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TRADE WARS AND GLOBAL ECONOMIC ARCHITECTURE:
NOWCASTING FROM AN EMERGING ECONOMY PERSPECTIVE

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Abstract: The recent US decision to impose punitive tariffs on imports from China and the EU, and the decision by these US trade partners to retaliate is of concern of the global community. In analysing these contemporary events we argue that, notwithstanding the current sabre-rattling, the genesis of the trade war can perhaps be traced to (a) piling up of global imbalances, and (b) the failure of the global financial institutions / fora (like the WTO, IMF or G-20) to address such imbalances. We discuss the possibility that the current trade war could be joined by a currency war as well. We argue that given the lack of cohesion and objective conditions in the emerging economies, insofar as trade war is concerned. the perspectives of these countries exhibit considerable degree of divergence and plurality. Finally, we look at some likely outcomes of the current trade war, including the possibility that it might lead to significant reform of international institutions.

Keywords: Trade War; Currency War; Global Imbalance; Global Economic Architecture; IMF; WTO; G-20; Emerging Economies.

JEL Class: F02, F13, F33, F55, F62, F65

TRADE WARS AND GLOBAL ECONOMIC ARCHITECTURE: NOWCASTING FROM AN EMERGING ECONOMY PERSPECTIVE

1. Introduction

The recent US decision to impose punitive tariffs on imports from China and the EU, and the decision by these US trade partners to retaliate can be perhaps be viewed from two distinct levels.

At one level, it might seem just another episode in the current round of US tariff increases and counter-retaliation by targeted countries that marks US trade policy. After all, it is not just China and the EU that are US trade targets – close allies such as Canada and Mexico, and large trade partners such as India and Brazil are also facing higher tariffs on their exports to the US. It would also be tempting to see this current round of tariff increases as a mere temporary spurt in trade disputes which would eventually simmer down when all parties involved negotiate settlement that addresses, at least partly, the concerns of all countries concerned. US President Trump, in fact, has stated that the tariff increases are his way of forcing trade partners to renegotiate existing trade agreements so that they address US concerns regarding loss of domestic investments and jobs.

However, even without being alarmist, at another level, it can be argued that what we are witnessing could also perhaps be not just an US attempt to renegotiate international trade agreements but also the ‘end game’ for the Bretton Woods system that has regulated international trade, global finance and developmental assistance, and has been the bedrock on which the post-World War II international economic architecture was built.

The current round of US tariff increases, and consequent retaliation by targeted countries, began in March 9, 2018, with the US announcing its intention to impose a 20 percent tariff on steel and 10 percent tariffs on aluminium imports into the US from select countries, including China and India. Despite requests from allies such as Germany and France in the European Union (EU) and Canada, its largest trade partner and a member of the North American Free Trade Agreement (NAFTA), the US went ahead with imposition of tariffs, treating them at par with China which was the major target of the sanctions. The US imposition of tariffs was countered by China on April 2, 2018, with a 15 percent tariff on 120 agricultural and steel products and a 25 percent tariffs on 8 products such as recycled aluminium and pork.¹ These imports were worth around US \$ 3 billion.

In more recent period, the trade conflict with China deepened. On April 3, 2018, the US Trade Representative (USTR) threatened to impose tariffs of 25 percent on 1,300 products worth US\$ 50 billion imported from China. China countered the US threats the next day by declaring its own intention to impose a retaliatory 25 percent tariffs on US\$ 50 billion worth of US exports to China. On April 5, 2018, President Trump asked the USTR to identify products worth an additional US\$ 100 billion of imports from China for tariff increases. On April 16,

¹ For a timeline of imposition of US tariffs on China and Chinese retaliation see [https:// www.washingtonpost.com /news/worldviews/wp/2018/07/05/a-timeline-of-how-the-u-s-china-trade-war-led-us-to-this-code-red-situation/?noredirect=on&utm_term=.462ab303c480](https://www.washingtonpost.com/news/worldviews/wp/2018/07/05/a-timeline-of-how-the-u-s-china-trade-war-led-us-to-this-code-red-situation/?noredirect=on&utm_term=.462ab303c480)

2018, China imposed a fee of 179 percent on imports of sorghum from the US citing US subsidies and loss to Chinese farmers.

Faced with the prospect of an imminent trade war, the US and China began negotiations in May 2018 to try to settle the trade dispute. Negotiations revolved around the possibility of China voluntarily reducing exports to the US to reduce the trade imbalance and reducing its tariffs on US automobile imports. Though a decision to put tariffs on hold were announced that decision was quickly reversed when the administration was criticised for 'going soft on China'.² On June 15, 2018, President Trump announced the imposition of 25 percent duties on US\$ 50 billion of Chinese exports to the US. The list of items that were targeted included high technology products covered by the 'Make in China 2025' programme of the Chinese government where China wanted to develop cutting-edge expertise.³ China immediately retaliated, imposing 25 percent tariffs on imports from the US of 659 products worth US\$ 50 billion. The products targeted included agricultural products and automobiles.⁴ President Trump was extremely critical of Chinese attempts to target US farmers by raising tariffs on agricultural imports from the US and in late July 2018 he threatened to raise tariffs on all Chinese imports into the US, worth US\$ 500 billion.⁵

Though US imposition of tariffs on other major US trade partners have not mirrored the scale of the tariffs on China, they too face the imminent prospect of higher tariffs on their exports to the US unless they give concessions to the US in trade negotiations. The EU has been affected primarily by US steel and aluminium tariffs with European car manufacturers with plants in the US, such as BMW and Volkswagen, having to increase prices for exports to China because of more expensive steel and aluminium.⁶ Ahead of talks with the EU in July 2018 to avert further tariff increases President Trump threatened "tremendous retribution" if the talks did not lead to EU concessions on trade.⁷ Like the EU, the US's NAFTA trade partners, Canada and Mexico, have so far only been affected by US steel and aluminium tariffs. The US attempt has been to reach a negotiated agreement on changes to NAFTA provisions with them that would allow the US to reduce imports from the two countries.⁸ Things are still very fluid in this front so far and we write this chronicle the denouement seems far off.

The nature of the trade war that the US has initiated raises several questions. How will US allies and other major trade partners respond to US behaviour that seems unilateralist and isolationist in nature? Will existing international institutions and mechanisms be able to resolve the present crisis or will they be side-lined in this scramble to protect national economic interests? What will be the potential long-term impact of a US initiated trade war on the international economy? How will it affect economic, monetary and trade policy of major economies such as China, India, Japan and EU member-states. What will its impact be on international economic institutions such as the World Trade Organization (WTO), the

² 'Lasting peace is still distant in US trade war with EU', *Financial Times*, July 26, 2018.

³ 'Trump approves US tariffs on \$50bn in Chinese imports', *Financial Times*, June 15, 2018.

⁴ 'Beijing strikes back! China puts tariffs on US\$50 billion of US goods after Donald Trump kicked off trade war' *South China Morning Post*, June 15, 2018.

⁵ 'Trump's \$500 billion trade threat makes China's already battered investors shiver', *Reuters*, July 26, 2018.

⁶ 'Europe Feels the Squeeze of the Trump Trade Tariffs', *New York Times*, August 2, 2018.

⁷ 'Trump Threatens Auto Tariffs Despite Widespread Opposition', *Wall Street Journal*, July 18, 2018.

⁸ 'Trump says 'getting there' in NAFTA talks with Canada, Mexico', *Reuters*, June 19, 2018.

International Monetary Fund (IMF), and the World Bank? Since nizwars are often fought on multiple fronts and modes - land, sea, and air, could the current sabre-rattling over tariffs lead to a currency war? Will the China-US tariff wars lead to a weakened hegemony of US dollar?. After all, exchange rate policy could play a significant role in generating a trade surplus of a country with respect to the US. Such questions are no longer entirely speculative in the current context. Our approach is, however, selective.

In this paper, we present some aspects of the present 'trade war' and suggests that the issues raised in this context go far beyond trade and touch upon other aspects of the global political and economic order centred on the Bretton Woods system. We argue that US actions could trigger counter-measures by other major economies that could destabilize existing international economic agreements and institutions. In particular, we discuss the possibility that the US trade restrictions could lead to a currency war aimed at challenging the dominance of the US Dollar as the currency for international trade. Finally, we discuss some implications of such a currency war for the future of the Bretton Woods system and also provide an emerging economy perspective on the implications of this current trade conflict.

Rest of the paper proceeds as follows. Section 2 analyses the nature of global imbalances that have contributed to the present crisis, section 3 argues that the genesis of the current trade war can be traced to the failure of global economic and political institutions that were expected to address imbalances and prevent such crises; in particular, we discuss the roles played by the IMF, the World Trade Organization (WTO) and the G-20. Section 4 looks at the possibility of US actions, particularly its desire to force trade partners into trade concessions and counter China's rise by constraining its exports, leading to a situation where the trade war develops into a two-front war that involves a currency war as well. Section 5 looks into the crisis of global economic architecture from an emerging economy perspective and considers some possible outcomes. Concluding observations are presented in section 6.

