfers are regressive in nature.

India's experience over the past century offers the strongest argument against protectionism, even of "infant industries" in the interest of self-reliance. Import controls are sought to buy time for domestic firms to gain scale and competitiveness. However, the "right time" for opening up never arrives, because the world moves ahead in the meantime. As Bhagwati and Desai showed as far back as 1970, sheltering domestic firms from international competition only imposes higher costs on consumers, reduces savings and investible surplus, and coddles the holders of licenses to diversify into other protected industries. The fate of the automobile industry before and after the liberalisation of 1992 offers stark evidence of the relative performance of protectionist and open economy policies. A new form of the protectionist argument projects ambition to create national champions, along the lines of South Korean *chaebols*. Unfortunately, scale doesn't change the fundamentally flawed logic, only exacerbates it. If protectionism increases rent-seeking and corruption, promoting national champions risks policy capture. As Shenoy warned, the risk is to liberal democracy itself. It is possible to end up in the unintended Korea. After all, *juche* ("self-reliance") is the state philosophy of North Korea.

Geopolitically too, it is an open-economy that offers the pathway to greater power and influence (Baru 2002). A protected economy holds little interest for other countries, and thus loses the ability to promote its interests. Its foreign relations are characterised by economic disputes and conflicts, and before long, its elites become caught up in a siege mentality. India's experience before and then in the years following the 1992 reforms is instructive: Until the 1980s, India was considered a Third World 'developing country'; by the late 1990s, it became an emerging economy and a rising power.

If swadeshi does not do too well in the economics test, is there – as Gandhi asserted – a moral case for it? Individuals are entitled to live by their own values, but if swadeshi is to be a public virtue the case for it must be made on non-arbitrary grounds, employing reason. Utilitarianism indicates that there is no special morality in preferring local products. On the contrary, intentionally subjecting others to avoidable suffering is little moral justification. If there is a moral argument, it is in favour of rapid economic growth that raises incomes, living standards and life expectations of the people of

India. Guha highlights a letter to Gandhi by one Kantilal Amratlal, accusing the great leader of hypocrisy and chauvinism. Rejecting the notion that it was sinful to use imported goods, the correspondent stated that national pride "is not the ultimate sentiment" and Gandhi's vision was narrow for "country and life are transient, not eternal" (Guha 2018).

Swadeshi, like satyagraha – the other famous instrument of the Gandhian toolkit – needs to be reviewed in the context of a liberal democracy. Ambedkar described protests and civil disobedience as a "grammar of anarchy" in a free republic, where constitutional methods are available. Similarly, the political case for swadeshi is weak in an independent liberal democracy where there is no colonial power to resist, where foreign companies do not enjoy special privileges, and where trade policy is in the hands of a popularly elected government.

Furthermore, few proponents of swadeshi are clear about exactly how local it should be. India is a subcontinent and each region has its own cultural consciousness and identity. Should the swadeshi principle operate at the sub-national level? Only Gandhi is intellectually honest in answering this question in the affirmative, and his answer undermines national unity. If states, districts and villages enact laws or socially determine to prevent trade across their boundaries, India will turn into a mere geographic entity. Not only does protectionism, nativism and localism result in inefficient, sub-optimal, and unsustainable firms and polities, but – as Tagore feared – they lead to the shrinking and the closing of the mind.

Does swadeshi have a place at all in the future life of a liberal democratic republic? Yes, as a form of social consciousness, freely held, promoted, and acted upon by individuals to whom it appeals. Consumers and private investors have the economic freedom to exercise their choices and preferences. Recall that "National" Nabagopal and his patrons did not need the permission or the support of the Bengal government to produce, promote, and consume swadeshi goods. Market economies have numerous ways of changing consumer behaviour and driving consumer preferences towards desired causes. As with, say, organic products, voluntary swadeshi also allows the discovery of the premium people are willing to pay for their preference. However, other than in strategic areas, there is no case for promoting self-reliance through tariffs and import controls.

Two centuries on, the compass of economic nationalism is better pointed to *samarthya* (capability) rather than swadeshi. Capability does not mean everything must be produced within the borders of one's own country, even if it can be. Rather, it suggests the power to access whatever is desired regardless of where it is produced. Samarthya is more than self-reliance. It is achieved through rapid economic growth and free trade. "We must think, therefore, in terms of the world."

REFERENCES

Appadorai, Arjun. 1973. *Documents on Political Thought in Modern India.* Vol. 2. Oxford University Press.

Appadorai, Arjun 1974. *Documents on Political Thought in Modern India:* Vol. 2. Oxford University Press.

Biswas, A.K. 1995. "Paradox of Anti-Partition Agitation and Swadeshi Movement in Bengal (1905)." *Social Scientist* (4/6).

Sinha, Yashwant. 2007. *Confessions of a Swadeshi Reformer: My Years as a Finance Minister.* Penguin India.

n.d. *Merriam-Webster.* Accessed December 5, 2020. https://www.merriam-webster.com/dictionary/suffrage.

Chandra, Bipan. 2016. *The Rise and Growth of Economic Nationalism.* Har-Anand Publications Pvt Ltd.

Dasgupta, Ajit K. 2002. *A History of Indian Economic Thought.* Routledge.

Rothermund, Dietmar. 1993. *An Economic History of India.* Routledge.

Roy, Tirthankar. 2020. *Economic History of India (1857-1947).* OUP India.

Guha, Ramachandra. 2018. *Gandhi: The Years That Changed the Worl.* Peguin Allen Lane.

Bauer, Peter, and B R Shenoy. 1998. "Stature and Impact." *Cato Journal* 18 (1).

Pande, Vikrant. 2021. *G.G. AGARKAR : REVISITING A MISUNDERSTOOD LEGACY.* 24 March. https://indianliberals.in/content/gg-agarkar-revisiting-a-misunderstood-legacy/.

Dasgupta, Ajit K. 1993. *A History of Indian Economic Thought.* Routledge.

Roy, Tirthankar. 2019. *How British Rule Changed India's Economy: The Paradox of the Raj.* Palgrave Pivot.

Narlikar, Amrita. 2021. "India's foreign economic policy under Modi: negotiations and narratives in the WTO and beyond." *International Politics.*

Mehrotra, Santosh. 2020. *Planning in the 20th Century and Beyond: India's Planning Commission and the NITI Aayog.* Cambridge University Press.

Wolf, Andrew, and Gerald L Houseman . 1997. "THE ROLE OF "SWADESHI" IN INDIAN TRADE POLICY." *The Indian Journal of Political Science* 58 (1/4): 28-38.

Omvedt, Gail. 1993. "Review: Of Brahmins, Sacred and Socialist." *Economic and Political Weekly* 28 (44): 2402-2404.

Rosen, George. 2013. "Planned Development and the Search for Self-Reliance." In *The India Handbook*, by C. Steven. LaRue. Chicago: Fitzroy Dearborn Publishers.

Sarkar, Sumit. 2011. *Swadeshi Movement in Bengal 1903-1908 .* Permanent Black .

Sen, Sailendra Nath. 2010. *An Advanced History of Modern India.* Laxmi Publications .

Bayly, C.A. 2011. *Indian Thought in the Age of Liberalism and Empire.* Cambridge University Press.

Mahajan, Ravindra. 2020. *Organiser.* 26 Feb. Accessed March 9, 2021. https://www.organiser.org/Encyc/2020/2/26/Swadeshi-Globalisation.amp.html.

Ministry of Finance. 1992. *Economic Survey 1991-92.* Government of India, 10-12.

Subramanian, Arvind , and Dani Rodrik. 2005. "From "Hindu Growth" to Productivity Surge: The Mystery of the Indian Growth Transition." *IMF Satff Papers* 52 (2): 193-228.

Bhattacharya, Sabyasachi. 2011. *The Mahatma and the Poet.* National Book Trust.

Press Information Bureau. 2020. *PM gives a clarion call for Atmanirbhar Bharat.* 12 May. Accessed May 2021. https://pib.gov.in/PressReleasePage.aspx?PRID=1623391.

n.d. *Google Books Ngram Viewer.* Accessed March 7, 2021. https://bit.ly/2PxZkVY.

Bayly, C A. 1986. *The Origins of Swadeshi (Home Industry): Cloth and Indian Society, 1700–1930.* Edited by Arjun Appadurai. Cambridge University Press.

Singh, Joginder. n.d. "Namdhari Sikhs of Punjab: Historical Profile, JPS 21:2." https://punjab.global.ucsb.edu/sites/default/files/sitefiles/journals/volume21/21_2/3-Joginder%20Singh%2021.2.pdf.

Trade Policy, 1800–1947. Encyclopedia.com. Accessed March 7, 2020. https://www.encyclopedia.com/international/encyclopedias-almanacs-transcripts-and-maps/trade-policy-1800-1947.

Velkar, Aashish. 2020. "SWADESHI CAPITALISM IN COLONIAL BOMBAY." *The Historical Journal* (Cambridge University Press) 1-26.

Kelkar, Vijay Laxman. 1980. "India and World Economy: Search for Self-Reliance." *Economic and Political Weekly* (http://www.jstor.org/stable/4368372) 15 (5/7): 245-258. https://www.jstor.org/stable/i400187.

Tendulkar, Suresh D. 1974. "Planning for Growth, Redistribution and Self-Reliance in the Fifth Five-Year Plan-I." *Economic and Political Weekly* (https://www.jstor.org/stable/i398376) 9 (1/2).

Modi, Narendra, interview by Arnab Goswami. 2014. *Frankly Speaking with Arnab Goswami* Outlook India, (8 May): Transcript: https://www.outlookindia.com/blog/story/narendra-modi-the-times-now-interview/3265. Accessed March 8, 2021.

Lahiri, Sharmita. 2011. "Local vs. Cosmopolitan: A Comparison of the Home and the World and Midnight's Children." *SKASE Journal of Literary Studies* 3 (2).

Debroy, Bibek. 2020. *A Fountain Pen Story.* 9 June. Accessed March 2021. https://www.orfonline.org/research/a-fountain-pen-story-68679/.

Bhagwati, J, and P Desai. 1970. *India: Planning for Industrialization, Industrialization and Trade Policies since 1951.* Delhi: Oxford University Press.

Sinha, Prakash. 1970. "Indian Economic Police." *Michigan Law Review* 68 (4): 796.

Baru, Sanjaya. 2002. "Strategic Consequences of India's Economic Performance." Economic and Political Weekly (JSTOR, www.jstor.org/stable/4412299. Accessed 2 July 2021.) 37 (26): 2583-2592.

Singh, Manmohan. 1972. " Book Reviews : Jagdish N. Bhagwati and Padma Desai, India: Planning for Indus trialization; Industrialization and Trade Policies since 1951, published on behalf of OECD, Oxford University Press, London, 1970." *Indian Social and Economic History Review* 9 (4): 413-417.

Indian Public Policy Review 2021, 2(4): 59-75

Criticising a Despotic Colonial Government: How Much Is Too Much?

Michael D. Metelits*

Abstract

In the last half of the 19th century in the Bombay Deccan, Indian professionals and merchants began to openly challenge some practices of the colonial government. A major vehicle for this forthright criticism was the Poona Sarvajanik Sabha. Through its quarterly journal, the Sabha's interactions with government gave rise to a competition of ideas and identities, between government and its Indian critics. This competition embraced many topics, but the denouement concerned government policies during two outbursts, some twenty years apart, of famine in the Deccan. Each side was convinced that its approach was right, with the government comfortable doing what it had always done, and the critics increasingly finding fault because of the failures of the government's famine policy. The question was, which was more important, clinging to Utilitarian doctrine, or implementing a "newer" doctrine that emphasized saving human life? The Sabha not only accepted a "newer" doctrine, but also chose to hold the government accountable for not implementing it. More important, when the government failed to implement needed action, the Sabha took action to right the wrong. Eventually, government reacted to this criticism by acting to crush the Sabha. The eventual outcome is visible even today.

Keywords: Colonial Governance, Criticism of Government, Famine, Famine Relief Policy, Government Accountability, Poona Sarvajanik Sabha

Publication Date: 02 July 2021

* Ambassador Michael D. Metelits is an independent research scholar who, prior to a career in the United States Foreign Service, was a lecturer of history at California State University, San Francisco

I Introduction

In the Bombay Deccan during the late nineteenth century, the relationship between the colonial government and an increasingly political group of Indian professionals and merchants morphed. The old image of the rulers as morally superior, benefactors who brought Western education, a legal system, and a peaceful calm that promised better days to come, gave way over time, as the government too often failed to live up to this image. There was a basic test: did the colonial government act in the very best interests of the people it ruled? As time passed, a series of events put the basic test to a trial.

This essay traces how the relation between citizens and government changed as elements of Deccan society adopted a less accepting, more stridently militant attitude toward the foreign ruling class. The Poona Sarvajanik Sabha in Pune, the intellectual and political centre of the Bombay Deccan, became one vehicle of the political change. Two severe famines provided major proving grounds for this change, as the Sabha became a leading force in attempts to urge, and then force the rulers to rectify their failures, save lives, and mitigate the misery that the famines brought to the people of the presidency. The Sabha's quarterly journal provided a step-by-step record of this political awakening.

Much scholarly output has focused on the origins of government policy and the role of top administrators in developing and adapting policy to create a famine relief strategy. The aim here is not to duplicate that discussion, but rather to examine the development of criticism of that policy by Indians, and the results stemming from two famines, that of 1874-1877, and 1895-1897. The leaders of the Sabha, through the quarterly journal, spoke for themselves. The main question here is how far the Sabha could go in its criticism before the despotic (a term that the Sabha used) colonial regime took action to stop them.

The self-image of British administrators was as members of an aristocracy, in the sense of the Greek word for the regime in pre-democratic Athens, ἀριστοκρατία, (aristocracy – rule by society's best, rule by an elite). British administrators were men who *ruled* as the successors to the Mughals and previous regimes. The eventual self-image of their critics was as the people to whom government must be accountable.

The Sabha arose in the early 1870s, from the aftermath of a dispute over the management of the Parvati Temple in Pune. Membership was open to people who could prove they represented a section of the Pune populace and funding largely came from patronage by members of the Indian gentry. Its managing committee, mainly lawyers, spanned a wide segment of society. The Sabha began as, and remained, an active organization that served a dual role. On the one hand, it communicated information about government activities to the people at large. On the other, it funnelled information to government about the attitudes of the populace on these same activities and issues. It reported its activities through its English language quarterly journal.

In providing such information to government, the Sabha navigated a fine line between open candour and possible embarrassment to the government. The language the Sabha initially used might have been polite, but increasingly in such communications, they used language that pulled no punches. There was a marked contrast between the way the Sabha's journal portrayed the widespread death and disease, the social and economic misery that famine brought to affected districts, and the seeming confidence of government that they were doing the right thing by stolidly following orders and claiming that things were really not that bad.

II Theoretical Basis of Government Famine Policy

Government famine policy varied, depending on the best estimate of rainfall, the locale of a food shortage, and information about the condition of the local people. There were some changes in famine policy over time and famine seemed endemic in British India. At the top level, the Secretary of State for India stated that the government's goal in combatting famine was: "the protection of the people of India from the effects of the uncertainty of the seasons."[1] He stressed collecting "with utmost care all information which may assist...administrators in the task of limiting the range or mitigating the intensity" of famines. This betrayed that officials in India had only a loose grasp of local conditions that left them too often unable to know when to take action, much less, what action to take

Open issues about relief works included the amount of compensation for workers, and the quantity of food needed for the health and strength of the workers. The well-known tenets of political economy at the time insisted that the government follow a laissez faire policy, trusting the free market to send food where it was scarce and there were hungry people to buy it. The quantity of food that these workers needed became a hotly contested issue in the Bombay Deccan.

Notions of political economy (together with English experience with the Poor Laws) shaped official famine policy in India. Political economy was a required subject at Haileybury College. After 1858, when the civil service was open to competition via written examination, a paper on political economy was still required. Tenets included "the commonly accepted necessity for applying tests of some kind before giving relief."[2] This would prevent lazy people from cheating the system by using the government dole instead of working. In a Minute of August 12th, 1877, the viceroy elaborated on the testing idea, calling for "relief employment, at a subsistent rate of wages" for relief projects. Laissez faire ideology also questioned "the proper extent and limitation of the duty of Government in respect to the supply, importation, and distribution of food required for districts suffering from famine."[3]

Another major issue was money. This shaded attitudes toward which part of the government would pay for famine relief projects. It also appeared in decisions about gratuitous relief for those who could not work, in the topic of suspension and remission of land revenue; and in bureaucratic questions at the district level about organizing and supervising relief.[4] Gratuitous relief by government was an anathema under the political economy doctrine; so rulers chose to adhere to hallowed principles, providing the barest means of survival to famine-stricken people who were

---

[1] Quoted in *Report of the Indian Famine Commission* (hereafter *IFC [1880])*, Part 1, para 1, for both quotes in this paragraph

[2] From the Secretary of State's Despatch, p. 6, para 6, in *IFC [1880]*.

