

Original Article

Impact of Regulations on ECB Inflows

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Abstract - External commercial borrowings (ECB) are loans availed by resident entities from non-resident eligible lenders under norms established by the government. The government amends its policies from time to time to enable domestic enterprises to borrow from global markets. Since liberalisation, the Government of India also has relaxed its policies to allow Indian firms to access the international capital markets. The present study focuses on the examination of the impact of key changes in ECB policy done by the government of India on ECB inflows. This is performed by conducting CHOW breakpoint analysis and ARIMA modelling methodologies. The results of the CHOW break test indicate a significant impact of policy changes on the pattern of capital inflows, and the findings of the ARIMA model indicate a significant gap between actual and forecasted ECB inflows.

Keywords - External Commercial Borrowings, policy changes, liberalisation, Reserve Bank of India, Foreign Exchange Management Act.

1. Introduction

As an emerging economy, India needs to finance its short and long-term capital needs from various internal as well external sources. These sources primarily include owned and borrowed funds. The borrowed funds comprise overseas loans categorised under external debt, which is one of the major parts of India's balance of payment account (BoP).

The data on India's external debt compiled by the Ministry of Finance (GoI) and the Reserve Bank of India (RBI) delineates an upward trend, indicating a high demand for external debt in the country.

It is noteworthy that foreign currency borrowings by Indian corporates, i.e., external commercial borrowings (ECB), have gained prominence in India's total external debt in in last few decades.

ECBs are the commercial loans availed in foreign currency by Indian corporates from non-resident lenders. These can be raised through the issue of securitised instruments like bonds and floating rate notes. Generally, it includes borrowings in the form of foreign currency convertible bonds (FCCBs), foreign currency exchangeable bonds (FCEBs), buyers and suppliers' credit, and trade credit. From the 1950s to the 1980s, Indian firms could access international capital markets only through bilateral and multilateral assistance.

Later, these sources were supplemented with commercial borrowings. Initially, the Department of Economic Affairs and Ministry of Finance (DEA, MoF) used to frame the ECB policies through the guidelines, which were later handed over to RBI.

Now, ECBs in India are governed by FEMA (Foreign Exchange Management Act, 1999). The high-level committee of FEMA advises the Government of India to formulate, review, and publish ECB policy in consultation with RBI through the guidelines or press releases from time to time. While formulating or modifying ECB policy, the authorities generally consider changes in macroeconomic indicators, such as prevailing exchange rates, interest rate differentials, currency depreciation, and many other factors such as corporates' needs, end-usage of ECB, condition of external financial markets, challenges in external sector management, and the trend of ECBs.

After the enactment of FEMA in 1999, the Government of India has liberalised its ECB policy from time to time to allow Indian firms to access the international capital markets on a larger scale. Recently, with a view to enhancing the borrowing options for Indian firms and easing the borrowing procedure from the international market, the GoI eased out the ECB regulatory framework to a greater extent. The Sahoo Committee (2013) constituted to develop a framework to access the domestic and overseas capital markets. It came out with a report on ECBs, which focused on assessing the currency risk of Indian firms. It analysed earlier ECB policies and suggested that the policies framed should aim to make the capital available to the firms at the lowest possible cost. The committee also provided certain recommendations on the regulations of ECBs and strongly recommended hedging the semantic risk and allowing ECBs denominated in Rupee.

The ECB policy interventions made by the government of India led to a rise in the ECB inflows in the country, which resulted in the high accumulation of debt in the past few decades. This study focuses on the policies undertaken by the government to ease the ECB norms. It examines the



impact of policy changes (exogenous shocks) on the trend and pattern of ECB inflows over time. It aims to answer two questions, viz., (i) whether policy announcements cause fluctuations in ECB inflows and (ii) whether a structural break exists in the ECB inflows. The first section of the paper gives an overview of the problem, the second section presents a brief review of the literature, the third section enumerates major policy changes, fourth section portrays the flow of ECBs in India over a period from 2001 to 2022 and describes results based on CHOW breakpoint analysis, and the fifth section concludes the study.