2. Emergence of Global Imbalance: Context of the Trade War

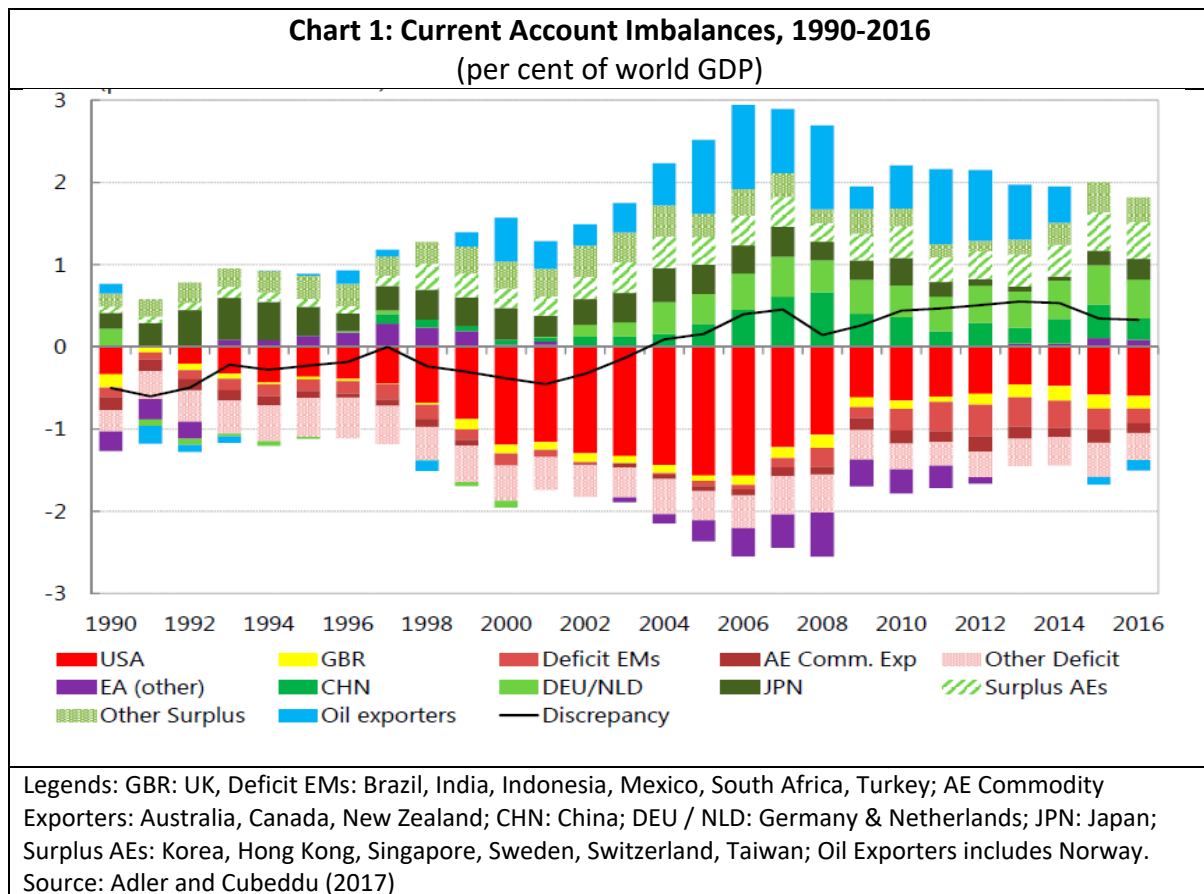
How have global trade imbalances reached a stage where the US feels forced to threaten its major trade partners with trade sanctions unless they reduce their exports to the US and open up their market for imports? Why have current international institutions not been able to address these imbalances in a manner that addresses concerns of all major countries in the international trading system? To answer these questions, one needs to go into an analysis of global imbalances.

Let us consider a two-country example, viz., US (1) and China (2). By the standard national income accounting, GDP (Y) of each country can be conceived as the sum of consumption (C), investment (I), Government expenditure (G), and current account balance (i.e., the difference between exports (X) and imports (M)). Thus, for the two countries we have, $Y_1 = C_1 + I_1 + G_1 + (X_1 - M_1)$, and $Y_2 = C_2 + I_2 + G_2 + (X_2 - M_2)$. In a completely de-globalized world comprising self-reliant island economies, the term (X-M) would not exist, but with the possibilities of trade, X and M can vary. Since the world as a whole is a closed economy (after all, we cannot import / export from / to moon), one should have $(X_1 - M_1) + (X_2 - M_2) = 0$. Thus, if $(X_1 - M_1) > 0$, $(X_2 - M_2) < 0$. That is to say, in this imaginary two-country world, a current account deficit of the US has to be matched by Chinese current account surplus.

Genesis of Global Imbalance

This is best captured in the notion of "Global imbalance" or more directly what may be termed as "global current account imbalances". It refers to the coexistence of large current account deficits and surpluses in the world economy. Global imbalance has been widely held responsible as one of the key sources behind the genesis of global financial crisis and the issue has haunted various policy fora like G-20. It was also argued that as the current account balance can be seen as a savings-investment balance, global imbalance can be seen as a "savings glut" in some nations (Bernanke, 2005).

Globally, the imbalances have been heavily concentrated among a small group of countries, viz., (a) large current account deficits of the United States (US), which peaked at close to 6per cent of GDP in 2006, and (b) the corresponding surpluses in developing Asia (dominated by China); and oil producing nations (in middle east and Russia) (Adams and Park, 2009). As far Europe is concerned, the surpluses of countries like Germany and Netherlands are balanced by deficits of peripheral Europe like Italy, Ireland, Greece or Portugal.



Recent Contours

However, insofar as global imbalances are concerned, much water has flown since the brewing up of the crisis. Table 1 below reports the top 10 economies in terms current account surpluses and deficits for 2010 and 2017. In 2017 the three major economies that have current account surpluses are Germany, Japan and China. Curiously the three top current account deficit economies are: the US, the UK and India.

Top 10 Current Account Surplus Countries				Top 10 Current Account Deficit Countries			
No.	Country	2010	2017	No.	Country	2010	2017
1	Germany	192.3	296.6	1	United States	-430.7	-466.2
2	Japan	221.0	195.4	2	United Kingdom	-92.3	-106.7
3	China	237.8	164.9	3	India	-47.9	-51.2
4	Netherlands	61.8	80.9	4	Canada	-58.2	-49.3
5	Taiwan	36.8	80.1	5	Turkey	-44.6	-47.1
6	Korea	28.9	78.5	6	France	-22.2	-36.8
7	Switzerland	86.3	63.2	7	Australia	-45.7	-32.3
8	Singapore	55.4	61.0	8	Argentina	-1.6	-30.8
9	Italy	-72.6	56.1	9	Algeria	12.2	-21.9
10	Thailand	11.5	49.3	10	Mexico	-5.0	-18.8

Source: IMF World Economic Outlook Online Database (April 2018 version).

But how long can this go on? In an idyllic world with no distortions or quality differential, exchange rate will come to play the role of the great equilibrator. That is to say in our illustration Chinese RMB should appreciate and US dollar should depreciate so that the extent of global imbalance will come down. But the world is not idyllic and in reality, while the extent of the current account balance is one of key factors determining exchange rate, it is not the only one. Factors such as, inflation, interest rate, government debt and its composition, political stability, state of foreign capital inflows, terms of trade, speculation, and central bank intervention all could play a role. Moreover, the flow of global capital in search of a risk adjusted yield to the emerging market economies could have had a role here.

But from an US perspective, which are the countries that are primarily contributors to imbalance? It is in this context that the US Trade Facilitation and Trade Enforcement Act of 2015 (TFTEA), passed on February 24, 2016 becomes important. It is the first comprehensive authorization of U.S. Customs and Border Protection (CBP) with the overall objective "to ensure a fair and competitive trade environment". Under this Act a report has been prepared by the U.S. Treasury and has been submitted to the US Congress in April 2018 (US Treasury,

2018). As per the Act, the US Treasury needs to determine whether enhanced analysis is necessary with respect to three criteria, viz., (1) a significant bilateral trade surplus with the United States that is at least \$20 billion exists; (2) a material current account surplus that is at least 3 per cent of gross domestic product exists (GDP); and (3) persistent, one-sided intervention has occurred when net purchases of foreign currency are conducted repeatedly and total at least 2 per cent of an economy's GDP over a 12-month period.

Why is US Treasury so critical in the foreign trade policies of these countries? The key to this lies in first criterion, viz., trade surplus of these countries with respect to the US. Table 2 provides for select countries data on bilateral trade balance for the United States' 12 largest trading partners and Switzerland for the four quarters ending December 2017. The US Treasury takes a quite a mercantilist view of foreign trade and defines economies with a bilateral goods surplus of at least \$20 billion (roughly 0.1 per cent of U.S. GDP) as those having a "significant" surplus; these include the following countries, viz., China, Mexico, Japan, Germany, Italy, India, and Korea.

	Goods Surplus with United States	Goods Trade	Services Surplus with United States	Services Trade
<i>China</i>	375	636	-38	74
<i>Mexico</i>	71	557	-7	60
<i>Japan</i>	69	204	-14	79
<i>Germany</i>	64	171	3	66
<i>Italy</i>	32	68	3	22
<i>India</i>	23	74	6	52
<i>Korea</i>	23	119	-12	34
Canada	18	582	-26	92
Taiwan	17	68	-2	18
France	15	82	-2	37
Switzerland	14	58	n.a.	n.a.
United Kingdom	-3	109	-11	122
Brazil	-8	67	-19	32
<i>Memo: Euro Area</i>	133	554	n.a.	n.a.
Source: US Treasury (2018).				

The inter-temporal trajectory of bilateral trade surplus of China with the US also reveals an increasing trend. This really puts the context of President Trump's pronouncements about imposing retaliatory tariff on China (Table 3).

Year	U.S. Exports	U.S. Imports	U.S. Trade Balance
1980	3.8	1.1	+2.7
1990	4.8	15.2	-10.4
2000	16.3	100.1	-83.8
2010	91.9	365.0	-273.0
2011	104.1	399.4	-295.3
2012	110.5	425.6	-315.1
2013	121.7	440.4	-318.7
2014	123.7	468.5	-344.8
2015	115.9	483.2	-367.3
2016	115.6	462.6	-347.0
2017	130.4	505.6	-375.2

Source: Morrison (2018)

Interestingly, any economy meeting two of the three criteria is placed on the Monitoring List. In its April 2018 Report, the US Treasury included the following countries, viz., China, Japan, Korea, Germany, Switzerland, and India in the Monitoring List. Of the four Asian countries, clearly Japan being a reserve currency issuing country is different. Also India unlike China and Korea is current account deficit country. The US Treasury report, however, highlighted the exchange rate movement of Indian rupee, Chinese RMB, and Korean Won in almost same tone. Of course, the US Treasury report is most caustic in case of China and commented, "Treasury places significant importance on China adhering to its G-20 commitments to refrain from engaging in competitive devaluation and to not target China's exchange rate for competitive purposes; and on greater transparency of China's exchange rate and reserve management operations and goals." Noting that most of these economies have been experiencing an appreciation (at least in real effective terms) is not the emphasis on these countries misplaced? However, it is important to remember that, "A Government's exchange rate policy...both reflects and is determined by the country's social as well as political structures and relations" (Frieden, 2015, p. 263).

