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India's external debt: A management perspective

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Abstract

This paper is an attempt to examine management and sustainability position of India's external debt. It first discusses intricacies of India's external debt management policy, and then assesses sustainability position of India's external debt during a period from 1990-91 to 2016-17 by using present value approach prescribed by World Bank and International Monetary Fund (IMF). The study observes that India's external debt is well managed and within sustainable limits.

Keywords: Debt accumulation, debt sustainability, debt overhang, debt crisis, debt service

Introduction

Indian economy during nineties suffered various economic complications, such as gulf crisis, unsustainable cumulative fiscal deficits and the spilled over effect on current account deficit, high import bill, lower exports and negative invisibles growth recorded all time high current account deficit (Cerra & Saxena, 2002) [2]. To coup up with these issues, the Government of India had to draw down its gold reserves and pledge with International Monetary Fund (I MF) for external borrowings under modified compensatory and contingency financing facility. Besides these developments, the government announced a series of corrective measures to improve country's Balance of Payment (BoP) situation.

For immediate improvement in BoP account, the government focused on import reduction, export promotion and mobilization of external finance as a supplement for targeted growth rate (Economic survey, 1991-92) [8]. Economic theory suggests that whatever gap is leading the economy, the foreign resources can be diverted to fill the gap and to achieve the desired growth rate. Following these lines, the government of India availed external finance from international financial institutions at concessional rates and in forms of bilateral finance from the international market.

It is commonly observed that developing countries have better investment opportunities and chances of growth. Hence, large accumulation of external debt in these countries, if used wisely, may generate positive indications, and play a vital role in the development process of the country. The consequences of large accumulation of external debt, however, will differ if it is unproductive. The external debt is said to be unproductive when borrowed external funds are used for unproductive projects which generate less return than its cost. The negative side of the large accumulation of external debt involves several issues associated with debt overhang, debt servicing, debt crisis and macroeconomic instability. To avoid negative consequences and ensure productivity of hefty external borrowings, a country needs to manage them effectively. External debt management is an integral part of the management of BoP and the macroeconomic situation with direct interface with macroeconomic variables, such as, exchange rate, price level, aggregate demand, output etc.

This paper is divided into four sections. Section one focuses on the growth profile of India's external debt, section two presents theoretical foundation on the concept, intricacies and approaches of external debt management, section three examines various facets of the management and sustainability of India's external debt since 1991, and section four reviews policies and strategies adopted by the government of India to manage external debt. It finally wraps-up the findings of the study.

India's external debt: Growth profile

Since 1991-92, Indian economy had high volume of gross external debt, recorded at US\$ 83801 million. It was attributed to the presence of the BoP crisis led by chronic current account deficits, which in turn increased the borrowing requirements in the economy.

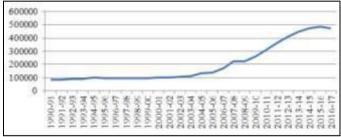
The historical data compiled in table 1 show that India's external debt reached to US\$ 99008 million in 1994-95. This growth in volume of external debt was a result of

unfavourable BoP, chronic current account deficits and valuation changes in the exchange rates (Ministry of Finance, 2001) [9].

Table 1: India's external debt (US\$ millions)

Year (End march)	External debt	Year (End march)	External debt
1990-91	83801	2004-05	132973
1991-92	85285	2005-06	138133
1992-93	90023	2006-07	172360
1993-94	92695	2007-08	224407
1994-95	99008	2008-09	224498
1995-96	93730	2009-10	260935
1996-97	93470	2010-11	305861
1997-98	93531	2011-12	360766
1998-99	96886	2012-13	409464
1999-00	98263	2013-14	446178
2000-01	101326	2014-15	474675
2001-02	98843	2015-16	484989
2002-03	104914	2016-17	471852
2003-04	111645	-	-

Source: External debt status reports (Various issues), ministry of finance, Govt. of India



Source: External debt status reports (various issues), ministry of finance, Govt. of India

Fig 1: External debt (US\$ millions)

The volume of external debt increased from US\$ 93730 million in 1995-96 to US\$ 101326 million in 2000-01, and further to US\$ 111645 million in 2003-04 owing to surge in NRI deposits and private debt. The gross external debt recorded at US\$ 132973 million in 2004-05 increased quickly to US\$ 172360 million in 2006-07 (figure 1). It was again caused by valuation changes in the exchange rates and the increase in ECBs. ECBs during this period were increased due to the large amount of redemption of bonds, namely India Millennium Deposit (Ministry of Finance, 2007) [10].