[3] Ibid., p 2, para 4.

[4] Ibid., para 11.

unable to work. As regards land revenue, the topic was a sanctum sanctorum for British administrators. After over a half century of muddling through various systems of revenue administration, there hung a figurative "DO NOT TOUCH!" sign on the duty of landowners and other agriculturists to pay the revenue demand, even in times of scarcity or famine.

III Famine Policy in Action

The Good and the Bad

Failure of the 1873 monsoon in northern Bengal/Bihar led to the total failure of the winter rice crop that inevitably created widespread famine risk in the affected area. In response, the government of Bengal prepared for relief measures "on a scale and with a thoroughness which had never been equalled [*sic*] before. The principals [sic] adopted by the Government were very different from those accepted on any former similar occasion."[5] The government accepted responsibility for feeding the populace of the affected districts with all the food necessary and the Bengal government (with approval from the Government of India) imported 480,000 tons of rice, mostly from Burma. Government officers distributed the food. Those who could not work received free relief and for those who could work there were relief projects with "normal" rations provided by the government. There were no tests to identify cheaters. Instead, the government sought to keep everybody adequately fed. In other words, the government abandoned Utilitarian notions of laissez faire trade and political economy notions about how to treat those prima facie in need. Leadership in the Bihar famine campaign fell to Bengal Lieutenant-Governor, Sir Richard Temple, whom we shall encounter later.

In official circles a post-famine shock emerged over "errors" in the government's policy. For example, of the 480,000 tons of rice imported, over 100,000 tons remained undistributed after the famine. The government had bought the rice at emergency prices and the leftover rice had to be sold "at a great loss."[6] The upshot of the very expensive program was that no one wanted to be blamed for spending so generously, so when government undertook famine relief in the future, there would be no blank check such as Sir Richard Temple had enjoyed.

Then came the worst famine in nearly a century, the Great Famine of 1876-78. The large area, the size of the affected population, and its duration and intensity dwarfed previous famines and scarcities that formed the basis of the government's famine policy. The famine covered all the Deccan districts of the Bombay Presidency, and throughout India it affected some 36 million persons. Scarcities abounded in 1876 and in 1877, grain prices rose sharply throughout India. This price increase followed the poor harvest of 1876, and also reflected the ongoing export of food from India to Europe.

If the Bihar famine exemplified what government could do for the victims, the Great Famine was its opposite. In January 1877, the imperial government made Sir Richard Temple the Famine Delegate, to inspect the affected districts in Madras. He was to evaluate proposed relief measures that would be appropriate. His mandate was to have government do everything possible "to save the population of the distressed districts from starvation, or from an extremity of suffering dangerous to

[5] Ibid., p. 15, para 57.

[6] Ibid., p. 16, para 57.

life." However, his remit was *not* to prevent "all suffering and giving general relief to the poorer classes." The imperial government recognized "the evils of indiscriminate private charity, but [deemed] indiscriminate charity of a government...far worse." Calcutta now insisted that "the task of saving life, irrespective of the cost, is one which it is beyond [the capability of government] to undertake."[7] The Secretary of State for India concurred in this, emphasizing that the Government of India should do what it could, but *not* permit the funding of famine relief to drain government coffers.

The government of Bombay had a plan should the monsoon of 1876 fail (which it did). The plan reflected the ideas of political economy. The primary aim was to relieve distress through large public works projects under the management of professional engineers. Daily pay was set at a level only adequate to support the worker. The goal was to extract as much useful work as possible, but pay and conditions were not to be attractive, simply to provide enough food to sustain bare survival. This would prevent cheating by a class anxious to live on the dole.

Since cost was a dividing line between an acceptable programme and an unacceptable effort, how much did all this effort cost for two years? The government *estimated* the loss of life in the affected Bombay districts at 800,000 over the "normal" death rate, or some 8%. Gratuitous relief cost ten lakhs, while the total cost of famine administration came to one crore fourteen lakhs. Rs 2.25 lakhs of land revenue were remitted and about Rs 30 lakhs were suspended. Of the latter, some Rs 16 lakhs were collected after the famine, leaving about Rs 14 lakhs unpaid (and uncollectable) at the end of 1879.

The Bombay government justified its famine relief efforts as the best that could be expected, since India was an inherently dangerous place. This placed the blame for death on the victims, the poor, by pointing to their living conditions that left them prime targets for disease. While an epidemic might kill tens of thousands, this was simply a condition of "normal" life in India. Famine, on the other hand, accelerated susceptibility to such diseases and attracted more attention from government, which asserted that famine-related diseases could only be wiped out through economic and social progress. "[T]he hope that any human endeavours will...prevent an increase of mortality during a severe famine is untenable."[8] Government could not thwart high prices, job loss, or food scarcity. It asserted there would always be suffering and death. In sum, the official view avoided a *mea culpa*. There was hope that famine relief measures would become more efficient, improved transport would facilitate relief and internal trade, and increased prosperity "thanks to a settled and civilized Government"[9] would make famine disappear. The official view was that the Great Famine was less harmful to the general prosperity of India than previous famines, even though the Great Famine was the worst famine in long-term memory.

Nowhere was this positive view trumpeted more than in the Bombay presidency. The Bombay government asserted that notwithstanding "the worst famine in modern times," there had been a large increase in arable land on the revenue rolls and land revenue had increased by Rs 4.5 lakhs over the average of the past decade. The Secretary of State for India boasted about the "remarkable

---

[7] All quotations in this paragraph are from *IFC [1880]*, p. 17, para. 61.
[8] IFC [1880], p. 29, paras 82-83.
[9] Ibid.

development of the power of the agricultural classes to resist and recover from the effects of unfavourable seasons."[10]

The government's bureaucracy-reliant policy was pledged to free market laissez faire principles (underpinned by) suspicion that people who wanted government help were undeserving. This contrasted strongly with the Sabha's view. The Sabha assessed government policy in the Bombay presidency and became increasingly outraged and detailed, as they received local information from the famine districts. Eventually, in the face of the government failing to act or acting incorrectly, the Sabha took action on its own.

The Sabha Reacts to the Great Famine

The first public response appeared in the first issue of its quarterly journal, in July 1878. By that time the Great Famine had largely abated and the government was in the process of establishing a Famine Commission to review anti-famine procedures so as to improve famine policy. In "A letter to the Government of India Making Some suggestions Regarding the Famine Commission,"[11] the Sabha published its opinion. One of the first issues it tackled was how many people in the presidency had died because of the famine. The government of India glossed over the issue observing that Bombay was "distinguished by the almost total absence of deaths from want and starvation."[12] The Sabha hotly disagreed, arguing that success or failure of combatting famine lay in how many deaths famine relief measures prevented. The Bombay government apparently did not have presidency-wide figures, but provided some data, but only from the least affected districts. Information the Sabha had received from its agents portrayed a very different situation reflecting some of the worst-affected talukas. As a solution the Sabha urged the Famine Commission to call for a full-scale census to provide figures comparable to the general census of 1872, as a way to clarify the effectiveness of government famine relief measures.

The Sabha also supported the government's idea of an annual budgetary set-aside of £1.5 million as a "famine insurance policy," for famine prevention and relief. It would accumulate over the non-famine years to render famine relief no threat to Indian finances. However, the fund required an increase that nearly marginal agriculturists would pay in future indirect taxes. Moreover, the funds would require the government to honour a promise not to use the money for any purpose other than famine prevention or relief.

The Sabha harboured strong doubts as to the need for tests and other requirements to prevent cheaters from using public assistance without needing it.[13] Official procedures failed to accommodate a variety of local situations.

There were deep problems with the administration of large relief projects. These projects were located far from the workers' villages. Those who walked to the projects during the scarcity stage, largely withstood the rigours of the travel (little food and water, often with very young children and aged dependents) and arrived not yet starving, but in deteriorated condition. Late comers frequently

[10] Cited in ibid. p. 30, para 85.

[11] The Sabha's No. 162 of 1878, 1 April 1878, to S.C. Bailey, in *QJPSS* 1:1:1-7.

[12] Ibid., p. 2, para 3.

[13] Ibid., 1:1, p. 4, para 6.

arrived in various stages of starvation, poor physical condition, progressively less able with each passing day to perform the full day's required hard labour. These tended to typify those who most often sought relief in the projects.

Once in the camp, migrants had to survive needs testing and not all were allowed to stay. Sanitary conditions were rudimentary at best and usually there had been no effort to accommodate individuals and families at the camps. They literally slept in the open regardless of the weather. Then the work began. Most of the projects had workers breaking rocks into ballast and underlay for roads. This strenuous labour required different strengths and aptitudes than agricultural work. Often the Public Works engineer in charge required each worker to produce as much broken rock as a completely able-bodied, well-fed professional produced. This level of production was rare. When a worker failed to meet the daily quota he (or she) suffered a reduction of pay for that day's work.

There was also a question about compensation. A female worker received about 25% less than a male and children over the age of seven received even less. Those younger than seven and the infirm elderly received nothing unless they qualified for gratuitous food under certain conditions. Otherwise, workers had to divide their food in order to feed the elderly and youngest. The compensation normally suffered deductions. Since rations were scant to begin with, the reductions and need to share usually led to increased hunger and diminished ability to work, which was a repeating cycle of increasingly meagre allotments[14] for those who worked. Over time, this became a slow path to death by starvation.

By 1877, information from the Sabha's agents in famine districts clarified the picture and the Sabha's criticisms became even more focused. The additional facts were unsettling.

Shivaram Hari Sathe, who later replaced Gopal Krishna Gokhale as the Sabha's Secretary, exploded a myth that there had been an organized campaign by project workers who left the projects in early 1877. The government complained of a conspiracy among workers to strike for higher wages and to resist its "economizing policy." Sathe listed the "true" reasons. Selection of migrants to work a camp frequently involved "boxes and blows given to the chest and anyone who complained was sent away. Starving workers who had survived for five months could not possibly earn a full wage. Payment came but once in eight days and was proportional to the fraction of work completed, which further degraded a worker's ability to work. Workers had to bring their own equipment, while weekly payments forced workers to borrow money from grain merchants, using their implements as collateral. Wages were insufficient to repay the loans and the merchants kept the collateral until they were repaid in full. Those workers lacking tools, lost the right to work, and those who had not died or left the camp remained permanently unable to do their full quota of work.[15]

The Worst—Starvation by Government

In the early stages of the Great Famine, the Sabha's criticisms had been general. As local information reached the Sabha and the true nature of local problems became evident, the Sabha began

---

[14] Letter from the Sabha to Chief Secretary to Government, 23 November 1876, in "Famine Narrative No. II in *QJPSS* 1:1:18-19.

[15] Ibid., pp. 68-70.

to name individuals whom the Sabha considered responsible for needless death, starvation, and suffering.

The first named was Sir Richard Temple. While Temple earned admiration for his role in the Bihar famine and as Famine Delegate in Madras, admiration for him as Governor of Bombay shrivelled, as shown in a letter from Shivaram Hari Sathe, to Major General Sir M. K. Kennedy[16] stating that famine relief officers were unnecessarily enforcing a ration of one pound of food, labelling it sufficient to sustain life. The error stemmed from one of Temple's minutes of the previous January,[17] in which Temple authoritatively stated that one pound (half a *sher*) per day was a local proverb identifying that amount as all that was needed for a person to survive. Sathe rebutted, writing, "the proverbial measure for bare subsistence is not half a *sher* but full [*sic*] *sher* that is 2lbs. of staple food with a margin for vegetables and condiments and ample experience has now shown that a pound of food does not suffice to sustain life." He continued, insisting that, "[t]he large number of deaths on the Relief works erroneously ascribed to cholera but which the Government of India itself now acknowledges to be the result of slow starvation contradicts the so-called experience"[18] in Temple's minute.

There was no mistaking where the blame lay: high up in the government pyramid, not at the base. Sathe recognized that lower grade officers in some districts recognized the blunder and tried on their own to counteract it. He cited the case of an assistant collector, who decided "practically to disobey" government orders by making up the extra pound of food from "his own pocket or from private [charity] funds placed at his disposal." Sathe concluded that government should not follow a policy when subordinate officers found it contrary to the dictates of their conscience.

If the Sabha found Temple to be mistakenly responsible for slow starvation in the camps, there were even harsher words for Lord Lytton, the viceroy. In a petition to the House of Commons resulting from a public meeting the Sabha convened at Pune, the Sabha all but called Lytton an incompetent and a liar. The petition listed 25 grievances against Lytton. Seven directly related to Lytton's famine policy inequities: raising the salt tax 40% while Bombay and Madras were in the midst of a three-year famine; zero land revenue remissions (remissions were a normal practice during pre-Lytton famines, but now land revenue was collected "with rigour and stringency, which led to disastrous results"); violating political economy principles by levying the financial burden on the truly poor and those suffering from the famine, at a rate completely out of the range of their ability to pay, while excusing high-salaried officials and other rich people from paying; emptying the "famine insurance fund" to help fund a war in Afghanistan (the British lost); the Lytton regime instituted "arbitrary principles" then in favour in Calcutta causing many problems for agriculturists; land revenue rates were increased "to an extent which an official Committee [later] appointed by the Government of India" deemed unjust and excessive, but which had not been reduced."[19]

Nulkar evaluated the supreme and provincial governments as follows. "[L]ike all despotic forms of governance ours has its faults, traceable chiefly to individual failings. These arise first from ignorance

[16] No. 85 of 1877, "Proceedings of the Sabha," *QJPSS* 1:4:67-73 April 1879

[17] Ibid., pp. 67-68.

[18] Ibid. p. 68.

[19] "Petition to the House of Commons with the Proceedings of the Public Meeting at Which It Was Adopted," *QJPSS* 3:1. Petition, pp 1-10, Proceedings, pp 10-16, p. 6 for the quote.

or indifference, secondly from prostitution of power to ministerial or party objects, and thirdly, from pride and partiality toward races or class-interests."[20]

The Sabha also produced a 42-page article assessing Lytton's four years as viceroy. "The four years of Lord Lytton's administration have proved disastrous beyond all precedent to the true interests of the millions committed to his fostering care. The besetting sin of his administration has been that it was eminently untruthful, repressive and reactionary at home…and disastrous to the safety of our finances and material prosperity."[21] Lytton surrounded himself with yes-men who praised his famine policy saying, "in nothing has Lord Lytton been so conspicuously successful as 'in his treatment of the difficult problems concerned with the management and relief of famine.'"[22] The Sabha disagreed, recalling that during Lytton's viceroyalty, famine in the Bombay and Madras presidencies and the North West provinces, the number of famine deaths totalled almost nine million persons. The article also stressed that so many fatalities "is sufficient to seal the doom of any administration that could be held responsible for it," but despite suffering, misery, and death in India, "Lord Lytton was seriously engaged in arranging for," the gaudy, expensive ceremony in Delhi celebrating the elevation of Queen Victoria to be Empress of India, "just as if nothing had occurred…to distract the mind of the principal actors in that Assemblage."[23]

IV Two Competing Ideas

The Sabha (like other critics of Lytton's famine policy) clung to its own set of ideologies. We have already noted the political-economy-laissez-faire framework that underlay Utilitarian ideas about how government might properly deal with famines in India. Indian critics, horrified by the widespread suffering and death that resulted from these policies, attached themselves to a very different policy approach. What was that approach and where did it come from?

Early during the Great Famine, the suggestions the Sabha gave to government supported many government famine efforts. This support began to wither as many of those government efforts failed because they were inappropriate. As the Sabha received first-hand data from its agents in famine districts, the Sabha reshaped its suggestions to government to become ever more critical of what the government was (or was not) doing. Certainly, there was no wish to see a repeat of the Great Famine mistakes in the future. However, a new famine policy did not fall from the sky, nor had the Sabha itself created an opposing ideology. Rather, the Sabha borrowed from the Bihar policy of the government of India. More important, the Sabha began to apply a policy that was home-grown, a more direct form of action, one that the Sabha considered was proper in famine-struck India. Lord Northbrook, Lytton's predecessor, announced that the obligation of the state was to save famine-stricken Indians from starvation and cost was to be no object. The success of this policy in the Bihar famine contrasted sharply with Lytton's policy that resulted in the death by starvation of nearly nine

---

[20] "Proceedings of the Sabha" *QJPSS* 3:1:11 July 1880.
[21] "The Viceroyalty of Lord Lytton," *QJPSS* 3:1:34 July 1880.
[22] Ibid., p. 53.
[23] Refers to the gaudy celebration of Queen Victoria's becoming Empress of India, ibid., p. 54.

million Indians.[24] The Sabha considered the Northbrook policy as the statement of an obligation by the governments of Britain and India to the people of India: Government was accountable for success or failure. Thus, as long as it failed to succour the starving, the colonial regime lost a significant part of its claim to be in India for the protection of the voiceless masses.