But contrary views exist. For example, it has been argued that for reducing global imbalance a fundamental reform of the global financial structures is needed (Liang, 2012). Also it is imperative to appreciate that the superiority of the US as an economic power does not lie in its comparative advantage of goods trade but perhaps in financial services and capital flows. Thus, to locate global imbalance entirely as a two-party game between the US and China would be misleading.

3. Global Economic Architecture: Critical Failures

The outbreak of this trade conflict can be seen as a failure of existing international institutions to deal with the problem of trade and financial imbalances that have been building up over a period of time. Are the possibilities of a trade war and a currency war real? Or are they capable of being resolved, as most post-World War II crises were, by negotiations and agreements mediated by existing international institutions both formal (WTO, IMF) and informal (G-7, G-20)? The economic stance adopted by the current US administration seems to indicate that it does not see much of role for international institutions in resolving the crisis. On the contrary, it may not be far-fetched to infer that the US sees them as part of the problem rather than a part of the solution. This suggests that the world economy and the Bretton Woods institutions might be entering uncharted waters, with all its attendant uncertainties and pitfalls.

In the years since the global financial crisis of 2008 there have been attempts by these institutions to address global financial and trade imbalances, but these have not been successful in addressing either the concerns of developing countries, or, more recently, the concerns of developed economies, particularly the US. What is remarkable about current trade and financial disputes is the failure of Bretton Woods institutions to emerge as the fora where differences are defused through multilateral negotiations. These institutions are being bypassed since they are seen as irrelevant to dispute resolution, or sometimes even the source of the problem, and governments seem to be taking unilateral actions that seem to address primarily the concerns of their domestic electoral support bases. What explains these institutional failures?

International Monetary Fund (IMF)

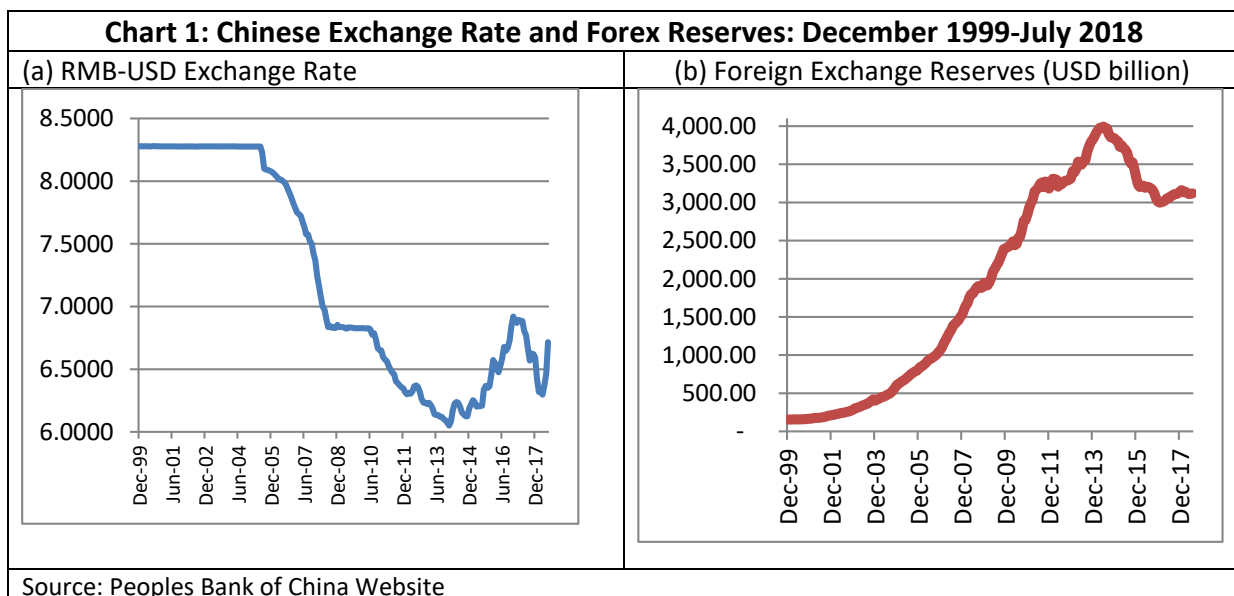
To begin with it is pertinent to remind ourselves about three key features of the IMF. First, one of the key purposes of the IMF is: "To promote exchange stability, to maintain orderly exchange arrangements among members, and to avoid competitive exchange depreciation" (IMF, Articles of Agreement, "Article 1: Purposes"). Second, a core responsibility of the IMF is to oversee the international monetary system and monitor the economic and financial policies of its 189 member countries, an activity known as 'surveillance' and occurs at two levels, viz., multilateral and bilateral. Multilateral surveillance is primarily disseminated through IMF's two key biannual reports, viz., *World Economic Outlook* and *Global Financial Stability Report*, coinciding with the Annual and Spring Meetings of the International Monetary and Financial Committee (IMFC). Bilateral surveillance, on the other hand, is through the Article IV consultation reports. Third, as Article IV of the Articles of Agreement of the IMF deals with "obligations regarding exchange arrangement", one of the key responsibilities of the IMF is to probe into exchange rate arrangements and distortions of its 189 member countries. In fact, the new system of IMF's Article IV surveillance, which went into effect in 1978, mentioned that countries should avoid manipulation of exchange rates or the international monetary system to prevent effective balance of payments adjustment or to gain unfair competitive advantage over other members (Stanford, 2011).

In the backdrop of the global financial crisis, the failure of the IMF can be traced in two distinct fronts.

First, the IMF failed to identify the roots of the sub-prime crisis in the US. On the bitter most critique of the IMF came from its own Independent Evaluation Office (IEO) ; in its 2011 report the IEO commented:

"During the period 2004 through the start of the crisis in mid-2007, the IMF did not warn the countries at the center of the crisis, nor the membership at large, of the vulnerabilities and risks that eventually brought about the crisis. For much of the period the IMF was drawing the membership's attention to the risk that a disorderly unwinding of global imbalances could trigger a rapid and sharp depreciation of the dollar, and later on the risks of inflation from rising commodity prices. The IMF gave too little consideration to deteriorating financial sector balance sheets, financial regulatory issues, to the possible links between monetary policy and the global imbalances, and to the credit boom and emerging asset bubbles. It did not discuss macro-prudential approaches that might have helped address the evolving risks. *Even as late as April 2007, the IMF's banner message was one of continued optimism within a prevailing benign global environment*" (IEO, 2011; p.7; emphasis added).

The second failure of the IMF was its inability to tame China's exchange rate distortions. It may be useful to identify the major phases of Chinese currency movements. Having accepted the obligations of Article VIII of the IMF's Articles of Agreement on December 1, 1996, China achieved current account convertibility. China's entry to WTO in December 2001 did not result in exchange rate flexibility of RMB. In fact, the period from 1994 to June 2005 witnessed the RMB exchange rate fluctuating within a narrow range between RMB 8.7 and RMB 8.28 per US dollar.⁹ In July 2005 China moved to a new RMB exchange rate regime with the exchange rate regime switching to a managed floating exchange rate regime linked to market demand and supply with reference to a basket of currencies with a mild appreciation of exchange rate of the US dollar against the RMB by little over 2 per cent (Si, 2014). Subsequently during the global financial crisis, 2007-2009, there was effective pegging of the RMB. More recently, notwithstanding substantial surplus in current account of Balance of Payments, RMB exhibited a two way movement, reflecting perhaps huge intervention in the currency market by the Chinese Authorities (Chart 1a). This is also reflected in China's forex reserves coming down from nearly USD 4 trillion in June 2014 to USD 3.1 trillion in July 2018 (Chart 1b).



⁹ Prior to 1994, China maintained a dual exchange rate system, consisting "an official fixed exchange rate system (which was used by the government), and a relatively market-based exchange rate system that was used by importers and exporters in "swap markets,"". The two exchange rates differed significantly; e.g., the official exchange rate with the dollar in 1993 was 5.77 yuan versus 8.70 yuan in the swap markets. See Morrison and Labonte (2010) for details.

Interestingly, China has been long been accused as a currency manipulator (e.g., Killion, 2004; and Mckinnon, 2005). In fact, many Members of US Congress have urged the Obama Administration to designate China as a currency manipulator "in order to pressure it to let the RMB appreciate, and several bills have been introduced which seek to address China's currency policy" (Morrison and Labonte, 2010). Notwithstanding such views, the IMF failed to nail down China's exchange rate regime. In fact, there were no annual Article IV reports for China during the period 2007 - 2009. After a gap of four years, when the IMF published the 2010 Article IV report for China, in some sense it turned out to be too little too late. It merely recommended the policy prescription of "Using the flexibility in the current exchange rate regime to allow for an appreciation of the renminbi in real effective terms".

But why did IMF make these two errors of judgment?

Admittedly, the first folly of IMF's inability to predict the global financial crisis could be ascribed to the culture of group-think eulogizing the financial sector, a swinging door syndrome between the private financial sectors and the IMF staff and overarching presence of the USA (and related importance of the financial sector in the US economy and polity) in the IMF Board in terms of quota (IEO, 2011; Gorton, 2010; Johnson & Kwak, 2010).