2. Literature Reviews

ECB is an emerging issue in the Indian capital market, and there is a paucity of literature on issues related to the intricacies of ECBs in India. However, a few researchers attempted to identify determinants and risks involved in ECBs and describe policy changes concerned with ECBs in India. A brief review of these studies is presented below:

The phenomenon of emerging and developing economies experiencing growth in ECBs has raised concerns regarding the potential for crises and the subsequent threat to financial stability in India. In a study conducted by Singh (2009), it was observed that domestic real activities, interest rate differentials, and credit market shocks at the global level influence the increasing demand for ECBs in India. In a study conducted by Goyal (2014), an examination was made of the macroeconomic implications that arise from capital inflows to India. The author delved into the various factors and consequences associated with this phenomenon, shedding light on its potential effects on the Indian economy.

The individual expressed the notion that individuals responsible for creating policies should implement appropriate actions to guarantee that the inflow of funds through the ECB has a beneficial effect on the overall state of the economy. The influence of regulations on ECB inflows in India was described by Patnaik et al. (2016). The authors noted that the government's approach towards formulating ECB policies exhibits a liberal stance, which in turn has led to a rise in foreign capital inflows. This, in effect, has contributed to an escalation in systemic risk arising from unhedged borrowings. In his study, Sethuram (2018) highlighted the importance of considering the impact of modifying ECB policies on foreign currency inflows, specifically in the context of the RBI.

Ray et al. (2017) analysed the impact of micro and macro factors on the trend and composition of ECBs in India. They mentioned that among various factors, capital account openness plays an indicative role in influencing ECB flows. They also mentioned that interest rate reduction, partially flexible exchange rates, and inflationary conditions are the prominent factors which have an adverse impact on ECB flows and may encourage domestic credits. Bose et al. (2017) analysed the impact of export-oriented policies enabling access to ECBs to Indian firms. Based on the sensitivity of exporting activities of financially vulnerable firms they observed that the firms availing ECBs have

higher exporting activities as compared to those having access to domestic finance sources only. They suggested considering hedging cost and currency risk while availing cheap and affordable loans from the foreign market. ECBs comprise the largest part of India's external debt and play a significant role in the debt accumulation of the country (Tripathy, 2019).

Pradhan and Hiremath (2019) examined the trends and policies related to ECBs and suggested an appropriate decision on the ECB cap. Pradhan and Hiremath (2020), while examining the effects of ECBs on the investment of Indian corporates, suggested limiting the dependence on ECB, particularly during the period of currency depreciation. They, however mentioned that it would be possible when easy and cheap credit would be made available to Indian corporates within the country. Saxena (2020), in a study on the dynamics of ECBs in India, observed that ease in ECB policy during 2019 raised the level of overseas borrowings, which resulted in a negative impact on the balance sheet of the firms. Focusing on the dangerous side of ECB inflows, he suggested that the government should be cautious while formulating the policies of ECB, and Indian corporates while applying for ECBs, should consider exchange rate risks. Pradhan and Hiremath (2020) in their study observed that the over-dependence of Indian corporates on external sources of financing and a continuous depreciation in the currency is resulting in the shrinking of Indian exports. Ranjeev (2022) found the Index of Industrial Production (IIP) as a pull factor for the ECB. He mentioned that IIP has a positive link with ECB inflows in India in both the long and short term. He also suggested the best hedging ratio (63 per cent of ECB exposure) during periods of high volatility.

The empirical research conducted on the phenomenon of ECBs in India has revealed a significant prevalence of ECB utilisation among corporate entities. This widespread adoption of ECBs has subsequently led to a substantial accumulation of external debt within the Indian economy. Several studies have examined the primary factors contributing to the inflow of ECBs in the country. These investigations have sought to identify the determinants that attract Indian corporates to leverage the advantages offered by external sources. The current investigation centres around the underlying factor, namely the changes in governmental policies to support corporations in accessing ECBs, which essentially refers to the facilitation of obtaining loans from foreign sources. Furthermore, the paper provides an estimation of the disparity between the observed and predicted trajectory of the ECB in India.

