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5. Financial Market Development and Integration in India

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5.1 Introduction:

The Indian financial markets have undergone remarkable transformations over the course of time in par with the changing in the internal and external environments. The RBI and Government of India has put conscious effort to develop and integrate various financial market segments in a step-by-step manner. Economy development is largely affected by financial markets - they competitively allocate financial resources that are mobilized from savers and investors among users in the economy. Economic policy reforms of India's central bank and Reserve Bank of India (RBI) the development of India's Financial markets has been shaped dynamically — market-determined exchange and interest rates, convertibility of current account, monetary policy dealing with price-based instruments, auction-based allocation in the government securities market (GSM), and phased capital account. In order to avoid financial instability, in an emerging and developing economy such as India the development of the financial market has to be monitored closely.

Research studies on the integration of Indian money markets with global markets as a result of financial liberalization have mostly reported negative results.

5.2 Financial Market Development since 1990 Reforms:

Money Market: The money market financial instruments are considered as the closest substitute for money as the market for short term funds has securities with maturities ranging from overnight to one year. in response to the prevailing economic and financial environment the RBI had to modify its operational and intermediate objectives multiple times in order to achieve the ultimate goals of monetary policy—growth and price stability.

The money market contains various segments-call money, market repo, and Collateralized Borrowing and Lending Obligation (CBLO)-with average daily turnover.

The call money market: An unbounded market-was earlier distinguished by an administered ceiling interest rate that was decided by the Indian Banks ‘Association (IBA) to prevent abnormal increases in the call rates (during 1970s it was noticed that call money rates rose sharply and touched 25%-30%) anyhow, regular borrowings by banks and lending by non-banking institutions kept this market highly volatile, inhibit relevant risk management and instrument pricing.

CBLO: With the establishment of the Collateralized Borrowing and Lending Obligation (CBLO), the intervention in the call money market was reduced, which lead to a fairly stable market. This is obvious from the reduction in the call money market‘s market share (%) over the years. The setting up of the Discount and Finance House of India (DHFI), the introduction of certificates of deposit (CDs), commercial papers (CPs), and inter-bank participation certificates, and the freeing of the call money rate were the key developments of 1980’s which were unable to meet their 9 objectives of market development due to the structural sternness in the system. Later, the Internal Working Group (1997) and the Narasimham Committee (1998) made some recommendations which are -i) Introduction of auction system for T-bills ii) Gradual move towards a loan-based system from a cash credit system iii) Abolishment of ad-hoc T-bills, leading to the end of the automatic monetization of fiscal deficit (1997). The CBLO was meant to help banks and non-banks manage their daily liquidity requirements which was Developed and introduced by the Clearing Corporation of India Limited (CCIL) in January 2003. Being a collateralized instrument (government securities acted as collateral), its rate was lower than the call money rate, which is why its share in the money market transactions rose considerably from 22.4% in 2004–2005 to 53.2% in 2012–2013. In April 2004, the liquidity adjustment facility (LAF) window was increased by the issuances of the Market Stabilization Scheme (MSS) to envelop domestic monetary conditions from the impact of large capital flows.

Market repo: which is backed by bonds (like Central and State government securities) and operates outside the RBI ‘s liquidity adjustment facility (LAF) allows banks, primary dealers, non-banking entities maintaining Subsidiary General Ledger (SGL) accounts, non-

bank financial companies (NBFCs), mutual funds, housing finance companies, and insurance firms to manage their short-term liquidity mismatches. The money market in India has had a long and diversified history. While the call money market has come out as a pure inter-bank market, the CBLO market has been helpful to both banks as well as non-bank participants. The LAF had a smoothening effect on liquidity and has generated a passage for weighted average call between repo and reverse-repo. Slowly, the weighted average call emanated as the target rate. The RBI recognized and made the repo rate as the short-term signaling rate or policy rate. Thus, the combination of various money market segments and effective policy signal transmission has been possible due to the stability of the call money rates.

5.3 Government Securities Market:

The interest rates on government securities were administratively kept low (to ensure low-cost government borrowings) due to the automatic monetization of the Central government budget deficits. Consequently, the GSM remained underdeveloped. Earlier, financial intermediaries such as banks and insurance companies (the Life Insurance Corporation of India, *for instance*) acted as key players in the GSM, thereby making it a captive market. 1992 and 1997 were two key years in the Indian GSM. The auction-based system was introduced in 1992, for allocation of government securities to enable the creation of a market-determined yield curve (through price discovery). In 1997 introduction of Ways and Means Advances (WMA) and the abolition of automatic monetization through ad hoc treasury bills provided operational autonomy. Subsequently, in 2006, the RBI was prohibited from participating in the government securities primary market (FRBM Act 2003).

