



AN OVERVIEW OF DYNAMICS OF ASIAN FINANCIAL MARKETS

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Abstract: Immense expansion and unparallel qualitative transformation in the institutions, instruments and regulatory mechanisms have transformed the global financial markets in the developed nations as well as the emerging economies of Asia and Africa. Present paper attempts to examine the changing dynamics of Asian financial markets during 2010-2019. Paper finds that average GDP growth rate has been quite sluggish in both EU and MAE while it has been quite optimistic in EDA, ASEAN-5 and India. Net direct investment shows consistency while net portfolio investment, net other investment and net financial derivatives show inconsistency and fluctuations in EDA. Average financial account balance of EDA is calculated as positive. Average values of net portfolio investment and net financial derivatives are calculated as negative, indicating outflow of such investment from EDA. Current account balance of MAE, EU, EDA and ASEAN-5 indicate consistency and stability. Yearly and monthly External commercial borrowings in India show high level of consistency. In most of the larger Asian emerging economies, large amount of foreign exchange reserves accumulated by governments and central banks can be used to assist private firms. Financial incentives should be generated so as to discourage foreign exchange borrowing by exporters or domestic corporate.

Key words: Emerging and Developing Asia, Financial Crisis, Investment, Volatile Capital Flows.

INTRODUCTION

Immense expansion and unparallel qualitative transformation in the institutions, instruments and regulatory mechanisms have transformed the global financial markets in the developed nations of Europe, Asia, US as well as emerging economies of Asia and Africa. Earlier domestic financial markets were largely disconnected with each other and financial intermediaries in each country operated mainly in that country. Today, foreign exchange market, Eurocurrency and Euro bond markets are very

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much global in their operations. Financial markets help the transfer of surplus units (savers) to deficit units (borrowers). Savers aim to maximize their savings returns while the borrowers try to minimize their borrowing costs. Since 1997-98 financial crisis, Asian emerging economy has reduced currency mismatches significantly. Dependence on borrowing in foreign currency has been reduced to certain extent by the development of local currency bond markets. During global financial crisis, the percentage share of debt denominated in foreign currency remained significant in Philippines and Indonesian economies while short term debt of South Korean companies exceeded that in other Asian economies (Gagnon J.E., 2012). Determinants of capital inflows are essential to be identified to manage volatile capital flows and their disruptive potential (Vladimir K. and Dao To-Nhu, 2016). A study by McKinsey Global Institute notes that investment demand will account for about 25 percent of global GDP (roughly 24 trillion USD) by 2030, of this China will account 6 trillion USD and India more than 2 trillion USD. Over 10-20 years, savings growth rates are likely to slow down regionally and globally each year. Real interest rates are, likely to rise so long as there is such mismatch between saving and investment. The higher cost of capital reflected in higher interest rates would in turn reduce investment, thus weak global growth rates. Present paper attempts to examine the changing dynamics of Asian financial markets during 2010-2019. Paper has been organized like this. Section 2 throws light upon Brief Literature Review. Section 3 gives Theoretical Framework. Section 4 describes Data Sources and Methodology and Section 5 treats Empirical findings and Discussion. Section 6 is Conclusion and Policy Initiatives.

2. BRIEF LITERATURE REVIEW

Mitra S. and Ng T.H. (2012) find that substantial wave of capital inflows during second quarter of 2009 has put several threats and challenge to macroeconomic management and financial stability of Asia's emerging economies. Further, rising demand for Asian assets could lead to asset bubbles and result in appreciation of domestic currencies. Such currency appreciation would hamper the export competitiveness of these economies. The capital flows in Asian region may be the result of combination of some pull and push factors. Pull factors include sound monetary policy and domestic deregulation while push factors may be excessive liberal monetary policy in advanced economies and minimal returns in those markets. Based on meta-regression analysis approach Jeanne, Subramanian and Williamson (2012) examine the long term relationship between financial globalization and growth in Asia. They find little evidence of positive impact of financial globalization upon growth globally. Further, a negative relationship

between financial globalization and growth was found to be more prevalent in the sample of East Asia economies, than in the emerging Asia sample. Nicholas Vernon (2012) examines that Asia's share in the global financial system has grown dramatically over the past decade but representation of the region in the leadership of global financial standard setting bodies and authorities has not increased proportionately. Cyn-Young Park (2012) examines the multiple dimensions of integration of capital markets by comparing the evolution of financial integration achieved so far both at regional and global levels. Regional integration in emerging Asia's equity markets has increased but local currency bonds market of the region is still in infancy. There is need of strengthening of regional bond markets as a means of reducing dependence on short term foreign exchange denominated debt. Asian region countries may utilize their excessive foreign exchange reserves in developing their regional and domestic bond markets. Seok Baek and Pil-Kyu (2012) find that a policy mix is required for the development of a domestic bond market. Competition among banking sector and inflation should be managed along with control of exchange rate volatility. There is need of sound social institutions and legal framework. Availability of appropriate and timely information related to credit quality and creation of multi currency bonds are the desirable measures to strengthen Asian financial markets. They also find that economies affected more by financial crisis developed rapid bond market growth, as compared to economies not affected by the crisis. Chan K.C., Karolyi A. and Stulz R.M. (1992) find that risk premium on US assets is significantly influenced by foreign elements. With the use of bivariate GARCH-in-mean process, they find that there is positive relationship between conditional expected excess return on US stocks and conditional covariance of the return of these stocks with the return on a foreign index. Finda M.A. and Aboura S. (2020) investigate the volatility and skewness of risk premium spillovers among US, UK, Germany and Japan stock markets. They find that during periods of stress and uncertainty, cross market spillovers rise and these increases are reflected by a decrease in within market effects. Iwan J. Aziz (2012) notes that since, the origin of Asian financial crisis was quite different from earlier crisis, it will be difficult to estimate the onset of future financial crises. Further, it will be a challenging task for ASEAN economies to frame financial safety nets and policies against the adverse impacts of future crises.