A recurring Sabha request to the government after the Great Famine was for increasingly detailed information. In speaking for the populace, the Sabha felt "it to be its duty" that government provide fuller information on topics worrying the agricultural public. The government already published weekly data at the district level. The Sabha wanted more detailed information at the taluka level (data that the government was already receiving, but not publishing), so that the public could plan ahead, quell some of their fears, and forestall the kind of panic that prompted grain and fodder dealers to raise prices.[25] This kind of appeal was one to which government simply replied that the information it was already providing was sufficient for the present. By the 1890s, however, communications from the Sabha about famine were based not only on local information, but also on black letter law and official reports.

V Famine Again

Famine returned in 1896. By that time the Sabha was better prepared to use tools that were not available twenty years earlier. The report of the Indian Famine Commission of 1880 proposed some major steps that the supreme government enacted into law and that applied to all levels of government. Each province had to promulgate a famine relief code establishing procedures and processes, unique to its territory, to meet emergency conditions that could result in famine. The Bombay presidency had its own code, approved by the Government of India.

A major issue in Bombay—the size of the ration for workers on large famine projects—had never been resolved during the Great Famine. The Temple ration—one pound per day—was still the guideline in the Bombay presidency and the Bombay Famine Relief Code still advocated it. For many workers this was a one-way ticket to slow death by starvation.[26]

The Bombay code detailed provisions for organizing large and small relief works and poor houses, for the classification of different categories of people needing relief, and for the regulation of wages and rations. It also specified conditions for suspension or remission of land revenue, and instructed officers of the medical, police, engineering and revenue departments about duties and required reports. However, the code was not perfect, and the Sabha urged changes to guide the Government's ongoing code review that was taking place out of public view. The Sabha had "a few suggestions" about methods of relief and implementation of code provisions. The Sabha hoped that the government would avoid repeating the errors of relief activities during 1876-1877, and thereby to

---

[24] Ibid.

[25] Letter 275, 23 July 1891, Gopal Krishna Gokhale, Honorary Secretary PSS, to Secretary to Govt of Bombay, Revenue Department, "Proceedings of the Sabha," *QJPSS* 14:4:6-7, July 1891.

[26] One scholar recently calculated that the one pound ration provided less nutrition than the daily ration at Buchenwald, the infamous Nazi concentration camp. See Mike Davis. *Late Victorian Holocausts*, London: Verso, p. 39.

avoid needless death and misery. The government's response to the Sabha's fifteen-page list of "requests" was succinct and politely negative. As we shall see, three issues that the Sabha identified—the need to disseminate better information to villages, special assistance for neglected groups, and revenue remissions and suspensions—would play a major role in future relations between the Sabha and the government.[27]

The Sabha identified saving people's lives as a major duty of the government. The Sabha repeated this frequently.[28] Thanks to the Famine Fund, the Sabha held government "specially bound" to help people. The Sabha also noted that the Bombay Famine Code required special relief to weavers by having them do work specific to their craft. This was the same for other presidencies, but Bombay convinced the Supreme Government to allow Bombay to provide such relief only if the Bombay government believed it was "necessary." (The Sabha opposed letting a local government set its own relief principles.) Similarly, the issue of suspension and remission of land revenue seemed in practice to depend on not harming the fiscal integrity of the local government. The Sabha argued[29] that the government would not suffer any financial loss other than the interest that suspended revenue might earn, for though suspensions of land revenue temporarily diminished the amount of land revenue on hand, it should be of little concern because the Famine Relief Fund was created for exactly such a purpose. Denying a cultivator this kind of relief would likely drive him to leave his village and join a relief project, where the government was obliged to pay him. That would hike the overall cost of losing the revenue.

VI Denouement in Four Steps

Step One, the Tilak Plan—the Sabha Steps in

Following its assessment of the Bombay Famine Code (there was no printed reply from government), beginning in late 1896, the Sabha's journal carried information about only two famine relief issues. The first was a proposal aimed at providing special relief for weavers, in what might be called the "Tilak Plan," for Bal Gangadhar Tilak—by then, a member of the Sabha's Managing Committee for some time—was a major proponent of the plan. The plan called for a commercial arrangement in which the government would be a major investor in a proposal for famine relief for the weavers of Sholapur. After changes to accommodate several difficulties that the government identified, the plan called for wealthy fabric merchants to buy yarn and other materials for weavers to produce inexpensive cloth for commercial sale after the famine ended. The government would pay Rs 2.5 lakhs for food. In the long term, government would save money, since the upkeep would cost less than long term support for weavers on large famine relief works. The cloth would go on sale after the famine ended and if there were a loss, the government would absorb the first ten percent. After that,

---

[27] For this paragraph see J. Monteath, Acting Chief Secretary to Chairman and Secretaries, Poona Sarvajanik Sabha, *QJPSS* "Proceedings of the Sabha" 19:1&2 July & October 1896, paras 1-8.

[28] See, for example, "Note on the General Policy of the Government in respect to scarcity prevailing in a part of the Bombay Presidency," 1877, in "Famine Administration," *QJPSS* 1:1 1878, p. 4; "Famine Narratives No III," *QJPSS* 1:1 1878, para 10.

[29] See *QJPSS*, "The Famine Codes," XIX:3&4:11-13 1897.

the next ten percent would be the responsibility of the merchants, and if the loss exceeded twenty percent, a single wealthy merchant would have to volunteer to cover the rest. The merchants would be responsible for managing the production and sale of the cloth, while the finances would come under the total control of the government. All of this would be the kind of special relief for weavers as mandated in the Bombay Famine Relief Code.[30]

Government was leery of the plan for four reasons. (1) There would have to be a large government investment that was subject to possible loss (reminiscent of the financial loss of the Bihar famine). (2) The government had neither the available personnel nor the technical and commercial skills needed to make the plan succeed. (3) Bookkeeping and trading in garments were complex. (4) Recruiting qualified people to manage the plan, to examine the raw ingredients and garments produced, and to carefully store those garments until they could be sold—all were beyond government capabilities.

The government's final reply came in five days and was no surprise. The decision makers in government were of the governing class responsible for steering the lives of the people; they were not merchants anxious to score a profit by hawking inexpensive cotton garments. The official refusal came on 4 January 1897, in a note containing a single sentence, polite but final. "I am directed to inform you that Government are unable to modify the conclusion already arrived at in this matter."[31]

Step Two –Asking Government to Help the Sabha

The next incidents potentially brought the Sabha into direct government-like action and were almost contemporary with the discussion of the Tilak Plan. In late November 1896, the Sabha printed a brief pamphlet in Marathi summarizing provisions of the Bombay Famine Relief Code, along with some government decisions and descriptions of issues regarding famine relief. The Sabha had already distributed some 6,000 copies in the famine-affected districts of the Deccan, and now solicited government help in distributing the rest of the pamphlets. According to the Sabha, the aim of the pamphlets was to inform people in those areas of what the government was doing to help them. The Sabha requested government permission for district officials to assist in distributing the pamphlets without any requirement for them to attest to the accuracy of content of the documents. The Sabha asked only for help in distributing the material. The Sabha also wished the government to provide copies of all government resolutions on famine matters, except for confidential documents. The Sabha claimed that this would improve government efforts in the battle against famine.[32] Again, the reply was polite, succinct, and negative: "Government are unable to take any part in the distribution of a private pamphlet...and any orders regarding famine which Government desire to publish in full..." [government itself will decide what to make public].[33]

---

[30] Letter No. 2307, Sarvajanik Sabha to Secretary to Government, Bombay, Revenue Department (Famine) 17 November 1896, *QJPSS* "Proceedings of the Sabha. Memorials. Famine—1. Special Relief to Weaves" 19:3&4:23-26 1897, Signed by V. R. Patwardhan, Chairman of the Sabha and K. B. Mande, Assistant Secretary.

[31] J. Monteath, Acting Chief Secretary to Government, No. 8 Famine of 1897, Revenue Department (Famine), 4 January 1897, QJPSS 19:3&4:37 January & April 1897.

[32] Letter, K. B. Mande, Assistant Secretary Sarvajanik Sabha, Poona, to Secretary to Government of Bombay, Revenue Department (Famine), 15 November 1896, *QJPSS* 19:3&4:37-38 1897.

[33] Monteath to Sabha, No 9759 of 1896, *QJPSS* 19:3&4:39.

Step Three, Land Revenue Issues—Invading the Sanctum Sanctorum

In late 1896, an exchange began between the Sabha and the Bombay government, regarding suspension and remission of land revenue. The official reply to its memorial of 8 November 1896, elicited a note that the Sabha's input would receive full attention "at the proper time." Two months later, the Sabha sent a note to the government suggesting that action on this issue was afoot within government circles without the Sabha's knowledge. "The Sabha now learns that Government has approved certain instructions issued by the Collector of Poona to his assistants...and that the same course is directed to be followed in other Districts."[34] It seemed to government that the Sabha had obtained a copy of the government order and described its contents in detail. (1) A distinction will be made between agriculturist and non-agriculturist land owners. (2) All non-agriculturist land owners should pay the full revenue demand, whether they were rich or poor and without regard to the quality of the harvest. (3) For agriculturists who occupied the land, officials should grant suspensions only for those who (a) were not only "well-to-do" but *also* (b) had lost at least 75% of their crop.

The Sabha found fault with this because the Poona Collector's orders failed instruct about suspensions or remissions in cases of crop failure between 25% and 50%, nor did it lay down rules for land owners who took rent from sub-tenants. This violated the principles announced during the Great Famine, the recommendations of the Famine Commission, and Clause 2, Section 140 of the Bombay Famine Code. While the Sabha recognized the principle that grants of remission or suspension should not result in unnecessary loss of revenue, the Sabha insisted that rules protecting the government must equally protect the ryot. Since these issues had been settled between the Bombay government and the Government of India during the Great Famine, the validity of the Poona Collector's directive merited scrutiny. Also, the Sabha urged that the rules recommended by the Government of India, then by the Famine Commission should be the ones used.[35]

The government's reply to this letter was very different from previous replies to the Sabha. In a single sentence it declared, "Gentlemen, – I am directed to inform you that before replying to your letter...Government would be glad to know from whom the Sarvajanik Sabha obtained information of the instructions issued by the Collector of Poona to his assistants regarding the collection of the land revenue, of the approval of them by Government, and the direction that the same course should be followed in other districts."[36]

The government's reply smacked of an accusation of criminal activity. In any case, the Sabha was not anxious to reveal its sources and pointed out that the government itself had leaked the information in a number of ways and places. Its reply to Monteath's letter reminded the government that the collectors of Poona, Thana, Kolaba and other districts had informed taluka and village officers of the proposal and that those officials in turn had explained the contents to *hundreds* of agriculturists in those districts. Others who had already applied for suspension or remission were also informed orally or in writing and a summary of the official Government Resolution was published in many

[34] V. R. Patvardhan, Chairman, Sarvajanik Sabha, to Secretary to the Government of Bombay, No 160 of 1897, 25 January 1897, *QJPSS* 19:3&4:45-46.
[35] Ibid., pp. 50-51.
[36] Monteath to Chairman and Honorary Secretaries, Sarvajanik Sabha, Revenue Department (Famine), No 355 (Famine) of 1897, in "Proceedings of the Sabha" *QJPSS* XIX:3&4:55 January & April 1897.

newspapers. So the information had been published in a variety of ways and places "and there is no reason to doubt the accuracy of the information so published. But if the information be not accurate…the Sabha would be glad to know what the real orders on the subject are."[37] The Sabha's letter ended with almost six printed pages of added commentary, facts, and arguments submitted for government consideration. In a sense the Sabha had not only bested the government on its own grounds, it had also figuratively rubbed the government's nose in its blatant mistake. This would have ended Step Three, but there was one more, deeper Sabha plunge into suspensions and remissions of land revenue.

Step Four: the Hammer Drops: पूणें सर्वजनिक सभेची हकालपट्टी[38]

Government could not have been pleased with the Sabha's obtaining information that, when published, was embarrassing. The result was letter No. 432 (Fam), Revenue Department, 8 February 1897, carrying a government resolution that contained a letter from the collector of Poona (No. 6, of 29 January 1897) denying responsibility for the leak and accusing that "the Sabha cannot have got a copy of the [communication about revision and suspension] in any authorized manner."[39] There was also a resolution ordering Monteath to inform the Sabha that publication of the Poona collector's correspondence was not authorized, and any summary of such published in a newspaper could only have happened because rules regarding the conduct of public servants had been violated. Moreover, collectors were aware that untimely levy of the assessment should cause no distress, but any person who can pay what is due from him "will be exceedingly ill-advised if…he withholds payment."[40]

This formal warning came in response to a pamphlet circulated in Dharwar district by Anantrao Joshi Eksambekar, an agent sent into the field by the Sabha to glean information about local circumstances. In its reaction to this (and to other recent Sabha activities) the government put in motion a set of conditions to determine the future fate of the Poona Sarvajanik Sabha. First, an official letter[41] about Eksambekar demanded that the Sabha state for the record if Eksambekar was a Sabha agent, if the Sabha accepted responsibility for statements he made in the Sabha's name and if the Sabha accepted liability for the statements in his pamphlet. There followed an official English translation of the handbill. Then, after a pause, another letter from Monteath to the Sabha, "I am directed to inform you that unless a reply to my letter No. 281 dated 2nd ultimo is received within a week from this date government will then proceed to dispose of this matter."[42]

The Sabha replied stating that the Managing Committee had deputed Eksambekar to collect information about conditions in Bijapur and Dharwar and insisted that the notices mentioned in letter 281 were only to advertise meetings he would hold to explain the Famine Code to the people

---

[37] Honorary Secretaries, Sarvajanik Sabha, to Monteath, No. 165 of 1897, 3 February 1897, *QJPSS* XIX:3&4:55.
[36] The English "Poona Sarvajanik Sabha you no longer belong here" comes close to this Marathi expression.
[39] Telegram, Collector of Poona to Government of Bombay, No 6, 2 February 1897, in "Proceedings of the Sabha" *QJPSS* XIX:3&4:62 1897.
[40] Ibid., p. 63.
[41] Monteath to Chairman and Secretaries, Sarvajanik Sabha, No 381 Fam. Of 1897, 2 February 1897, "Proceedings of the Sabha," *QJPSS* XIX:3&4:62 1897.
[42] Monteath to Sabha, No. 737 of 1897, Revenue Department (Famine), 5 March 1897, "Proceedings of the Sabha" *QJPSS* XIX:3&4:65, 1897.

and to hear their grievances. The Sabha admitted that it had not approved the handbills before Eksambekar distributed them and therefore could not "vouch" for the accuracy of every word. Yet the Sabha failed to find anything in the handbills that materially violated the Sabha's instructions to him, nor were the contents objectionable. The Sabha also stated that the government translation of the handbills was faulty. As for the suspicion around statements about remissions and suspensions being ordered only when the crops were 25% and 50%, the Sabha had asked Eksambekar to name the source of this information. His reply was that the statement was based on a report "current at the time among the people of the place." In addition, the "unusual delay" in publishing the official government orders on suspensions and remissions had very likely sparked even more rumours. In conclusion, the Sabha wrote, "there was no reason...to attach any significance to the contents of the hand-bills."[43]

The government's "retrograde" (the Sabha's term) attitude reflected a growing hard line approach by the Bombay government to Sabha activities in the field: "abuse and threats have been used; its agents were watched; officers were prohibited to give any information; its instigation is assumed wherever official high-handedness meets with popular opposition; and last though not the least, even the aid of the Police and the Criminal Courts was sought to crush the efforts of the Sabha." The journal cited two cases of failed prosecutions of Sabha agents in Kolaba. In each instance the police and local judicial authorities cooperated to bring Sabha personnel to trial, but in both cases, competent jurists threw the cases out of court.[44]

VII The End?

Eight days later another letter from Monteath delivered a copy of Government Resolution, No. 875-Fam. Revenue Department (Famine), 17 March 1897.[45] The final sentence of the resolution declared, "The Poona Sarvajanik Sabha...must therefore cease to be recognized as a body which has any claim to address Government on questions of public policy."[46]

What had the Sabha done to deserve banishment? What norm did it violate? While it was possible that the government finally got fed up with the Sabha's criticism, there may also have been a deeper answer. To this outside observer over a century later, by seeking to take an active part in decisions about land revenue matters, the Sabha had perhaps trespassed into the *sanctum sanctorum*, the exclusive preserve of the ruling aristocracy. That would have been intolerable.