Surge in volume of external debt during 2007-08 to 2010-11 from US\$ 224407 million to US\$ 305861 million once again caused by valuation changes in exchange rates (weakening of dollar against major currencies) and increased contribution of ECBs and NRI deposits in total gross external debt. The period from 2011-12 to 2015-16 also observed rising trend in gross external debt because of the existence of current account difficulties and rising private debt flows, which included ECBs and NRI deposits (Ministry of Finance, 2015) [12]. At end-March 2017, slight decrease in the volume of external debt (from US\$ 484989 million in 2015-16 to US\$ 471852 million in 2016-17) was recorded. This was mainly attributed to global subdued economic conditions and resultant decline in ECBs and the share of NRI deposit s (Ministry of Finance, 2017) [13].

Theoretical foundation and review of literature

External debt management includes all those practices followed to achieve optimal or sustainable level of borrowings. According to Klien (1994), the underlying principle behind external debt management is that it must be at an optimal level of external borrowings. Broadly speaking,

the optimal level of debt includes those thresholds of borrowings which do not adversely affect economic growth of a country. Pattillo *et al.* (2002) [16] defined reasonable levels of borrowing as that level at which a developing country may enhance its economic growth. Borrowing beyond the optimal level may result into several problems, such as excessive debt service obligations in future, liquidity constraints, debt overhang and other macroeconomic issues.

Pattillo et al. (2002) [16] while explaining debt overhang hypothesis stated "If there is some likelihood in the future, debt will be larger than the country's repayment ability, and expected debt-service costs will discourage further domestic and foreign investment and thus harm economic growth. Potential investors will fear that the more a country produces, the more it will be taxed by creditors to service the external debt, and thus they will be less willing to incur costs today for the sake of increased output in the future". Tuffour (2012) [21] while discussing debt overhang problem mentioned that excessive borrowings lead to higher debt requirements. The higher external debt service crowds-out investment or alters the composition of public spending. In other words, it is a situation where revenue obtained from foreign exchange earnings by a nation is used for debt service payments.

Some researchers in the past, explained debt overhang problem with the help of Laffer curve. Pattillo *et al.* (2002) [16] viewed it as a curve which posits larger debt stocks that tend to be associated with lower probabilities of debt repayment. In the similar lines, Megersa (2014) [7] and Tatu (2014) [20] also mentioned that the Laffer curve, which shows relationship between external debt and economic growth, indicates that debt's contribution to economic growth up to a certain (maximal) threshold and afterwards starts to have a negative effect on it.

Sundell and Lemdal (2011) ^[19], in a study observed that developing countries are more prone to debt overhang problems. They envisioned an adverse effect of debt overhang problem on countries' output and investment climate among the selected developing countries. Reinhart *et al.* (2010) ^[18] also reiterated the adverse effects of debt overhang on countries' output. Okosodo and Isedu (2011) ^[14], while discussing indebtness and macroeconomic risks, stated that borrowings beyond optimum level may create fiscal and monetary issues in the count ry. Ali and Mustafa (2012) ^[1] also in a study on indebtness of Pakistan observed that higher

indebtness had inverse relationship with economic growth. Thus, an excessive level of borrowing invites the problem of debt overhang which in turn hampers a country's investment, output, economic growth, and macroeconomic risks.

To deal with the consequences of excessive external debt and obtain optimal level of external borrowings, the economists and policy makers evolved the concept of external debt management. Many researchers conducted studies to investigate sustainable level of external debt in different economic environments. Pradhan (2004) [17] used conventional ratio approach to examine external debt management and its sustainability in India during a period from 1986 to 2003. He observed that during currency crisis of 1991, the debt position of India was problematic, but after introduction of the process of economic reforms, the external debt position has improved continuously.

Onyekwelu *et al.* (2014) [15] reviewed various management strategies followed by developing countries and examined their implications on the Nigerian economy. The study also accessed the Nigerian external debt management based on conventional ratios and other relevant policy initiatives taken to manage the debt in the timeframe of 2002 - 2012. The findings of the study suggested that the Nigerian debt was sustainable during the period of study. Elwasila (2017) [3], to examine external debt sustainability position of Sudan, analysed various policy initiatives for debt sustainability and the debt burden by using selected ratios on descriptive

statistics for a period from 1992 to 2015. He concluded that Sudan's external debt burden during the period of study had been unsustainable, hence needs government attention.

