CHAPTER-1

Introduction

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1.1 Prologue:

In an economy domestic financial market integration, in general, implies horizontal linkage of the segments of financial market (RCF 2005-06). It allows market participants to realize similar rates of returns after allowing for risk and tenor in different segments of financial market. In a completely integrated market system, savers, investors and intermediaries face common and 'market-segment-specific' risks but price only the common risk as the completely integrated segments act as one entity and the 'specific market-segment' risk turned to a minuscule risk, if not eliminated. Scholars argue that, integration of the segments and the consequent reduced opportunities for arbitrage are essential for stabilizing the flow of funds to different segments of the financial market quickly and efficiently (Obstfeld 1994, Mohan 2005). It is posited to be an important aspect for healthy and balanced growth for all the segments of the financial system. Domestic integration is likely to inspire and increase the efficiency of the financial intermediaries. Hence, greater efficiency stimulates the demand for funds and financial services which ultimately results into an increased size of market that delivers more growth to both the developed and developing economies (see, Trichet 2005, Lane et al., 2003). Influenced heavily by the forceful arguments of**,** especially, the neoclassical theorists, peer domestic pressure groups and residents in an economy as a whole, policy planners of several economies all over the globe have experimented several policy measures either to integrate the financial markets—internationally and domestically or to increase the degrees of integration and reap the benefits which is mostly argued as the ultimate outcome of globalization. Over the past few decades, spurred by deregulation, globalization and advances in information technology, financial markets all over the world have witnessed growing integration within as well as across boundaries, (see Ray et al., 2009, Prasad et al., 2003, Stulz, 1981).

In India, one of the important objectives of the economic reforms that has initiated in early 1990's is to integrate the various segments of the financial market by transforming the structure of markets, reducing arbitrage opportunities, acquiring more and more efficiency in market operation of intermediaries and increasing efficacy of monetary policy in the economy (Reddy, 1999, 2005). Efficient allocation of funds across the financial segments and uniformity in the pricing of various financial instruments through greater inter-linkages of financial markets has been one of the basic objectives of the Indian new economic policy and the recent monetary policies are also following the same philosophy. Scholars advocate that, integration not only allows the government machinery to transmit key price signals, but also promotes domestic savings and investments. In turn, these create opportunities for the financial sector of a nation to emerge as a financial hub at the regional or the international level. Integrated financial markets enhance equal access to financial services for the public as well as for companies, and institutions by innovative and cost-effective intermediation, informational efficiency, and market discipline (see Mohan, 2005). Indian central bank also agrees that the administered cross-market and cross-border movement of funds and transactions is the key component for the market segmentation in India. In presence of such restrictions, growing market orientation of an economy demands greater integration of markets for enhancing the effectiveness of policies and for facilitating better functioning of markets (RCF, 2000). India's domestic financial market comprises the money market, the credit market, the government securities market, the equity market, the corporate debt market and the foreign exchange market. Hence, development of economy through financial system and specifically the financial markets can occur in its true sense only if they are well-integrated, because it is only then that the monetary policy impulses are effectively transmitted to the entire economy leading to usher better economic development (see Mohan, 2007).

Globally, changes in the operating framework of monetary policy with a shift in emphasis from quantitative controls to price-based instruments like, the short-term policy interest rate brought about changes in the term structure of interest rates and are expected to be instrumental to integrate various segments of the domestic financial market. The market integration process of both the developing and emerging economies has strengthened more by following the prudential regulations in line with international best practices and by enabling competitive pricing of products (see Feldstein and Horioka 1980, Feldstein, 1983, Haque and Montiel, 1990). Moreover, transmission of monetary policy becomes smooth and quick only when the impact of policy intervention at one end of the market gets quickly transmitted to the entire spectrum of the market. Thus, domestic market integration plays an important role in signaling the interest rate (Vasudevan and Menon 1978). Scholars also argues that, development and integration of financial markets is required for the purpose of not only realising the hidden saving potential and effective monetary policy, but also for expanding the economy's role and participation in the process of globalisation and regional integration. With growing openness, global factors come to play a greater role in domestic policy formulation, leading to greater financial market integration (Reddy, 2005).