[43] For quotes in this paragraph, see V. K. Patvardhan, Chairman, Sarvajanik Sabha, to Monteath, No 435 of 1897, 9 March 1897, "Proceedings of the Sabha," *QJPSS* XIX:3&4:65-67 1897.

[44] See"The Quarter," *QJPSS* XIX:3&4:15-16 1897 for this paragraph including the quotation.

[45] The full resolution is in "Proceedings of the Sabha," *QJPSS* XIX:3&4:66-70 1897.

[46] Government Resolution No 875—Fam., 17 March 1897, see "Proceedings of the Sabha," *QJPSS* XIX:3&4:67-70 1897.

VIII Aftermath

Why was Resolution 875 supposed to kill the Sabha? Did it? The Sabha's *Quarterly Journal* disappeared, or did it? In April 1916, a full nineteen years after it was supposed to have died, the journal reappeared and continued to appear. Now it was closely attached to the Indian independence movement, with Bal Gangadhar Tilak listed first among the Chairmen of the Sabha. This issue was identified on the masthead as "Old Series Vol. XX, No. 1" and as "New Series, Vol. 1, No. 1" which bespoke a continuity of purpose, if not of chronology. Indeed, there was an optimistic spirit about the re-emergence. "The Quarterly Journal was always meant...to be a periodical record of the kind of public work and activity to which the Poona Sarvajanik Sabha had pledged itself....studies of public questions will,...be as salient a feature of the revived Journal as it was in the past years."[47] Interestingly, these sentiments mirrored the Sabha's comments commemorating the journal's birth, twenty years earlier.[48] Also, in 1916, the link to government was not the only, nor even the main purpose of the Sabha. It also brought government policies and acts to the people. That did not stop after 1897. Moreover, the Sabha played an important provincial role in preparations for the annual session of the Indian National Congress, even as it commented on issues of national importance.

In fact, the Pune Sarvajanik Sabha has survived at least 69 years after the end of British rule in India. In 2016, the Marathi newspaper, लोकसत्त (Loksatta) published an article,[49] congratulating Srimati Miratai Pavgi for becoming the first woman to be elected as the President of the Pune Sarvajanik Sabha. That is hardly an act of a defunct organization.

IX Conclusion

Identifying the roots of change is an important task for social scientists. In the case of the government's responses to the terrible famines in the Bombay presidency and the Sabha's reactions, a great deal of "credit" belongs to the leaders of the Sabha. With literally millions of people losing their life and suffering untold misery, and the government's puny actions to alleviate the distress, it is easy to understand that Sabha leaders suffered shock because of the carnage. While the group's interactions with government in the early stages of the Great Famine reflected rather docile, very loyal sentiments regarding government's famine policies as something the Indian subjects should be thankful for, as time passed and the government's efforts or lack of efforts failed to prevent widespread misery and death. A new wave of leadership entered the Sabha. The departure of Gopal Krishna Gokhale as Secretary and the entry of Bal Gangadhar Tilak, first in the managing committee and eventually as the first-listed vice president, reflected a growing element of far less moderate orientation both in Pune intellectual circles and in the Sabha itself. Where did this change come from? One might look, for instance, to Ireland of those days for an example. However, this observer, more than a century after the events, gives overwhelming credence to the notion that the change was home-grown, not

[47] "Ourselves," *QJPSS* New Series 1:1:1-2 1916.

[48] "The Quarter," *QJPSS* XIX:1&2: 1-3.

[49] Also on the Internet: Loksatta, 29 March 2016. https://www.loksatta.com/pune-news/meera-pavagi-elected-as-president-of-pune-sarvajanik-sabha-1220339.

imported. The trauma of widespread misery and death, and the failure of government to help when help was so badly needed, may have easily helped foster such a transformation among intellectuals deeply disappointed by lack of government accountability. They were men of principle, prepared to distinguish right from wrong, and to do something about it.

Bibliography

Chowdhury, Devjit Roy. “The Influence of Railroads and Institutions on Famines in Colonial India.” Paper available through http://www.academia.edu.

Davis, Mike. *Late Victorian Holocausts, El Niño, famines and the making of the Third World.* (London: Verso), 2007.

Hall-Matthews, David. “Inaccurate Conceptions: Disputed Measures of Nutritional Needs and Famine Deaths in Colonial India,” in *Modern Asian Studies*, Vol 42, No. 6 (2008), pp. 11891212.

Loksatta, 29 March 2016. https://www.loksatta.com/pune-news/meera-pavagi-elected-as-president-of-pune sarvajanik-sabha-1220339.

Mehrotra, S. R., “The Poona Sarvajanik Sabha: The early phase (1870-1888).” *Indian Social and Economic History Review*, 6, no. 3 (1964): 298-321.

O’Neill, H. Toye J. (eds) *A World without Famine?* Palgrave Development Series, London, https://doi.org/10.1007/978-1-349-26229-8_6, pp 107-27.

Report of the Indian Famine Commission (1880). Parliamentary Command Paper C2591 of 1880.

Report of the Indian Famine Commission (1898). Simla: Government Central Printing Office, 1898.

Stahl, Rune Moller. “The Economics of Starvation—Laissez Faire Ideology and Famine in Colonial India,” in ed. Mikkel Thorup, *Economic History of Economic Normatives*, (New York: Palgrave MacMillan) 2016.

Sen, Amartya. *Poverty and Famines, An Essay on Entitlement and Deprivation.* (Oxford: Clarendon Press) 1981.

The Quarterly Journal of the Poona Sarvajanik Sabha.

Indian Public Policy Review 2021, 2(4): 76-97

Breaking the Law:
Rule Violations as Social Norms on India's Roads

Anirudh Tagat

Nikhil George

Nidhi Gupta

Hansika Kapoor[*] [1]

Abstract

This paper adapts existing theoretical frameworks of social norms and their interactions with laws to study the case of rule violations in Indian road traffic. Specifically, we look at the case where existing laws and rules are violated with such regularity that breaking the law becomes the social norm. We investigate this framework in the case of road user behaviour in (urban) India, where road safety and traffic violations have been the focus of recent policy changes. We propose that a lack of road discipline and traffic violations have an impact on road safety, as well as on congestion. These, in turn, have implications for the economic productivity and development of a country, as well as the well-being of its citizens. Our application of the framework suggests conditions of enforcement under which such harmful social norms can be reversed. Policy interventions and scope for behaviorally-informed policies targeted at improving road user behaviour are discussed.

Keywords: Road Safety, Mobility, Congestion Nudging, Expectations

Publication Date: 02 July 2021

---

[*] Anirudh Tagat and Hansika Kapoor are Research Authors at Monk Prayogshala, Mumbai. Nikhil George is an economics and public policy researcher based in New Delhi. Nidhi Gupta is General Manager for Cybersecurity Programs at Springboard.

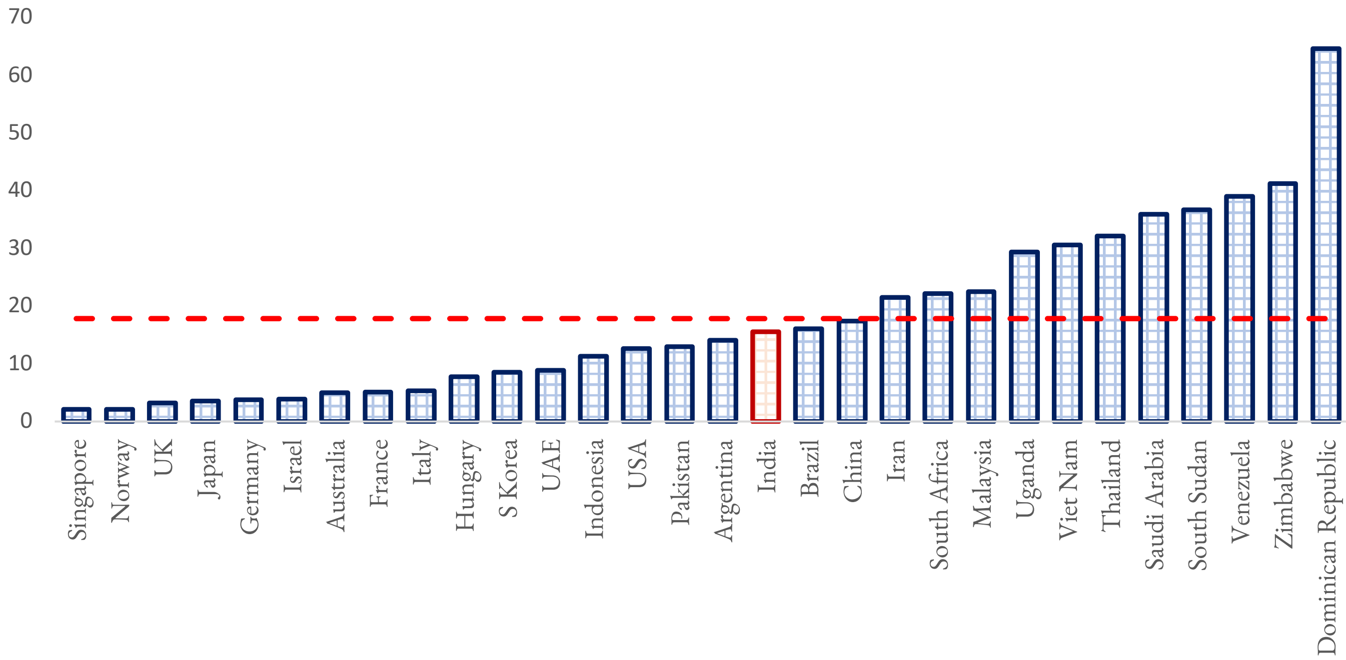
[1] We are grateful to Anupam Manur, Ameya Naik, Pranay Kotasthane, Ram Ganesh Kamatham, Khushboo Balani, Prakhar Mishra, and an anonymous referee for their valuable comments and suggestions. All errors remain our own. The views and opinions expressed in this paper do not necessarily reflect that of the affiliated institutions.

I. Introduction

Can some rules be violated with such regularity that these rule violations become a social norm? Recent research that investigates the intersection of laws and social norms (Acemoglu and Jackson 2014; Basu 2018) suggests that when laws are at odds with prevailing norms in a society, they can become ineffective. This paper seeks to apply a theoretical framework based on this recent research as well as Bichhieri's (2006a; 2017) work on social norms. This framework is then applied to understand the case of traffic rule violations in India, having substantial implications for road safety as well as urban economic development. We suggest interventions that go beyond increased enforcement, monitoring, or financial sanctions to improve the behaviour of road users, namely, pedestrians and motor vehicle users.

One of the primary implications of traffic rules being violated regularly relates to the safety of road users.[2] With an estimated 15.56 deaths per 100,000 people (see Figure 1), India is close to the world average (17.95) globally with respect to the number of fatalities arising out of road-related accidents. There have been various explanations for country-level disparities in road fatalities, including road design, law enforcement, and vehicular density. Literature suggests that such between-country differences could explain how success in reducing road fatalities in one country does not necessarily generate similar results in others (Wegman 2017). For example, mobility and congestion varies widely between these countries, largely on account of vehicular density, but also due to differences in traffic monitoring and enforcement of traffic law.

Figure 1: Country-wise estimated road-related deaths (killed per 100,000 persons) – 2019



Note: Red dashed line represents world average (17.8) as of 2019.
Source: World Health Organization Global Health Observatory (2021)

---

[2] For a larger explanation of risk factors associated with road traffic injuries in developing countries, we refer the reader to Odero *et al.* (1997) alcohol use, and traffic violations (such as speeding) explain road traffic injuries and deaths.

In India, the causes of deaths due to road accidents have been recently examined using government data (Ministry of Road Transport and Highways 2018). A large majority of fatal accidents in India occur due to over-speeding (66.5%). Other prominent reasons leading to fatal road accidents were overtaking as a fault of the driver, intake of alcohol and other drugs, and 'distractions while driving.' This is reported in Figure 2.

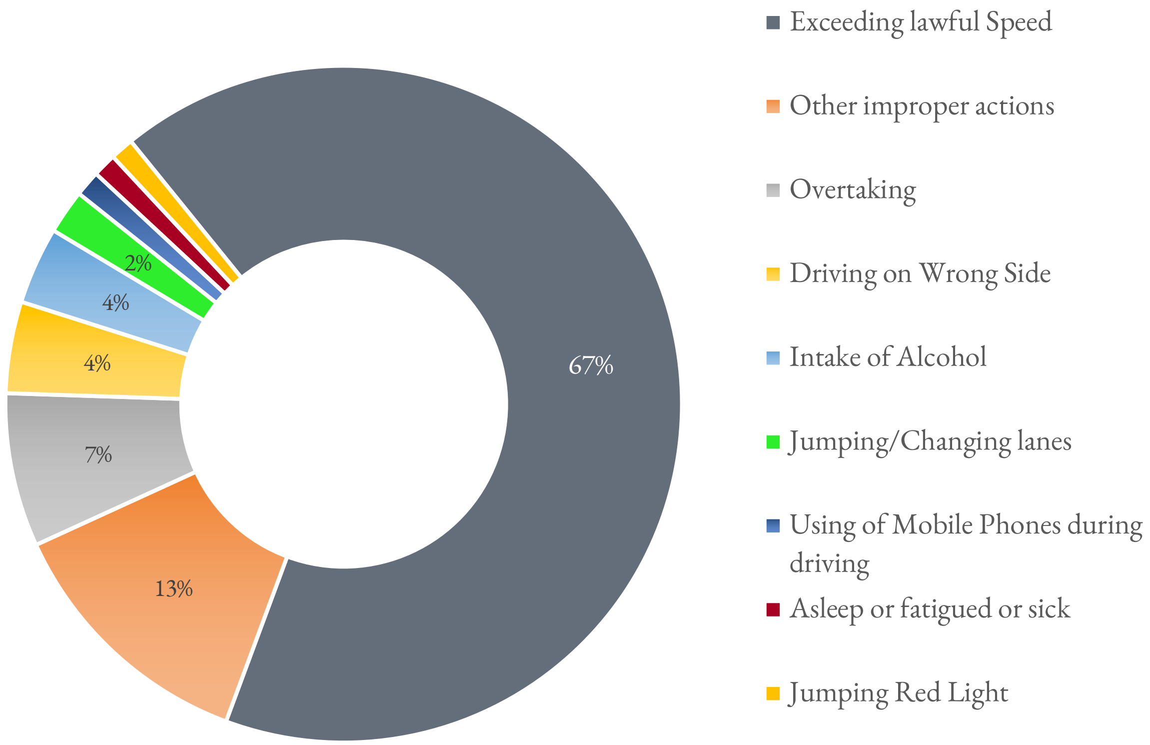
Even as average speeds reduce due to increasing road congestion (NITI Aayog and The Boston Consulting Group 2018), the absolute number of road-related deaths remain high (nearly 150,000 deaths in 2017). However, since 2005, the number of road-related deaths per thousand vehicles has nearly halved (from 1.5 in 2005 to 0.8 in 2015). This reduction in fatalities could be attributed to a number of causes: new road legislation, changes in road infrastructure and design, law enforcement, and lower average speeds due to increased motorization and congestion (Staton et al. 2016).

Our focus in this paper is largely on the latter two, since our primary interest is in road-user behaviour. This is particularly of importance given increasing road congestion around the world. Smeed's Law (Shinar 2017, 22) suggests that road fatalities could be reduced partially due to greater road congestion and vehicular density (Jacobs and Cutting 1986; Ministry of Road Transport and Highways 2018), but that they still remain high in absolute terms. Even when fatalities are not the major outcome of road accidents, there is still the possibility of road traffic injuries that could significantly affect quality of life for those involved (Dandona et al. 2008).

Research finds that both economic development as well as increased mobility (due to greater motorization) are positively associated with increasing road traffic injuries (Agarwala and Vasudevan 2020; Garg and Hyder 2006). Recent estimates of the economic cost of road-related deaths suggest that India loses nearly 3% of its GDP every year, nearly $58 billion (Quium and Rasamit 2013) due to this. Another study by the World Bank (2017) suggests that India could improve its GDP by 16.3% by reducing road-related deaths over the next 24 years.

Another outcome typically associated with lack of compliance with traffic laws is road congestion, which hampers economic productivity of road users. As Akbar et al. (2018) show, there is a positive correlation between urban economic development and improved mobility in Indian cities, but congestion mediates this relationship. Traffic congestion can also have significant implications for economic productivity (measured by monthly income changes) due to increased unproductive time spent in gridlock (Kreindler 2018). There are three potential reasons for traffic congestion: one involves the increase in motor vehicles on roads that outstrips the availability of road infrastructure to support them. Second, road design may not have adapted to increases in motorization, leading to greater congestion on ill-equipped roads. Last, road users do not comply with traffic rules, leading to a coordination problem that results in traffic congestion. To reiterate, since our focus is largely on road-user behaviour, we restrict our analysis to the third factor.