Present study is an attempt to examine management and sustainability position of India's external debt by using key indicators of India's external debt, and the present value approach prescribed by World Bank and International Monetary Fund (IMF).

Management of external debt in India

It is a common practice to perform external debt sustainability analysis by using debt threshold developed by World Bank. With this ingenuity, India's external debt sustainability position is assessed by considering external debt indicators and thresholds suggested by IMF and World Bank.

1. Key indicators of India's external debt

The performance of external debt in India is monitored on a regular basis through external debt indicators measured in terms of liquidity and sustainability ratios. These include external debt to GDP ratio, debt - service ratio, short term debt to total debt ratio, foreign exchange reserves to external debt ratio and concessional debt to total debt ratio. Table 1.2 exhibits India's key external debt ratios calculated over the period from 1990-91 - 2016-17. The brief description of each of these ratios in presented in following paragraphs.

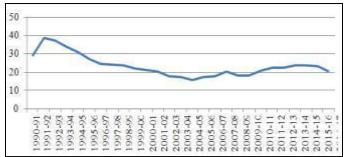
Table 2: Key ratios of India's external debt (In Percent)

Year (End march)	External debt to GDP	Debt service ratio	Short-term debt to total debt	Forex reserve to external debt	Concessional debt to total debt
1990-91	28.7	35.3	10.2	7.0	45.9
1991-92	38.7	30.2	8.3	10.8	44.8
1992-93	37.5	27.5	7.0	10.9	44.5
1993-94	33.8	25.4	3.9	20.8	44.4
1994-95	30.8	25.9	4.3	25.4	45.3
1995-96	27.0	26.2	5.4	23.1	44.7
1996-97	24.5	23.0	4.4	28.3	42.2
1997-98	24.3	19.5	4.0	31.4	39.5
1998-99	23.6	18.8	3.4	33.5	38.5
1999-00	22.2	17.1	3.6	38.7	38.9
2000-01	21.1	16.2	2.8	41.7	35.4
2001-02	20.4	13.6	4.5	54.7	35.9
2002-03	17.8	16.0	4.0	72.5	36.8
2003-04	17.3	15.9	13.3	101.2	36.1
2004-05	15.8	6.0	14.1	106.4	30.9
2005-06	17.5	4.7	16.4	109.8	28.6
2006-07	18.0	4.8	20.9	115.6	23.0
2007-08	20.3	4.4	21.5	138.0	19.7
2008-09	18.2	5.8	20.1	112.1	18.7
2009-10	18.2	4.4	20.4	106.8	16.8
2010-11	20.9	6.0	21.7	95.9	14.9
2011-12	22.3	5.9	23.6	81.6	13.3
2012-13	22.3	5.9	23.6	71.3	11.1
2013-14	23.6	5.9	20.5	68.2	10.4
2014-15	23.8	7.5	17.8	71.8	8.8
2015-16	23,5	8.8	17.2	74.3	9.0
2016-17	20.2	8.3	18.6	78.4	9.3

Source: External debt status reports (Various issues), ministry of finance, Govt. of India

External Debt to GDP Ratio: This ratio shows relationship between debt stock and the gross domestic product (GDP) of a country at the end of financial year. It helps to understand the solvency position of a country and its capacity to service its debt. Lower debt to GDP ratio is considered better, as it

indicates less burden of external debt in relation to the GDP of a country. The trend and vulnerability of this ratio since 1991-92 presented in table 1.2 (figure 2) shows an improvement in external debt position of the country.



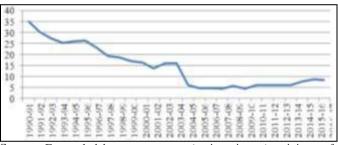
Source: External debt status reports (various issues), ministry of finance, Govt. of India

Fig 2: External debt to GDP ratio

Debt service ratio

Debt service ratio (DSR) shows the relationship between total debt service payment liability, i.e., principal plus interest and current receipts minus of ficial transfers in BoP account. It is considered as a measure of strain on BoP due to its payment requirement from current receipts. The trend s in DSR presented in table 1.2 (figure 3) show a very high (35.3 percent) debt service ratio during 1990-91 caused by the huge burden of external debt on Indian economy. But, with the process of economic reforms and prudent debt management policy followed by government of India, the ratio registered a continuous improvement.