It is worthwhile to mention that there are several significant evils of integration within the segments of domestic financial markets and the national markets with the world markets. Taking the clues from Agenor (2001), such potential threats may include destabilizing impacts of high degree of capital flows-- inward, outward and cross-segment-- that may hamper and exacerbate pre-existing domestic gaps and distortions; lack of access to finance by some economic organisms either totally or when they actually need the funds most; the loss of macroeconomic stability; adverse impacts of the pro-cyclical nature of short-term capital flows especially the foreign portfolio investment liabilities ,and the risk of abrupt reversals of the flows that ultimately results in to herding and contagion effects, and like.

1.2. Major Steps taken by the Government of India to Integrate Capital Market[1], Foreign Exchange Market and Money Market:

Integration is a process by which markets become unified so that participants in one market have friction less access to other markets. In the absence of formal and informational barriers, risk-adjusted returns on assets of the same duration in each segment of the integrated market should almost equal and comparable to one another. Return differentials across markets could force investors to shift their portfolio to avail the opportunity left by arbitrage, if any, which ultimately brings an overall equality of returns across markets. Accordingly in cross-border unrestricted movement of capital, it is highly expected that adjusted returns on financial instruments of different countries should be equal when the returns are expressed in any single currency.

In Indian financial system, till the early 1990s, administered structure of interest rates, restrictions on various market participants - including banks, financial institutions and corporates are very common phenomena and that practically discouraged them to execute the desired volume of transactions they could do in the money, forex and capital markets. Administrative limits on the transactions between the residents and the non-residents also affected the volume of transaction in the markets. All these lead to disintegrated financial markets and less economic development. The process of economic reform that started in the early 1990s has attempted to create the environment for better integration of the markets. The gradual approach to reforms in India, which is nicely coined by Atul Kohli (1995), as one step forward and two step backward policy, strives to attain a balance between the goals of financial stability and integrated and efficient markets(RCF, 2000). The gradual approach, although criticized by many, but ushered the benefits to the economy by helping to escape the ill-effects of the great Asian crisis of 1997. Learning from the crisis, the government has

taken more steps to develop various segments of the financial market with the objective to increase the levels of their integration and efficiency. These steps essentially covered the money market, the securities market and the foreign exchange market. Initiatives are taken to introduce new instruments, institutions and practices to (i) widen the participant base, (ii) improve information base for all participants,(iii) create greater transparency, (iv) encourage good market practices, (v) introduce efficient settlement mechanisms, (vi) rationalise tax structures, (vii) create better infrastructure to facilitate faster transactions and (viii) lower the costs of transaction in each and every financial market. A brief and quick look to some major steps taken by the Government in:

1.2.1. Money Market:

Reforms in the money market included permission for entry of additional participants in the inter-bank call money market, and steps to develop a term-money market – particularly exemption of inter-bank liabilities from Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) stipulations and introduction of new instruments. The Reserve Bank started repos, both on auction and fixed interest rate basis for liquidity management. Since June 5, 2000, the newly introduced Liquidity Adjustment Facility (LAF) has been effectively used to influence short- term rates by modulating day-to-day liquidity conditions. The transition to LAF provided a mechanism for liquidity management through a combination of repos, export credit refinance and collaterised lending facilities. In an environment where banks are undertaking non- bank activities and Direct Foreign Investments (DFIs) are planning to undertake banking functions, a more homogenous set of players are allowed in the call money market with the expectation to facilitate introduction of longer and variable term repos. A well developed repo market is also essential to make the call money market purely inter-bank. The Reserve bank of India (RBI) has introduced Collateral Borrowing and

Lending Obligations(CBLO) market for the DFIs and based on the realised effectiveness of the repo market, the call money market is made completely a inter-bank market.

1.2.2. Capital Market:

Activating Securities and Exchange Board of India(SEBI), setting up of depositories, clearing corporations or houses and introduction of on-line trading in all stock exchanges, dematerialization (31st March,1998), etc., have helped a lot to increase the efficiency of the capital market. Rolling settlement is made mandatory in the exchanges where trading in dematerialized securities was available since January 15, 1998. Brokers were permitted to warehouse trades for firm orders of the Institutional clients. The SEBI appointed a committee under the chairmanship of Shri G. P. Gupta (1998), to study the concept of market making and to revive the institution of market maker. SEBI appointed Chandratre Committee (1997) on delisting of securities which recommend exchanges to collect listing fees from the companies for three year period in advance. Besides, the companies opting for voluntary delisting should mandatorily provide an exit route to investors by offering buy-back facility to them. These recommendations were accepted and suitable directions were issued to the stock exchanges and delisting norms are tightened. All publicly issued debt instruments, regardless of the period of maturity, are presently required to be rated by credit rating agencies. All listed companies are also required to publish unaudited financial results on a quarterly basis. Book building process is introduced. With a view to enhancing transparency in corporate affairs, SEBI accepted the recommendations of the Committee on Corporate Governance,1999 (Chairman: Shri K.M. Birla) and the listing norms have been modified to reflect a code of corporate governance. With a view to detecting market manipulations, SEBI regularly monitors market movements and oversees the activities of the stock exchanges. Along with other measures, these steps in the capital market have helped to move a step forward in achieving the golden goal of ‘free flow' of information across the investors