Figure 2: Major Causes of Road Accidents in India, 2016



Source: Ministry of Road Transport and Highways (2018)

The effects of road-related deaths, however, may not be uniformly spread across society. In India, nearly half of all deaths are among vulnerable road users, such as motorcyclists, pedestrians, and cyclists (Ministry of Road Transport and Highways 2017). To curb such numbers, there was a bill introduced in the Indian parliament in 2016 that proposed harsher fines and penalties for traffic offences such as drunk-driving, over-speeding, and non-compliance with seatbelt/helmet laws (SaveLIFE Foundation 2017). However, breaking traffic laws may not solely be the domain of road users but could also include pedestrians[3] and other vulnerable agents.

Country-wide data on traffic violations in India is sparse, owing to traffic enforcement being largely a city-level activity. According to traffic police data from Mumbai and Bangalore, the most common traffic violations booked are for: a) riding without a helmet; b) parking in no parking zones; c) jumping signals; d) carrying goods dangerously; e) not wearing safety belts; and f) drunk driving (Gandhi 2016). The volume of traffic violations varies largely by the number of road users in each city, as well as the intensity of enforcement: for example, Bangalore Traffic Police reported nearly 9

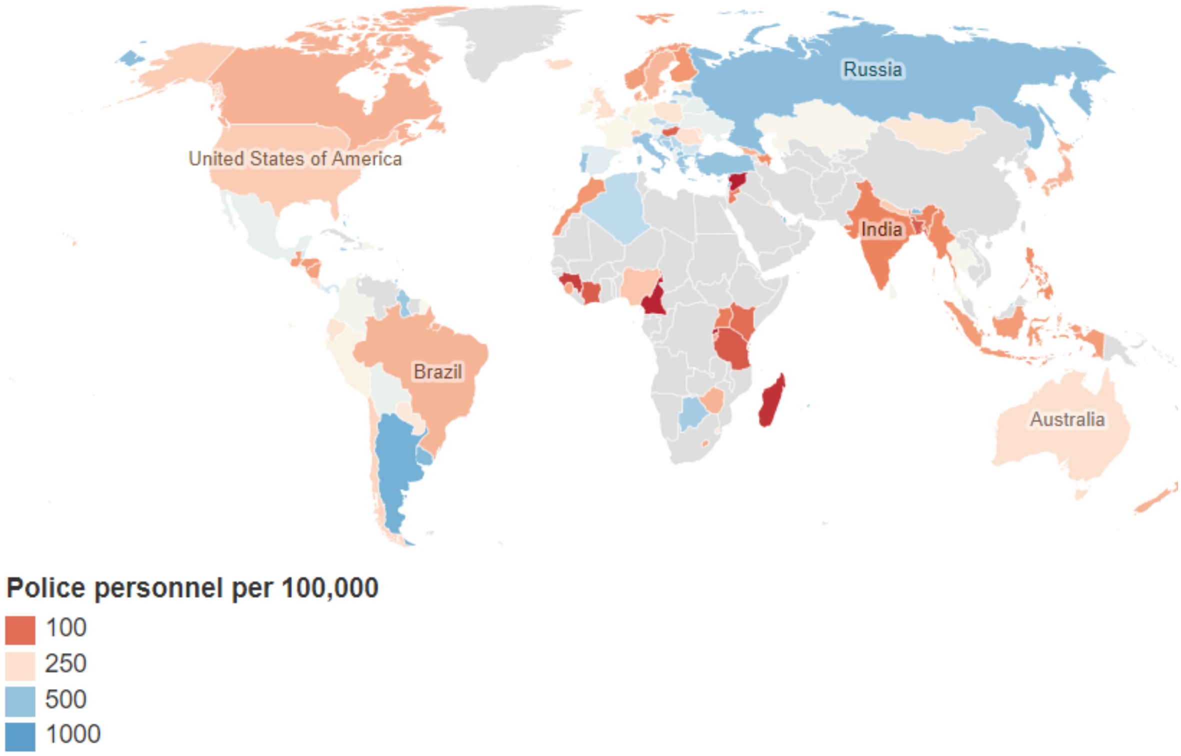
[3] It is a common sight in India to observe pedestrians crossing busy junctions without attention to designated crossing areas or traffic signals. The idea of jaywalking seems to be one of the few cultural traits ingrained within an otherwise heterogeneous population. Despite Indian laws having provisions to fine jaywalkers (Bagai 2011) for endangering their own lives as well as lives of others (a fine of INR 100, or ~$1.3), jaywalking persists. This is despite recent infrastructural changes involving provision of infrastructure such as subways and sidewalks. In 2014, in the financial capital of Mumbai, the police reported that there have been no cases filed as it is seen as a 'continually prevailing' norm. The concept of jaywalking in India is one such example of traffic violations occurring as a result of a prevalent social norm, though it makes up only a small portion of overall traffic violations as per traffic police officials statements.

million cases as of 2016 (Menezes 2017), while the Mumbai Traffic Police reported only 1.7 million cases (Narayan 2017). A potential explanation for this stark difference could be that Bangalore has nearly 3 times as many registered vehicles as Mumbai.[4]

Traffic Enforcement in India

The Indian state's capacity to monitor individuals is improving, but there is a wide disparity between the number of law enforcement agents and the population. From one police constable to 687 persons in 1998, it improved to 563 persons in 2008, and in 2020 stands at one police personnel for every 512 persons (Bureau of Police Research and Development 2020). There are also large state-wise variations in this figure. As Figure 3 shows, this is much lower than the ratio for countries such as Brazil and Russia, and marginally lower than Asian counterparts such as Indonesia and China.

Figure 3: Global Distribution of Police Personnel per 100,000 (average, 2003-2015).



Note: Grey coloration indicates no data available.
Source: United Nations Office on Drugs and Crime (UNODC; 2018)

However, there is scarce data specific to traffic police, who make up only a small fraction of the total police force in India -- about 3% as of 2020 (Bureau of Police Research and Development 2020). This means that as of 2020 in India, there was one traffic police personnel per 17,736 persons and 2,920 vehicles (Bureau of Police Research and Development 2020). In administratively smaller but heavily motorized areas such as Delhi, this ratio improves to about 1 traffic police staff per 1545

[4] It is plausible that motor vehicle registrations do not perfectly correspond to the number of vehicles on the road. Although there may be a high correlation, real-time data on traffic is highly variable and trip-level data is required to validate this assumption, which is outside the scope of the current work.

vehicles. The problem of enforcement is further compounded by the fact -- often noted by parliamentary committees -- that there are various agencies involved in monitoring road safety in India, resulting in a lack of coordinated policy action (Sundar Committee 2007).

As a result of the high number of fatalities associated with traffic accidents, the government of India proposed an amendment to the Motor Vehicle Act in 2017. This was the first time the bill had been amended since it was first enacted in 1988. The new bill sought to increase the fines and penalties for various traffic violations and offenses, contingent on state governments adopting this. Some of them are as follows: Not wearing seatbelts and helmets can result in a fine up to ₹1000 with suspension of license. The penalty for drunk driving has been increased from ₹2000 (~USD 28) to ₹10000 (~USD 140), whereas speeding is now penalized with a fine of ₹ 5000 (~USD 70).

II. Review of literature

This paper first reviews work in the behavioural sciences and traffic psychology that can be applied to study road safety behaviour. The theory of reasoned action (TRA) originally proposed by Fishbein and Ajzen (1975), provided a model which helped predict intentions and behaviour for a wide spectrum of ideas. According to them, behavioural intentions, in most scenarios, would be the best predictor of behaviour that is subsequently undertaken. Behavioural intentions can be understood by two different factors, that is, attitude towards the behaviour and subjective norms of a particular group. The extent to which these two factors differ depend on the behaviour being considered.

The theory of planned behaviour (TPB, Ajzen 1991) extends this model by including another primary predictor variable, that of perceived behavioural control. This shows "people's perception of the ease or difficulty of performing the behaviour of interest."(Ajzen 1991, 183). Parker et. al. (1995) attempted to study the adequacy of the theory of planned behaviour in predicting intentions of an individual to commit driving violations. The study involved a sample of 600 drivers belonging to five different age groups. There were three driving violations that were proposed in the study: a) cutting across lanes of traffic in a motorway to exit at the correct junction; b) weaving in and out of traffic in a two-lane motorway; and c) overtaking on the inside of the motorway. The study showed the significance of perceived behavioural control in explaining the intention to commit driving violations.

In the traffic psychology literature, TRA and TPB are predominantly used to explain traffic violating behaviour (Lheureux et al. 2015), but these theories are not devoid of criticism. The most significant one is that these theories are not falsifiable (Greve 2001; Ogden 2003; Smedslund 2000; Trafimow 2009; Sniehotta, Presseau, and Araújo-Soares 2014).

Another area where the TPB has been criticized is regarding the predictive validity of the theory. The theory emphasizes rational reasoning, and forgoes aspects such as unconscious influences on behaviour (Sniehotta, Presseau, and Araújo-Soares 2014; Sheeran, Gollwitzer, and Bargh 2013).

Forward (2006) outlines three different human failures: Violations (speeding, drunk driving), errors (failing to see misjudgements), and lapses (forgetfulness). Violations are actions undertaken purposefully and are found to predict road accidents. Using qualitative data on perceptions of violations, Forward extends Parker et. al.'s (1995) study and finds that there are mainly four broad reasons why road users could commit violations:

a) *Attitude*: most people did not believe that speeding on a major road was a violation; however, overtaking without a clear view was classified as the most dangerous followed by overtaking in an urban setting.
b) *Perceived behavioural control*: people would speed if they believed that they would reach the destination quicker. However, non-violators believed that it would be extremely hard to brake on time if there were pedestrians crossing and therefore their losses outweighed their perceived gains.
c) *Subjective norms*: people were often provoked when their driving styles had come into question.
d) *Habit*: described essentially as past behaviour, individuals who would be violators had been past offenders. However, there was a small portion of violators who reported that they would not undertake such an act again.

Joewono et al. (2015) empirically explored why traffic norms are violated specifically by motorcyclists across three different cities in Indonesia . They found that traffic violations occurred because of the rider attitude towards that behaviour, prevailing social norms, perceived behavioural control, moral norms (i.e., a subjective norm about a moral rule), and the thrill-seeking behaviour of the rider. Extending these findings, another internal factor that plays a vital role is the driver's moral norm. Holman and Popusoi (2018) showed that drivers self-exonerate when breaking traffic rules through four strategies that they feel legitimize their actions:

a) *Minimizing risks of traffic violations*: the consequences of violations are distorted or minimized by drivers as most traffic violations do not often bring negative consequences.
b) *Displacement of responsibility*: in many cases, it was found that drivers try to shift the blame regarding why they would violate traffic norms to environmental factors or physical conditions.
c) *Personal needs-based justification*: this strategy sees an individual justify their behaviour due to ongoing personal problems or if there were a perceived increase in convenience that arises out of violating traffic norms.
d) *Outcome-based justification*: in this an individual justifies behaviour on the grounds that it creates a better traffic environment.

The study empirically investigated how these four strategies could address drivers' tendencies to justify their traffic violations. However, as suggested earlier, drivers are not the only ones culpable for traffic violations, as pedestrians also often play a role. In low-income countries, pedestrians account for 45% of road fatalities, whereas they account for 29% in middle-income countries (Naci, Chisholm, and Baker 2009). in India, data shows an increase from 12,300 pedestrian fatalities in 2014 to 20,500 fatalities in 2017 (Dash 2018).

The general attitude towards traffic accidents involving pedestrians is that victims typically consider the driver to be culpable. Moyano Diaz (2002) uses the theory of planned behaviour to explain pedestrian behaviour, applying it to road-crossing in the absence of pedestrian crossing facilities. The results of the study, that was undertaken in Chile, show that pedestrian behaviour significantly contributes to their accident involvement. It also shows that young adults, those who are between 17 and 25 years old commit more "violations, errors, and lapses" as pedestrians. This is similar to the results found in relation to driver behaviour, wherein drivers in younger age brackets committee more such errors. Therefore, it was concluded that traffic accidents can be highly associated with young adults, specifically young males.

The paper concludes with the statement that pedestrian's tendency to commit traffic violations are determined by the intentions of the individual pedestrian, and not due to subjective norms of the group to which such pedestrians belong. This evidence is consistent with overconfidence and gender differences in overconfidence, specifically studied in the context of road behaviour (Mynttinen et al. 2009) as well as more generally (Dahlbom et al. 2011; Bengtsson, Persson, and Willenhag 2005). These studies also find overconfidence to be more common among novice drivers, females, and younger drivers. Wohleber and Matthews (2016) call this type of overconfidence an "above-average effect" (AAE) and find that it was further correlated with various psychological factors as well as unsafe driving behaviour.

So far, in this section, we have looked at the justification used by rule violators for their errant behaviour. However, could there be something about the laws themselves that make them prone to violations? Therefore, it is equally important to ask the question why certain laws are successfully implemented while others languish and are blatantly violated. Basu's (2018) recent game theoretic approach to understand why certain laws are followed is instructive in this regard. He contends that the assumptions in mainstream analysis of law and economics are internally inconsistent and flawed. Traditional models assume that while citizens are selfish and utility-maximizing agents, the state functionaries responsible for enforcing law (police, judges, bureaucrats, etc.) are robotic actors without their own ambitions, biases (e.g., gender, caste, religion), and desires.

Basu argues that laws (particularly new laws) are just "ink on paper" and can bring about a change in people's behaviour only in as much as they can change their beliefs about what other people may or may not do. He uses the concept of "focal points," first developed by Schelling (1980), to argue that the only function that laws provide is to act as a catalyst for changing beliefs and moving society from a pre-existing low-level equilibrium to a better equilibrium. These equilibria are defined as focal points, i.e., those choices of actions that are self-enforcing outcomes -- that enable people to guess what others, with a common cultural background as theirs, are likely to do. We discuss this work in detail in Section III.2.

III. Framework

There are many definitions and understandings of social norms, with literature on the topic spanning across the fields of sociology, law, economics, anthropology, and social psychology. The most prominent contemporary theories of social norms have been advanced by Cialdini and Trost (1998), Fishbein et al. (2011), Bicchieri (2006b) and Brennan *et al.* (2013). Each of these scholars use different terminology to describe social norms and the collective behaviours and reasons that lead to establishing these norms. However, as Mackie et al. (2015) point out, all the theories converge on three elements: a) social expectations (beliefs about what others do and beliefs about what others expect one to do); b) presence of a reference network; and c) sanctions (overt and covert).

In this paper, we use Bichhieri's (2006a) definition of social norms because it brings together insights from social psychology and economics and is integrative of insights from other theories in social norms. She builds on the theory of descriptive and injunctive norms that Cialdini and Trost (1998) proposed. Further, her explanation of social norms uses the schema of preferences, beliefs, and expectations that is most relevant to our analysis in this paper.

According to Bicchieri, a social norm is a rule of behaviour that individuals conditionally prefer to conform to because they believe that (a) most people in their reference network conform to this particular behaviour (empirical expectation), and (b) that most people in their reference network believe they should conform to this particular behaviour (normative expectation). Therefore, a social norm is that behaviour which is followed because of social expectations and not because of an individual's personal preference, irrespective of what others are doing.

Following this definition, to create a social norm, it is necessary to induce the right kind of expectations (empirical and normative) in a reference network. Further, to abandon a prevailing social norm, it is necessary to change people's expectations within their reference network. In the following subsection we develop a model based on this definition.

1. The Model

Assume a finite population of agents who are road users, $N = \{1, 2, 3 \dots n\}$, with $n \geq 2$. For any subsample $P \subseteq N$, there exists a social norm R if there is a sufficiently large proportion of P such that for each individual $i \in P$, i knows that R exists and bases her behaviour in situations S upon beliefs and expectations described below. The assumption here is that there is a collective awareness about behavioural rules that arise from following established social norms.

Table 1: Summary of Social Norms in Bicchieri (2006)

	One's beliefs about		
	Self (i)	**Others (P)**	**Others 2nd Order**
Empirical expectations	*What I am going to do*	*What others are going to do*	*What others believe I/others are going to do*
Normative expectations	*What I should do*	*What others should do*	*What others believe I/others should do*
Normative expectations with sanctions	*What I should do, falling which what I stand to lose*	*What others should do, failing which what they stand to lose*	*What others believe I/others should do, failing which what I/others stand to lose*

Source: Adapted from Bichhieri (2017, 70).

