Financial Developments in India: Should India introduce capital account convertibility?¹

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1. Introduction:

The objective of this paper is to examine whether India has reached a stage of financial development when full capital account convertibility could be introduced. In its report on capital account convertibility the Tarapore Committee provided a succinct and subtle definition: capital account convertibility is the freedom to convert local financial assets into foreign financial assets and vice-versa at market determined rates of exchange. It is associated with changes of ownership on foreign/domestic financial assets and liabilities and embodies the creation and liquidation of claims on or by the rest of the world. Capital account convertibility can be, and is, coexistent with restrictions other than on external payments. It also does not preclude the imposition of monetary/fiscal measures relating to foreign exchange transactions, which are of a prudential nature. (Reserve Bank of India, 1997)

The issue is important because until the Asian crises of 1997-98, there was a growing consensus that free global financial flows were positive for all and more so for the developing countries. This was based on the proposition that it would help improve global allocation of financial resources. As the returns on capital were higher in developing countries, finance would flow, in general, from the developed countries to developing countries. In the aftermath of the Asian and other developing country crises, however, there has been some rethink and recognition that financial deregulation can't run ahead of prudence (Stiglitz, 2002). There is also the issue of the sequencing of financial liberalisation. Even the leading proponent of financial repression and its associated costs, McKinnon (1973, 1991) has argued that capital account convertibility should come at the end of this process. Though there was support for financial liberalization, opinions differed about the pace at which it could proceed. Some countries like Thailand abolished the controls quickly and opened up their economies while countries like India continued to proceed at slow pace. Until 1991, the Indian economy was subject to a high degree of financial repression and national and international controls. These controls were being lifted slowly when the Asian economic crisis struck. Though, India didn't experience the shock and contagion as some South East Asian countries did, rethinking began whether or not controls should continue to be lifted and the pace at which this should be done. It was feared that lifting of all controls and thus making rupee fully convertible could expose India to shocks and contagion such as those experienced by Asian countries. At the same time, lack of full convertibility on capital account was acting as an impediment for free flow of capital resources. India is now in race with China and hence has to weigh the pros and the cons in taking a decision about full convertibility of its currency. Thus, India provides a good case to analyze.

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We answer the question posed above within the framework provided by McKinnon (1973) on financial repression and thereafter use the relevant financial development indicators developed by Goldsmith (1969) to assess whether India has reached a of stage financial development when full convertibility of rupee could be introduced. The paper is organized as follows: the next section provides an overview of relevant literature on liberalization of financial flows. In section 3, we assess the financial developments in India against the financial development indicators developed by Goldsmith. Section 4 concludes.

2. Liberalization of financial flows

While examining economic liberalization we distinguish between internal and external controls or repression. We define the internal repression in line with McKinnon (1973). This includes controls on interest rates, directed lending and credit ceilings, highly regulated and controlled financial system, high reserve requirements. The external repression refers to forex rate distortion and controls on global financial flows.

The two schools of thoughts on the pace of liberalization

Until the Asian crises of 1997-98, there was a growing consensus that controls on global financial flows were harmful and the lifting of such controls would lead to increased flows to emerging markets, including India, and thus lift growth rates in such countries. Two schools of thoughts have developed in this context. As per the first school of thought, complete lifting of controls and equal treatment of their financial institutions was advocated by countries like USA and EU. This assumed greater significance with the signing of the WTO Financial Services Agreement (WFSA) of 1997 that came into effect on 1st March 1999. Canada supported the first school of thought and argued that liberalization enhances the functioning of the financial services sector, which in turn contributes to enhanced stability in the sector (WTO, 2001, para 4). This view, as emphasized by Dornbusch (Fischer et al. 1998) suggests that since resources are lost through obstacles to free capital flows the sooner it is liberalised the better.