3. THEORETICAL FRAMEWORK

Function of an efficient financial market is to achieve an optimal allocation of surplus funds between alternative uses. It offers a variety of instruments

to savers for portfolio diversification (Apte P, 2012). GDP, share of international trade in GDP, capitalization of stock market, share of international bonds in the total value of bonds outstanding and financial openness are the factors which positively impact currency internationalization in an economy while inflation is negatively correlated with currency internationalization. Bond market development is critical to internationalizing the currencies of Asian markets and conversely currency internationalization facilitates development of both the domestic and international bond market. For policy makers, a major issue related to globalization is the additional volatility likely to occur in the home economy capital market as a result of globalization. Under globalization, investor gain is diminished by increased volatility if investor is not compensated properly. Further, deregulation of flows of equity capital in Asian equity markets has caused significant spillover of volatility originating in the capital markets in both Europe and US (Hyun S. and Inuki S., 2012). Per capita income growth, trade openness, and change in stock market capitalization are important determinants of capital inflows to developing Asia. Trade openness is found to be an important factor in accelerating the volatility of capital inflows, while change in stock market capitalization, global liquidity growth and institutional quality dampen the capital volatility. Regional factor plays an important role in determining the size and volatility of capital inflows in emerging Europe and emerging Latin America (Vladimir K. and Dao To-Nhu, 2016). Capital Asset Pricing Model (CAPM) suggests that variance of returns measures the market portfolio risk. Substantial demand for capital over coming decades is likely to lead to greater investment flows into Asia and greater integration of the regional capital markets. Much of Asia's massive investment requirement (estimated to be 750 billion USD per year over the period of 2010-2020) for productive, infrastructure and urban housing assets may have to be fulfilled from its own savings (Subramaniam R. and Legal M. 2012).

4. DATA SOURCES AND METHODOLOGY

Data has been sourced from World Economic Outlook, March 2019, IMF database, Washington DC and Monthly Review of the Indian Economy, April 2019, CMIE. Averages and Coefficient of variance have been calculated. Tables and figures have been drawn. The coefficient of variation (CV) is a statistical measure of the dispersion of data points in a data series around the mean. The coefficient of variation represents the ratio of the standard deviation to the mean, and it is a useful statistic for comparing the degree of variation. CV value less than 1 shows high consistency while CV greater than 1 indicates low consistency and high volatility. Time period

has been taken from 2010 to 2019. Annual data has been taken but for External commercial borrowings monthly data has also been taken.

5. DISCUSSION AND EMPIRICAL FINDINGS

5.1. Emergence of Cross Border Capital Flows

Globalization of financial markets started during the eighties. Growing as well as continuously shifting savings and investment imbalances within individual countries are transferred in their current account balances and thus leading to ample cross border capital flows. During the latter half of 1970s, the massive surpluses of OPEC countries were rechannelised into the economies of oil importing nations. During the eighties, the large current account deficits of the US were financed from the growing surpluses in balance of payments of Japan and Germany. During the 1990s, developing economies as a group had experienced huge current deficits and had to resort to international financial markets to bridge the imbalance between their incomes and expenditures arising due to gap between concessional aid from bilateral and multilateral agencies and the requirements of these economies (Apte P,2012). Table 1.1 shows the GDP growth rates, global savings- investment balance of Most Advanced Economies (MAE-G7) and European Union (EU). It shows that average GDP growth rates have been 1.86 percent and 1.7 percent for MAE and EU nations respectively. After 2010 GDPs of both MAEs and EU nations recover and reach more than 2 percent in 2015, 2017 and 2018 and in 2019 again fall below 1.5 percent. Average investment rates have been calculated as 20.72 percent and 20.59 percent for MAE and EU nations respectively. Average saving rates have been 20.5 percent and 21.8 percent for MAE and EU nations respectively. Investment rate has been rising slowly and remains greater than gross national savings percent, except 2014, 2015 and 2017 in MAEs. In EU nations, since 2011 saving rate has always been greater than investment rates. It may be concluded that in MAE, average saving rate (20.5 percent) is found to be smaller than average investment rate(20.7 percent). In EU, EDA, ASEAN-5 and India average saving rate (21.8 percent), (42.27 percent), (31.2percent) and (33.93 percent) is found to be larger than average investment rate (20.29 percent), (41.2 percent),(28.78 percent) and (31.59 percent) respectively. Average GDP growth rate has been quite sluggish in both EU and MAEs i.e. 1.7 percent and 1.86 percent respectively while average GDP growth rate has been quite optimistic in EDA, ASEAN-5 and India i.e. 7.1 percent, 5.32 percent and 7.38 percent respectively.