Accordingly there has been neither private placement of auctioned market borrowings nor devolvement, since 1 April, 2006. The decline in SLR requirements-38.5% of net demand and time liabilities (NDTL) in 1992 to 25% of NDTL in 1997-also helped in shaping the GSM. At present, the statutory liquidity ratio (SLR) stands at 23% of the NDTL for banks. Reforms for the successful completion of government securities (G-Sec) auction and the RBI's open market operations through the introduction of primary dealers have helped in the market borrowing programs of the Central and state governments. The secondary GSM

was developed and shaped with the introduction of long-term securities, such as those with 30-year maturity period. The investor base in the GSM has widened from the mandated investment requirements to voluntary G-Sec 11 holdings. This has, in turn, helped in reducing the commercial banks 'share in the GSM. Effective December 2007, the Government Securities Act, 2006 facilitated lien marking, pledging of securities to raise loans against government securities, stripping, etc.

Presence of dominant investors in the form of institutional investors (who need to invest in government securities due to statutory reasons) and the limited presence of FIIs in dated securities (despite the progressive shift from banks to non-banks as the investor base) are the two prime reasons for GSM illiquid at long end. However, it should be remembered that earlier highlighted measures did help in evolving and maturing GSM. This can be ascertained from the fact that, with passage of time, there has been smooth financing of the government debt (both Central and State government) despite high and increasing fiscal deficits, there has been greater recourse mandate by the Twelfth Finance Commission to conduct market borrowing for the state government.

5.4 Forex Market:

Although it originated around 1978 the Indian forex market was quite limited in its early days due to the fixed exchange rate regime. Post the 1991 economic reforms, the Indian forex market evolved and developed as the result of a series of developmental reforms. The introduction of the market-based exchange rate regime in 1993 and the adoption of current account convertibility in 1994 were the key reforms. Additionally, capital account has also experienced substantial liberalization over the years. Coherently, all these reforms were aimed at developing the institutional framework by dismantling controls and increasing instrument effectiveness and transparency for conducting foreign exchange business. Over the course of time, the forex market witnessed increased liquidity and greater market efficiency. Owing to the gradual opening of the capital account, forward premiums are typically aligned with the interest rate 12 differential, leading to manifold increases in market efficiency. However, the high intermediation costs currently charged by the banks reduce the transparency for players in the forex market. Under its recommendations, the RBI hinted at the usage of an instructive guide for the further opening of the capital account-

a mixture of strategic controls (for instance, by defining a pecking order of flows, such as FDI-portfolio investment-debt, and a credible framework to aid foreign investors in developing their strategies) and tactical controls (for instance, steps that would be situation specific and hence would be introduced as and when situation arose and would be withdrawn when it abated).One of the key challenges currently impacting the efficiency of the Indian forex market is the speculation being done on the non-deliverable forward (NDF) markets.

Ideally, both the on-shore and off-shore NDF markets are influenced by the same set of economic and geo-political developments at home and abroad. However, in the recent past (due to the INR depreciation in 2013), it was observed that the two rates were responding differently—the NDF rate was more pessimistic, which consequently increased pressure on the on-shore USD/INR rate as well. As the Indian authorities look forward to the progress of capital account liberalization, this challenge needs to be addressed carefully, without impacting the liquidity of the forex market. The impact of this volatility needs to be analyzed in terms of two sets of market participants—the real sector (exporters, importers, and foreign currency borrowers) and banks or authorized dealers. For the first set of participants, non-hedging techniques (such as advance payment and invoicing in home currency) were available only theoretically. Hence, derivative products (such as exchange-traded futures and options) were introduced to enable small and medium enterprises (SMEs) to cover foreign currency exposure at competitive costs. Thus, forex inclusion of SMEs and the synchronisation of the regulations for the OTC and exchange-traded markets are the two key challenges that the Indian forex market—a critical segment of the country‘s finance—currently faces, owing to capital account restrictions.

5.5 Equity Market:

With the establishment of the Securities and Exchange Board of India (SEBI) in 1992, reforms to enhance regulatory effectiveness and competitiveness as well as modern technological infrastructure to reduce informational asymmetries and transaction costs were undertaken. Foreign equity investments in the form of FIIs were allowed from 1992 onwards and Indian 13 companies were allowed to raise foreign capital in the form of American depositary receipts (ADRs), global depository receipts (GDRs), foreign currency

convertible bonds (FCCBs), external commercial borrowings (ECBs), and investments through NRIs and overseas corporate bodies (OCBs). The establishment of the National Stock Exchange (NSE) in 1994 further increased the competitiveness and led to the development of volumes in the equity market in India. During 2000–2001, index futures, index options, and options and futures on individual securities were introduced to shape the Indian capital market. Currently, the Indian capital market is one of the most active and growing capital markets in the world. Futures and options of about 223 individual stocks and 4 stock indices were traded on the NSE as of March 2011. Large cap stocks/futures and index futures of Indian equity are fairly liquid and efficient.