irrespective to their stake, protecting investors, especially, small investors and in reducing the transaction costs in the stock markets.

1.2.3. Foreign Exchange Market:

In integrating Indian markets with international markets and carry the benefits to domestic arena, recommendations of the Report of the High Level Committee on Balance of Payments , 1993,(Chairman: Dr. C. Rangarajan) and the Report of the Expert Group on Foreign Exchange Markets (Chairman: Shri O.P. Sodhani,1994) are grossly accepted by the government. The Rangarajan committee report recommended, inter alia, liberalisation of current account transactions, compositional shifts in capital flows, that is, away from debt in favour of non debt, strict regulation of external commercial borrowings (ECBs), particularly of shorter maturities, and measures to discourage volatile elements in the inflows from non-resident Indians (NRIs). Against the background of the gradual liberalisation of current account transactions, a transition to the market determined exchange rate on March 1, 1993 was achieved through a successful experimentation with a dual exchange rate system under the Liberalised Exchange Rate Management System (LERMS) for one year beginning with March 1992. In October 1993, banks were permitted to rediscount export bills abroad at rates linked to international rates. Introduction of Post Shipment Export Credit in Foreign Currency (PCFC), in November 1993, enabled Indian merchants to access funds at internationally competitive rates. In October 1996, authorised dealers (ADs) were permitted to use foreign currency note receipts (FCNR -B) funds to lend to their resident partners for meeting their foreign exchange as well as rupee needs. Based on the recommendations of the Sodhani Committee (1994), several measures were instituted to deepen and widen the forex market. ADs were permitted in April 1997 to borrow from their overseas offices/correspondents as well as to invest funds in overseas money market instruments up to US $ 10 million. In October 1997, this limit was raised to 15 per cent of Tier I capital of the

banks. The uniform limit of Rs. 15 crore on the overnight positions of the ADs was removed with effect from January 4, 1996 and banks were allowed to operate on the limits fixed by their management and vetted by the Reserve Bank. The Aggregate Gap Limit (AGL), which was previously not to exceed US $ 100 million or six times the net owned funds of a bank, was left to be fixed by the individual banks since April 1996, depending upon their foreign exchange operations, risk taking capacity, balance sheet size and other relevant parameters subject to approval by the Reserve Bank.

In India, liberalisation of capital account is considered as a process and not as a single event. In the process of capital account convertibility (CAC), the initial reform measures were directed towards current account convertibility leading to the acceptance of Article VIII of the Articles of Agreement of the IMF in August 1994. For operationalising CAC in India, a clear distinction was made between inflows and outflows with asymmetrical treatment between inflows (less restricted), outflows associated with inflows (free) and other outflows (more restricted). Differential restrictions were also applied to residents versus non-residents and to individuals versus corporate entities and financial institutions. A combination of direct and market based instruments of control was used for meeting the requirements of a prudent approach to the management of the capital account. The policy of ensuring a well diversified capital account with rising share of non-debt liabilities and low percentage of short-term debt in total debt liabilities was reflected in India's policies of foreign direct investment, portfolio investment and external commercial borrowings. Quantitative annual ceilings on ECB along with maturity and end-use restrictions broadly shaped the ECB policy. FDI was encouraged through a liberal but dual route - a progressively expanding automatic route and a case-by-case route. Portfolio investments were restricted to select players, particularly approved institutional investors and the NRIs. Short-term capital gains were taxed at a higher rate than longer term capital gains. Indian companies were also permitted to access international

markets through GDRs/ADRs, subject to the prescribed guidelines. Foreign investment in the form of Indian joint ventures abroad was also permitted through both automatic and case-by-case routes.