The genesis of the second error is slightly more complicated. We attempt to make a conjecture in this regard. By the beginning of the new millennium it became clear that the IMF quota formula was archaic and it suffered from a democratic deficit. In order to give it a pseudo-scientific look while adjusting for different political considerations marginally, the original 1944 formula for quota distribution, known as the Bretton Woods formula (containing five variables, national income, official reserves, imports, export variability, and the ratio of exports to national income) was replaced by a multi-formula approach since the early 1960s. Under the multi-formula approach, the Bretton Woods formula was supplemented with four other formulas containing the same basic variables but with larger weights for external trade and external variability.¹⁰ In reality calculation of quota was far more complicated, as "for each of the four non-Bretton Woods formulas, quota calculations are multiplied by an adjustment factor so that the sum of the calculations across members equals that derived from the Bretton Woods formula. The calculated quota of a member is the higher of the Bretton Woods calculation and the average of the lowest two of the remaining four calculations (after

¹⁰ These multiple formulas prevalent till first decade of the new millennium contained the following:

- Bretton Woods: $Q_1 = (0.01Y + 0.025R + 0.05P + 0.2276VC) (1 + C/Y)$;
- Scheme III: $Q_2 = (0.0065Y + 0.0205125R + 0.078P + 0.4052VC) (1 + C/Y)$;
- Scheme IV: $Q_3 = (0.0045Y + 0.03896768R + 0.07P + 0.76976VC) (1 + C/Y)$;
- Scheme M4: $Q_4 = 0.005Y + 0.042280464R + 0.044 (P + C) + 0.8352VC$;
- Scheme M7: $Q_5 = 0.0045Y + 0.05281008R + 0.039 (P + C) + 1.0432VC$;

where: Q_1, Q_2, Q_3, Q_4 and Q_5 = Calculated quotas for each formula; and

- Y = GDP at current market prices for a recent year;
- R = twelve-month average of gold, foreign exchange reserves, SDR holdings and reserve positions in the IMF, for a recent year;
- P = annual average of current payments (goods, services, income, and private transfers) for a recent five-year period;
- C = annual average of current receipts (goods, services, income, and private transfers) for a recent five-year period; and
- VC = variability of current receipts, defined as one standard deviation from the centred five-year moving average, for a recent 13-year period.

Later the IMF changed the quota formula, but distortions remained.

adjustment)” (IMF, 2006). It needs to be noted that multiplicity of the formulas did not reflect conceptual complications of quota calculations but were introduced as a backdoor to accommodate various country-specific political considerations.

Table 4 below the quotas of the top ten countries as of 2006. A few key issues may be highlighted. Clearly for China the calculated quota of 2.9 per cent is low compared to China’s economic (and perhaps political as well) weight in the global economy. Again for some unknown reason, the calculated quota of the UK and France was always equal to each other. In such a situation the IMF, in some sense, lacked legitimacy to act to further the cause of exchange rate misalignment.

		Actual Quota (Million SDR) ¹	Actual Quota Share (per cent)	Existing Five Formulas ² (per cent)	GDP (2002-04) (per cent)	Openness (2000-04) ^{3,4} (per cent)	Variability (1992-2004) ⁵ (per cent)	Reserves (2004) ^{4,6} (per cent)
1	United States	37,149.3	17.382	16.795	30.350	15.797	20.373	2.705
2	Japan	13,312.8	6.229	7.525	11.822	5.623	6.725	25.267
3	Germany	13,008.2	6.087	6.953	6.568	8.645	6.682	1.726
4	France	10,738.5	5.025	4.334	4.818	5.087	3.131	1.166
5	United Kingdom	10,738.5	5.025	5.176	5.019	6.275	2.083	1.337
6	Italy	7,055.5	3.301	3.442	3.943	4.077	1.882	1.047
7	Saudi Arabia	6,985.5	3.269	1.063	0.596	0.858	0.877	0.740
8	Canada	6,369.2	2.980	3.098	2.364	3.496	2.245	1.114
9	China ⁷	6,369.2	2.980	5.197	4.544	5.057	3.027	15.485
10	Russia	5,945.4	2.782	1.519	1.231	1.370	2.279	2.848

Notes:

1. For the three countries that have not yet consented to and paid for their quota increases, Eleventh Review proposed quotas are used.
2. Based on 1992–2004 data and computed as traditionally specified. Reflects the impact of adjustments to current receipts and payments for re-exports, international banking interest, and non-monetary gold.
3. Average sum of current receipts and payments, adjusted for re-exports, international banking interest, and non-monetary gold.
4. Traditional variable used in the existing five formulas.
5. Variability of current receipts and net capital inflows, measured as a standard deviation from centred three-year trend.
6. Average international reserves in 2004 based on end-month data.
7. Includes China, P.R., and Hong Kong, SAR.

Source: IMF, “Quotas—Updated Calculations”, August 14, 2006 available at <http://www.imf.org/en/Publications/Policy-Papers/Issues/2016/12/31/Quotas-Updated-Calculations-PP3885>

On the other hand, a crisis-free period of 2000-2007, made huge pressure on the IMF to downsize its operations. It is worth to turn to the account of IEO (2014) in this context:

“In 2006, the IMF was projecting a budget shortfall and faced pressure to establish a new income model in light of sharp decreases in lending operations. ... An April 2007 report to the IMFC noted that the IMF needed to place its finances on a sound footing and be run on a tightened budget. In November 2007, the Managing Director informed staff that the IMF would have to find \$100 million worth of cuts to offset its income shortfall. In March 2008, the IMF Executive Board approved a new income model and, a month later, a medium-term budget which provided for \$100 million in savings over a three-year period. These savings were to be achieved by “refocusing” operations, and introducing efficiency gains. But it was clear that savings of this magnitude would require a significant reduction in staff. In February 2008, Management announced that a “downsizing” would take place in two stages. ...During the initial stage,

from March 1 to April 21, 2008, staff could volunteer for separation. Afterwards, depending on the outcome of the first stage, there could be a need for mandatory separations. In the event, 20 percent of eligible staff volunteered to separate—higher than targeted, particularly at the mid-level, thus eliminating the need for mandatory separations. Nearly 500 staff, including 28 percent of administrative support staff, 10 percent of mid-level staff, and 24 percent of senior managers exited the IMF between May 2008 and May 2009 as a result of the downsizing. In the first half of 2008, Management established a hiring freeze” (IOE, 2014; p. 31)

The twin pressures of lack of legitimacy and efforts of downsizing perhaps made the IMF to miss the global financial crisis on the one hand and Chinese exchange rate misalignment on the other. Faced with such a situation the US decided to take the issue of imbalance with China to the WTO.

Interestingly, the global financial crisis could have created a situation where birth of a new IMF-like institution could have been possible. But despite some clamour for a new Global Finance Institution, the global community decided to operate with the IMF. Thus, the global financial crisis re-legitimised the operations of the IMF without necessarily effecting a thorough reform of the quota allocation process within the IMF that could be reflective of the new economic reality of higher share of the emerging economies in global GDP.

World Trade Organization (WTO)

The organization that could be expected to be at the forefront of any attempts to reduce trade tensions would be the WTO. It was created as a forum to negotiate international trade rules and promote ‘free and fair’ trade. It is within the WTO’s mandate to serve as a forum where countries can raise concerns relating to trade liberalization and address them through changes in international trade regulation. However, the WTO suffers from a number of deficiencies that prevent it from being the forum to address current trade tensions in any meaningful way.

Though mandated to promote ‘free and fair’ trade, the emphasis in most WTO agreements, has been on free, rather than fair trade. This is most evident in agreements covering trade in goods, rules on investments, and IPRs (Intellectual Property Rights) - issues covered by the GATT, TRIMS and TRIPS agreements respectively. Services trade, covered by GATS, has not been significantly liberalized yet and is in not a contentious issue in current trade disputes. The liberalization of trade, investment and IPR rules has created a regulatory environment within which international value chains have expanded and countries have become locations of specialized production that seamlessly integrate into large global manufacturing networks. The emphasis of WTO agreements has been on trade liberalization that reduces barriers that countries erect to protect domestic firms. These agreements aim to keep trade free, thus ensuring that “investment is encouraged, jobs are created, and consumers can fully enjoy the benefits of competition — choice and lower prices” (WTO, 2018).

WTO rules also allow countries to negotiate bilateral and regional Free Trade Arrangements (FTA) that advance trade liberalization much beyond the scope of WTO agreements. Such liberalization measures do not have to be extended to other WTO member-states under Most Favoured Nation (MFN) provisions of the WTO. This has allowed many WTO member-states to negotiate ‘non-trade’ issues, such as labour and environment regulation and more advanced IPR protection and investor-state dispute settlement

provisions that bypass domestic judicial systems, into such FTAs. These have served to significantly enhance the power of transnational corporations at the cost of consumers and workers (Sundaram, 2017: 40-41). The emphasis on trade liberalization to enable countries and firms to benefit from their comparative advantages has been the greatest strength of the WTO as well as the greatest weakness. This emphasis on liberalization prevents it from playing an effective role in address current trade conflicts.

One of the most fundamental weaknesses of the WTO has been its inability to develop effective mechanisms whereby countries can raise concerns relating to persisting imbalances in trade with other WTO member states and take steps to reduce them. Dani Rodrick argues that the WTO “has been predicated on the idea that economic practices in different nations would eventually converge” (Rodrick, 2018). The expectation that all countries would realize the benefits of free and open trade, and frame trade policy accordingly, has blinded the organization to the fact that in certain contexts countries might want to constrain free trade and protect domestic markets. The failure of WTO rules to effectively address this need has been apparent from its very inception. Three new agreements, TRIMS, TRIPS and GATS effectively constrained the ability of governments to develop policies more appropriate to their own domestic economic conditions. The limitations imposed on developing country governments that prevent them from adopting development policies more suited to them has been compared to Fredirch Lists “kicking the ladder” criticism of British trade policy in the 19th century (Wade, 2003).

There are three ways by which WTO rules enable countries that are negatively affected by the impact of trade liberalization to seek redressal. It could be done through Trade Remedies, through the Dispute Settlement Understanding (DSU) and through ‘Special and Differential Treatment’ (SDT). While the first two are available to all members the latter is available only to developing countries. In terms of trade protection, SDT mostly benefit the Least Developed Countries (LDCs).

Trade remedies such as anti-dumping duties and countervailing duties can be imposed only when the imports can be proven to be ‘unfair’, because the imported products are dumped or benefit from export subsidies that are disallowed under WTO rules. The third remedy, safeguard measures that allow countries to impose restrictions when faced with import surges that hurt domestic industry, are temporary in nature and cannot be maintained for long to counter the lack of competitiveness of domestic firms. Any change in the rules that would allow countries to impose safeguard measures for prolonged periods of time would be almost impossible to negotiate, since it would require a change of GATT rules by consensus within an organization that has a membership of over 160 states.