The second school of thought was that instead of complete lifting of controls, the way forward was to adopt differential treatment based on levels of development and the adoption of a more orderly and sequenced approach to liberalization in accordance with the levels of developments in financial markets and supervisory system of member countries. Most developing countries supported this proposal, which was put forward by South Korea. (WTO, 2001, para 5). Thus, sharp differences have emerged between developed countries and developing countries in the manner in which liberalization and financial development should take place in the wake of the aftermath of the Asian financial crisis. The developing countries were concerned with developing policies and capacity before they could introduce full capital account convertibility whereas the developed countries assumed that these would be undertaken simultaneously. Though India was also a signatory to the WFSA it was in agreement with the views of the second school of thought.

The two schools of thought differed with each other partly because of the weight they put on the pros and the cons of the liberalization process. Those who support global liberalization of financial markets and integration can use the following potential benefits of such developments to bolster their case (Pierre-Richard, 2003).

- 1. It can lead to consumption smoothing, that is, global funds can be used to maintain consumption during a cyclical downturn or over a life-cycle. Certainly the USA and Australia have been able to not only maintain, but also enhance consumption over the last 15 to 20 years, because of the availability of global funds.
- 2. It improves macroeconomic discipline, because the financial markets would penalize bad policies.
- 3. It can promote domestic investment and growth as global source of funds become available.
- 4. It can increase banking system efficiency and financial stability. It can increase the depth and breadth of domestic financial markets and lead to an increase in the degree of efficiency of the financial intermediation process by lowering costs and excessive profits.

Those who oppose liberalization can use the following potential costs to support their case:

- 1. Capital flows remain concentrated to developed countries and some emerging markets, such as China.
- 2. They are subject to `surges' or pro-cyclical short-term flows inflow surges during good times due to excessive exuberance and outflow surges during bad times due to excessive pessimism and herding behaviour. Thus they are destabilizing. This situation has worsened because of the growth of highly leveraged speculative institutions, such as hedge funds, which operate from off-shore unregulated places.
- 3. They may lead to misallocation of capital inflows. Such inflows may fund speculative or low-quality domestic investment, such as real estate investment and reduce capacity of the country to increase exports and thus create external imbalances. These are likely to be the result of pre-existing distortions in domestic financial system, with weak capacity to finance new export ventures as well as poor supervision of the financial system.
- 4. They can lead to loss of macroeconomic stability. This can result from rapid credit (monetary) expansion, due to difficulty of pursuing effective sterilization policies, leading to inflationary pressures (resulting from the effect of capital flows on domestic spending), real exchange rate appreciation and widening of current account deficit.
- 5. Entry of foreign banks in the context of directed lending for domestic banks can create an unequal playing field, whereby foreign banks `cherry-pick' the most creditworthy lenders and depositors. This may worsen the non-performing assets (NPAs) of the domestic banks. To counter the competition posed by foreign banks, domestic banks resort to risky lending. During crisis, however, foreign banks may walk out of the market as they did during the Asian crises.

The financial crisis: putting sand in the wheel of liberalization

The financial crises of the 1990s and others of the current decade affected the pace of liberalization. Therefore the lessons of these crises become important in this context. These have been documented in various studies (see Roubini 2004). The lessons were that the effects of crises could be minimized by avoiding real exchange rate misalignment, limiting fiscal imbalances and preventing excessive build-up of domestic debt, maintaining a monetary policy consistent with growth with low inflation and that the ratio of unhedged

short-term currency debt over official reserves remains sufficiently low. Strengthening of supervision and prudential regulation, fostering of risk management capacities in banks and non-bank financial firms are also important. Managing NPAs and bringing them down is an important element of supervision and impacts on the soundness of the banking system.

The short-term capital inflows lead to build up of short-term funds with banks. When flush with these funds, in their anxiety to lend, banks often resort to reckless lending which in turn could lead to increase in NPAs- a typical problem of adverse selection arising out of asymmetric information. One way out of this is to follow the example of Chile which successfully imposed for a period a form of 'Tobin Tax' to counter the flows of hot money or short term flows (Vander Maelen, 2000). Emerging markets should be willing to use short-term capital controls as part of their arsenal of policy instruments. There may be an argument that this may affect aggregate flows to emerging markets. Evidence from various studies, however, tends to suggest that restrictions on short-term flows affect the maturity structure of foreign debt, but does not affect the overall volume of flows (Campion and Neumann, 2003; Montiel and Reinhart, 1999; Edwards, 1999). Full capital account convertibility as the experience of South Korea, Malaysia, Thailand and Indonesia suggests (see for instance, Athukorala, 2002) can lead to massive and unsustainable inflows, followed by, as the risk perception changes, to massive outflows or a flight to quality, leading to a crisis. Therefore, caution is suggested in moving towards capital account convertibility.