2.1. The Problem

The exponential growth of ECBs in India is a noteworthy phenomenon. The current trend indicates a rapid increase in the volume of ECBs being undertaken. This development has caught the attention of researchers and policymakers alike, as it has significant implications for the Indian economy. The potential escalation of financial risk may be attributed to excessive dependence on the ECB as a

sole source of support without concurrently addressing the fundamental issues related to the capital structure. However, it is important to acknowledge that the application of cautious financial management techniques and the incorporation of a well-balanced capital framework possess the ability to alleviate potential risks linked to the ECB.

3. ECB Policy Framework

To improve the ease of doing business, the government of India and RBI in January 2019 decided to rationalise the policy framework pertaining to ECBs and RDBs. Some of the salient features of the new policy framework include:

- Erstwhile, three tracks of availing ECBs merged and categorised into two major divisions; the first category, termed "Foreign Currency Denominated ECB", merged Track I and II, and the second category (Track III – Rupee Denominated Bonds) changed as "Rupee Denominated ECBs".
- Expanded the list of eligible borrowers.
- The list of recognised lenders now includes the multilateral and financial institutions' foreign branches/subsidiaries of Indian banks.
- Minimum Average Maturity Period (MAMP) for all ECBs will be 3 years.
- Eligible borrowers under the automatic route can raise ECBs to USD 750 million or equivalent per financial year. In the case of foreign currency (FYC) ECB raised from direct foreign equity holders, the ECB liability-equity ratio should not exceed 7:1.

3.1. Foreign Currency (FYC) Denominated ECB

- The foreign currency of the ECB (bank loans, floating/fixed rate notes/ bonds or debentures, trade credits beyond 3 years; FCCBs, FCEBs, and financial leases) can be any freely convertible foreign currency.
- The eligible borrowers of ECBs include all the entities eligible to receive FDI, including port trusts, SIDBI, EXIM Bank, and units in SEZ.
- In the case of foreign currency ECBs, the borrowers are allowed to convert foreign currency into freely convertible foreign currency or the INR. The exchange of foreign currency ECBs to INR ECB will be at the exchange rate prevailing on the date of agreement or at an exchange rate agreed upon between the parties concerned, whichever is less.
- The hedging provision of foreign currency is subject to certain guidelines. The infrastructure space companies are required to hedge 70 per cent of their ECB exposure compulsorily if the MAMP is less than 5 years.

3.2. INR Denominated ECB

- INR ECBs include bank loans, floating or fixed rate notes, bonds or debentures, preference shares, trade credits, financial leases, and plain vanilla RDBs issued overseas.
- The eligible borrowers consist of borrowers eligible to raise FYC ECBs and registered entities engaged in microfinance activities.

- The exchange rate for conversion of INR ECBs is the rate prevailing on the date of settlement. The exchange of INR ECBs to any other currency is not permitted.
- All the overseas investors of INR ECBs are eligible to hedge their exposure in Rupee with A.D. Category I banks in India.

The recognised leaders in both cases (FYC ECB and INR ECB) are the same. These should be residents of the Foreign Action Task Force (FATF) or International Organization of Securities Commissions (IOSCO) compliant country. The Minimum Average Maturity Period (MAMP) of 3 years is also the same in both cases and before completion of MAMP, call and put options cannot be exercised. The All in Cost (AIC) ceiling per annum (i.e., benchmark rate plus 450 bps spread) is also the same in both cases. The government decides the end-uses of ECBs. The negative list of end-uses for which ECB proceeds cannot be used includes real estate activities, investment in the capital market, and equity investment.

The chronology of ECB policy changes during 2001 – 2022 presented in box – 1 indicates that many other events of liberalisation and modification of ECB rules are considered important by lenders and borrowers and resulted in an increase in the ratio of ECBs to overall external debt. However, these could bring very little impact on net ECB inflows. The major amendment in ECB policy was done in the year 2015 when the government for the first time, introduced bifurcation of ECBs into 3 Tracks. It resulted into increase in an increase in ECB inflows to 34 per cent in 2016.