Table 1.1: GDP growth rates, Savings (GNS) and Investment (percentage of GDP) of Most Advanced Economies¹ (MAE) G7 and European Union(EU)

<i>Year</i>	<i>MAE (G7) GDP, constant prices Percent change</i>	<i>MAE (G7) Investment Percent of GDP</i>	<i>MAE (G7) GNS Percent of GDP</i>	<i>EU GDP, constant prices Percent change</i>	<i>EU Investment Percent of GDP</i>	<i>EUGNS Percent of GDP</i>
2010	2.802	19.663	18.707	2	20.369	20.34
2011	1.61	20.27	19.565	1.829	20.849	21.28
2012	1.422	20.421	20.143	-0.311	19.638	20.84
2013	1.454	20.574	20.278	0.329	19.304	20.87
2014	1.931	20.914	21.114	1.866	19.741	21.36
2015	2.113	20.969	21.225	2.439	20.068	21.87
2016	1.437	20.583	20.622	2.104	20.363	22.3
2017	2.166	20.911	21.092	2.678	20.573	23.13
2018	2.056	21.299	21.08	2.127	20.98	23.05
2019	1.648	21.577	21.136	1.557	21.021	22.97
Average	1.86	20.72	20.5	1.7	20.29	21.8

Source: World Economic Outlook, March 2019, IMF database, Washington DC.

Tables 1.2 shows GDP growth rates and global savings- investment balance of Emerging and Developing Asia (EDA), ASEAN-5 and India. It shows that average GDP growth rates for EDA, ASEAN-5 and India have been 7.1percent, 5.32 percent and 7.38 percent respectively. GDP growth rate continues to fall from 9.64 percent in 2010 to 6.31 percent in 2019 in EDA. ASEAN-5 GDP growth rate falls with certain fluctuations from 6.91 percent in 2010 to 5.14 percent in 2019. India's GDP growth rate falls with certain fluctuations from 10.3 percent in 2010 to 7.26 percent in 2019. Average investment rates for EDA, ASEAN-5 and India have been 41.2 percent, 28.78 percent and 31.59 percent respectively. Saving rate has been larger than investment rate in EDA except 2018 and 2019 when saving rate became smaller than investment rate. Except year 2013, in all the years saving rate has been larger than investment rate in ASEAN-5. In India, since 2011, saving rate has always been larger than investment rate. Average saving rates for EDA, ASEAN-5 and India have been 42.27 percent, 31.2 percent and 33.93 percent respectively. Investment rate has been rising slowly and remains greater than gross national savings percent, except 2014, 2015 and 2017 in MAEs. In EU nations, since 2011 saving rate has always been greater than investment rates. Thus it may be inferred that in MAE, average saving rate (20.5 percent) is found to be smaller than average investment rate (20.7 percent). In EU, EDA, ASEAN-5 and India average saving rate (21.8 percent), (42.27 percent), (31.2 percent) and (33.93 percent) is found to be larger than average investment rate (20.29 percent), (41.2 percent), (28.78 percent) and

Table 1.2: GDP growth rates, Savings(GNS) and Investment (percentage of GDP) of Emerging and Developing Asia (EDA)², ASEAN-5² and India

Year	EDA GDP, constant prices Percent change	EDA Investment Percent of GDP	EDA GNS Percent of GDP	ASEAN- 5 GDP, constant prices Percent change	ASEAN-5 Investment Percent of GDP	ASEAN-5 GNS Percent of GDP	India GDP, constant prices Percent change	India GNS Percent of GDP	India's Investment percent
2010	9.642	42	44.44	6.91	28.593	31.322	10.3	36.502	33.701
2011	7.852	42.97	43.88	4.72	28.58	31.155	6.64	39.59	35.402
2012	6.999	42.7	43.73	6.20	29.587	29.899	5.46	38.348	33.54
2013	6.909	42.31	43.1	5.06	28.977	28.807	6.39	34.024	32.29
2014	6.812	42.07	43.60	4.62	28.409	29.471	7.41	34.268	32.95
2015	6.771	40.52	42.49	4.9	28.018	29.523	7.99	32.12	31.07
2016	6.718	39.68	41.09	5	28.245	30.256	8.17	30.21	29.59
2017	6.599	40.11	40.97	5.4	28.635	30.697	7.17	30.94	29.11
2018	6.41	40.20	40.07	5.24	29.207	29.768	7.05	31.59	29.07
2019	6.314	39.39	39.31	5.14	29.552	30.11	7.26	31.74	29.27
Average	7.11	41.2	42.27	5.32	28.78	31.2	7.38	33.93	31.59

Source: World Economic Outlook, March 2019, IMF database, Washington DC.

(31.59 percent) respectively. Average GDP growth rate has been quite sluggish in both EU and MAEs i.e. 1.7 percent and 1.86 percent respectively while average GDP growth rate has been quite optimistic in EDA, ASEAN-5 and India i.e. 7.1percent, 5.32 percent and 7.38 percent respectively.

Table 1.3 and figures in Appendix 1 show financial Account, net FDI, net portfolio investment, net financial derivatives, net other investments and change in reserves of MAE and EDA. It shows that financial account balance (FAB) has been negative in MAE except in 2016 and 2017 when FAB was positive. Financial account balance has been negative in EDA since 2016 otherwise from 2010 to 2015 this balance has been positive. Net Direct investment in MAE has been declining but remains positive till 2014, becomes negative for some years, rapidly rises and becomes positive in 2017 and again falls in 2019 while net direct investment in EDA remains negative throughout the years. Net portfolio investment remains negative throughout the years except it becomes positive in years 2015, 2016 and 2019 in MAE while it remains negative throughout the years in EDA except years 2015 and 2016 when it becomes positive. Net financial derivatives have been negative till 2012, become positive with certain fluctuations in MAE. Net Financial derivatives have been positive in most of the years in EDA , becomes negative in few years. Other net investment has also been negative throughout the years in MAE while it has been positive and rising with certain fluctuations in EDA. Except negative change in 2015 and 2016, change in reserves has been declining but remains positive in EDA. Except negative change in 2012, change in reserves has been declining with fluctuations but remains positive in MAE. Average values and coefficient of variation of FAB, Net Direct investment, Net portfolio investment and Net financial derivatives for MEA and EDA are also calculated. Different components of investment in MAEs such as Net Direct investment and Net portfolio investment indicate CV greater than 1. Net other investment shows CV less than 1 while CV of net financial derivatives is very high at 15.86. Similarly for EDA, CV of Net Direct investment is less than 1 and CV of net portfolio investment, net other investment and net financial derivatives are calculated as greater than 1, showing severe inconsistency and fluctuations. Average values of net other investment and net portfolio investment in MAE show negative values, indicating the outflow of investment from MAEs. Average financial account balance of MAEs is calculated as negative. Average financial account balance of EDA is calculated as positive. Average values of net portfolio investment and net financial derivatives are calculated as negative, indicating outflow of such investment from EDA.