Such imposition of controls on short-term flows should, however, not become a permanent feature. The down side is that it is likely to lead to imbalances between short term and long term flows and may lead to a reduced focus on other important financial development policies like prudential regulations and strengthening supervision. This means that a country has to strike a balance between the quantum of short-term flows relative to long term flows so as to ensure that the economy is not destabilized and at the same time not pushed into a lower growth trajectory. This would require countries to weigh the costs and the benefits coming from such financial flows. As countries are at different levels of financial and economic development, the decision depends upon country specific situation. Hence, in order to come to a conclusion whether a country has reached a stage of full capital account convertibility, we will need to contextualize the above. In the next section, we examine the financial developments in India.

3. Developments in the Indian Financial System

A description of the Indian Financial system:

From 1947 to 1969

The Indian Financial System was quite well developed even prior to India's political independence in August 1947. Both foreign and domestic banks were present and so was a well-developed stock market. Mumbai (formerly Bombay) is regarded as the financial capital of India. The headquarters of India's largest partly state owned commercial bank- the State Bank of India (formerly the Imperial Bank of India) -are located in Mumbai (on the Western tip of India) and so also that of the central bank of the country, the Reserve Bank of India (RBI-established in 1935). Besides these, head offices of several commercial banks, insurance companies, financial institutions and others are located in Mumbai. After independence several legislative measures were taken to develop an appropriate banking system so as to help the social and economic ideals that the newly independent nation

pursued. The Banking Regulation Act 1949 was passed which gave considerable powers to the RBI to tune the banking system to the needs of planned development. In 1955 the State Bank of India was established nationalizing the Imperial Bank of India. Term lending and project financing institutions owned by the government were soon established to provide credit for industry and agriculture. In 1956 the life insurance business was nationalized.

From 1969-1991

Fourteen major commercial banks were nationalized in 1969 bringing over 90 percent of banking business under public ownership. Directed interest rates on deposits and lending, exchange controls, directed credit became hallmark of this tightly regulated new structure. All commercial banks (whether public or private) were directed to lend to priority sector (mainly agriculture and poverty alleviation), which rose overtime and in March 2002 constituted 43.1 percent of net bank credit. To finance government's fiscal deficit, the incremental demand and time liabilities of *all banks* were required to be invested in government debt through the mechanism of Statutory Liquidity Ratio (SLR). In early 1990s the SLR rose to its peak of 38.5 %. Add to the above, banks also had to maintain a Cash Reserve Ratio (CRR) of 15%. It could be seen from the above that the Indian financial system was tightly regulated till the 1990s. The nationalization of banks brought over 90 per cent of banking business under state ownership. Given that the public sector banks were the dominant players in the system, we focus on the financial data of this class of banks in our analysis in subsequent paragraphs. This situation conforms very well with the internal repression as described by McKinnon (1973) and referred to above.

From 1992 onwards

Following the balance of payments crisis in 1991-92, a stabilization program was initiated with the help of International Monetary Fund, which specifically included a reform of the IFS. The controls (Licence and Permit Raj as it was called) that distorted resource allocation and inhibited entrepreneurship were sought to be removed progressively. Wide ranging reforms were initiated in almost all the spheres of the economy including real sector, external sector, agricultural and industrial sector, macro-economic policy, public sector disinvestment etc.