5.6 Deep and Diverse Indian Equity Market:

With more than 5,000 listed companies, the Indian equity market is globally ranked second, with the U.S. equity market being the top runner. The diverse nature of stocks allows investors to gain exposure to a wide range of sectors such as automotive, banking, and pharmaceuticals, to name a few. The S&P CNX Nifty (Nifty 50), one of the most widely quoted indices, comprises stocks covering the entire spectrum—financial, industrial, and energy companies—thereby offering investors exposure to the key drivers of domestic growth, i.e., domestic consumption and infrastructure capital expenditure (capex). One of the peculiarities of the Indian equity market that reduces its depth is that more than 55% of the equity market is held by promoters (principals of companies), thereby reducing the overall free float of the stock.

In order to address this peculiarity, the SEBI mandated all listed companies to raise public shareholdings to 25% by mid2013. Another peculiarity is the higher proportion of FII holdings than domestic holdings, which renders stock prices quite volatile and vulnerable to global developments.

5.7 Integration of Financial Markets in an Economy:

The development of financial markets occurs in its true sense only if they are well-integrated, for it is only then that the monetary policy impulses are effectively transmitted to the entire economy. In an integrated financial market system, the central bank‘s short-

term policy rate changes would be transmitted to the market rates (short-term as well as long-term), money market, bond market, and credit market. Technically, financial market integration means the 14 unification of the markets for the convergence of risk-adjusted returns on assets with similar maturity across all the markets. Factors such as deregulation (freeing pricing of financial assets), globalization (transnational movement of capital, especially the savings of one nation to supplement the domestic savings of another nation), IT advances (electronic payment and communication systems that decrease arbitrage opportunities across financial centres), and changes in the operating framework of a monetary policy (shift to price-based instruments such as short-term policy interest rate, impacting the interest rate term structure) have significantly influenced the integration of the various market segments in India. Financial market integration is witnessing a new wave of confidence in recent years; besides individual nations, some economic regions (such as the Arab countries) are also actively discussing the possibility of having integrated financial markets.

5.7.1 Measures for Financial Market Integration:

Financial market integration has been possible in India due to five key measures.

Free pricing: Some of the milestones that led to the development and integration of financial markets in the country include the freedom given to banks to decide deposit and credit interest rates; the withdrawal of the call money ceiling rate (10%); the substitution of the administered interest rates with auction systems for G-Secs; the substitution of Adhoc T-bills with WMA; the shift from a single fixed exchange rate regime to a market determined floating exchange rate regime; the gradual liberalization of capital account; and the usage of derivatives for hedging.

Widening participation: The following changes helped in increasing the liquidity and efficiency of financial markets in India: enhanced presence of foreign banks; participation of FIIs in the Indian equity market; transformation of the call money market into a pure inter-bank market; granting of permission to (a) authorized dealers to borrow, lend, and invest in foreign currencies, (b) exporters to substitute rupee credit with foreign currency credit, and (c) Indian companies to raise funds through ADRs, GDRs, FCCBs, and ECBs—

a step towards integrating domestic and international capital markets; availability of options, forwards, and swaps in domestic and foreign currencies to manage long-term exposures; application of capital adequacy norms; and integration of credit and equity markets.

New instruments: The introduction of repo (for short-term liquidity adjustment) and LAF (for liquidity management and overnight market signalling mechanism), inter-bank participation certificates, CDs, CPs, market repos, CBLOs, and auction-based multiple maturity T-bills enabled the development of the Indian money market.

Floating rate bonds (FRBs), long-term loans with embedded put-call options, and forward rate agreements (FRAs) also facilitated the deepening of the financial markets by allowing participants to diversify their risks.

Institutional measures: Inter-market linkages were strengthened by allowing institutions such as the Discount and Finance House of India (DFHI) and the Securities Trading Corporation of India (STCI) to participate in multiple markets. The establishment of the CCIL as the central counter-party helped in increasing investor confidence, and thus, the liquidity of the markets.

Technology, payment, and settlement infrastructure: Technological enhancements such as the Delivery-versus-Payment system (DvP), the Negotiated Dealing System (NDS), the advanced Negotiated Dealing System-Order Matching (NDS-OM), and the Real Time Gross Settlement system (RTGS) as well as the substitution of the floor-based open outcry trading system with the electronic trading system improved settlement processes and encouraged market integration.

5.8 Institutional/regulatory and Quantitative Measures:

Financial market integration occurs either horizontally (inter-linkage of various domestic market segments) or vertically (inter-linkage of domestic and regional/international markets). The level of financial integration is primarily measured using the following parameters.

Institutional/regulatory Measures: These measures can further be classified into de jure and de facto measures. De jure measures include the legal restrictions on capital and trade inflows. De facto measures include the measures based on prices or quantities. Price-based measures include cross-market spreads, tests of common trends in interest rate term structure and volatility, and correlations among several interest rates.

Quantitative Measures: For measuring the integration level of domestic markets, liquidity and turnover data are used, whereas global integration levels are measured through time analysis of capital inflows. Typically, gross capital inflows tend to be a better measure than net inflows, as the latter measure is likely to subdue the level of integration due to the amount of outflows. However, this indicator suffers from fluctuations in short-term market conditions. _Gross stocks of foreign assets and liabilities/GDP is a more robust measure as it is less volatile and comparatively less prone to measurement errors.

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