Table 1.3 : Financial Account, FDI, Portfolio Investment, Financial Derivatives, other Investments and change in Reserves in (MAE) G7 and EDA

Year	MAE (G7) Financial account balance net, Billion USD	MAE(G7) Direct investment, net, Billion USD	MAE(G7) Portfolio investment, net Billion USD	MAE(G7) Financial derivatives, net Billion USD	MAE(G7) Other reserves Billion USD	MAE(G7) Change in reserves Billion USD	EDA Financial account balance, net, Billion USD	EDA Direct investment, net, Billion USD	EDA Portfolio investment, net Billion USD	EDA Financial derivatives, net Billion USD	EDA, Other Change in reserve, Billion USD	
2010	-350.45	270.775	-722.09	-75.227	105.474	70.61	145.92	-224.49	-93.327	0.193	-98.385	563.58
2011	-451.07	404.104	-1,069.9	-34.42	42.438	206.75	64.46	-277.45	-57.951	-0.267	-29.298	431.34
2012	-407.48	282.2	-264.43	-31.96	-382.336	-10.96	16.91	-220.53	-115.56	1.477	215.57	139.12
2013	-284.18	239.133	-497.84	137.35	-212.189	49.37	35.64	-273.41	-64.839	-2.001	-73.555	450.62
2014	-58.85	225.091	-14.203	17.661	-305.763	18.37	146.89	-203.57	-124.366	0.743	279.086	195.32
2015	-40.62	-65.756	192.862	-91.909	-121.514	45.70	85.78	-139.85	81.656	-1.34	460.59	-316.10
2016	19.62	-181.996	196.59	35.939	-44.832	13.91	-32.04	-26.86	30.94	-9.973	356.48	-381.76
2017	8.32	304.547	-132.041	67.514	-261.236	29.53	-95.16	-144.05	-47.545	2.618	-102.3	197.13
2018	-135.81	-126.638	-34.44	17.95	-58.653	66.03	-95.45	-188.42	-27.074	1.684	110.41	8.412
2019	-171.47	69.089	113.505	-1.502	-381.559	29.08	-11.26	-187.93	-22.959	1.974	136.44	61.462
Average	-187.2	142.06	-223.2	4.14	-162.02	51.8	26.17	-188.66	-44.1	-0.49	125.50	61.46
CV	-0.94	1.48	-1.82	15.86	-0.95	1.21	3.09	-0.41	-1.48	-7.88	1.56	4.70

Source: World Economic Outlook, March 2019, IMF database, Washington DC.

Tables 1.4 and figures in Appendix 1 show the current account balances of the major advanced economies (MAE-G7), European Union, ASEAN-5, Emerging and Developing Asian economies. Current account balance has been positive and rising with some fluctuations till 2017 in EDA but becomes negative in 2018 and 2019. Current account balance has always been negative throughout the years in MAE. Current account balance has been positive and rising consistently in EU. Current account balance has been positive and fluctuating in ASEAN-5. Average current account as percent of GDP has been -.54 percent, 1.52 percent, 1.07 percent and 1.2 percent for MAE, EU, EDA and ASEAN-5 respectively. Average exports are calculated as 7,598.52 billion USD smaller than 7,985.29 billion USD imports for MAE while exports valued as 3,862.71 billion USD are greater than 3,718.55 billion USD imports for EDA respectively. CV value is calculated as 0.068 for exports, and 0.069 for imports of MAE while it is 0.14 for exports and 0.16 for imports in EDA.

5.2. Diversification of Asset Portfolios

Majority of investors prefer diversification of their asset portfolios, thus resulting into cross border financial flows even though there are current account balances. It has been established that risk element is reduced significantly by global diversification of portfolios. Without liberalization and integration of financial markets it is almost impossible for global portfolios to cause the tremendous growth in cross border financial transactions. Significant relaxation of regulations in capital and financial markets has already been initiated in almost all major advanced economies (G7), European Union, ASEAN-5, emerging and developing Asian economies like India and China. Several restrictions and controls are being gradually slashed away such as exchange controls, functional and geographical restrictions on financial institutions. Restrictions on the issue and types of securities, their portfolios, interest rate ceilings and withholding taxes, barriers to foreign entities accessing national markets and to foreign financial intermediaries offering various types of financial services are being relaxed. According to changing investor preferences and increasingly complex needs of the borrowers, financial markets have also become highly innovative, by designing new instruments and highly flexible risk management products.