(a) *Empirical expectations*: *i* complies if she believes that P conforming with R in situations of type S (or the same situation faced by i) is sufficiently large. Such expectations could be formed by visual observation or inspection of the behaviour of all road users of similar type around in the urban congested road. Consider here an example of road user behaviour. There could be a significant proportion *P'* of all road users in a given city who prefer riding vehicles without using helmets. *R'*, is therefore, the behavioural rule that says helmets are *not* worn by all motorists (of two-wheelers) while riding (*S'*). *i* believes that a sufficiently large proportion of individuals follow *R'*, and therefore, *i* prefers not to wear a helmet.

(b) *Normative expectations*: *i* complies if she believes that *P* conforming with R in situations of type S (or the same situation faced by i) expects i to conform to R in situations of type S. Such expectations may be developed from past experience of road use (in situations of type S), or from intergenerational transmissions of beliefs. As an example, for road users, there could be a significant proportion *P'* of all road users in a given city who prefer riding vehicles without using helmets and expect others to ride their two-wheeler vehicles without using helmets. *R'*, is therefore, the behavioural rule that says helmets should *not* be worn by all motorists (of two-wheelers) while riding (*S'*). *i* believes that a sufficiently large proportion of individuals follow *R'* and also believes that a sufficiently large proportion of individuals expect *i* to conform to *R'*, and therefore, *i* prefers not to wear a helmet.

(c) *Normative expectations with sanctions*: i believes that a sufficiently large subset of P expects i to conform to R in situations of type S, prefers i to conform, and may sanction non-conformance. To model sanctions more explicitly, consider the case of private enforcement (where sanctions can be imposed via reporting to law enforcement; Acemoglu and Jackson 2014). Consider another case of motorized road users, drivers of motor vehicles. There exists a large fraction of drivers (*P'*) who are speeding (*R'*) when driving in certain roads of a city (*S'*). This fraction of drivers also expects and prefers all other drivers to ignore speed limits when using these roads and could impede the path and pace of other road users who are not speeding (thereby imposing sanctions on their safety while using the road). *i* believes that *P'* is sufficiently large and expects and prefers her to conform with *R'* (speeding) and impose sanctions if she is not in conformity with *R'* (i.e., driving at a 'regular' speed), and therefore *i* also ignores the speed limit when using these roads.

The social norm is followed by *P* for each individual *i* if the empirical expectation (a) is fulfilled (necessary condition), and the normative expectation, with or without sanctions [(b) or (c)] is fulfilled (sufficient conditions).

We now turn to the case where laws and social norms can interact on account of private enforcement and public enforcement (where there are fines or penalties over and above sanctions by other road users). This framework draws on Basu (2018) and Acemoglu and Jackson (2014). A representative road user, i, must choose a behaviour B_i (or an action), for particular types of strategic interactions, S, with other road users $-i$. One such interaction could be using the road populated by specific types of road users (e.g., a congested urban road).

A road user chooses a behaviour $B_i \in [0,1]$ having the belief of R in situations of type S, where the law in place, $L \in [0,1]$. If L = 0, then the law is strict and sanctions any behaviour, whereas if L = 1, then the law does not sanction any behaviour at all. The most extreme law-breaking situation is therefore when L = 0 but B = 1. L is, therefore, an upper bound on B_i, and the government can impose fines and penalties if $B_i > L$. With some probability α, the government may *not* punish a violation of the behaviour.[5]

Acemoglu and Jackson (2014) note that there will be full compliance with a sufficiently large fine or penalty given that other road users can whistle-blow and report violations of rules. This is because when laws are at odds with existing norms, road users anticipate little to no whistle-blowing and therefore are themselves more likely to break the law. In their framework, it is also plausible that whistle-blowing is 'costly' – that is, comes with a private cost to the agent. Consider, for example, a road user wishing to report violations to the police. She will incur the *private* (time) cost of going through the reporting protocol (e.g., driving to a police station, calling them on the phone), but also the *social* cost of potentially receiving sanctions from other road users that consider breaking the law as a norm. See the footnote below for more details on the case of costly whistle-blowing in this context.

Consider the case where road safety is a public good that requires coordination from multiple agents (in this case road users). To be safe, each road user must exert some effort (which is costly) such as using helmets, seat belts, abiding by speeding laws, or being below the acceptable maximum blood-alcohol levels when driving. Road safety is, therefore, a function of efforts of each road user i facing the social norm R in a situation S. Low road safety can be beneficial for some since they reach their destination faster or feel more comfortable while riding[6] and for some S, law violations may not be sanctioned or fined by public enforcement.

In this scenario, road users will try to match the behaviour of other road users, by choosing a behaviour B_i that is mediated by expectations of others' behaviour B_{-i}. Those who exert high effort (at high cost) may observe road users who exert low effort getting away with their potentially law-breaking behaviour and putting road safety at risk. Without a whistle-blowing mechanism (or adequate incentives to report), this could result in a low-level equilibrium where all road users expect a low level of road safety, and therefore the social norm R in situations of type S conflicts with existing law L.[7] This is perhaps complicated further by mixed road use in countries such as India, where a multiplicity of social norms and expectations could be unfolding for any given situation.

2 Interaction between Laws and Social Norms

Basu (2018) also points out that the reason why many laws are flouted in emerging and developing economies is that citizens of these countries do not have a strong foundational belief that laws should be followed, and they think that others in their societies harbour similar beliefs. In fact, as he further points out, the state functionaries responsible for enforcing laws should also have beliefs that if they

---

[5] Constraints to regulation and enforcement include scarcity of state capacity to monitor individual behaviour, rent-seeking within state machinery that supersedes the incentive to enforce certain laws, and arbitrariness in making of laws themselves.

[6] A common argument in India against the use of helmets and seatbelts is that they are uncomfortable and hinder the driving experience of individuals (Hindustan Times 2017).

[7] When costly whistle-blowing is introduced, Acemoglu and Jackson (2014) suggest that there could be behaviours "tolerated by society" that will not be reported, even if they are in violation of the law; for instance, in India this may be jay-walking. Under conditions where the penalties are small, there are also equilibria where law-breakers can whistleblow.

do not enforce laws, then their actions would be punished by higher authorities. If this is not the case, then there will be an increased violation of laws.

This approach towards law uses a language very similar to that of social norms. In fact, as Basu points out, the only difference between social norms and laws is that while social norms do not need state functionaries to enforce patterns of behaviour, laws "rely on the functionaries taking certain actions" (p. 111). Acemoglu and Jackson (2017) studying the interaction between social norms and law enforcement demonstrate that a strong conflict between prevailing social norms and laws can lead to failed regulation. Further, the authors recommend that laws should not be abruptly strengthened, rather they should be gradually imposed in a manner that is more in line with existing norms.

Alongside Bicchieri's framework, there is Smerdon et al. (2020), who focus on 'bad' social norms - those that can damage a group or result in generally inefficient outcomes. The authors argue that social norms initially evolved to overcome coordination problems or mitigate negative externalities. However, over time, due to changing incentives or group identity, they have persisted as 'bad' social norms that now promote inefficient behaviour.

Their theoretical model incorporates the psychological idea of 'pluralistic ignorance,' where individuals, whose private preferences may differ from social norms, wrongly hold the belief that the majority have private preferences to maintain the current behaviour. The key factor behind such behaviour is a common feature in social interactions: uncertainty over everyone else's private values, despite knowing that there is some positive correlation between one's private values and that of others. For example, one's private values may generally indicate that breaking traffic rules results in negative utility, and one may implicitly understand that others' private values are similar. The private values themselves are composed of *common* values – which are not separately known (in this framework, they are only reflected as a part of private costs). It is useful to think of these common values as existing good or bad norms, that may evolve over time. Given that common values are never fully known to road users (i.e., they are *partially* observed), the private 'shocks' that they face determine these private values, as they are information about whether a particular behaviour is good or bad (in terms of higher or lower common value). For more details, we refer the reader to Smerdon et al. (2020).

In such a setting, the theoretical and experimental results suggest that group size and strength of identity play an important role. Smerdon et al. (2020) find that smaller groups are more likely to be able to break down persistence of bad social norms in the short run, but that over time a stronger social identity of the group ensures that a bad social norm prevails. The authors go on to suggest two interventions that could break bad norm persistence: (a) communication between individuals that signalled their choice beforehand to coordinate expectations; and (b) fully observing common values of following a bad norm.

III. Potential interventions

It is important to note that Bicchieri makes a distinction between conventions and social norms. Conventions are descriptive norms (only empirical expectations are met) that provide solutions to coordination games where a person's main goal is to coordinate with others. Social norms, on the other hand, provide solutions to mixed-motive games.[8] For a social norm to exist, both empirical and normative expectations must be met and therefore, social norms often exhibit a trade-off between private and collective gain.

Going by this distinction made above, in most societies adhering to traffic rules can be considered as following *conventions*, "where the preference for conformity does not clash with self-interest." (Bicchieri 2006a, 2) If violating a convention creates negative externalities, conventions turn into social norms where violations are sanctioned. Following traffic rules can, therefore, become a social norm where both empirical and normative expectations are met, and any violations are expected to be sanctioned. In this case, social norms (of adhering to traffic rules) and laws agree with each other; and it is the enforcement of the law – or at least the expectation that it will be enforced – that turn the convention into a social norm.

However, if there is a clash between personal and collective benefits, people might start breaking a law and expect others to do so as well, thus turning rule *violating* behaviour into a social norm. Rampant violation of a certain traffic law can therefore be thought of as becoming a social norm. This, in fact, can be true of any rule violation and not just of traffic rule violations.

When conceiving of social norms-based interventions[9] to curb traffic violations, it is important to note that misperceptions of norms are widespread (Jeff and Wesley 2005; Bicchieri and Fukui 1999; Bicchieri 2017, 43). Often, individuals mistakenly believe that their perceptions, of what similar others are likely to do in situations, are almost entirely accurate. Such misperceptions are to be challenged and replaced by more factual beliefs, thus perpetuating a shift in the focal point.

For instance, a Montana-based social norms strategy (Jeff and Wesley 2005) to reduce impaired driving among the youth utilized an intensive and targeted media campaign to communicate real estimates of impaired driving (e.g., 4 out of 5 young adults don't drink and drive). This fact was in stark contrast to the misperception that over 90% of the respondents believed that young adults engaged in that behaviour (Jeff and Wesley, 2005).

Social norms strategies, therefore, try to facilitate behaviour change, not through fear-based tactics, but through the identification of the gaps in perception between actual and estimated behaviours. The way these norms are communicated through the use of framing principles also determines the extent to which violations will be encouraged or discouraged. For instance, when communicating that most individuals do *not* drink and drive (i.e., do not violate the law), the frame motivates others to modify their behaviour to be a part of this majority. On the other hand, if the same communication is delivered via the "minority frame," i.e., a minority of people drink and drive, the message may encourage others to aspire to be a part of this exclusive minority by violating the law. For example, it is possible that using the minority frame in the case of speeding or traffic rule violation (e.g., driving

---

[8] Mixed-motive games are defined as those where players have opposing motivations (or preferences) to choose among all actions available. Some preferences between players may overlap, whereas others may be entirely opposed (Gallo and McClintock 1965). The most common example of this is the prisoner's dilemma game.

[9] As Sunstein (1996) notes, there is ample scope for political actors and lawmakers to serve as *norm entrepreneurs*, who can suggest a "collective solution" when faced with free rider problems, as is often the case with road safety and traffic violations. One way in which such a change can be brought about is through public endorsements of specific behaviours, display of commitment to such behaviour for oneself, or making compliance with new norms "easier."

drunk) could have the opposite effect, as it could mistakenly glorify or draw attention to such behaviour (Dosmukhambetova 2020).

Thus, it is likely that most interventions based within a social norms framework will attempt to (a) collect accurate data regarding a violation; (b) collect misperceptions regarding the same violation; and (c) communicate the information to targeted audiences with the intention of correcting these misperceptions of negative payoffs over time, using an appropriate frame. From the model described earlier, both R and the perceptions of R across S are to be collected with the goal of communicating norms to the targeted populations. It is only when the perceptions of R are corrected, perhaps through an information-based intervention, that B_i can be expected to change. Although anonymous / private whistleblowing by other road users is also a possible technique for regulation, norms-based interventions often work within the prescribed law L, to ensure that B_i takes a value that is compatible with L, i.e., to reduce violations to begin with.

For instance, in the context of drunk driving, the payoff from this behaviour to the driver may not be known with certainty. Furthermore, the agent, due to impairment from alcohol consumption, is unlikely to be able to decide on the basis of payoffs to self and others. One way to test this is to elicit how 'drunk' road users believe that they are (as well as how 'drunk' they believe the acceptable level to be for driving). Indeed, studies have shown that drivers who estimate a lower blood alcohol concentration are also more likely to be riskier drivers (Laude and Fillmore 2016). Therefore, assumptions about the behaviour may be made based on this misinformation and misperception.

An intervention based on social norms can (a) source data on how many people engage in drunk driving; (b) collect data on the perceptions and prevalence of drunk-driving behaviour among peers; and (c) correct misperceptions regarding the frequency and prevalence of norm violations through an informational intervention. As Havârneanu and Havârneanu (2012) point out, lack of situational risk factors (e.g., conditions that make complying with rules related to speeding, stopping at red lights seem less risky), which makes the laws seem more arbitrary, may be contributing to rule violation.

Dissemination efforts through transportation services like Uber and Ola may be useful. For instance, prevention of drunk-driving campaigns by corporations such as these serve dual benefits for public and private interests. Another spatial point of intervention may be at the valet services of pubs and bars. Providing information to correct misperceptions of social norms and their violations prior to the consumption of alcohol may alter subsequent decisions regarding impaired driving, perhaps not immediately, but with repeated reminders. However, as with any intervention that provides normative feedback to participants (as noted in Dosmukhambetova 2020), the risk of backfiring cannot be ignored (Schultz et al. 2007).

Audiences (such as individuals who subscribe to memberships that permit free alcoholic beverages)[10] can be identified to make interventions more targeted, thereby increasing their chances of success. Similarly, campaigns for other violations such as speeding or lack of helmet use/seat belts can be used to make salient actual frequencies of such behaviours, to correct misperceptions of norm violation.

[10] In India, the food service company, Zomato, for example, offers a subscription service (*Zomato Gold*) that provides members with discounted drinks and food. Tying in with their patrons will help target interventions where consumption of alcohol is common.

Providing feedback to road users is not a new idea in theory (see Evans 1985), and has been tested in diverse contexts. For example, in Canada, pilot interventions that provided feedback on vehicle speed strongly increased compliance with speed limits. Similarly, displaying the average speed at a particular site in New Zealand increased speed limit compliance by up to 13% on average (Wrapson, Harré, and Murrell 2006). In contrast, in a sample of experienced and novice drivers in China, priming individuals with descriptive norms (e.g., a traffic accident is rare at a particular site) raised intentions to commit traffic violations (Xu, Li, and Jiang 2014). Thus, normative feedback interventions that use objective and real-time data could shift norms away from existing bad norms and can be explored as a viable policy initiative in various Indian contexts as well.

Such targeted interventions should be complemented with concurrent penalties and fines, and vigilant enforcement as prescribed by law, since by themselves they are not likely to entirely deter traffic violations. At the time of writing, there is not much systematic evidence – i.e., beyond the small pilots and experiments discussed above – on the efficacy of such interventions in reducing traffic violations.

V. Conclusions and implications for policy

Our theoretical framework provides a first attempt at characterizing the rule violation prevalent among road users in India. To shift road users away from the low-level equilibria of "bad" social norms, it becomes important for the state to reassess laws in place and move beyond imposing penalties to sanction behaviour. We suggest various interventions motivated by emerging literature in economics and behavioural science on the intersection of law and social norms.

Policies around the world on norms

How have other countries moved toward the norms of lower traffic rule violations and/or smaller road fatalities? Systematic reviews consistently argue for greater enforcement being a major driver of lower violations as well as safer road user behaviour (Greer and Barends 2017; Lefio et al. 2018). However, it is worth examining how the evolution of norms in other countries (even if not strictly in road user behaviour) may inform policy strategy in the Indian context.

As Jayachandran (2020) notes, policy-making that is attuned to norms (in the context of encouraging female labour force participation) can be effective in a variety of contexts. In the UK, for example, priming individuals to be mindful of cyclists (vulnerable road users in urban settings) was meant to help recognize cyclists as fellow road users (Garcia 2008). Given that cyclist deaths have only marginally reduced, it is possible that such mass media campaigns may not serve to shift norms away from inattentional blindness to more consciously looking out for cyclists (Allan 2019).