External debt status reports (Various issues), ministry of finance, Govt. of India



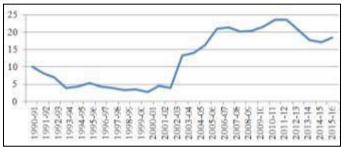
Source: External debt status reports (various issues), ministry of finance, Govt. of India

Fig 3: External debt service ratio

Short term debt to total debt ratio

The short-term debt to total debt ratio shows the proportion of short-term debt in total debt of a country. It is recommended that the proportion of short-term debt should be kept low to avoid liquidity issues. The Large magnitude of short-term

external debt may pose problems in the event of a liquidity crisis when access to international financial markets gets limited and the roll-over/refinancing opportunities are not easily forthcoming (Ministry of Finance. 2011). Table 1.2 (figure 4) indicates a trend in short term debt to total debt ratio since 1990-91.

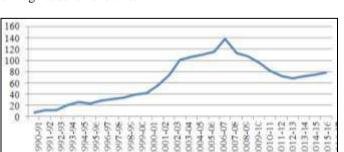


Source: External debt status reports (various issues), ministry of finance, Govt. of India

Fig 4: Short term debt to total debt ratio

Foreign exchange reserve to external debt ratio

Forex reserve to external debt ratio shows the relationship between foreign reserves and total debt. It indicates country's capacity to meet external debt obligations (principal plus interest) from its foreign resources. The trends in this ratio shown in table 1.2 (figure 5) indicate that the position of India's forex reserve was worst in 1990-91; it had only 7 percent forex reserve in relation to total external debt. However, with the process of economic reforms and the corrective actions taken by the government to improve BoP, the situation improved significantly in successive years.



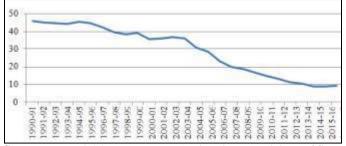
Source: External debt status reports (various issues), ministry of finance, Goyt. of India

Fig 5: Forex reserve to external debt ratio

Concessional debt to total debt

It shows the volume of concessional debt in total debt. It is recommended that the debt should be raised in concessional terms as it makes easier to service in the future. Table 1.2 (figure 6) shows that during the period from 1990-91 to 2000-

01, the ratio recorded a gradual decline from 45.9 percent to 35.4 percent, after that it increased slightly and reached 36.8 percent in 2002-03. Afterwards, it declined significantly to 16.8 percent in 2009-10 and further 9.3 percent in 2016-17.



Source: External debt status reports (various issues), ministry of finance,

Govt. of India

Fig 6: Concessional debt to total debt ratio

Overall decline in this ratio accounted to compositional changes in the volume of total external debt. Though, the government policy on external debt management focused on availing debt under concessional terms; but, due to continuous increase in the share of private debt and fall in share of government debt in total debt resulted in a significant decrease in the proportion of concessional debt in the total external debt of the country.

2. Sustainability of India's external debt

In India, external debt sustainability is assessed based on external debt indicators developed to analyse the debt position in relative terms. These are based on debt repayment capacity, such as GDP, exports, or government revenues. According to IMF (2012), the basic equation for external debt sustainability analysis is:

Debt Indicator = Indebtness
Repayment Capacity

Indebtness repayment capacity

Indebtedness is identified by using measures, such as, liquidity and solvency. Liquidity problems arise when a country has difficulties in meeting its short-term financial obligations, while solvency problems arise when a country

faces repayment difficulties on permanent or protracted basis. The Report of World Bank and International Monetary Fund (IMF) on External Debt Sustainability (2001) [4] mentioned that external debt sustainability can be attained by bringing the net present value (NPV) of external debt down to about 150 percent of a country's exports or 250 percent of a country's revenues. The World Bank regularly publishes the ranges to classify countries as severely or moderately indebted. These ranges are based on a three-year average of the ratios of present value of external debt (PVEXD) to exports of goods & services (XGS) or PVEXD to gross national product (GNP). The PV of external debt is calculated by discounting the future stream of debt service payments for individual loans by appropriate discount rates and aggregating such PVs for all types of loans. The Indebtness benchmarks proposed by IMF and World Bank are presented in Table 1.3. India's external debt indicators presented in table 1.2 show that during the period 1993-94 - 1997-98, country's external debt was 'moderate': but, after 1997-98, the country's external debt position show 'less indebted'. It clearly indicates that India's external debt is managed properly and is within sustainable limits. The developments in India's indebtness position are attributed to prudent debt management policy followed by the government.