The foundation for the financial sector reforms was laid by recommendations of the Committee on Financial System 1991 (Narasimham Committee). The Committee again reviewed the financial system in 1998 and made further recommendations. The objectives of the financial sector reforms were to bring about greater efficiency and competitiveness in all the spheres of the economic activity. Following major reforms were introduced:

- Gradual phasing out of prescribed interest rates on deposits and advances. The intention was to promote competition among banks by giving them freedom to decide interest rates.
- Reduction in pre-emption of bank deposits by means of Cash Reserve Ratio and Statutory Liquidity Ratio (similar to non-callable deposit ratio and prime asset ratio in Australia). These ratios were 15% and 48.5% respectively in early 1990s and now stand at 4.5% and 25% respectively. (In Australia, these are currently zero percent). The freed funds could then be used for lending to efficient businesses. Thus achieving allocative efficiency.

- To strengthen the banking system, international standards of capital adequacy were introduced. Indian banks were required to achieve a ratio of 9% by the year 2000 and most Indian banks already have capital to risk assets ratio in excess of this.
- To clean the balance sheets of banks, asset classification, income recognition and provisioning norms on par with international standards were introduced.

Besides the above measures to liberalize internal controls, following measures were initiated to liberalize external controls. On 20th of August 1994, India adopted Article VIII of the IMF and thus established current account convertibility. It is possible that if the Asian financial crisis of 1997-98 had not occurred then India may have introduced capital account convertibility much earlier. India escaped the contagion, because of the absence of capital account convertibility and because of the successful policy to reduce short-term debt. Convertibility on all deposit schemes for non-resident Indians was introduced in March 2002. The RBI towards the end of January 2004 issued a notification that allows remittances abroad of upto US\$ 25,000 by resident Indians annually.

The Tarapore Committee, set up by the RBI in 1997, on the issue of capital account convertibility, recommended a phased liberalization and set four conditions for full convertibility. These were: there should be six months import cover, inflation should be within 3-6 percent band, the gross fiscal deficit to GDP ratio should be less than 3.5 per cent and gross NPAs of the commercial banking system as a whole should be less than 5 per cent. In addition a Narsimhan Committee (1991) dealing with the Balance of Payments had argued that India should aim to have a CAD of less than 1.6 per cent of GDP. As discussed earlier there is also the issue of short-term debt and ensuring that it does not get out of control. These six conditions seem to be guiding the policy on convertibility.

Assessment of financial development in India

To assess whether the situation in India is ripe to introduce full capital account convertibility we first examine the financial development ratios as specified by Goldsmith (1969) and which the Reserve Bank of India also adopted as relevant indicators. We compare the compound annual growth rate (CAGR) of these ratios over the periods 1951-52 to 1970-71 and 1970-71 to 1991-92. If the CAGR of these ratios shows a decline then we can conclude that the cost of financial repression was higher than its benefits.

Table 1: Financial Development Ratios for India

	1951-52	1970-71	CAGR %	1991-92	CAGR %
Financial Ratio (FR)	0.75	17.15	17.91	41.30	4.27
Financial Interrelations Ratio (FIR)	0.08	1.18	15.22	2.29	3.21
Intermediation Ratio (IR)	0.27	0.66	4.22	0.79	0.86
New Issue Ratio (NIR)	0.17	0.71	7.81	1.28	2.85

FR: Ratio of total financial issues in a year to national income

FIR: Ratio of increase in the stock of financial claims to net capital formation

IR: The proportion of claims issued by financial institutions to the issues of non-financial sectors NIR: The proportion of primary claims issued by non-financial institutions to net capital formation.

Source: Rangarajan, C. 1998. Indian Economy: Essays on Money and Finance, New Delhi: UBS Publishers.

As can be seen from the above table all the financial development ratios show a marked slow down of annual growth rate in the years after bank nationalization. As stated above this period was characterized by financial repression as defined by McKinnon (1973). We would have liked to calculate the CAGR of post liberalization years, however, the data thereof is available only upto 1995-96. We calculated the CAGR between the years from 1990-91 and 1995-96, for FR, which was 4.75 percent.

The costs of financial repression can also be measured by the magnitude and changes in NPAs of public sector banks. The effect on NPAs of banks is indicated in the table 2 below.