In contrast, in the United States, the experience with red light cameras has been positive in a variety of cities since 2012 (Insurance Institute for Highway Safety and Highway Loss Data Institute 2021). However, as this report notes, having public support for these enforcement measures is an important aspect of ensuring that the norm of running red lights evolves to an acceptance of stopping at red lights (Mccartt and Eichelberger 2012). Indeed, the support and acceptance of red light cameras dovetails with their reduction of traffic accidents, as more than 87% of residents in one sample reported that red light cameras were needed (Cicchino, Wells, and McCartt 2014). Thus, gauging perceived norms once enforcement changes (or there are changes in regulations) is an important aspect of understanding whether norms are evolving in the appropriate direction.

Changing social norms is not a particularly easy task for public policy. However, there are several examples in other domains that could inform future work in traffic rule violations and regulating road user behaviour. Starting at the grassroots, using community-based interventions to shift norms in a variety of contexts such as gender-based violence has been particularly effective in developing countries such as Mali, Nigeria, and Nepal (Cislaghi et al. 2019). In order to ensure that norms evolve from bad to good, Cislaghi and Heise (2018) argue that policymakers and civil society organizations must take care to distinguish between norms and attitudes, and gauge norm prevalence, and guard against publicising norms as these may have unintended consequences.

In suggesting these interventions, it is important to bear in mind that state capacity in developing countries such as India is severely constrained, not just in terms of financial resources, but also the administrative capacity to implement such changes in law. As Ahluwalia (2019) notes, larger institutional reforms are needed to enhance urban governance in India, particularly in the space of urban transport and traffic support infrastructure. Imposing larger financial penalties via amendments to the Motor Vehicles Act have yet to be evaluated in terms of effectiveness in reducing road accident deaths. As reported in Section 2, there is a stark contrast in the number of traffic police personnel deployed to regulate traffic and enforce rules across nations.

There is evidence suggesting that implementing such interventions could take the route of behavioural insights in public policy, or via nudge units. For example, in Singapore, in shared paths between cyclists and pedestrians, the government is using visual cues to request cyclists to slow down, and pedestrians to pay more attention when they enter such shared spaces. In Amsterdam, the City of Amsterdam is testing various interventions to ensure that cyclists adhere to traffic signals (Afif et al. 2019). Thus, the use of behavioural science units embedded within the local (or state) government that plan, design, and execute such interventions with the help of the traffic police could prove beneficial in this regard. Such an idea would not be entirely novel for India (Tagat and Rao 2016; Gupta 2018), especially since it has been mooted by other governmental agencies such as the Central Board of Indirect Taxes and Customs (CBIC; Press Trust of India 2018).

References

Acemoglu, Daron, and Matthew O. Jackson. 2014. "Social Norms and the Enforcement of Laws." 20369. *National Bureau of Economic Research*. https://doi.org/10.1093/jeea/jvw006.

———. 2017. "Social Norms and the Enforcement of Laws." *Journal of the European Economic Association* 15 (2): 245–95. https://doi.org/10.1093/jeea/jvw006.

Afif, Zeina, William Wade Islan, Oscar Calvo-Gonzalez, and Abigail Goodnow Dalton. 2019. "Behavioral Science Around the World: Profiles of 10 Countries." Washington, D.C.

Agarwala, Ruchika, and Vinod Vasudevan. 2020. "Relationship Between Mobility and Pedestrian Traffic Safety in India." *Transportation in Developing Economies* 6 (2): 1–10. https://doi.org/10.1007/s40890-020-00103-2.

Ahluwalia, Isher Judge. 2019. "Urban Governance in India." *Journal of Urban Affairs* 41 (1): 83–102. https://doi.org/10.1080/07352166.2016.1271614.

Ajzen, Icek. 1991. "The Theory of Planned Behavior." *Organizational Behavior and Human Decision Processes* 50 (2): 179–211. https://doi.org/10.1016/0749-5978(91)90020-T.

Akbar, Prottoy A., Victor Couture, Giles Duranton, and Adam Storeygard. 2018. "Mobility and Congestion in Urban India." 0829. *Discussion Papers Series, Department of Economics, Tufts University*. Discussion Paper Series. https://ideas.repec.org/p/tuf/tuftec/0829.html.

Allan, Cherry. 2019. "Road Casualties 2018: The Vital Statistics for Cycle Campaigning." Cycling UK. October 3, 2019. https://www.cyclinguk.org/blog/road-casualties-2018-vital-statistics-cycle-campaigning.

Bagai, Rohan. 2011. "India Journal: Jaywalking, It's a Menace...Seriously." *The Wall Street Journal*, May 4, 2011. https://blogs.wsj.com/indiarealtime/2011/05/04/india-journal-jaywalking-its-a-menace...seriously/.

Basu, Kaushik. 2018. *The Republic of Beliefs: A New Approach to Law and Economics*. Princeton, NJ: Princeton University Press. https://books.google.com.au/books?id=RBVCDwAAQBAJ.

Bengtsson, Claes, Mats Persson, and Peter Willenhag. 2005. "Gender and Overconfidence." *Economics Letters* 86 (2): 199–203. https://doi.org/10.1016/j.econlet.2004.07.012.

Bicchieri, Cristina. 2006a. *The Grammar of Society: The Nature and Dynamics of Social Norms*. New York: Cambridge University Press.

———. 2006b. "The Rules We Live By." In *The Grammar of Society: The Nature and Dynamics of Social Norms*, 1–10. Cambridge University Press.

———. 2017. *Norms in the Wild*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780190622046.001.0001.

Bicchieri, Cristina, and Yoshitaka Fukui. 1999. "The Great Illusion: Ignorance, Information Cascades, and the Persistence of Unpopular Norms." In *Experience, Reality, and Scientific Explanation*, edited by M.C. Galavotti and A. Pagnini, 89–121.

Brennan, Geoffrey, Lina Eriksson, Robert E. Goodin, and Nicholas Southwood. 2013. *Explaining Norms. Oxford University Press*. https://doi.org/10.1093/acprof:oso/9780199654680.001.0001.

Bureau of Police Research and Development. 2020. "Data on Police Organizations." New Delhi. https://bprd.nic.in/WriteReadData/userfiles/file/202101011201011648364DOPO01012020.pdf.

Cialdini, Robert B., and Melanie R Trost. 1998. "Social Influence: Social Norms, Conformity and Compliance." In *The Handbook of Social Psychology*, edited by D. T. Gilbert, S. T. Fiske, and G. Lindzey, 151–92. New York, NY: McGraw Hill. https://psycnet.apa.org/record/1998-07091-021.

Cicchino, Jessica B., Joann K. Wells, and Anne T. McCartt. 2014. "Survey About Pedestrian Safety and

Attitudes Toward Automated Traffic Enforcement in Washington, D.C." *Traffic Injury Prevention* 15 (4): 414–23. https://doi.org/10.1080/15389588.2013.830212.

Cislaghi, Beniamino, Elaine K. Denny, Mady Cissé, Penda Gueye, Binita Shrestha, Prabin Nanicha Shrestha, Gemma Ferguson, Claire Hughes, and Cari Jo Clark. 2019. "Changing Social Norms: The Importance of 'Organized Diffusion' for Scaling Up Community Health Promotion and Women Empowerment Interventions." *Prevention Science* 20 (6): 936–46. https://doi.org/10.1007/s11121-019-00998-3.

Cislaghi, Beniamino, and Lori Heise. 2018. "Theory and Practice of Social Norms Interventions: Eight Common Pitfalls." *Globalization and Health* 14 (1): 1–10. https://doi.org/10.1186/s12992-018-0398-x.

Dahlbom, L., A. Jakobsson, N. Jakobsson, and A. Kotsadam. 2011. "Gender and Overconfidence: Are Girls Really Overconfident?" *Applied Economics Letters* 18 (4): 325–27. https://doi.org/10.1080/13504851003670668.

Dandona, R., G. A. Kumar, M. A. Ameer, G. M. Ahmed, and L. Dandona. 2008. "Incidence and Burden of Road Traffic Injuries in Urban India." *Injury Prevention* 14 (6): 354–59. https://doi.org/10.1136/ip.2008.019620.

Dash, Dipak K. 2018. "Killer Indian Roads Claim Lives of 56 Pedestrians Daily." *The Times of India*, October 1, 2018. https://timesofindia.indiatimes.com/india/killer-indian-roads-claim-lives-of-56-pedestrians-daily/articleshow/66021092.cms.

Dosmukhambetova, Dina. 2020. "The Use of Behavioural Insights in Promoting Residential Energy Efficiency: An Overview of Available Literature." Auckland. https://www.knowledgeauckland.org.nz/media/1912/tr2020-015-behavioural-insights-in-promoting-residential-energy-efficiency.pdf.

Evans, Leonard. 1985. "Human Behavior Feedback and Traffic Safety." *Human Factors: The Journal of the Human Factors and Ergonomics Society* 27 (5): 555–76. https://doi.org/10.1177/001872088502700505.

Fishbein, Martin., and Icek Ajzen. 1975. *Belief, Attitude, Intention, and Behavior : An Introduction to Theory and Research*. Addison-Wesley Pub. Co. https://trid.trb.org/view/1150648.

Fishbein, Martin, Icek Ajzen, and Icek Ajzen. 2011. *Predicting and Changing Behavior*. 1st ed. New York: Psychology Press. https://doi.org/10.4324/9780203838020.

Forward, Sonja E. 2006. "The Intention to Commit Driving Violations - A Qualitative Study." *Transportation Research Part F: Traffic Psychology and Behaviour* 9 (6): 412–26. https://doi.org/10.1016/j.trf.2006.02.003.

Gallo, Philip S., and Charles G. McClintock. 1965. "Cooperative and Competitive Behavior in Mixed-Motive Games." *Journal of Conflict Resolution* 9 (1): 68–78. https://doi.org/10.1177/002200276500900106.

Gandhi, Forum. 2016. "Top Six Traffic Violations Mumbaikars Love to Commit." *Daily News and Analysis*, October 17, 2016. https://www.dnaindia.com/mumbai/report-top-six-traffic-violations-mumbaikars-love-to-commit-2264881.

Garcia, Jane. 2008. "News Analysis: Word of Mouse." *Government News*, 2008. https://search.informit.org/doi/epdf/10.3316/informit.726828663397235.

Garg, Nitin, and Adnan A. Hyder. 2006. "Exploring the Relationship between Development and Road Traffic Injuries: A Case Study from India." *European Journal of Public Health* 16 (5): 487–91. https://doi.org/10.1093/eurpub/ckl031.

Greer, Stuart, and Eric Barends. 2017. "Does Police Traffic Enforcement Result in Safer Roads? A

Critically Appraised Topic." *CEBMA*. Leiden, The Netherlands. https://www.cebma.org/wp-content/uploads/CAT-Stuart-Greer.pdf.

Greve, Werner. 2001. "Traps and Gaps in Action Explanation: Theoretical Problems of a Psychology of Human Action." *Psychological Review* 108 (2): 435–51. https://doi.org/10.1037/0033-295X.108.2.435.

Gupta, Nidhi. 2018. "Where Is the Nudge Unit?" Pragati. 2018. https://www.thinkpragati.com/opinion/3361/where-is-the-nudge-unit/.

Havârneanu, Grigore M., and Corneliu E. Havârneanu. 2012. "When Norms Turn Perverse: Contextual Irrationality vs. Rational Traffic Violations." *Transportation Research Part F: Traffic Psychology and Behaviour* 15 (2): 144–51. https://doi.org/10.1016/j.trf.2011.12.003.

Hindustan Times. 2017. "57% Bikers in 10 Cities Including Mumbai Do Not Wear Helmets: Survey." *The Hindustan Times*, December 18, 2017. https://www.hindustantimes.com/mumbai-news/57-bikers-in-10-cities-including-mumbai-do-not-wear-helmets-survey/story-XQX1cPpzaVpDvf1Y7BRneI.html.

Holman, Andrei C., and Simona A. Popusoi. 2018. "Avoiding Blame When Violating Traffic Rules: The Development and Validation of the Justifications of Traffic Violations Scale." *Psychology, Crime and Law* 0 (0): 1–22. https://doi.org/10.1080/1068316X.2018.1442450.

Insurance Institute for Highway Safety, and Highway Loss Data Institute. 2021. "Red Light Running." HLDI. May 21, 2021. https://www.iihs.org/topics/red-light-running.

Jacobs, G D, and C A Cutting. 1986. "Further Research on Accident Rates in Developing Countries." *Accident Analysis and Prevention* 18 (2): 119–27.

Jayachandran, Seema. 2020. "Social Norms as a Barrier to Women's Employment in Developing Countries." 27449. Working Paper Series. Cambridge, MA. https://doi.org/10.3386/w27449.

Jeff, Linkenbach, and Perkins H Wesley. 2005. "Montana's MOST of Us Don't Drink and Drive Campaign: A Social Norms Strategy to Reduce Impaired Driving Among 21-34-Year-Olds." https://doi.org/DOT HS 809 869.

Joewono, Tri Basuki, Upali Vandebona, and Yusak O. Susilo. 2015. "Behavioural Causes and Categories of Traffic Violations by Motorcyclists in Indonesian Urban Roads." *Journal of Transportation Safety and Security* 7 (2): 174–97. https://doi.org/10.1080/19439962.2014.952467.

Kreindler, Gabriel E. 2018. "The Welfare Effect of Road Congestion Pricing: Experimental Evidence and Equilibrium Implications." Cambridge. http://economics.mit.edu/grad/gek.

Laude, Jennifer R., and Mark T. Fillmore. 2016. "Drivers Who Self-Estimate Lower Blood Alcohol Concentrations Are Riskier Drivers after Drinking." *Psychopharmacology* 233 (8): 1387–94. https://doi.org/10.1007/s00213-016-4233-x.

Lefio, Álvaro, Vivienne C Bachelet, Rosa Jiménez-Paneque, Patricio Gomolán, and Katherinne Rivas. 2018. "A Systematic Review of the Effectiveness of Interventions to Reduce Motor Vehicle Crashes and Their Injuries among the General and Working Populations." *Revista Panamericana de Salud Pública*, 1–8. https://doi.org/10.26633/RPSP.2018.60.

Lheureux, Florent, Jean-Pierre Minary, Laurent Auzoult, Colette Charlois, and Sandrine Hardy-Massard. 2015. "Traffic Offences: Planned or Habitual? Using the Theory of Planned Behaviour and Habit Strength to Explain Frequency and Magnitude of Speeding and Driving under the Influence of Alcohol." *British Journal of Psychology* 107 (1): 52–71. https://doi.org/10.1111/bjop.12122.

Mackie, Gerry, Francesca Moneti, Holly Shakya, and Elaine Denny. 2015. "What Are Social Norms? How Are They Measured?" *UNICEF /UCSD Centre on Global Justice Project Cooperation*

Agreement. http://www.polisci.ucsd.edu/~gmackie/.
Mccartt, Anne T., and Angela H. Eichelberger. 2012. "Attitudes Toward Red Light Camera Enforcement in Cities With Camera Programs." *Traffic Injury Prevention* 13 (1): 14–23. https://doi.org/10.1080/15389588.2011.625745.
Menezes, Naveen. 2017. "Traffic Violation: 91.80 Lakh Cases Booked in 2016." *The Economic Times*, March 29, 2017. https://economictimes.indiatimes.com/news/politics-and-nation/traffic-violation-91-80-lakh-cases-booked-in-2016/articleshow/57888069.cms.
Ministry of Road Transport and Highways. 2017. "Road Accidents in India - 2016." New Delhi, India. http://morth.nic.in/showfile.asp?lid=2904.
———. 2018. "Road Accidents in India - 2017." New Delhi, India. http://morth.nic.in/showfile.asp?lid=3369.
Moyano Díaz, Emilio. 2002. "Theory of Planned Behavior and Pedestrians' Intentions to Violate Traffic Regulations." *Transportation Research Part F: Traffic Psychology and Behaviour* 5 (3): 169–75. https://doi.org/10.1016/S1369-8478(02)00015-3.
Mynttinen, Sami, Anna Sundström, Marita Koivukoski, Kari Hakuli, Esko Keskinen, and Widar Henriksson. 2009. "Are Novice Drivers Overconfident? A Comparison of Self-Assessed and Examiner-Assessed Driver Competences in a Finnish and Swedish Sample." *Transportation Research Part F: Traffic Psychology and Behaviour* 12 (2): 120–30. https://doi.org/10.1016/j.trf.2008.09.002.
Naci, H., D. Chisholm, and T. D. Baker. 2009. "Distribution of Road Traffic Deaths by Road User Group: A Global Comparison." *Injury Prevention* 15 (1): 55–59. https://doi.org/10.1136/ip.2008.018721.
Narayan, V. 2017. "Traffic Violations Fall for 2nd Year in a Row, but Drunk Driving Cases Up." *The Times of India*, January 24, 2017. https://timesofindia.indiatimes.com/city/mumbai/traffic-violations-fall-for-2nd-year-in-a-row-but-drunk-driving-cases-up/articleshow/56747293.cms.
NITI Aayog, and The Boston Consulting Group. 2018. "Transforming India's Mobility: A Perspective." New Delhi, India. http://niti.gov.in/writereaddata/files/document_publication/BCG.pdf.
Ogden, Jane. 2003. "Some Problems with Social Cognition Models: A Pragmatic and Conceptual Analysis." *Health Psychology* 22 (4): 424–28. https://doi.org/10.1037/0278-6133.22.4.424.
Parker, Dianne, Antony S R Manstead, and Stephen G. Stradling. 1995. "Extending the Theory of Planned Behaviour: The Role of Personal Norm." *British Journal of Social Psychology* 34 (2): 127–38. https://doi.org/10.1111/j.2044-8309.1995.tb01053.x.
Press Trust of India. 2018. "Revenue Dept to Focus on Behavioural Patterns of Taxpayers to Improve GST Compliance." Moneycontrol.Com. 2018. https://www.moneycontrol.com/news/business/cbic-to-focus-on-behavioural-patterns-of-taxpayers-to-improve-gst-compliance-3095641.html.
Quium, A S M Abdul, and Thanattaporn Rasamit. 2013. "Recent Progress in Road Safety in the Escap Region." *Transport and Communications Bulletin for Asia and the Pacific*, no. 83: 1–8.
SaveLIFE Foundation. 2017. "Road Safety in India: Public Perception Survey." New Delhi, India. http://savelifefoundation.org/wp-content/uploads/2017/07/Road-Safety-in-India_Public-Perception-Survey_SLF.pdf.
Schelling, Thomas C. 1980. *The Strategy of Conflict*. Harvard University Press. https://books.google.com.au/books/about/The_Strategy_of_Conflict.html?id=7RkL4Z8Yg5AC .