4. Analysis and Findings

In 1991, the government of India liberalised its trade policies and started welcoming all types of debt and non-debt foreign capital flows into the country, one of which was the ECB. The data (table 1) shows that ECB inflow in India has been highly volatile since the implementation of new economic policies (1991). In the initial two years, there was a decline in the percentage of ECB inflows; it gained momentum with a 155 per cent increase in 1993, most likely due to the removal of trade barriers and the privatisation of government-owned sick units. The enactment of FEMA (1999) also resulted in a significant increase of 200 percentage in ECB inflows. Due to the revision of all-in-cost ceilings and removal of the prepayment limit of USD 100 million in 2003, the ECB inflows again registered a significant increase of 73.75 and 57.89 percentage in two consecutive years, i.e., 2004-05 and 2005-06, respectively. However, due to a large increase in ECB outflows from USD 3890 million in 2004-05 to USD 11835 million in 2005-06, net inflows fell significantly by 51.71 percentage in 2005-06.

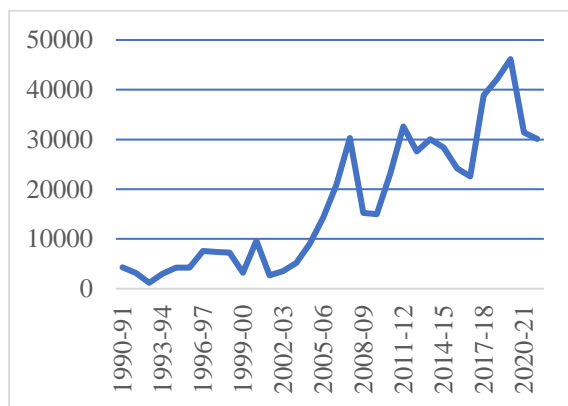
The government of India in 2005-06 enhanced the list of eligible borrowers, which resulted in an enormous increase in ECB inflows from USD 14343 million in 2005-06 to USD 20883 million in 2006-07. Again, with expansion in MAMP from 5 to 10 years in 2006, the ECB inflows

increased by 45 percentage in 2007-08. With changes in all-in-cost ceilings and prepayment limit of ECBs implemented in 2007 and 2008, the ECB inflows decreased sharply by 49.74 percentage in 2008-09; it may also be caused by the economic shocks of 2008. This drop showed a reverse trend after 2009-10 with a 54.4 per cent and 41.14 per cent increase in ECB inflows in 2010-11 and 2011-12, respectively. After a critical adjustment, although no substantial impact was observed in ECB inflows in 2015-16 and 2016-17 due to the war situation in Russia, an upshot of 72.15 percentage was reflected in 2017-18. The modification in the ECB general policy framework (January 2019) again increased ECB inflows and decreased outflows, which led to an increase in net ECB inflows by 120 per cent in 2019-20.

The present study focuses on the examination of the impact of key changes in ECB policy done by the government of India on ECB inflows. This is performed by conducting CHOW breakpoint analysis and ARIMA modelling methodologies. CHOW breakpoint analysis is used to determine structural changes in the data series, and ARIMA modelling is done to compare the forecasted and actual ECB flows. Structural breaks generally occur when the trend of a series is affected by an event or the movement in a particular series is distorted or truncated. While analysing breakpoints in the series of ECB inflows, it was discovered that the government implemented a significant interventional strategy in the years 2006, 2015, and 2019, which resulted in a shift in the structure of ECB flows.

CHOW breakpoint analysis consists of three important stages: the first is to draw a series graph, the second is to perform initial regression, and the third is to run the CHOW Breakpoint test. Graph 1, shown below, demonstrates a sharp change in the pattern of the ECB inflows between 1990-91 and 2021-22.