Table 3: Indebtness benchmarks

PVEXD to XGS	PVEXD to GNP	Indebtness classification	
PVEXD/XGS >220	PVEXD/GNP >80	Severe	
132 <pvexd td="" xgs<220<=""><td>48< PVEXD/GNP<80</td><td>Moderate</td></pvexd>	48< PVEXD/GNP<80	Moderate	
PVEXD/XGS132	PVEXD/GNP<48	Less	

Source: External debt status report (2001), ministry of finance, Govt. of India

Government policy framework on external debt management

The debt management policy can broadly be analysed on the basis of changes in resources, cost element and the maturity structure. The government of India, particularly after BoP crisis of 1991 had to opt for IMF borrowings under modified compensatory and contingency financing facility. For immediate relief, the government decided to limit imports and encourage exports via incentive schemes for generating foreign exchange reserves. Besides these, it also emphasised on obtaining finance from financial institutions concessional rates and the bilateral and multilateral foreign assistance. These sources of finance significantly contributed to the external debt of the country. Over the period the government of India also focused on foreign reserves build up via NRI deposits, liberalization of external commercial borrowings (ECBs), and by encouraging foreign direct investment (FDI).

In order to ensure effective utilization of external debt, the

government of India adopted sound policy measures year after year to maintain external debt under prudent limits. Trends in external debt and the key ratios indicate improvement in country's indebtness. The status reports and economic surveys published by Ministry of Finance (GoI) also indicate that the external debt of the country had been under prudent limit. With a view to control cost of debt, the government encouraged non-debt creating flows, debt with longer maturity, rationalized terms and interest rates, and retirement/ prepayment of high cost debt. It also focused on sovereign debt on concessional terms, and the refinancing of more expensive sources.

The prepayment of high cost of debt is an integral part of cautious debt management policy. It helps in improving status of external assets and liabilities which in turn contribute to improve international credit ratings. Retiring of high cost debt also helps a country in reducing debt service obligations. The NRI deposits as a part of government policy intend to reduce the cost of borrowing in terms of interest out-go. India's

policy on NRI deposits during nineties aimed at attracting foreign funds in bank accounts by providing exchange rate guarantee and offering higher interest rates than in international markets. Later, the policy was streamlined, and exchange rate guarantee and interest rates were reduced in a phased manner. In this process, rationalization of interest rates on repatriable accounts was done in line with LIBOR (London Interbank Offer Rate) rates. As a result of these changes, interest out-go on repatriable accounts significantly came down.

Another important dimension of India's policy on external debt management is concerned with the limit on short-term borrowings which involve lower maturity profiles and increased debt service obligations. For generating resources with higher maturity period, the government of India introduced external commercial borrowings (ECBs) with minimum maturity profile of three years, rationalized interest rates and annual cap on the borrowings by the corporate sector. ECBs, an augmented source of finance to Indian corporates can be raised from automatic route and approval route. These provide flexibility towards its usage and maintain external debt within prudent limits. In order to provide greater exposure to Indian corporates in international markets, the Government, over the years relaxed the policy on ECBs by revising annual cap and its end use.

Conclusion

The discussion in preceding sections of the paper divulges that since 1991 India's external debt has increased significantly owing to weak BoP situation, chronic current account deficits, valuation changes in exchange rates and other policy related aspects. However, most of the debt indicators discussed above portray signs of improvement in country's indebtness position. It is pertinent to mention here that India's external debt had always been dominated by US\$, and its composition has changed from public owed debt to private owed debt funds, and from short term debt to long term debt. The debt sustainability position analysed by using benchmarks proposed by IMF and World Bank indicates that India's external debt had been under sustainable limits. In a nutshell, due to prudent debt management policy, India's external debt is well managed and is within sustainable limits.

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