The Committee on Capital Account Convertibility, 1997, (Chairman: Shri. S.S. Tarapore) which submitted its Report in 1997 highlighted the benefits of a more open capital account but at the same time cautioned that CAC could pose tremendous pressures on the financial system. To ensure a more stable transition to CAC, the Report recommended certain signposts and pre- conditions of which the three crucial ones relate to fiscal consolidation, mandated inflation rate and strengthened financial system. Keeping in view the recommendations of the Report, India has over the years liberalised certain transactions in its capital account. Vastly altered and liberal policy environment for the external sector is reflected in the Foreign Exchange Management Act, 1999 (FEMA), which replaced the earlier Foreign Exchange Regulation Act, 1973 (FERA). The new Act sets out its objective as facilitating external trade and payment and promoting the orderly development and maintenance of foreign exchange market in India.

1.3. A Brief Review of Relationship between Capital Market, Foreign Exchange and Money Market:

1.3.1. Stock and Foreign Exchange market:

The dynamic relationship between stock prices and exchange rates is aptly explained by ‘flow’ and ‘stock’ oriented models. The flow oriented model emphasizes on the trade balance and advocates that changes in exchange rates affect international competitiveness and trade balances, and in the process influence real income and output (Dornbush and Fisher 1980). The followers of stock oriented model focuses on demand and supply of financial instruments, especially stock and bonds and posit that changes in stock prices affect output

through wealth and investment decisions which ultimately influences money demand and exchange rates (Gavin 1989, Mishkin 2001, Dimitrova 2005).The ‘stock-oriented‘ models of exchange rates view the rate as equating the supply of and demand for assets like stock and bonds and unlike the former one emphasize the role of capital accounts in determining exchange rate dynamics. Since the values of financial assets are determined by the present values of their future cash flows, scholars argue that, expectations of relative currency values play a considerable role in their price movements, especially for internationally held financial assets. Thus, changes in stock price may affect or be affected by exchange rate dynamics (Branson 1983, Frankel 1983, Yang and Doong 2004).

In empirical analysis, scholars found contradictory relations. Aggarwal (1981) found U.S stock prices are positively correlated with the ‘trade weighted‘ dollars. But, Soenen and Hennigar (1988) have found a strong negative correlation between U.S stock prices and ‘fifteen currency-weighted value’ of the dollar. Ma and Kao (1990) have provided some possible explanations for these contradictory evidences. Their study, based on six industrially developed economies, suggests that the currency appreciation has a negative effect on the stock market of export dominant economies and boosts the stock market of import- dominant economies.

According to Ajayi and Mougoue (1996) an increase in stock prices causes the currency to depreciate. They argued that, a rising stock market is an indicator of an expanding economy which goes together with higher inflation expectations. Foreign investors discount this signal negatively and their demand for the currency of the economy with a booming stock market falls and it depreciates. Again, Granger, Huang and Yang (2000) argued that, in the markets with high capital mobility, it is the capital flows and not the trade flows that determine the daily demand for currency. A decline in stock prices makes foreign investors sell the financial assets they hold in the respective currencies and that result in the depreciation of

currency. Hence, they posit that currency will depreciate if stock market declines, and the stock prices are expected to react ambiguously to exchange rates as depreciation of currency could either rise or lower the value of a company depending on whether the company mainly imports or exports.

In literature, there is no unanimity among researchers regarding the form the relationship (positive or negative) (Mok 1993, Mukharjee and Naka 1995, Abdalla and Murinde 1997, Chang et, al (2000), Chiang et al 2010, Nieh and Lee 2001, Dimitrova 2005, Rudiger, and Stanley.(1980), Machado et al,2017, Santana et al. 2018, Noriller and Silva,(2019), Bernardelli and Castro,(2020).

1.3.2. Stock and Money Market:

The relation between stock market and money market is debated by the scholars discretely for more than a century (see White, 1910). Majority of the scholars agreed that equity prices certainly and strongly react to monetary policy impulses. It is widely argued and attested that an increase in short term interest rate raises the 'discount value' and lowers the demand for goods and services resulting a decline in equity prices (Bernanke and Kutner, 2004, Ehrmann, Fratzscher and Rigbn, 2009).