Consequently, there is emergence of a vast and integrated global financial market crossing national boundaries with least government intervention with some exceptions. In some European countries such as Italy, government strictly restricts much of the outward flow of capital by exercising control over pension funds, insurance companies, mutual funds

Table 1.4: Current account balance of MAE-G7, EU, EDA and ASEAN-5

Year	MAE current account balance in billion USD	MAE current account balance as percentage of GDP	MAE exports of goods and services in billion USD	MAE imports of goods and services in billion USD	EU current account balance in billion USD	EU current account balance as percentage of GDP	EDA current account balance in billion USD	EDA current account balance as percentage of GDP	EDA imports of goods and services in billion USD	EDA exports of goods and services in billion USD	ASEAN-5 current account balance in billion USD	ASEAN-5 current account balance as percentage of GDP
2010	-248.49	-0.754	6,584.74	6,986.41	-5.1	-0	235	2.4	2,626.45	2,810.80	49	2.6
2011	-280.24	-0.8	7,540.31	8,083.19	77.1	0.4	97.6	0.8	3,361.67	3,449.71	6.3	0.3
2012	-317.77	-0.902	7,509.07	8,017.33	208	1.2	123	1	3,556.79	3,655.2	-4	-0
2013	-244.91	-0.695	7,673.04	8,076.76	285	1.6	101	0.7	3,725.49	3,879.2	22	1.1
2014	-216.45	-0.599	7,946.31	8,321.80	303	1.6	230	1.5	3,843.52	4,023.3	31	1.5
2015	-149.58	-0.431	7,247.94	7,535.84	299	1.8	311	2	3,469.06	3,796.44	43	2
2016	-99.91	-0.28	7,199.29	7,423.79	322	1.9	228	1.4	3,422.18	3,672.86	48	2.1
2017	-53.023	-0.144	7,713.40	7,982.93	445	2.6	152	0.9	3,935.19	4,099.38	14	0.6
2018	-120.81	-0.311	8,253.52	8,643.86	388	2.1	-25	-0	4,503.85	4,499.53	15	0.6
2019	-175.85	-0.441	8,317.57	8,780.96	367	2	-16	-0	4,741.32	4,740.70	24.92	1.2
Average	-190.70	-0.54	7,598.52	7,985.29	268.90	1.52	143.66	1.07	3,718.55	3,862.71	0.76	0.75
CV	-0.45	-1.07	0.068	0.069	0.52	0.52	0.77	0.73	0.16	0.14		

Source: World Economic Outlook, March 2019, IMF database, Washington DC.

and unit trusts. Capital markets of Korea and Taiwan allow limited access to foreign investors. Even in advanced economy like Germany, corporate financing is structured in such a manner that most of the companies rely on loans from domestic banks for investment and investors do not show much interest in foreign issues. Otherwise, the dominant trend among most of the economies is towards globalization of financial markets.

Relative importance of different types of financial instruments has continuously been changing. External bonds and syndicated credits are the two major sources of funds for developing nations. Due to insufficient amount of concessional aid Indian companies started to approach external capital markets towards the end of seventies (Joshi, 1996). Syndicated bank loans, buyers' credit and lines of credits have been major sources of borrowings in India, with less deployment of foreign and Eurobonds. A number of companies made issues of euro convertible bonds after 1993. Earlier, only apex financial institutions and public sector giant ONGC used to access German, Swiss, Japanese and Eurodollar bond markets. Asian crisis in last years of last millennium, sub prime crisis in US and the consequent drop in the risk demand of major global investors had lowered the creditworthiness of borrowers from emerging economies but it did not last long (Apte, 2012).

5.3. Speculation in Foreign Currency

In global free foreign exchange markets, a speculator borrows a currency with a lower interest rate and deposits it in the currency with a higher interest rate. The speculator gains if high interest rate currency does not depreciate by the same percentage of interest rate differential or what is referred to as "the carry". Speculation is not liked especially among the central banks of emerging economies. When a country tightens monetary policy, the exchange rate goes above its long-run level to a point from where it will steadily depreciate by the amount of the differential. This explains the large amount of volatility in floating exchange rates. In the conditions of high risk and high yields, domestic interest rates are raised to control the economy. It causes the appreciation of currency, and consequently fall of import prices. Capital inflow is encouraged into local banks, thus keeps bank lending high. In periods of gloom, raising interest rates in the countries with risky currencies fail to attract capital inflows. Rather capital outflows accelerate, and thus drive the currency down in a vicious cycle. In such periods, safe havens receive an uncontrollable amount of returning capital. International capital flows either in abundance or in scarcity, therefore control on monetary policy is very important. There are more chances of loss of control of monetary policy in open economies (Persaud A, 2015).

5.4. International Policy Responses

Many countries adopted measures of capital controls, stable exchange rates and high levels of foreign exchange reserves. Emerging economies, experienced higher economic growth than before, especially in the 21st century. It had also been the period of foreign exchange reserve accumulation. Countries with substantial reserves performed better in the subsequent period of international crisis 2008-12. In the advanced economies, reserve accumulation is considered to be a savings glut while international financial institutions are forcing emerging economies to move away from managed exchange rates and high reserves (Persaud, 2015). Corporate access to external debt is regulated by several guidelines in India. Purpose of borrowing, ceiling on the cost of funding and minimum average maturities are clearly specified and RBI prior approval is required for borrowing more than 500 million USD. For example, non financial corporate in India can raise external commercial borrowings (ECBs) up to 500 million USD in a financial year under the automatic route (Apte P, 2012). Table 1.5 and figures in Appendix 2 show monthly ECBs of India from 2012 to 2019. ECBs have been fluctuating with upward trend in most of the years. Average monthly ECBs value stands highest at 4.38 billion USD in the month of March, otherwise the monthly average values of ECB have been in the range of 2.09 to 2.63 billion USD. CV of monthly ECBs for all the months has been less than 1, indicating high level of consistency. March month's highest CV (.78) is followed by months of August (.67) and April (.61).