Though the WTO’s Dispute Settlement Understanding (DSU) is another mechanism by which states could try to protect domestic interests, it is primarily intended to enforce trade liberalization rather than trade restrictions. This has been a matter of concern for developing countries ever since the formation of the WTO. Trade retaliation, which is effectively the instrument of enforcement under the DSU has primarily benefited developed countries who are better able to enforce liberalization measures since their stronger economies allow for more effective retaliation (Pfumordoze, 2011: 83-84). Proposals for reforming the DSU to allow for broader remedies to address problems of persisting trade imbalances have proved to be non-starters.

Special and Differential Treatment was given to developing and Least Developed Countries (LDCs) who could maintain some restrictions on trade, not allowed for other states. This was part of the WTOs attempt to ensure that liberalization did not negatively affect the economic interests of countries whose firms could not compete under conditions of free trade.

It would be unrealistic to expect the WTO to renegotiate its agreements to allow for increased trade protection. The failure of the WTO to address problems of persistent trade deficits built up by countries has been an issue of longstanding concern within the organization and has proven difficult to address. Since the formation of the WTO in 1995 this concern was primarily expressed by developing countries who felt that the primary emphasis of WTO trade liberalization was on getting them to open up their domestic markets to firms from developed countries rather than providing weaker economies effective remedies to protect domestic interests (Pfumorodze, 2011). Developing countries, concerned at the impact of free trade on their domestic economies did succeed in getting the WTO to designate its first round of negotiations that began in Doha in 2001 as a round that would promote a 'Doha Development Agenda'. The expectation was that this would lead to reform of WTO agreements, strengthening of Special and Differential Treatment provisions and allow developing countries to better protect domestic economic interests. However, the round that was supposed to conclude in 2005 is still continuing. It remains 'permanently deadlocked' indicating the reluctance of member-states to undertake any significant reform of its agreements (Narlikar, 2010: 721).

US trade policy under President Trump essentially calls for 'Special and Differential Treatment' for the US in order to protect domestic jobs. The 'Big Promise' of bringing back American jobs to the US and eliminating its trade deficit by renegotiating existing trade agreements with trade partners was an important factor behind President Trump's election victory (Huenemann, 2017: 150). In the context of the WTO, fulfilling this promise would mean renegotiating WTO agreements to allow the US to maintain tariffs high enough to reduce the large US trade deficit. However, any such change would require a major review of WTO agreements requiring consensus and is unlikely to be reached in the near future.

Will the threat of a US withdrawal from the WTO force it to renegotiate agreements and provide the remedies that the US is asking for? President Trump's trade advisors feel that the US could force the WTO to renegotiate agreements, and address US concerns, by announcing its intention to leave the WTO. The WTO, they feel, would renegotiate agreements when faced with such a threat since it would be a much weaker multilateral organization without US participation (Navarro and Ross, 2016; Sundaram, 2017: 42). However, a US withdrawal might cripple the WTO irrevocably, rather than force it to reform. The WTO was born out of a consensus on trade policy among developed countries that upheld that view that free trade was good for the global economy and would ensure both growth and prosperity. The breakdown of that consensus could very well be a precursor to the WTO's demise rather than its rebirth.

G-20

Unlike formal international institutions such as the IMF and the WTO, the third forum that was created to prevent the emergence or deepening of an international financial or economic crisis was the G-20, an informal grouping of twenty major economies of the world. The G-20 originated in a report prepared by Hans Tietmeyer, the President of the German

Central Bank, the *Bundesbank*, for the G-7 after the east Asian financial crisis of 1997. In which countries like Korea, Thailand, and Malaysia faced substantial capital flight and a currency crisis. Formed by the G-7 in 1999 it was originally envisaged as a Financial Stability Forum that would facilitate information exchange as well as dialogue and discussion on financial and economic issues between finance ministers and central bankers of the twenty countries. The involvement of both developed and developing nations in its deliberations, it was felt, would provide early warning of emerging crises. The G-20 was converted into a forum involving heads of state and government after the financial crisis of 2008, illustrating both the depth of the crisis and a recognition by the G-7 that overcoming the crisis would require active multilateral engagement involving major developed and developing economies. It very soon became the most visible international forum for coordinating multilateral economic and financial policies and for a time it seemed to have greater influence than formal multilateral institutions such as the IMF and the WTO (Vijayakumar and Weiss, 2011: 93). While the creation of the G-20 seemed to reflect an attempt by the United States to use its influence to expand the G-7 to involve developing countries in the process of overcoming the crisis, it also seemed to presage the reform of existing institutions or the creation of international institutions that would integrate developing countries more effectively into international economic institutions. It was expected that this process of 'hegemonic incorporation' eventually leading to 'collectivist cooperation', would smoothen the integration of emerging countries into the international economic system. (Beeson and Bell, 2009: 67-68). The first three G-20 summits in Washington in November 2008, London in April 2009 and Pittsburgh in September 2009 were not only held with a frequency unprecedented for such types of informal international groupings, they were also notable for the breadth of their ambition. These summits agreed on large domestic stimulus packages for bolstering economic growth, additional funds for the IMF, the World Bank and other development banks and also the creation of a Financial Stability Board. (Cooper, 2010: 741).

However, despite the seemingly consensual nature of these decisions, the impact of many of these decisions was often divisive with developed and developing countries frequently countering each other's actions, thereby undermining the objective of collective action. For eg. when quantitative easing by the US and European countries led to larger inflows of capital and strengthening of domestic currencies, many developing countries in the G-20 such as China, India and Brazil responded with measures to reduce capital inflows to prevent the appreciation of their currencies. The G-20 has proved unable to address crises and harmonize action and G-20 summits have often ended with mere declaration of intent to address such concerns (Sharma, 2014: 165-66).

What explains the failure of the G-20 countries to coordinate their actions and evolve complementary responses to crises? Two possible reasons have been suggested. The first is the failure of the G-20 to develop the 'networks of consensus building' that were critical to the success of the G-7. Though the yearly meetings of the heads of government of the G-7 states garnered most public attention, what was critical to its success was the much more regular meetings of bureaucrats from the foreign and finance ministries of these seven countries, often up to six times each year, that contributed to a much larger volume of information exchange, a much deeper understanding of each other's concerns and enhanced the ability of the G-7 to ensure coordinated action (Morgan, 2012: 120). The G-20 by contrast was most active and effective in the years immediately following the 2008 economic crisis. Successive summits identified poor regulation and oversight as the cause of the crisis and approved the

launch of a huge stimulus package for the global economy. (Morgan, 2012: 128-32). This enabled the G-7 countries, and the US in particular to, get endorsement of major developing countries such as China, India and Brazil to crisis response measures. However, once the response measures succeeded in stabilizing the situation, countries once again reverted back to unilateral decision making. This made later summits ineffective and unable to move beyond issuing final communiqués that merely stated an intention to act rather than formulate any clear plan for action. The G-20 being a much larger, and ideologically more diverse, grouping could not develop the deep bureaucratic networks that could lead to the development of a consensus on actions.

The second reason that has been suggested for the failure is the deep division which exists between countries of the G-20, on how to address issues of common concern and the lack of a 'hegemonic state' that could provide the leadership needed to build a consensus out of diverse views, by use of coercion if necessary. One example of such divisions that are proving impossible to overcome is climate change, where developed and developing countries within the G-20 remaining deeply divided on both means and targets to reduce greenhouse emissions. While the US provided this leadership as a 'hegemonic leader' in the G-7, it is unable to do so in the G-20 (Goodliffe and Sberro, 2012). Its global influence has reduced with the rise of China. Developing countries such as China and India remain deeply reluctant to accept US leadership on matters that are critical to their future economic growth.

What will be consequences of the failure of existing international institutions to resolve the current trade conflicts. One distinct possibility is that the trade conflict will escalate and spill over into other fronts, further destabilizing existing international economic institutions.

4. US Trade Actions and the Possibility of a Two-front war

The image that is portrayed of the Trump administration is that of one led by an impulsive and unpredictable President who taps into a deep sense of angst among the American workers by promising to keep their interests foremost while formulating trade policy, and targets US friends, allies and major trade partners with import restrictions to protect domestic investment and jobs. Critics of current US trade policy often allude to lack of coordination among different departments of the government, and the failure to foresee long term consequences for the US and the global economy, to illustrate this point. The fact that most changes in US policy are announced in early morning tweets from the President's Twitter handle only adds to this image of irrationality and unpredictability.

However, on closer examination it seems apparent that the US imposition of tariffs has been carefully designed to pre-empt challenges under international trade rules and are designed to achieve specific policy outcomes. These outcomes would reverse long-standing US policy, and if successful, would bring about long-term changes in the global economic and political system. These objectives are most evident in two aspects of US trade policy. First, the attempt to bypass international trade agreements, particularly WTO agreements, and the expressed desire to create, even at the cost of traditional US allies and friends, an alternate and competing system of trade regulation through new international institutions and agreements specifically designed to address US concerns. Second, the imposition of trade restrictions and the use of trade and investment policy as a tool to counter growing Chinese economic power and influence and retain US economic and political dominance.

The US pursuit of these twin objectives also raises the distinct possibility that it will open another conflict front as those affected by this US attempt to retain its dominance over the global economic system retaliate – with a currency war.

Bypassing Trade Agreements

It is interesting to note that in justifying higher steel and aluminium tariffs the Trump Administration used a US Commerce Department investigation under Section 232 of the *Trade Expansion Act of 1962* under which trade restrictions could be imposed on grounds of national security. Any challenge at the WTO by affected countries is likely to be countered by the US justification that Article XXI(b) of the General Agreement on Tariffs and Trade (GATT) allows for trade restrictions to ensure national security. This security exception to trade liberalization agreements predates not just the WTO, but GATT itself and is a ‘self-judging’ provision which means that member-states are free to determine which restrictions are needed to protect their security interests (Yoo and Ahn, 2016: 427). WTO Dispute Settlement Panels have traditionally shied away from reviewing measures which cite national security as a justification for trade restrictions, deeming them to be within the sovereign jurisdiction of member states and not subject to international review.