Table 2: Proportion of gross NPAs to gross advances of public sector banks

1992-93	23	1999-2000	13.98
1996-97	17.84	2000-2001	12.37
1997-98	16.02	2001-2002	11.09
1998-99	15.89	2002-2003	9.36

Source: Reserve Bank of India, Report on Trend and Progress of Banking in India, various years.

It may be noted that the type of data as described in Table 2 was not readily available at the RBI website. As such we compared the ratios from the year 1992-93 onwards. The high ratio of 1992-93 is a legacy of financial repression period. It will be seen that the ratio shows a declining trend after internal liberalization process started. However, it needs to be noted that these ratios are compiled on the basis of NPA definition, which is not in conformity with international standards. As per international standards, advances past due for 90 days or over are classified as NPAs while until recently the Indian guidelines reckoned past due for 180 days and over as NPAs. It needs to be emphasized that the improvements in the NPAs of PSBs have taken place in the context of increased competition from private sector domestic banks as well as the foreign banks, that is, despite the risks of 'cherry picking' by the latter group of banks. Nevertheless, the gross NPAs of PSBs are still substantially higher than those recommended by the Tarapore Committee (1997).

We also look at the capital adequacy ratios of public sector banks during the post liberalization period. Prior to reforms no capital adequacy requirements were applicable to banks. The international capital adequacy standard of 8% of risk-weighted assets was introduced in 1992 and banks were advised to achieve it by March 1996. Currently, the capital adequacy norm stands at 9% of risk-weighted assets. By March 2002, 25 out of 27 public sector banks had risk-weighted capital adequacy ratios above the prescribed minimum of 9 per cent with 23 banks having it in excess of 10 per cent. Importantly, risk-weight is also assigned to gold and investment in government securities in calculating the denominator of the ratio.

Next we look at the financial performance of PSBs. Table 3 below shows the ratio of net profit to total assets or working funds of two major PSB groups, that is, State Bank of India and nationalized banks.

Table 3: Ratio of Net Profit to total assets

Year	State Bank Group	Nationalized banks	Year	State Bank Group	Nationalized banks
1994-95*	0.5	0.1	1998-99	0.51	0.37
1995-96*	0.4	-0.4	1999-2000	0.8	0.44
1996-97	0.8	0.4	2000-2001	0.6	0.3
1997-98	1.1	0.6	2001-2002	0.8	0.7

Note: * refers to net profit to working funds

Source: Economic Survey of India, Government of India various years.

As can be seen from the above table, there is some improvement in both the groups in terms of profitability.

As regards inflation, the data given below shows that it is under control and has in general remained in control after 1994-95 and has not exceeded single digit.

Table 4: Annual inflation rate based on wholesale price index

Fiscal years (April-March)	End of year (point to point)
1992-93	7.0 %
1993-94	10.8 %
1994-95	10.4 %
1995-96	4.4 %
1996-97	6.9 %
1997-98	4.4 %
1998-99	5.9%
1999-00	3.3%
2000-01	7.2%
2001-02	3.6%
2002-03	3.4%

Source: http://www.indiaonestop.com/inflation.htm From 1997-98 Reserve Bank of India Annual Report 2003.

Next we examine the position with respect to the current account deficit.

Table 5: Current account deficit as a percentage of GDP

1990-91	-3.2	1999-2000	-0.9
1996-97	-1.2	2000-2001	-0.5
1997-98	-1.0	2001-2002	+0.26
1998-99	-1.0		

Source: http://www.iif.edu/data/fi/fd/FD4-4.pdf and Economic Survey of India 2003.

Table 5 shows that the current account deficit has remained relatively small in the post reform period.

We now examine the situation with respect to foreign exchange reserves in India. As indicated in the table below the reserves have shown a substantial increase over the post reform period.