Graph 1. ECB Inflows



Source: Author's calculation

The results of regression analysis presented in Table 2 reject the null hypothesis of no breakpoint since F-statistics is significant at a 5 percentage level of significance. The CHOW breakpoint test validated by plotting the CUSUMSQ (Graph 2) mirrors a digression away from the border at a 5 percentage level of significance level,

suggesting a break in the series from the tenth observation (1999-2000) to the thirtieth observation (2019-20).

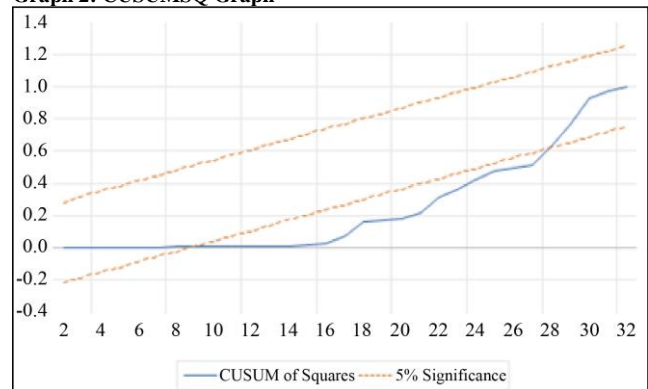
Table 2. CHOW Test

F- statistics	14.98380	Prob. F (1,19)	0.0010
Log likelihood ratio	12.21034	Prob. Chi-Square (1)	0.0005
Wald Statistics	14.98380	Prob. Chi-Square (1)	0.0001

Source: Authors calculation using Eviews

The stability diagnostics conducted using the CUSUMSQ method reveal the presence of a breakpoint in the series, specifically in the years 2006 and 2019. This breakpoint signifies a significant increase in ECB inflows.

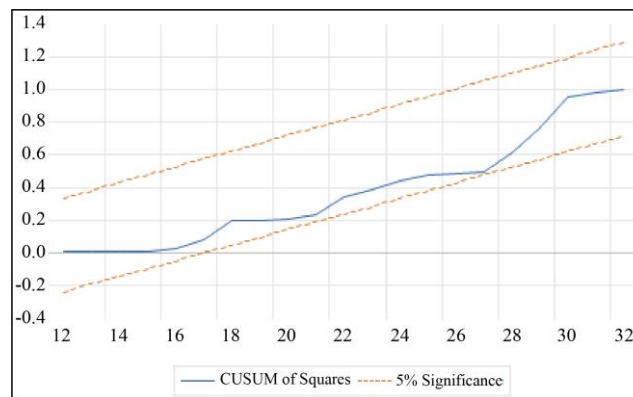
Graph 2: CUSUMSQ Graph



Source: Author's calculation

As the breakpoint appears to exist in the series, a dummy variable is created to check the model's specification; in this case, the ten observations, i.e., 2000-01, are considered. The values above the tenth observation are marked as 0, and the values after that are marked as 1. The model is stable and falls under the 5% threshold of significance after regressing and using the CUSUMSQ test to assess the dummy variable's stability diagnostic.

Policymakers and regulators estimate future trends of some economic series to formulate policies based on earlier realisations of such variables. To analyse and forecast the flow series at breakpoints, the researchers employed the Autoregressive Integrated Moving Average (ARIMA) model methodology. ARIMA model consists of four steps, viz., identification, estimation, diagnostic checking, and forecasting. The identification technique comprises displaying the series to illustrate its stationarity and calculating the autocorrelation function (ACF) and partial autocorrelation function (PACF) of raw data based on the correlogram. Since ACF and PACF are outside the 5 percentage level of significance, the ECB inflows series is non-stationary. Hence, first difference of the raw data is used to construct the correlogram again (Graph 3). It demonstrates the same pattern of ACF and PACF, and both ACF and PACF are statistically significant at the third and seventh lags. ARIMA (3,1,3), ARIMA (3,1,7), ARIMA (7,1,7), and ARIMA (7,1,3) are four preliminary ARIMA pattern models for differenced ECB series.

Graph 3: CUSUMSQ with Dummy variable.