The current US move is in sharp contrast to the justification used by the Bush Administration in 2002 while imposing a 30 percent tariff on imported steel to protect domestic steel producers. It was justified under safeguard clauses of GATT and deemed necessary to ensure that the domestic steel industry did not suffer while it was undertaking reforms to make it more competitive (Mahncke, 2004: 617). The higher tariffs were also time bound and were to lapse after three years. The US subsequently faced a EU complaint in the WTO that the higher tariffs were non-compliant with WTO agreements. The US lost the case for higher tariffs in a Dispute Settlement Panel decision (in July 2003) and also in the Appellate Body (in November 2003). The US complied with the decision and in December of 2003 withdrew the tariff increases. While the Bush administration’s objective in imposing the higher tariffs - protecting domestic industries and jobs - was the same as that of the Trump administration, the method implementation was vastly different. The former was justified within the context of international trade rules while the latter was done in a manner that bypassed these rules and made it almost unchallengeable in the WTO.

Another strand of policy that is visible in current US policy is the desire to rewrite the ‘rules of the game’ in international economic relations to US advantage, if necessary, by reaching new agreements. One of the first major actions of the Trump Administration when it took office in January of 2017 was to pull out of the Trans-Pacific Trade Partnership that the Obama Administration had signed, reversing a seven-decade old US policy of encouraging freer trade between countries (Dunn and Litzinger, 2018). This was followed by his threat to leave NAFTA, unless it was renegotiated to accommodate US interests. In August, 2017, the US, Canada and Mexico began negotiations to review the agreement at US insistence. The chapters of the agreement that are being renegotiated include those on dispute settlement, rules of origin for automobiles, market access and also a ‘sunset clause’ under which the agreement would lapse every five years unless all parties agreed to a renewal.¹¹

¹¹ David Lawder and Dave Graham, “U.S. hikes tensions in NAFTA talks with call for ‘sunset clause’”, *Reuters*, October 12, 2017.

Countering China

The desire to challenge China's rise is the second objective discernible in US trade and investment restrictions specifically aimed at that country. China's reluctance to open its market has been a long-standing concern for successive US governments. Broad-based economic action against China has also been the declared objective of both President Trump himself and some of his closest advisors. Even during his Presidential election campaign, Trump referred to China as a competitor which the US needs to challenge head-on if it is to retain its pivotal global economic role. In his book, *Crippled America: How to make America great again*, he wrote:

There are people who wish I wouldn't refer to China as our enemy. But that's exactly what they are. They have destroyed entire industries by utilizing low-wage workers, cost us tens of thousands of jobs, spied on our businesses, stolen our technology, and have manipulated and devalued their currency, which makes importing our goods more expensive – and sometimes, impossible (Trump, 2015: 40).

The US Trade Representative, Robert Lighthizer, has long considered China to be a violator of international trade rules and considers the rewriting of international trade rules to benefit the US a desirable objective for US trade policy.¹² The current US National Security Advisor John Bolton has for long advocated US diplomatic recognition of Taiwan and reversing the 'one-China' policy followed by successive US administrations since Nixon, even if it meant the possibility of a military conflict with China.¹³ Identifying China as the main culprit responsible for the large US trade deficit also plays into a long-standing image of China as 'a perceived enemy and a future threat' (Skonieczny, 2018)

This desire to confront China on multiple fronts is evident in China specific trade actions that the Trump administration has taken recently. In June 2018 it announced its intention to impose a 25 percent tariff on US\$ 50 billion worth of imports from China, mainly covering goods produced using 'Industrially significant technology' and those in the 'Made in China 2025' programme.¹⁴ The objective of denying Chinese firms access to high-technology markets was also evident in US sanctions imposed on ZTE, one of the largest Chinese telecommunications firms in April 2018. US sanctions prohibited US firms such as Qualcomm and Micron Technology from selling their semiconductors and components to ZTE because of its alleged violation of US sanctions on Iran. The US Justice Department cited violation of sanctions on Iran as a reason for initiating an investigation against another large Chinese telecom firm Huawei the same month. US government actions against the two firms came at a time when a report commissioned for the US Congress called on the government to develop a national security strategy to counter vulnerabilities in the supply chain for Information and Communications technologies (ICTs) arising from procurements of components from China. The report identified ZTE and Huawei as 'national champions' involved in technology theft to increase Chinese technological competitiveness. (Beeny, 2018:24).

Could the unconventional nature of US actions generate unconventional responses from those affected? It is in this context that the prospect of a currency war opens.

¹² Ana Swanson, "The Little Known Trade Advisor who Wields Enormous Power in Washington", *New York Times*, March 9, 2018,

¹³ Lu Zenhua, "US security head John Bolton would risk military conflict with China to achieve goals, former US officials say", *South China Morning Post*, April 11, 2018.

¹⁴ White House, *Statement by President Regarding Trade with China*, June 15, 2018.

Second Front: A Currency War?

The term two-front war owes its origin to the World War II when the allies' power fought splitting their forces between the wars against Nazi Germany and against the Japanese Empire simultaneously. We will conjecture that going forward the trade war could be accompanied by currency war as well.

It is in this context of the inability of existing multilateral institutions to address current trade disputes that the possibility of a currency war crops up. The notion of currency war in the not-so-distant past owes its genesis to the Brazilian Finance Minister Guido Mantega.¹⁵ Mantega in September 2010 warned against competitive devaluation of currencies. His statement to the International Monetary and Financial Committee Meeting for the Annual IMF-World Bank meeting on October 9, 2010 was hard hitting on the post-crisis developed countries. He said,

"Advanced economies, facing the prospect of a painful period of many years of weak growth and high unemployment, are eager to export their way out of the crisis. Near-zero interest rates and rapid monetary expansion are geared at stimulating domestic demand but also tend to produce a weakening of their currencies and an increase in their net exports of goods and services. All reserve currency issuing central banks are engaged in this policy to a greater or lesser degree. Meanwhile, emerging market countries are being encouraged to allow their currencies to appreciate and to accumulate current account deficits. Some advanced countries are even intervening directly in the foreign exchange market to weaken their currencies. This is why I recently spoke of an ongoing currency war" (Mantega, 2010).

The G-20 Seoul Summit of November 2010, held immediately after, however, avoided any reference to currency war - perhaps taking into account the possible antipathy of China to any such reference. Subsequently Brazilian president Dilma Rousseff invoked the term and echoed her finance minister's criticism in 2012. At the end of 2012 and beginning of 2013, when Bank of Japan committed to large-scale asset purchases once again there were accusations, mainly from Japan's Asian neighbours, that the Japan was engaged in a "clandestine currency war" (Eichengreen, 2013).

With the withdrawal from quantitative easing by the US Fed, fall in oil prices, and some realignment of currency by Chinese authorities, there was some lull in usages of "currency wars" since the beginning of 2010's. But in recent times the issue once again came into the limelight from a series of messages from US President Trump. For example, on April 16, 2018, Trump accused Russia and China "playing the Currency Devaluation game as the US keeps raising interest rates" and added that this is "not acceptable!"¹⁶ Does it mean that in the retaliatory games of tariff increase by the US, a currency war under the guise of competitive devaluation is in the offing?

Admittedly, any answer to the question posed above would be hugely speculative in nature. But suffice to say, its possible outbreak cannot be done away with. What are the possible contours of currency war mechanism? At the risk of broad generalization, the following main contours can be thought of, viz., (a) artificial devaluation of home currency (e.g., China); (b) quantitative easing (e.g., USA); (c) offering cheap credit (e.g., Euro Area); (d)

¹⁵ In the context of currency war, Ahmed (2011) discussed the historical background of the June 1933 World Economic Conference in London of the world leaders for discussing how to repair the severely damaged international financial system. Also see Rickards (2011).

¹⁶ Available at <https://www.ft.com/content/c3d3381c-4175-11e8-93cf-67ac3a6482fd9> (accessed on July 1, 2018)

drastic fall in official interest rates (e.g., Japan); and (e) central bank's intervention in forex market (e.g., Japan, or Switzerland) (Włodarczyk, 2014). That is to say, even without the guise of a trade war, currency wars in different forms were waged in recent times.

What would be the impact of such a tit-for-tat strategy in the twin fronts of trade wars and currency wars? As long as the arguments in favour of gains for trade and flexible exchange rates remain intact, there is hardly any winner from this twin threat.¹⁷ It is also linked to the issue of hegemony of US dollar. After all, for the US the ability to sustain a huge current account deficit rests on its strength of the U.S dollar. This phenomenon has been termed as an “exorbitant privilege” by Eichengreen (2011), who commented:

Insofar as foreign banks and firms value the convenience of dollar securities, they are willing to pay more to obtain them. Equivalently, the interest rate they require to hold them is less. This effect is substantial: the interest that the United States must pay on its foreign liabilities is two to three percentage points less than the rate of return on its foreign investments. The U.S. can run an external deficit in the amount of this difference, importing more than it exports and consuming more than it produces year after year without becoming more indebted to the rest of the world.This has long been a sore point for foreigners, who see themselves as supporting American living standards and subsidizing American multinationals through the operation of this asymmetric financial system. Charles de Gaulle made the issue a cause célèbre in a series of presidential press conferences in the 1960s. His finance minister, Valéry Giscard d’Estaing, referred to it as America’s “exorbitant privilege.” (Eichengreen, 2011).

More recently, former US Fed Chairman Bernanke sought to explain the pre-eminence of USA dollar in terms of peoples' inertia. He said, "People are accustomed to using the dollar in international transactions, and the willingness of others to take dollars increases their usefulness (economists call this a “network externality”)" (Bernanke, 2016).

Another interesting issue in this context is the substantial Chinese holding of US government securities. However, in recent years, there has been some reduction in China’s holdings of US Treasury bills as a percentage of total foreign holdings (Table 4).

	2002	2004	2006	2008	2010	2012	2014	2016	2017
China’s holdings (\$ billions)	118	223	397	727	1,160	1,203	1,244	1,058	1,185
China’s holdings as a percentage of total foreign holdings of US Securities (per cent)	9.6	12.1	18.9	23.6	26.1	23.0	21.7	17.6	18.7
Source: Morrison (2018)									

5. Crisis of Global Economic Architecture: An Emerging Economy Perspective

Any possible combination of the current trade conflict and a currency war is of concern to emerging economies around the world. It not only creates economic uncertainties, but

¹⁷ Interestingly, in a recent theoretical paper, Korinek (2016) argued while "in an interconnected world, national economic policies regularly lead to large international spillover effects, which frequently trigger calls for international policy cooperation", however, when (i) policymakers act competitively in the international market, (ii) policymakers have sufficient external policy instruments and (iii) international markets are free of imperfections, there are possibilities there could be inefficiency and scope for cooperation.

also raises the possibility of reform of the existing global economic architecture, something that emerging economies have been advocating in international fora for quite some time now.