Table 1.5: India's External Commercial Borrowings (billion USD)

Month	2012	2013	2014	2015	2016	2017	2018	2019	Average	CV
January	2.7	3.51	1.79	2.59	1.39	1.8	0.54	2.41	2.09	.44
February	2.6	2.34	4.3	2.26	1.35	1.1	2.32	2.81	2.39	.41
March	3.83	5.08	3.55	2.66	1.52	1.69	4.52	12.176	4.38	.78
April	2.73	1.12	3.2	0.72	0.3	1.3	3.76	3.15	2.04	.65
May	3.37	2.48	1.46	2.39	1.31	0.52	1.34	3.48	2.04	.52
June	1.99	1.95	1.88	3.15	1.07	1.61	2.66	5.39	2.46	.54
July	1.07	3.7	3.72	2.14	1.2	1.89	2.17	-	2.27	.47
August	2.36	2.3	0.5	0.75	3.17	1.56	4.82	-	2.21	.67
September	2.77	3.34	3.17	2.61	1.57	3.28	1.7	-	2.63	.28
October	4.29	1.92	2.77	2.11	1.47	4.09	1.41	-	2.58	.46
November	1.34	2.17	3.49	3.16	0.277	3.02	1.99	-	2.21	.51
December	1.14	4.56	0.63	3.03	2.48	1.3	3.76	-	2.41	.61
Grand total	27.49	34.47	30.46	27.57	17.107	23.16	30.99	29.42		

Source: Monthly Review of the Indian Economy, April 2019, CMIE

Table 1.6 shows that India's total external commercial borrowings have been more than 30 billion USD in 2013, 2014 and 2018 and have been rising with fluctuations. In 2019, it stands at 29.4 billion USD in a period of 6 months. Average yearly ECB is calculated as 29.42 billion USD. CV of yearly ECB is calculated as .19, indicating high level of consistency.

Table 1.6: India's External Commercial Borrowings in Billion USD

Year	2012	2013	2014	2015	2016	2017	2018	2019	Average	CV
Amount	27.49	34.47	30.46	27.57	17.11	23.16	30.99	29.42	27.58	.19

Source: calculated by Author

6. CONCLUSION AND POLICY INITIATIVES

It may be concluded that in MAE, average saving rate is found to be smaller than average investment rate. In EU, EDA, ASEAN-5 and India average saving rate is calculated to be larger than average investment rate. Average GDP growth rate has been quite sluggish in both EU and MAE while average GDP growth rate has been quite optimistic in EDA, ASEAN-5 and India. Net financial derivatives show very high inconsistency and volatility, net direct investment and net portfolio investment indicate high inconsistency while net other investment shows consistency in MAE. Similarly net direct investment shows consistency while net portfolio investment, net other investment and net financial derivatives show inconsistency and fluctuations in EDA. Outflow of investment is found in MAE. Average financial account balance of MAE is calculated as negative. Average financial account balance of EDA is calculated as positive. Average values of net portfolio investment and net financial derivatives are calculated as negative, indicating outflow of such investment from EDA. Average value of current account balance of MAE has been negative while in EU, EDA and ASEAN-5 these values have been positive. Current account balance of MAE, EU, EDA and ASEAN-5 indicate consistency and stability. Average exports are smaller than imports in MAE while average exports are larger than imports in EDA. Exports are found to be more consistent than imports both in MAE and EDA. ECBs in India have been fluctuating with upward trend in most of the years. Yearly and monthly ECBs show high level of consistency but with highest inconsistency in the month of March followed by months of August and April. Therefore certain reforms are required to be implemented to promote and strengthen international capital flows in Emerging and developing Asian economies. There is urgent need of strict bank capital and liquidity requirements as well as standards for risk management and financial stability. Macro-prudential tools may prove to be more flexible and less discriminatory method for capital controls. If the macro tools

moderate the cycle of returns, they may also affect the volatility of international capital flows and the exchange rate (Persaud, 2015). Further, level of investment in infrastructure and other development related projects has been lower than the rates required for sustaining high growth rates in Asian nations due to the excessive diversion of their savings towards Europe and US. No doubt, these economies are able to attract foreign investment; this is not necessary that such flows will be efficiently employed. In most of the larger Asian emerging economies, large amount of foreign exchange reserves accumulated by governments and central banks can be used to assist private firms which are borrowing heavily in foreign currency. Financial incentives should be generated so as to discourage foreign exchange borrowing by exporters or domestic corporate. A strong bond market can also play an important role in strengthening the domestic capital market, so monitoring and managing capital inflows into local currency (LCY) bond markets, may profoundly impact domestic fiscal and monetary policies in these economies.

Notes

1. MEA-G7 includes Canada, France, Germany, Italy, Japan, UK and US.
2. EDA consists of countries like Bangladesh, Bhutan, China, Cambodia, Brunei, Darussalam, Fiji, India, Indonesia, Kiribati, Myanmar, Maldives, Malaysia, Nepal and Sri Lanka.
3. ASEAN-5 consists of countries like Malaysia, Thailand, Singapore, Philippines and Indonesia.