Table 6: Foreign exchange reserves (US\$ billion)

1990-91	5.834	1999-2000	38.036
1996-97	26.423	2000-2001	42.281
1997-98	29.367	2001-2002	54.106
1998-99	32.490	Dec 2002	70.445 (P)

(P) Provisional

Source: http://indiabudget.nic.in/es2002-03/chapt2003/tab61.pdf

As per newspaper reports (The Hindu, 2004) the reserves had crossed US \$ 100 billion mark and continued to head upwards. By the end of fiscal year 2001-02, the reserves had exceeded 12 months import cover. Nevertheless, it is important to note, that around 30 per cent of these deposits comprise of NRI funds, which continue to be attracted by higher Indian relative interest rates, and in the context of full capital account convertibility for NRIs in the post-2002 changes. In addition there are annual flows of remittances of between US \$10 billion to US\$15 billion, which may be affected by a change in sentiment, which can occur as the global interest rate regime changes and as the perception of risk of depreciation of the Indian rupee increases. Bank inflows have also increased; mainly driven by foreign banks. This could improve competition; though it could also slow down improvements in NPAs of government-owned banks. Such sharp increases have made the task of managing the inflows difficult; both in terms of their sterilization and in terms of ensuring a competitive exchange rate. There is also the risk that as global interest rates change and the perception of a depreciation of the rupee rise that there will be large outflows.

Improvements in reserves have enabled the RBI of relax controls on resident Indians. Developments in capital market

The following table gives details of various indicators of capital market development.

Data relating to years after 1997 was not readily available. However, as can be seen from the above table, post liberalization market capitalization as indicated by the ratio MCAP/GDP has risen. Similarly the number of listed companies has gone up. These are indicators of increased depth in the capital market.

We now assess the position with regard to external debt and more specifically short-term external debt. Short-term external debt increased rapidly, as policy controls on borrowings were relaxed (Joshi, 2003) and was a contributory factor in the 1990-91 balance of payments crisis of the Indian economy, when India ran out of foreign exchange, which situation had been exacerbated by some withdrawal of NRI deposits and by the sudden stoppage of NRI remittances to India, mainly because of the Gulf war and loss of jobs by Indian nationals in the Middle East. The short-term external debt has fallen substantially by the mid 1990s and was 3 percent of total external debt by June 2002. However, in response to policy changes with regard to NRI deposits and the continued gap between Indian interest rates and foreign

interest rates, there has been substantial rise in the percentage during 2003. The percentage stood at 5.3 percent by end of June 2003.

Table 7: Indicators of capital market development

Financial	MCAP/	Turnover /	Turnover	NO. of
Year	GDP	GDP	ratio	Listed Cos.
1981	9.64	5.2	59.5	1031
1988	8.6	4.4	59.2	2240
1991	36.2	9.6	57.0	2556
1992	39.0	8.3	37.0	2781
1993	50.3	8.4	27.5	3263
1994	51.3	9.0	24.0	4413
1995	45.4	4.1	10.5	5398
1996	50.2	7.4	17.0	5999
1997	52.6		42.0	5843

Source: http://www.ieg.nic.in/dis_rna_20.pdf

The gross fiscal deficit declined in mid 1990s but again picked up and now stands between 9 to 10 percent. This is substantially higher than what the Tarapore Committee (1997) had recommended as the precondition for full convertibility.

Table 8: Gross fiscal deficit as percentage of GDP

	1990-91	1995-96	2001-02	2002-03	2003-04
				RE	BE
Gross Fiscal Deficit	9.4	6.5	9.9	10.1	9.2

RE: Revised Estimates. BE: Budget Estimates

Source: RBI. 2003. Annual Report Table

In this section we assessed the relevant financial development indicators such as NPAs, inflation, gross fiscal deficit, CAD, external debt of the Indian economy. Our assessment shows that there has been continuous improvement with regard to all the indicators with the exception of gross fiscal deficit.