According to Tobin (1969), if the equity prices increases then economic units can raise more funds by issuing smaller number of shares which ultimately increases the investment and output and lowers the interest rates. Modigliani (1971) posited that a permanent increase in the security prices results in increase in the individual's wealth holdings leading to higher permanent income. Hence, on the occasions of rise in equity prices, consumers will be able to readjust upwards their consumption level which finally, influence demand and interest rates. Several scholars, in the line of Tobin (1969), observed and advocated that, if the price of equity shares increases then the companies can afford to offer more collaterals and lift more

funds which mostly put an upward pressure on the demand for the funds. Hence, rise in the equity prices triggers an expansion of the economy and influences the interest rates conditional to the availability of funds (Barnanke and Gertler,1989, Kiyotaki and Moore, 1997).

Short term interest rate and its impact on asset prices are marred by endless debate without any objective answer. The advocates of Keynesian theory argue in favour of low interest to encourage more consumption and increase in demand in the economy. This increase in demand promotes investment and growth of the economy by influencing economic activities including the asset market. On the other hand, neo-liberalists reject Keynesian view and suggest that rise in real interest rate helps to accumulate more savings and create more funds which ultimately are available in the economy for investment, and hence, the equilibrium rate of investment and efficiency of firms will finally increase (Fry, 1978 and Agarwal, 2004).

1.3.3. Foreign Exchange and Money Market:

Money market is essentially a market which in intertwined with the liquidity of the economy via economic activities. Hence, higher short- term interest rates signals tight economy i.e. dearth of capital. To balance the short – term liquidity for the sake of overall growth and development of, especially under developed or developed economies, the policy planners or economic planners may utilise the option of foreign capital by removing the obstacles for the inflow of capital. 'Fisher Effect' also demonstrate that capital would flow from low real interest bearing nations to a higher one. Thus increase in interest rates, assuming a slow growth in inflation, attracts foreign capital resulting an appreciation of the domestic currency, and one can expect a indirect relation ,that is, inverse relation between domestic currency and foreign currency or direct relation between foreign currency and domestic currency and money market rate represented by (CR) rates.

1.4. Conclusion:

To reap the benefits of globalization and integration of international financial markets, integration of the domestic segments of financial markets and the consequent reduced opportunities for arbitrage are must. Domestic integration helps in stabilizing the flow of funds to different segments of the financial market quickly and efficiently resulting a balanced growth in economy. The government of India has also initiated several important measures in each of the critical segments of the Indian financial market expecting enhanced informational sensitivity and competitive efficiency of the markets. Despite the restrictions that still exist on specific cross-market transactions and the general policy of discouraging speculation, it is claimed by the government that domestic markets have shown some signs of increased integration (RCF,2000). This study, like some other earlier studies, attempted humbly to examine domestic integration objectively with the robust and state of art tools from time series analysis.

Note:1. This study considered the highly active segment i.e, stock market to represent capital market.

References

Abdalla, I. S. A. and V. Murinde, (1997), "Exchange Rate and Stock Price Interactions in Emerging Financial Markets: Evidence on India, Korea, Pakistan, and Philippines," Applied Financial Economics, 7, 25-35.

Agarwal, P. (2004). Interest rate and investment in East Asia: An empirical evaluation of various financial liberalisation hypotheses. *The Journal of Development Studies, 40,* 142-173.

Aggarwal.R. (1981), Exchanage rates and Stock Prices : A Study of the United States Capital Markets under Floating Exchange Rates, Akron Business and Economic Review, vol.21, pp. 7-12

Agenor, P. (2001). Benefits and costs of international financial integration : Theory and facts. Policy, Research working paper no. WPS 2699. Washington, DC: Available at: WorldBank.http://documents.worldbank.org/curated/en/2001/10/1620927/benefits-costs international-financial-integration-theory-facts, last accessed on 5-07-2015

Ajayi, R. A.,& Mougoue,M.(1996).On the dynamic relation between stock prices and exchange rates. *The Journal of Financial Research, 19*(2),193-207.

Bernanke, B. S.,& Kuttner, K. N.(2004). What explains the stock market's reaction to federal reserve policy? *Finance and Economics Discussion Series 2004-16,* Cambridge, MA:

National Bureau of Economic Research https://doi.org/10.3386/w10402

Bernanke,B., & Gertler,M.(1989).Agency costs, net worth and business fluctuations. *American Economic Review, 79,* 14-31.