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Appendix 1

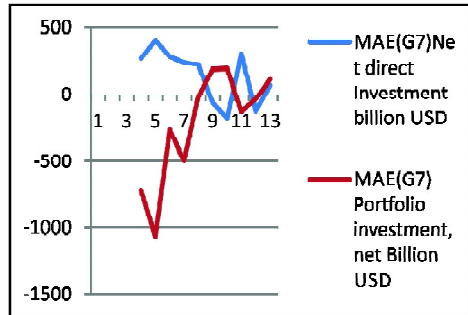


Figure 1.1

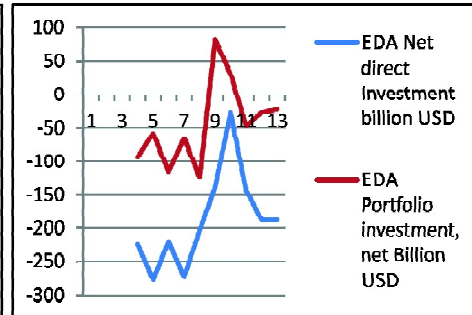


Figure 1.2

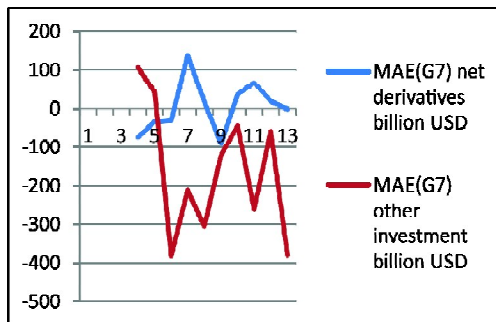


Figure 1.3

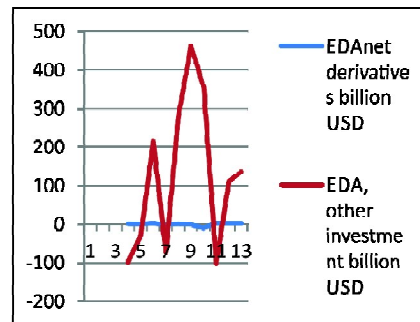


Figure 1.4

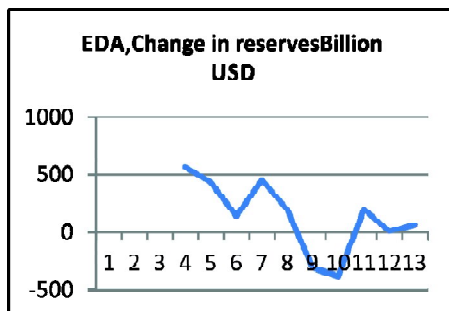


Figure 1.5

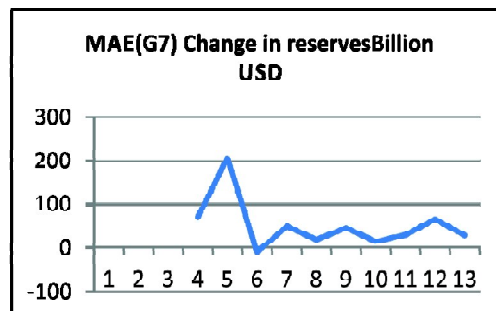


Figure 1.6

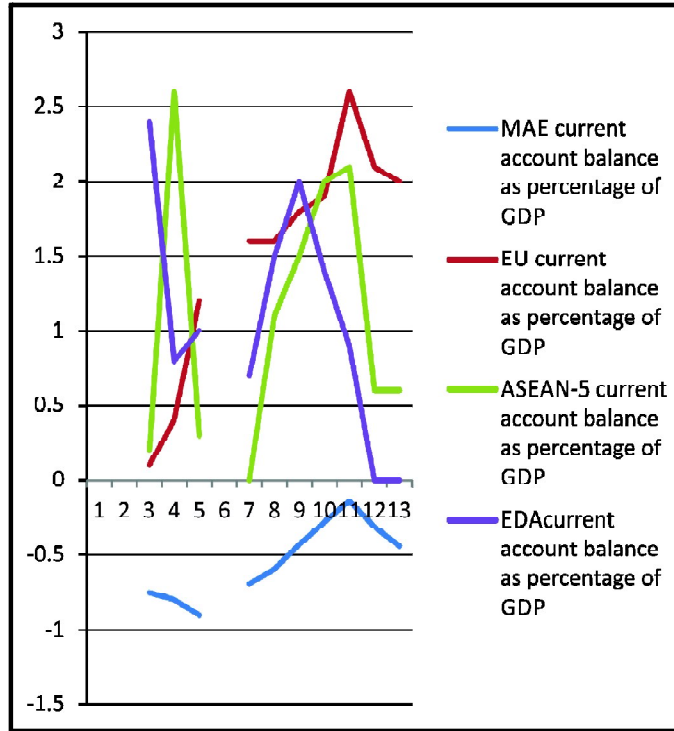


Figure 1.7

Appendix 2

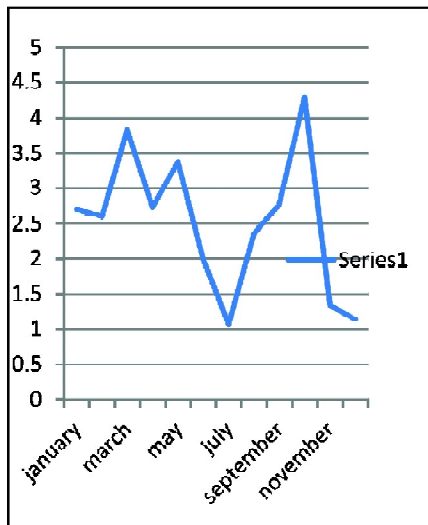


Figure 2.1: Monthly ECBs in Year 2012