Since the early eighties many emerging economies have shifted from their earlier belief that their economies would gain from trade protection, since it would protect domestic firms and employment and ensure higher revenue through trade tariffs. Their liberalization programmes have also been influenced by international institutions such as the IMF and the WTO which have encouraged them to open up their borders integrate more with the global economy (Milner, 1999: 101-107) China, India, Russia, Brazil, Mexico and South Africa among others have rolled back protectionists measures that restricted both trade and foreign investment. However, as they have integrated more with the global economy and increased their share of global economic output, they have also become more vocal in expressing their desire to see effective reform of international economic and political institutions to ensure that they have greater influence over decision making. Does the current crisis raise the prospects for reform of international institutions which give these emerging economies a much greater say in global economic governance? It could be argued that a trade and currency war could eventually result in significant reform of international institutions to reflect current global economic and political realities. The factors that ensured the almost continuous liberalization of economies around the world since the early 80s is eroding and the consequent instability could bring about significant reform. What were the factors that led to this liberalization of economies and why are they eroding now?

Realists theories of international affairs have often been used to understand the reasons for which emerging economies shifting from protectionist policies towards rapid liberalization of their economies from the eighties onward. The Hegemonic Stability (HST) theory has been used most often to explain this change. (Milner, 1999: 104-05). This attributes increasing liberalization to the growing hegemonic power of the US, with an interest in trade liberalization, from the early eighties. World system scholars have for long argued that phases of economic innovation and trade liberalization in history have been associated with the rise of hegemonic powers. The Netherlands in the 17th century, England in the 18th and the 19th century and the US in 20th have all provided the hegemonic stability that allowed development of innovation and free trade. HST also holds that when there is a decline of hegemonic power and the emergence of a more multipolar system trade and innovation tend to decline since stability, important to spur investment and innovation, is uncertain in a multipolar world. (Kwon, 2012: 327-28). The rise of a more globalized world, particularly since 1980, also coincides with an increase in hegemonic power of the west in general, and the US in particular. The fall of the Soviet Union and the spectacular US victories in successive wars in the Persian Gulf were important landmarks in this process.

However, increases in global trade also brought about increasing prosperity in most of the developing world. Flows of foreign investment into developing countries and their increasing participation in global manufacturing and services supply chains increased their economic growth rates, relative to developed economies, and also their share of global economic output. The 're-emergence' of Asian economies such as that of China and India also posed a challenge to the 'hegemonic stability' provided by the US. The failure of international political and economic institutions to redress trade imbalances has only led to the undermining of this stability that underpinned trade liberalization.

It is noteworthy that the efforts of developing countries to reform global institutions

have picked up pace after the 2008 financial crisis and the formation of the G-20. With international political and economic institutions still structured to reflect immediate post-World War II economic realities emerging economies, particularly the BRICS countries (Brazil, Russia, India, China and South Africa) had for long felt that reform of these international institutions was long overdue. Their demand for reform of international institutions is based on their belief that their economic strength vis-à-vis the G-7 had increased since the 2008 financial crisis and therefore necessitates their recognition as major powers in the international system through structural reform of existing international institutions – the UN, the IMF and the World Bank (Stunkel, 2014; Hou 2014).

Despite this desire for reform, emerging economies have been unsuccessful in ensuring significant reform of international institutions. Two reasons have been put forward for this lack of reform. The first is the persistence of ‘hegemonic institutions’ long after hegemon ceases to be powerful (Young and Pauly, 2013). Reform of multilateral institutions is hindered by the inability of member-states to agree on the modalities and the objectives of reform. This ensures that unreformed, and often unrepresentative, institutions continue as forums for multilateral rule-making. The second is the inability of emerging economies to forge a united front capable of forcing reform of international institutions.

The ability of the BRICS economies to influence the G-7 to initiate these reforms has been constrained both by differences between them and also by their domestic economic and political vulnerabilities. Individual BRICS countries do not have the same objectives in seeking a greater role for themselves in international governance. While China seeks to influence global rules so that they can facilitate Chinese global economic interests, Brazil and India see themselves as being the vanguard for developing countries seeking a greater role in international affairs. They seek to use this role to gain global influence disproportionate to their economic power (Hopewell, 2015). BRICS countries have not been very successful in moulding the direction of international debate on reform of international political institutions in a manner that is favourable to them. Reform of the UN continues to remain stalled, the reform of the IMF's quota system still does not adequately reflect current realities in terms of economic strength and the Doha Round of Trade negotiations at the WTO remain deadlocked with differences between developed and developing countries over the future direction of trade reform. Domestic problems such as inequality, corruption, lack of skills and environmental issues mean that the BRICS countries seem destined to focus more on internal problems rather than on cohesive action abroad. In the words of one analyst, BRICS seems more of ‘marriage of convenience’ than a lasting relationship (Kralinikova 2014).

It is in the context of this inability of emerging economies to force reform of international institutions and the decline of ‘hegemonic stability’ provided by the US that the current trade conflict becomes significant. Could the breakdown of a developed country consensus on the structure of international institutions and their objectives presage the demise of Bretton Woods institutions or their radical reform? Could it be that fundamental reform of these institutions happen because the legitimacy of these institutions collapses from within, rather than collapse because of pressure from outside? It is possible that the world is about to enter into a phase in international political and economic relations that sees the collapse of existing institutions and the birth of new ones. In an interview with the Financial Times the former US Secretary of State and National Security Advisor, Henry Kissinger said: “I think Trump may be one of those figures in history who appears from time to time to mark

the end of an era and to force it to give up its old pretences. It doesn't necessarily mean that he knows this, or that he is considering any great alternative. It could just be an accident".¹⁸

It is possible that the current crisis marks the beginning of a significant phase of reform of International institutions. The three strands of policy evident in the current US administration's policy - the attempt to bypass international trade agreements, particularly WTO agreements, the use of trade and investment policy as a tool to counter growing Chinese economic power and influence and the desire to create an alternate and competing system of trade regulation through new international institutions and agreements specifically designed to address US concerns will inevitably elicit response from countries affected by these actions. These responses will have a significant impact on existing international agreements and institutions. What remains to be seen is how US allies and trade partners will respond to unilateral US moves. While the future course of events is difficult to predict three possible directions are discernible.

The first possibility is that when faced with the economic consequences US allies and trade partners too will bypass international institutions and agreements and retaliate in a manner that hurts the very workers whose interests President Trump seems to be championing. The EU decision to impose tariffs on US\$ 300 billion worth of automobiles and automobile parts seems one step in that direction.¹⁹ The economic and political consequences of this retaliation might force the US, perhaps under another President after a change in administration, to return to international institutions and negotiate a return to the *status-quo ante*.

The second possibility is that the trade war unleashes a currency war, initiated by China. China has been affected by US sanctions and there are fears of a significant slowdown in the Chinese economy as exports to the US decline.²⁰ China also sees US actions as being designed to counter Chinese efforts to diversify exports and develop larger markets in the Eurasian region through its One Belt One Road (OBOR) initiative. A slowing Chinese economy would mean less resources for pursuing the initiative. The US has proposed a US\$ 60 billion investment programme for the region as part of its Indo-Pacific Economic Vision plan that offers developmental aid and provides an alternative to Chinese investments for countries keen to develop their infrastructure.²¹ If the Chinese government, fearing domestic political unreserent or a loss of leadership legitimacy seeks to open a new front in its conflict with the US a currency war seems the most obvious. The Chinese currency with its limitations has now entered the SDR basket from October 2016. In recent times there have been various moves towards internationalization of Chinese RMB. The People's Bank of China issued notice on further improving cross-border RMB business. Chinese A-shares have been included in the MSCI indices, and the Bloomberg announced that it will add Chinese RMB-denominated government and policy bank securities to the Bloomberg Barclays Global Aggregate Index. Increasingly, U.S. corporates tend to use RMB as an invoicing currency with their Chinese counterparts. This, coupled with the emergence of cross-border RMB remittances at the retail

¹⁸ Lunch with the FT. Henry Kissinger, Financial Times, July 20, 2018, available at <https://www.ft.com/content/926a66b0-8b49-11e8-bf9e-8771d5404543>

¹⁹ Jim Brunsten, "EU warns of \$300bn hit to US over car import tariffs", *Financial Times*, July 1, 2018.

²⁰ 'Trade war with US could be the tipping point for China's \$14 trillion debt-ridden economy'. Available at <https://www.cnbc.com/2018/04/24/trade-war-with-us-may-be-tipping-point-for-chinas-debt-ridden-economy.html>

²¹ Kenneth Rapoza, 'Trade War Update: US Goes for China's Jugular', *Forbes*, July 31, 2018.

level should lead to an increase in the use of RMB for global payments (Owen, 2018).²² At the current juncture, the Chinese authorities have taken a two-track strategy comprising, (a) RMB-trade settlement scheme; and (b) offshore market (Subacchi, 2018). As, when, and if it happens we might be witnessing a bipolar world of G2 - where China and the US tend to dominate both the trade and currency world.

There could be a third possibility of “business as usual” with the current skulduggery of trade and currency wars dying down with pressures from the internal political situation within the US and China. Illustratively, there could be a situation where an internal pressure could make President Trump to behave more conventionally and fall in growth rates could force China to make concessions at the negotiating table. But irrespective of the outcome, it needs to be noted that emerging market economies are not a homogenous group and there are internal issues between them. Illustratively, India and China have border issues, there are unresolved issues between Russia and China as well. In such a situation, depending on country-specific situation, there could be some realignment of country’s foreign policy in a world of G2 where the US and China could dominate.