Schultz, P. Wesley, Jessica M. Nolan, Robert B. Cialdini, Noah J. Goldstein, and Vladas Griskevicius. 2007. "The Constructive, Destructive, and Reconstructive Power of Social Norms." *Psychological Science* 18 (5): 429–34. https://doi.org/10.1111/j.1467-9280.2007.01917.x.

Sheeran, Paschal, Peter M. Gollwitzer, and John A. Bargh. 2013. "Nonconscious Processes and Health." *Health Psychology* 32 (5): 460–73. https://doi.org/10.1037/a0029203.

Shinar, David. 2017. *Traffic Safety and Human Behavior*. *Traffic Safety and Human Behavior*. 2nd ed. Emerald Group Publishing Limited. https://doi.org/10.1108/9781786352217.

Smedslund, Geir. 2000. "A Pragmatic Basis for Judging Models and Theories in Health Psychology: The Axiomatic Method." *Journal of Health Psychology*. SAGE PublicationsLondon, Thousand Oaks and New Delhi. https://doi.org/10.1177/135910530000500202.

Smerdon, David, Theo Offerman, and Uri Gneezy. 2020. "'Everybody's Doing It': On the Persistence of Bad Social Norms." *Experimental Economics* 23 (2): 392–420. https://doi.org/10.1007/s10683-019-09616-z.

Sniehotta, Falko F., Justin Presseau, and Vera Araújo-Soares. 2014. "Time to Retire the Theory of Planned Behaviour." *Health Psychology Review* 8 (1): 1–7. https://doi.org/10.1080/17437199.2013.869710.

Staton, Catherine, Joao Vissoci, Enying Gong, Nicole Toomey, Rebeccah Wafula, Jihad Abdelgadir, Yi Zhou, et al. 2016. "Road Traffic Injury Prevention Initiatives: A Systematic Review and Metasummary of Effectiveness in Low and Middle Income Countries." *PLoS ONE* 11 (1). https://doi.org/10.1371/journal.pone.0144971.

Sundar Committee. 2007. "Report of the Comittee on Road Safety and Traffic Management." http://planningcommission.gov.in/sectors/ppp_report/3.Reports of Committiees & Task force/Power/14.Road_Safety.pdf.

Sunstein, Cass. 1996. "Social Norms and Social Roles." *Columbia Law Review* 96 (4): 903–68.

Tagat, Anirudh, and Sowmya Rao. 2016. "India's Nudge Unit: An Idea Whose Time Has Come." *Livemint*, February 18, 2016. https://www.livemint.com/Opinion/DAzJfdnfgHFOXdKWPI68QM/Indias-nudge-unit-An-idea-whose-time-has-come.html.

Trafimow, David. 2009. "The Theory of Reasoned Action." *Theory & Psychology* 19 (4): 501–18. https://doi.org/10.1177/0959354309336319.

United Nations Office on Drugs and Crime. 2018. "Statistics and Data." UNODC. 2018. https://dataunodc.un.org/.

W Odero, P Garner, and A Zwi. 1997. "Road Traffic Injuries in Developing Countries: A Comprehensive Review of Epidemiological Studies." *Tropical Medicine and International Health* 2 (5): 445–60. https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1365-3156.1997.tb00167.x.

Wegman, Fred. 2017. "The Future of Road Safety: A Worldwide Perspective." *IATSS Research* 40 (2): 66–71. https://doi.org/10.1016/j.iatssr.2016.05.003.

Wohleber, Ryan W., and Gerald Matthews. 2016. "Multiple Facets of Overconfidence: Implications for Driving Safety." *Transportation Research Part F: Traffic Psychology and Behaviour* 43: 265–78. https://doi.org/10.1016/j.trf.2016.09.011.

World Bank. 2017. "The High Toll of Traffic Injuries: The Macro-Economic And Welfare Benefits of Reducing Road Traffic Injuries in Low & Middle-Income Countries." *World Bank*, License: CC BY 3.0 IGO. https://openknowledge.worldbank.org/bitstream/handle/10986/29129/HighTollofTrafficInjuries.pdf?sequence=5&isAllowed=y.

World Health Organization. 2021. "Estimated Road Traffic Death Rate (per 100 000 Population)." The Global Health Observatory. 2021. https://www.who.int/data/gho/data/indicators/indicator-details/GHO/estimated-road-traffic-death-rate-(per-100-000-population).

Wrapson, Wendy, Niki Harré, and Paul Murrell. 2006. "Reductions in Driver Speed Using Posted Feedback of Speeding Information: Social Comparison or Implied Surveillance?" *Accident Analysis and Prevention* 38 (6): 1119–26. https://doi.org/10.1016/j.aap.2006.04.021.

Xu, Yaoshan, Yongjuan Li, and Li Jiang. 2014. "The Effects of Situational Factors and Impulsiveness on Drivers' Intentions to Violate Traffic Rules: Difference of Driving Experience." *Accident Analysis and Prevention* 62: 54–62. https://doi.org/10.1016/j.aap.2013.09.014.

Indian Public Policy Review 2021, 2(4): 98-100

Advocating Credible Naval Power

A Comparative Book Review of To Provide and Maintain a Navy by Capt. Henry. J . Hendrix (Retd.) & Seablindness by Seth Cropsey

Aditya Pareek*

It is often argued that India's best chance at countering China in the Indian Ocean Region and Bay of Bengal is a much higher investment in capital platforms for its Navy. India is also increasingly growing closer to the US in many collaborative geopolitical frameworks, including the Quad, in part to counter China's maritime influence.

Knowing the "fleet in being" of allies, and their medium- and long-term capabilities, is the first step in countering any shared adversary. This review of two recent books on US naval power is a microcosm of such a pursuit; one that is hopefully underway in Indian strategic circles.

Capt (Dr.) Henry J Hendrix (Retd.) is a prominent name among the US Navy veteran intellectual circles. He is famous for his insightful articles and commentary on US maritime strategy, naval aviation, and strategic forecasting, perhaps in that order. His book 'To Provide and Maintain a Navy' is a quintessential US Navy officer's perspective on maritime power, condensed into a monograph.

As advertised, Hendrix writes a cautionary narrative that appeals to the American people to wake up to what Hendrix believes is the lifeblood of their nation, credible naval power. Hendrix sees trends indicating that US and allied 'sea power' is diminishing and may not be able to safeguard his nation's strategic interests, or those of the wider free world.

Through a quick retelling of the history of western strategic thought and invoking the usual suspects -- Mackinder, Mahan, Corbett, Clausewitz and Jomini -- he quickly stratifies many states and regimes, both past and present, as continental (i.e., land-centric) powers and maritime powers. The book has the ambition to end up on the recommended reading list of military commanders worldwide, and such an exercise in classification is a tried-and-tested way to make that leap.

Through this historical narrative, Hendrix asserts that the western way of life is dependent on an international system that, in turn, can never exist without free and speedy commerce enabled by the seas.

He minces no words in declaring that the Russian Federation and People's Republic of China (PRC) are the foremost threats to US security in our times. He identifies Russia and PRC as authoritarian regimes who fundamentally perceive threats to their security and interests from a US-led international order where access to the high seas is guaranteed for all without prejudice.

In Hendrix's opinion, both Russia and China seek to impede the freedom of navigation along certain maritime zones of contention. He sees Russian and Chinese actions as attempts to 'firewall'

* Aditya Pareek is a Research Analyst at the Takshashila Institution

approaches to these zones and their interests in them. He opines that these actions, if not opposed, will result in a maritime order where access to such zones will be limited to only parties that are agreeable to Russia and China.

He singles out Russia's ambitions and push for the Northern Sea Route (NSR) as a way for the Kremlin to charge a toll for access to an increasingly viable trans-shipping route.[1] He echoes many others in the western world on his concerns for the Arctic region. It is a cause of concern for the West's military and seaborne trade interests that the Arctic doesn't fall to the de-facto shadow of their geopolitical adversaries, including Russia and China.

It is no secret that Russia has the most potent heavy icebreaker fleet in the world and can offer unparalleled piloting and search and rescue services in the Arctic region.

Hendrix acknowledges US Naval Services' shortcomings in fielding comparable capabilities to operate armed ships above the surface in the Arctic. He also worries that the US hasn't built ice-hardened ships -- capable of plying through the Arctic in the thick of winter -- since the Second World War. However, his idea that Russia wants to make NSR 'akin to US's Mississippi River' comes off as an overblown alarmist sentiment.

Although similar in theme, 'Seablindness' by Seth Cropsey takes a very different approach to the subject. This is partly due to the date of publication: Hendrix's book came out at a time when it became clear that Donald Trump will be a one-term President, and thus there is no major reference to his administration.

Cropsey's book, however, came out in 2017 and makes considerable reference to Trump's vision for expanding the US Navy. 'Seablindness' is noticeably harsh on the Obama administration, and has a rose-tinted recollection of George W Bush's time as President and Commander in Chief.

It might be fair to say that both books make similar arguments, but from two different perspectives. 'Seablindness' is affected by the energy of the Trump era's US political narrative, which sought to fix the US's follies and make it 'great again' after decades of complacency and neglect.

One interesting point that Cropsey echoes is that the US Congress requires the US Navy to maintain a fleet of eleven Aircraft Carriers. This can be thought of as a mandated lower limit to arrest a dip in credible force levels.

The obvious caveat -- that maintaining such a large fleet may result in imperial overstretch, which is commonly associated with the ruin of many maritime powers -- doesn't figure in Cropsey's narrative. Rather, there is a lot of American exceptionalism and speculation to the 'scenarios' approach that certain parts of his narrative take. The chapter titled 'The Invasion of Estonia' especially goes off the far end, presenting a worst-case scenario where NATO maritime power is in such a desperate decline that the Royal Navy has mothballed its twin Queen Elisabeth class Aircraft Carriers and Russia has built a supercarrier, bizarrely christened *Yekaterina Velikaya* (Catherine the Great).

In the real world, as of this writing, the Russian Navy is desperately trying to repair and extend the life of its sole decrepit aircraft carrier, the Admiral Kuznetsov. The ship suffered a major setback when a crane crashed through its flight deck, damaging it severely and extending the time it would spend out of action (*Naval News*, 2021). While the Royal Navy has deployed its now commissioned HMS Queen Elisabeth and HMS Prince of Wales on exercises, with a mixed airwing of US and UK advanced aircraft (Coterill, 2021).

In conclusion, it would be fair to recommend both books but for different reasons. Capt. (Dr.) Hendrix's sobering insights are the best representation of contemporary US maritime strategic thought. Seth Cropsey, on the other hand, has an entertaining set of fictional scenarios; although a bit alarmist, these ultimately convey the same message as Hendrix, that the US needs to renew its emphasis on credible naval power.

***To Provide and Maintain a Navy: Why Naval Primacy Is America's First, Best Strategy* by Capt. Henry J Hendrix, Focsle LLP, 2020. Pages 146.**

***Seablindness: How Political Neglect Is Choking American Seapower and What to Do About It* by Seth Cropsey, Encounter Books, 2017. Pages 304.**

Notes and References:

The Kremlin has designated the development of the Northern Sea Route(NSR) and its Far East Region as a national priority and has laid out an official plan to increase the shipping volumes and construct essential infrastructure. The Russian State Nuclear Energy company Rosatom which operates Russia's nuclear powered heavy icebreaking ships is now incharge of the NSR's development. The aforementioned focus on the NSR is seen as a geopolitically significant move by the West whereby Russia may be looking to de-facto monopolise the Arctic.

Naval News. 2021. Russian MoD Calls for Accelerating Repairs to Aircraft Carrier's Dock. Accessed April 18, 2021. https://www.navalnews.com/naval-news/2021/04/russian-mod-calls-for-accelerating-repairs-to-aircraft-carriers-dock/

Cotterill, Tom. 2021. "This Is When You Can See HMS Prince of Wales Setting Sail from Portsmouth." The News. The News, June 4, 2021. https://www.portsmouth.co.uk/news/defence/hms-prince-of-wales-to-set-sail-from-portsmouth-as-hms-queen-elizabeth-unite-with-french-aircraft-carrier-3261133.

INSTRUCTIONS TO AUTHORS

IPPR is a peer-reviewed, bi-monthly, online, and an open-access journal to facilitate scholarly communication of research on public policies, especially in the Indian context. IPPR invites original unpublished theoretical and empirical papers with a bearing on policy. In particular, the papers are invited in the fields of economics, political science, science and technology, international relations and defence strategy and security.

Submitting Your Paper

Please submit your papers here: http://www.ippr.in/index.php/ippr/about/submissions

Peer Review

All manuscript submissions are subject to editorial screening and anonymous peer review. All editorial decisions in this respect will be final. Average paper turnaround time will be 120 days.

Preparing Your Paper

Contributors should submit original unpublished articles for publication. Authors are advised to not submit work that they have submitted elsewhere.

Please include a word count for your paper.

- Research paper for IPPR should be more than 5000 words and less than 8000 words.
- Commentary for IPPR should not exceed 2500 words.
- Book review for IPPR should be within 800-1000 words.

Writing Guidelines

- Research papers should carry a 200-word abstract and a maximum of six key words.
- If your paper is in the domain of economics, please include the relevant JEL codes, based on the keywords.
- Please use British oxford spellings throughout the manuscript.
- Please use single quotation marks. If the quotation is long, it should be indented without using the quotation marks.
- Please write dates in a month-date-year sequence (Ex: December 5, 2019)
- While referring to numbers till Nine, please write in text and then in numerals.
- At first mention, acronyms should carry their full forms and abbreviations in bracket. Thereafter, the abbreviated version should be used.
- Please include a short bio of each author towards the end of the manuscript.
- If research is funded by external agencies, all funding details for the research should be provided.

Referencing and endnotes

- All manuscripts will be thoroughly checked for plagiarism. Authors are responsible for the accuracy of their referencing.
- Use in-text parenthetical citation while referring to the works of others, with author name(s), date, and page numbers, where applicable. The full details of the reference can be provided in the bibliography at the end.
- Please use Chicago style of referencing for the bibliography. For examples of referencing styles, please refer to: https://www.chicagomanualofstyle.org/tools_citationguide/citation-guide-2.html
- If two successive citations/notes refer to the same source, use ibid.
- For any online reference, please provide the date accessed along with other information.
- Endnotes must be separate from the citations and must not be used to provide a reference. It can be used to explain or elaborate on an idea in the text.

Document

- Please submit both a PDF and an editable word document of your paper. This will help us format the document.
- If the article uses any supplementary material, such as a table, graph, maps, etc, an editable document of the data source (Word, Excel, etc.) should be provided.
- Each table, graph, etc. should be numbered, have a legend and a heading.

Copyright

- IPPR will post all published articles on its websites and summaries or excerpts maybe published on other digital and print properties.
- The copyright of all articles published in IPPR will belong to the author(s) or their institution depending on the author's terms of employment.