4. Conclusion

There is a continual debate among economists about the relative merits of a rapid transition to full capital account convertibility (the so-called "big bang" approach) and a more gradualist approach which emphasises reforms in the real economy and financial system and liberalising the current account before opening the capital account. In line with Stiglitz-Krugman argument India has not rushed into capital account convertibility. It has steadily moved in this direction at a slow and calibrated pace. Starting from current account

convertibility in 1994, it introduced full capital account convertibility first for NRIs in early 2002 and with the decisions in January 2004 it has substantially begun the process of introducing full convertibility for India. There have been noticeable gains in terms of strengthening of the financial system. Nevertheless, we feel that until the position with respect to gross fiscal deficit and the NPAs improves, India should not introduce full capital account convertibility. There is also the question of whether or not introducing capital account convertibility for NRIs was necessarily in the best interest of India at this time. It has increased short-term liabilities; around a third of foreign exchange reserves in 2004 were of short-term nature. It has also made the task of keeping the exchange rate competitive much more difficult. In addition there are rising difficulties in sterlising such inflows. A change in policy to pay no margin over Libor to such deposits will help to slow down these flows. Any further liberalisalisation is not yet warranted and the RBI should keep open its option of introducing controls on short-term flows, if the situation changes. This is because the gains from additional improvements in allocative efficiency are now small and the additional costs of `herd' behaviour both in terms of inflows and outflows have increased and are likely to be large.

References

Athukorala, Prema-chandra 2003. FDI in crisis and recovery: lessons from the 1997/98 Asian crisis. *Technical Report Working papers in Trade and Development no.2003/04*, Economics, RSPAS, ANU.

Arun, T. G.; and Turner, J. D. 2002. Financial Sector Reforms: The Indian Experience, *The World Economy*, vol. 25 (3), pp. 429-445.

Campion, M. and Neumann, R. 2003. Compositional Effects of Capital Controls – Theory and Evidence. *The World Economy*. Vol.26 (7) pp.957-974.

Edwards, S. 1999. How effective are Capital Controls? *Journal of Economic Perspectives*. 13 (4). pp.65-84.

Fischer, S. & Cooper, R.N. & Dornbusch, R. & Garber, P.M. & Massad, C. & Polak, J.J. & Rodrik, D. & Tarapore, S.S., 1998. "Should the IMF Pursue Capital-Account Convertibility?," Princeton Essays in International Economics 207, International Economics Section, Departement of Economics Princeton University,

Goldsmith, R. 1969. *Financial structure and Development*, New Haven, CT: Yale University Press.

Joshi, V. 2003. India and the Impossible Trinity. *The World Economy*. April. Vol. 26 (4) pp. 555-584.

McKinnon, R. 1973. Money and Capital in Economic Development; Brookings.

_____1991. *The Order of Economic Liberalisation*; Baltimore: John Hopkins University Press.

Montiel, P. and Reinhart, C. 1999. Do Capital Controls and Macroeconomic Policies Influence the Volume and Composition of Capital Flows? Evidence from the 1990s. *Journal of International Money & Finance*, 18, pp.619-635

Narasimham Committee, 1991. *Report of the Committee on Financial System*, Chairman M. Narasimham, Reserve Bank of India, Mumbai.

Narasimhan Committee. 1997. Committee on Banking Sector Reform, Gazette of India-Extraordinary Notification, Part II, Sec 3 (ii), Ministry of Finance, Government of India.

Pierre-Richard, A. 2003. Benefits and costs of International Financial Integration: Theory and Facts, *The World Economy* Vol.26 (8) pp.1089-1118.

Reserve Bank of India. 2002, A. P. (DIR Series) circular no. 28, March 4.

Roubini, N. 2004. http://www.stern.nyu.edu/globalmacro/ Accessed on 20 February 2004.

Stiglitz, J. 2002. Globalization and Its Discontents, W.W. Norton & Company. USA.

Tarapore Committee. 1997 Report of the Tarapore Committee on capital account convertibility, Reserve Bank of India, Mumbai.

The Hindu, 2004, Full convertibility: Caution still the watchword, The Hindu, February, 9.

Vander Maelen, D. 2000. Tempering Speculation: The Tobin Tax would calm global markets and ease poverty, Toward Freedom, vol 49 (2) [Available at http://www.towardfreedom.com/2000/may00/index.htm Accessed on 18 Feb 2004].

World Trade Organisation. 2001. Document S/CSS/W/71, para 4, 4th May.

World Trade Organisation. 2001. Document S/CSS/W/86, para 5, 11th May.