Source: Authors' calculation

Table 3. Result of equations estimates through four arima models

Differenced ECB credit	ARIMA (3,1,3)	ARIMA (3,1,7)	ARIMA (7,1,3)	ARIMA (7,1,7)
Significant coefficient	1	2	2	0
Sigma2 (volatility)	31168559	23643038	25969545	25594093
Adj. R2	0.1283	0.3387	0.2737	0.2842
AIC	20.38	20.19	20.25	20.42
SBIC	20.57	20.38	20.44	20.61

Source: Author's calculation using Eviews

Among four models, ARIMA (3,1,7) is found to be the most suitable model with the most significant coefficient (P value < 0.05), lowest sigma square (volatility), greatest adjusted R square, and lowest Akaike info and Schwarz criterion (Table 3).

The correlogram of the residuals (Graph 3) is flat. It falls between the 5 percentage threshold of significance, indicating that all the information has been collected and the model is fit for forecasting. To determine whether the forecast is accurate or not, the projected series graph is compared to the actual series.

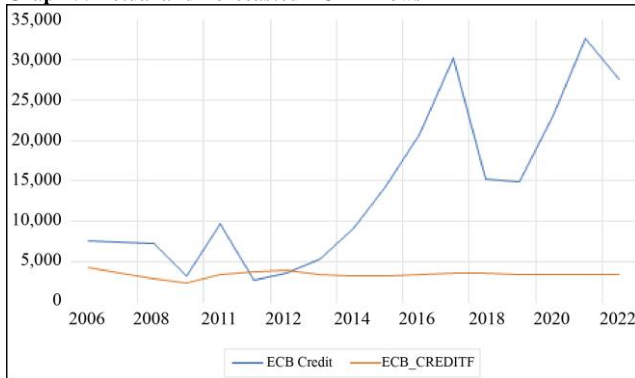
The forecast series based on the ARIMA (3,1,7) model is resented in Graph 5. In the graph, ECB credit is actual ECB inflows, and ECBF represents forecasted ECB inflows for a period from 2006 to 2022.

It indicates that there is a significant difference between actual and forecasted ECB inflows, and the actual ECB inflows follow the government's policy shift in 2006, 2015 and 2019.

Graph 4: Correlogram

Sample (adjusted): 2 32		Included observations: 31 after adjustments				
Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob	
		1	-0.070	-0.070	0.1684	0.682
		2	-0.192	-0.198	1.4721	0.479
		3	-0.348	-0.396	5.9022	0.116
		4	0.096	-0.041	6.2495	0.181
		5	-0.114	-0.324	6.7575	0.239
		6	0.156	-0.055	7.7483	0.257
		7	0.268	0.273	10.805	0.147
		8	-0.037	-0.086	10.868	0.209
		9	-0.316	-0.160	15.521	0.078
		10	-0.057	0.049	15.682	0.109
		11	0.103	-0.081	16.227	0.133
		12	0.166	0.123	17.719	0.125
		13	0.012	0.053	17.727	0.168
		14	-0.050	-0.174	17.877	0.212
		15	-0.080	0.091	18.285	0.248
		16	-0.125	-0.074	19.349	0.251

Source: Author's calculation using Eviews

Graph 5: Actual and Forecasted ECB Inflows

Source: Author's calculation

5. Conclusion

The present study aims to provide a comprehensive analysis of the effects of the ECB policy measures implemented by the RBI on its inflows. By examining the relationship between the policy measures and capital inflows through the ECB, this research sheds light on the potential impact of ECB policies on the Indian economy.

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Additionally, through a comprehensive evaluation of the policy change, this study aims to identify individual policy adjustments, which will offer valuable insights into the underlying dynamics of ECB inflows. According to the available data, it is observed that alterations in policies exert a significant influence on the pattern of ECB inflows. The CHOW breakpoint analysis, conducted using E-views, has revealed the presence of a structural break in the series of the stock of the ECB as recorded in the Balance of Payment Account of India.