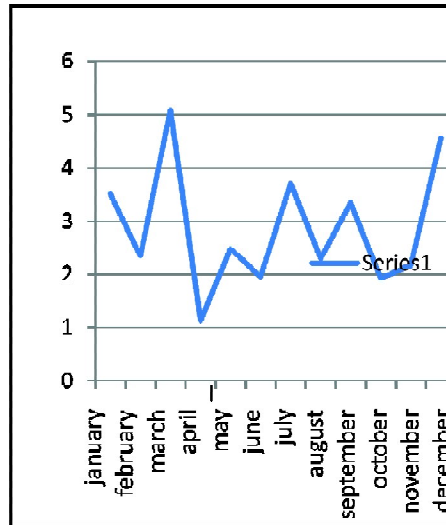


Figure 2.2: Monthly ECBs in Year 2013

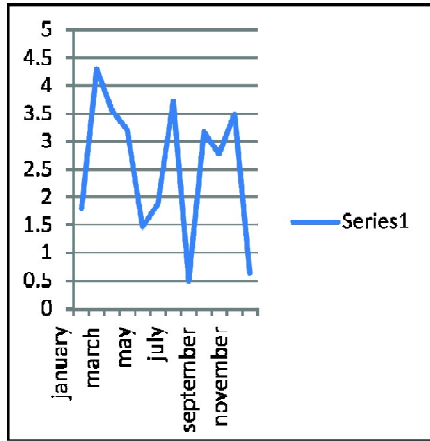


Figure 2.3: Monthly ECBs in Year 2014

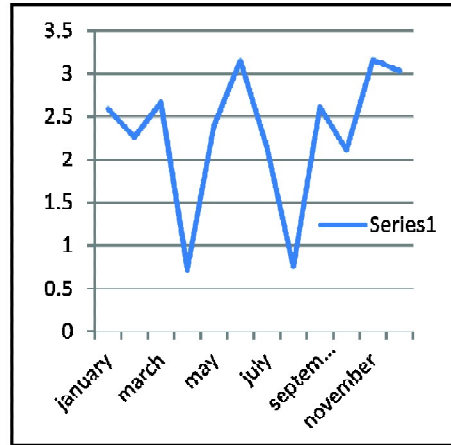


Figure 2.4: Monthly ECBs in Year 2015

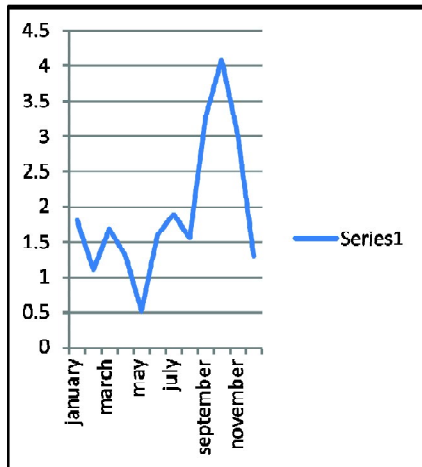


Figure 2.5: Monthly ECBs in Year 2016

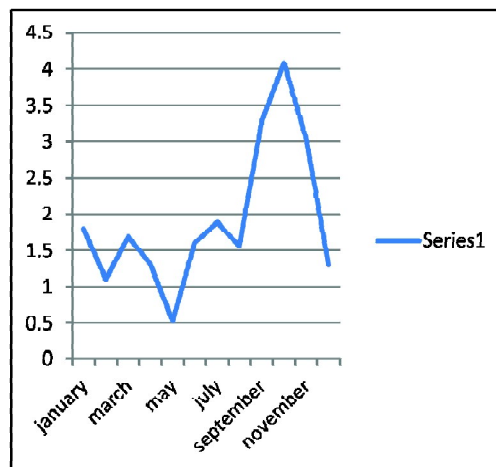


Figure 2.6: Monthly ECBs in Year 2017

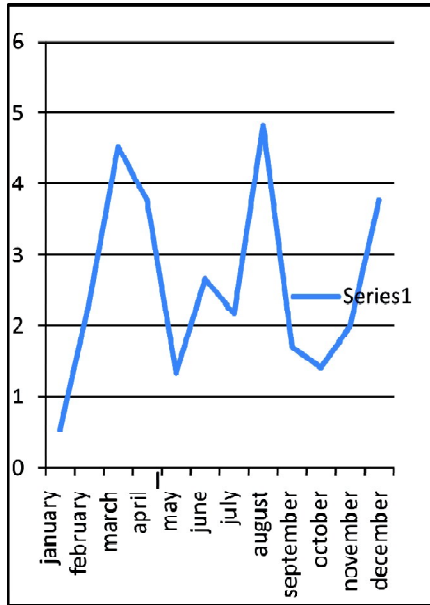


Figure 2.7: Monthly ECBs in Year 2018

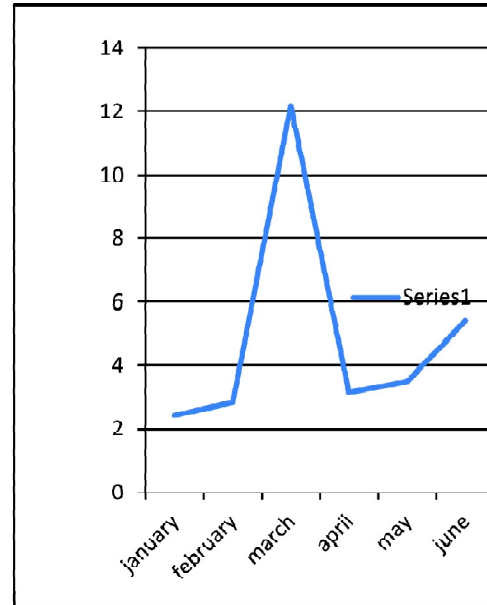


Figure 2.8: Monthly ECBs in Year 2019