6. Concluding Observations

Against the backdrop of the current trade war this paper highlighted its context and argued that genesis of the global imbalances and the failure of the global economic architecture (comprising the IMF, the WTO and G-20) could have a significant role in it. It also argues that there are possibilities such trade war could be joined with a currency war as well. As far as emerging economies are concerned, we have argued that clarity is yet to emerge and there could be context-specific and country-specific realignment of the these countries with the US and China, giving rise to a possibility of bipolar world order. Admittedly, given the heterogeneity of the emerging countries, emerge of such a bipolar world is expected to be less sharply divided than the cold-war days.

There is of course an extreme third possibility is which these actions and counter-actions could lead to a global economic and financial crisis which marks the beginning of the end of Bretton Woods era. In such a crisis existing international agreements and institutions might not seem ‘fit for purpose’. Institutions such as the WTO, the IMF and the World Bank might either be reformed significantly to reflect changes in relative economic power of states in the international system or be replaced by new institutions and agreements. Of course, there is no sense of finality in our analysis / diagnosis of the trade war. But that is an inherent trouble with all nowcasting exercises.

²² Interview of Caroline Owen (Chief Executive of RMB Global Advisors) in “*The Trans-Pacific View Insight Series.*”, available at <https://thediplomat.com/2018/04/rmb-internationalization-outlook-milestones-and-the-bri/> (accessed on July 1, 2018)

Reference

- Adams, Charles and Donghyun Park (2009): "Causes and Consequences of Global Imbalances: Perspective from Developing Asia", *ADB Economics Working Paper Series, No. 157*.
- Ahamed, Liaquat (2011): "Currency Wars, Then and Now: How Policymakers Can Avoid the Perils of the 1930s" *Foreign Affairs*, Vol. 90, Issue 2.
- Beeny, Tara (2018): *Supply Chain Vulnerabilities from China in U.S. Federal Information and Communications Technology*, Prepared for the U.S.-China Economic and Security Review Commission (Iteros Solutions, Alexandria VA.)
- Beeson, Mark and Bell, Stephen. (2009): "The G-20 and International Economic Governance: Hegemony, Collectivism or Both", *Global Governance*, 15(10): 67-86.
- Bernanke, Ben (2005): "The Global Saving Glut and the U.S. Current Account Deficit", Sandridge Lecture, Virginia Association of Economics, Richmond, Virginia, March 10, 2005.
- Bernanke, Ben (2016): "The Dollar's International Role: An Exorbitant Privilege?", *Brookings Brief*, January 7, 2016.
- Cooper, Andrew F. (2010) "The G20 as an improvised crisis committee and/or a contested 'steering committee' for the world", *International Affairs*, 86(3): 741-75.
- Dunn, John H, and Litzinger Patrick J. (2018): US Trade Policy in Perspective, 1948-2017, *Journal of Business and Behavioural Sciences*, 30 (1):58-71.
- Eichengreen, Barry (2011), *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System*, New York, Oxford University Press.
- Eichengreen, Barry (2013): "Currency war or international policy coordination?", *Journal of Policy Modeling*, 2013, 35(3): 425-433.
- Frieden, Jeffrey A (2015): *Currency Politics*, Princeton: Princeton University Press.
- Goodkiffe, Gabriel.,Sberro, Stephan (2012): "The G20 after Los Cabos: Illusions of global economic governance", *The International Spectator*, 47(4): 1-16.
- Gorton, Gary B. 2010. *Slapped by the Invisible Hand: The Panic of 2007*. Oxford and New York: Oxford University Press.
- Gustavo Adler and Luis Cubeddu (2017): "Global Imbalances: 2017 External Sector Report", Presentation at Bruegel, Brussels, September 26, 2017
- Hopewell, Kristen. (2015): "Different paths to power: The rise of Brazil, India and China at the World Trade Organization", *Review of International Political Economy*, 22(2): 311-38.
- Hou, Zhenbo, (2014): "The BRICS and Global Governance Reform: Can the BRICS provide leadership?", *Development*, 56(3): 356-62.
- Huenemann, Ralph W. (2017). "United States-China Trade – President Trump's Misunderstanding" *Asia & the Pacific Policy Studies*. 5(10): 150-54.
- IEO (Independent Evaluation Office) (2011): "IMF Performance in the Run-Up to the Financial and Economic Crisis: IMF Surveillance in 2004-07", Washington DC: IMF.

- IEO (Independent Evaluation Office) (2014): *IMF Response to the Financial and Economic Crisis*, Washington DC: IMF.
- Jayakumar, Vivekanand; Weiss, Barbara. (2011) "Global reserve currency system: Why will the dollar standard give way to a tripolar currency order?", *Frontiers of Economics in China*, 6(1):92-130.
- Johnson, Simon, and James Kwak. 2010. *13 Bankers: The Wall Street Takeover and the Next Financial down*. New York: Random House.
- Killion, M. Ulric (2004): China's Foreign Currency Regime: The Kagan Thesis and Legalification of the WTO Agreement, *Minnesota Journal of Global Trade*, 14(1): 49-90.
- Korinek, Anton (2016): "Currency Wars or Efficient Spillovers? A General Theory of International Policy Cooperation", *NBER Working Paper No. 23004*.
- Kralikova, Katrina, (2014): "BRICS: Can a marriage of convenience last?", *European View*, 13: 243-50.
- Kwon, Roy. (2012): "Hegemonic Stability, World Cultural Diffusion, and Trade Globalization", *Sociological Forum*, 27{2}: 324-47.
- Liang, Yan (2012) Global Imbalances as Root Cause of Global Financial Crisis? A Critical Analysis, *Journal of Economic Issues*, 46:1, 101-118.
- Mahncke, Hans (2004): "US Steel Tariffs and the WTO Dispute Settlement Mechanism", *Leiden Journal of International Law*, 17: 615-24.
- Mantega, Guido (2010): Statement by Guido Mantega, Minister of Finance, Brazil (On behalf of Brazil, Colombia, Dominican Republic, Ecuador, Guyana, Haiti, Panama, Suriname, Trinidad and Tobago) at the Twenty-Second Meeting of the International Monetary and Financial Committee, available at: <https://www.imf.org/External/AM/2010/imfc/statement/eng/bra.pdf> (accessed on July 1, 2018)
- McKinnon, Ronald (2005): *Exchange Rates Under the East Asian Dollar Standard*, Cambridge Massachusetts: MIT Press.
- Milner, Helen V. 1999: "The Political Economy of International Trade", *Annual Review of Political Science*, 2: 91-114.
- Morgan, Mathew. (2012). "Consensus Formation in the Global Economy: The Success of the G7 and the Failure of the G20, *Studies in Political Economy*, 90: 115-36.
- Morrison, W. M. & Labonte, M. (2010). China's currency: An analysis of the economic issues, Congressional Research Service, available at http://digitalcommons.ilr.cornell.edu/key_workplace/754
- Morrison, Wayne M. (2018): *China-U.S. Trade Issues*, Congressional Research Service Research Paper.
- Navarro, Peter and Ross, Wilbur. (2016), *Scoring the Trump Economic Plan: Trade, Regulatory & Energy Policy Impact*, available at https://assets.donaldtrump.com/Trump_Economic_Plan.pdf
- Pfumorodze, J. (2011): "WTO remedies and developing countries", *Journal of International Trade Law & Policy*, 10(1): 83-98.

- Rodrick, Dani. (2018): 'The WTO has become dysfunctional', *Financial Times*, July 06, 2018. Available at <https://www.ft.com/content/c2beedfe-964d-11e8-95f8-8640db9060a7>.
- Rickards, James (2011): *Currency Wars: The Making of the Next Global Crisis*, New York: Penguin.
- Sanford, Jonathan E. (2011): "Currency Manipulation: The IMF and WTO", Congressional Research Service 7-5700, available at <https://fas.org/sgp/crs/misc/RS22658.pdf>
- Sharma, Shalendra D. , (2014), "The Global Economic Imbalances: The Dangers of Not Rebalancing", *New Global Studies*. 8(2): 153-176.
- Si, Wen (2014): "Evolution of RMB Exchange Rate Regime", available at SSRN: <http://dx.doi.org/10.2139/ssrn.2543400>
- Skonieczny, Amy. (2018): "Trading with the enemy: narrative, identity and US trade politics", *Review of International Political Economy*, Published online June 4, 2018. Available at <https://doi.org/10.1080/09692290.2018.1448879>
- Stuenkel, Oliver, (2014): "Emerging Powers and Status: The Case of the First BRICs Summit", *Asian Perspectives*, 38:89-109.
- Subacchi, Paola (2018): *The People's Money: How China Is Building a Global Currency*, New York: Columbia University Press
- Subedi, Surya P. (2006), "The Notion of Free Trade and the First Ten Years of the World Trade Organization: How Level is the 'Level Playing Field'?", *Netherlands International Law Review*, 53(2):273-296.
- Sundaram, Jomo Kwame. (2016): "Free Trade Agreements, Trade Policy and Multilateralism", *Development*, 59(1-2): 40-47.
- Trump, Donald (2015): *Crippled America: How to make America Great Again* (Threshold Books).
- US Treasury (2018): *Macroeconomic and Foreign Exchange Policies of Major Trading Partners of the United States*, available at <https://home.treasury.gov/sites/default/files/2018-04/2018-04-13-Spring-2018-FX-Report-FINAL.pdf>
- Wade, Robert Hunter. (2003): "What strategies are viable for developing countries today? The World Trade Organization and the shrinking of 'development space'", *Review of International Political Economy*, 10(4): 621-44.
- WTO (2018). *Understanding the WTO: What we stand for*, available at https://www.wto.org/english/thewto_e/whatis_e/what_stand_for_e.htm
- Wtodarczyk, Robert (2014): "Is There a Global Currency War?", *Entrepreneurial Business and Economics Review*, 2(2):21-30.
- Yoo, Ji Yeong and Ahn, Dukgeun (2016): "Security Exceptions in the WTO System: Bridge or Bottleneck for Trade and Security", *Journal of International Economic Law*, 19: 417-44.
- Yong, Wang and Pauly, Louis. (2013): "Chinese IPE debates on (American) hegemony", *Review of International Political Economy*, 20(6): 1165-1188.