Bernardelli,L.V.,& Castro,H.L.Le.,(2020).Stock market and macroeconomic variables: Evidence for Brazil, *Revista Catarinense da Ciência Contábil Florianopolis, SC. 19,* 1-15

Branson, W. H. (1983). Macroeconomic determinants of real exchange rate risk. In R. J. Herring(ed), *Managing Foreign Exchange Rate Risk*. Cambridge : Cambridge University Press.33-74

Birla.K.M.(1999). Report of Birla Committee on Corporate Governance, available at sebi.gov.in/sebi_data/commondocs, last accessed 18/09/2020

Chandratre. (1997). Report of Chandratre Committee, available at sebi.gov.in/sebi_data/commondocs, last accessed 18/09/2020

Chang, E. C., Cheng, J. W., & Khorana, A. (2000). An examination of herd behaviour in equity markets: An international perspective. *Journal of Banking & Finance*, 24(10), 1651-1679.

Chiang, T. C., Li, J., & Tan, L. (2010). Empirical investigation of herding behaviour in Chinese stock markets: Evidence from quantile regression analysis. *Global Finance Journal , 21*(1), 111-124.

Dornbush. R.and Fisher. S (1980). Exchange Rates and the Current Account. American Economic Review, vol.70.pp.960-971

Dimitriva,D.(2005).The relationship between exchange rates and stock prices: Studied in a multivariate model, *Issues in Political Economy*, 14. Available at http://www.elon.edu/e-web/students/ipe/default.xhtml, last accessed 05-04-2012

Ehrmann, M., Fratzscher, M., & Rigobon,R..(2009).Stocks, bonds, money markets and exchange rates: Measuring international financial transmission. *Journal of Applied Econometrics, 26*,948-974.Available at https://doi.org/10.1002/jae.1173

Feldstein, M. (1983). Domestic saving and international capital movements in the long-run and the short-run, *European Economic Review*, 139-151

Feldstein, M. and *Horioka*,C.(1980), Domestic saving and international capital flows, *Economic Journal* , *90*(358), 314-329.

Frankel, J. (1983). Monetary and portfolio-Balance models of exchange rate determination, *in Economic Interdependence and Flexible Exchange Rates*,ed by J.S. Bhandari & B.H. Putnam , MIT Press, Cambridge, MA

Fry,M.J.(1978). Money capital or financial deepening in economic development. *Journal of Money Credit and Banking,10,*464-475. https://doi.org/10.2307/1991576

Gavin, M. (1989). The stock market and exchange rate dynamics. *Journal of International Money and Finance, 8*,181−200.

Granger, C.W.J, Huang, B., Yang, C.W., (2000).A bivariate causality between stock prices and exchange rates: Evidence form recent Asian flu. *The Quarterly Review of Economics and Finance 40*, (3), 337-354.

Gupta.G.P.,(1998). Committee on Market Making, Report available at sebi.gov.in/sebi_data/commondocs, last accessed 18/09/2020

Haque, N. U.& P. Montiel. (1990). Capital mobility in developing countries: Some empirical tests. *IMF Working Paper 117*. Available at SSRN: https://ssrn.com/abstract=885150. Last accessed on 19/10/2020.

Kiyotaki, N., & Moore, J. (1997). Credit cycles. *Journal of Political Economy*, *105*, 211-248. https://doi.org/10.1086/262072

Kohli,A.(1989).Politics of Economic Liberalisation in India; *World Development*,*17*(3),305-328

Lane P. R. & Milesi-Ferretti.G.M(2003). International financial integration. *IMF Staff Papers 50*, Special Issue , International Monetary Fund.82 – 113.

Machado, M.R.R., Gartner, I.R. & Machado, L. S.,(2017). Relationship between Ibovespa and macro economic variables : Evidence from a Markov switching model, *Revista Brasileria de Financas, (online), Rio de Janeiro , 15*(3), 435 – 467

Mao, C. K. G., & W. Kao. (1990). On exchange rate changes and stock price reactions. *Journal of Business. Finance and Accounting, 17* (3), 441-449

Mishkin, F. S. (2001). The transmission mechanism and the role of asset prices in monetary policy. *NBER Working Paper No 8617.*

Modigliani, F. (1971). Monetary policy and consumption: Linkages via interest rate and wealth effects in the FMP Model. In F. Modigliani, J. Tobin, W. C. Dolde, P. J. Taubman, G. D. Green, D. I. Meiselman et al. (Eds.), Consumer Spending and Monetary Policy: The Linkages (9-84). *Conferences Series, 5, Boston, MA: Federal Reserve Bank of Boston.*

Mohan, R. (2005).Globalization, financial markets and the operation of monetary policy in India, *BIS Papers , 23* .Available at www.bis.org/publ/bppdf/bispap23m.pdf last accessed on 01-07-2015

Mohan, R.(2007). India's financial sector reforms: Fostering growth while containing risk, *Reserve Bank of India Bulletin, December.*

Mok, H.M.K. (1993). Causality of interest rate, exchange rate and stock prices at stock market open and close in Hong Kong. *Asia Pacific Journal of Management* ,*10*, 123-143.

Mukherjee, T. K. & Naka, A. (1995). Dynamic relations between macroeconomic variables and the Japanese stock market: An application of a vector error correction model. *The Journal of Financial Research 18*(2), 223-237.

Nieh, Chien-Chung & Lee, Cheng-Few.(2001).Dynamic relationship between stock prices and exchange rates for G-7 countries. The Quarterly Review of Economics and Finance, *Elsevier*, *41*(4), 477-490.

Noriller, R.M.& Silva, C.A.T.,(2019). Impact of macroeconomic variables on the components of financial statements of Latin American public companies, Blumenau, *Revista Universo Contábil, 15*(3), 47-60.

Obstfeld,M.,(1994). Risk-taking, global diversification and growth. *American Economic Review, 84*, 1310-1329

Prasad,E.K., Rogoff, S.J Wei & M. A. Kose (2003). The effect of financial globalization on developing countries: Some empirical evidence, *IMF Occasional Paper, 220, Washington D.C.: International Monetary Fund.*

Rangarajan.C.R.(1993). Report on the High Level Committee on Balance of Payments, available at rbi.org.in/scripts/PublicationsView, last accessed 18/09/2020

Ray,H.,Roy,M. & Biswas,J.,(2009). Bank, market and economic growth: Empirical evidence from South Asia, *South Asia Economic Journal, 10*,(2), 403-428.

Reddy, Y. V. (1999).Financial sector reforms: Review and prospects, *RBI Bulletin, January, 1999.*

Reddy, Y. V. (2005).Globalisation of monetary policy and Indian experience,.*Eighth Meeting of the BIS Working Party on Monetary policy in Asia, RBI,Mumbai*. available at m.rbi.org.in>BS_SpeechesView , last accessed on 18/10/2020

Report on Currency and Finance,(2000).*The Reserve Bank of India*, available at www.rbi.org.in last accessed 19-10-2020.

Report on Currency and Finance,(2005-06).*The Reserve Bank of India*, available at www.rbi.org.in last accessed 19-10-2020.

Rudiger, D. & Stanley ,F.(1980). Exchange Rates and the Current Account. *American Economic Review*, *70*, (5), 960-71

Santana, H.N., de Lima, S.A. &Ferreira, B.P.(2018).20 Anos de Real: uma analise da relacao entre cambio, inflacao,taxa de juros e o Ibovespa. *Revista Gestao & Technologia*, *18* (2),.44-69

Sodhani. O.P.(1994). Sodhani committee Repot on Foreign Exchange Markets, available at sebi.gov.in/sebi_data/commondocs, last accessed 18/09/2020

Soenen, L. A. & Hennigar, E. S. (1988), An analysis of exchange rates and stock prices-the U.S. experience between 1980 and 1986. *Akron Business and Economic Review*, *Winter* 7-16.

Stulz, R.(1981).On the Effects of Barriers to International Investment. *Journal of Finance*, *36*, 923-934.

Tarapore.S.S.(1997). Report on Capital Covertibility. available at rbi.org.in/scripts/PublicationsView, last accessed 18/09/2020

Tobin, J.(1969). A general Equilibrium approach to monetary theory. *Journal of Money, Credit and Banking,1*,15-29 https://doi.org/10.2307/1991374

Trichet, J. C. (2005), European Financial Integration, Speech delivered at 10th Symposium on Finance, Banking, and Insurance, University of Karlsruhe, Karlsruhe, 16 December, 2005. Available at www.ecb.europa.eu>index.en.html, last accessed on 19/10/2020.

Vasudevan, A. & Menon, K.A.(1978). On testing of some hypotheses concerning the transmission mechanism of monetary policy: The Indian experience, in *Recent Developments in Monetary Policy, RBI.*

White,H.(1910). The stock exchange and money market. The annals of American Academy of Political and social science,36, 85-95. https://doi.org/10.1177/000271621003600307

Yang SY, Doong SC (2004) Price and volatility spillovers between stock prices and exchange rates: empirical evidence from the G-7 countries. International Journal Business Econmics3(2,)139–153