Moreover, the ARIMA model indicates that the inflows from the ECB should exhibit a consistent change after 2005. However, the observed trend displays an upward trajectory, which raises concerns for the country. This alarming situation has been highlighted by the International Monetary Fund (IMF) in 2023. The observed data suggests a noticeable change in the inflows, which may indicate that the Reserve Bank of India has implemented measures to facilitate the availability of External Commercial Borrowings (ECBs).

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Appendix: I

Box – 1: ECB Policy Changes Since 2001	
2001	No change
2002	More than 70 percentage of the export proceeds can be credited by the corporates in their EEFC account.
2003	Revision of all-in-cost ceilings and prepayment limit of USD 100 million is removed.
2004	Revision of all-in-cost ceilings.
2005	Enhance the list of eligible borrowers.
2006	The MAMP is extended from 5 years to 10 years.
2007	Changes in the all-in-cost ceilings and changes in the prepayment limit to USD 400 million.
2008	All-in-cost ceilings are again modified. The limit for Rupee expenditure was raised.
2009	No change
2010	Changes in all-in-cost ceilings, i.e., 500 bps for more than 5 years.
2011	Issuance of ECB in Renminbi (RMB) under the approval route. Enhancement of ECB under automatic route, the limit has been raised from USD 500 million to USD 750 million—enhancement of all-in-cost ceilings.

2012	<p>SIDBI is now an eligible borrower for availing ECB for on-lending to the MSME sector, only for permissible end uses, under the MSMED Act, 2006</p> <p>The limit for availing ECBs under automatic route by the eligible borrowers is enhanced to USD 750 million. The revised guidelines are:</p> <ul style="list-style-type: none"> (a) MAMP of 3 years for ECB up to USD 20 million (b) MAMP of 5 years for ECB above 20 million and up to 750 million. <p>The eligible borrower can also raise FCCBs to USD 750 million for permissible end uses. Moreover, the corporates in the service sector can raise FCCBs to USD 200 million. The refinancing of existing outstanding FCCB can now be reckoned as part of the limit of USD 750 million available under automatic route.</p>
2013	<p>The limit for NBFC-IFCs is now allowed to avail ECBs up to 75 percentage of owned funds under automatic route.</p> <p>The hotel sector is also allowed to avail ECBs for refinancing the Rupee loan availed from the Indian banking system.</p>
2014	<p>The definition of the infrastructure sector will now include 'Maintenance, Repair and Overhaul' (MRO) as a part of airport infrastructure.</p> <p>It has also been decided that eligible Indian companies are now not allowed to raise ECB from overseas subsidiaries of Indian banks for refinance/ repayment of the Rupee loan raised from the domestic banking system.</p> <p>The eligible ECB borrowers are permitted to park their ECB proceeds both under automatic and approval routes in terms of deposits with A.D. Category I banks in India for a maximum period of six months.</p>
2015	<p>ECB Policy regarding issuance of Rupee-denominated bonds from overseas, with an MAMP of 5 years.</p> <p>Revised ECB framework:</p> <p>Removed various restrictions on end-uses and expanded the list of overseas lenders to include long-term lenders such as insurance companies, pension funds, sovereign wealth funds, etc. There will now be 3 Tracks: Track I, II and III, comprising of medium-term foreign currency-denominated ECB with MAMP of 3/5 years, long-term foreign currency-denominated ECB with MAMP of 10 years, and Indian Rupee-denominated ECB with MAMP 3/5 years respectively.</p>
2016	<p>The NBFC-IFC, NBFC-AFC, CIC and Exploring, Mining and Refinery (under the infrastructure sector) are eligible to raise ECB through Track I with MAMP of 5 years, subjects to different end-uses. The limit for borrowing under the automatic route is USD 750 million. The MAMP of FCCBs/ FCEBs is 5 years.</p> <p>The A.D. Category I banks are now having the power to approve the requests from borrowers for extension of matured but unpaid ECB, to convert them into equity.</p> <p>The start-ups recognised by the central government are now allowed to raise ECB, with an MAMP of 3 years; the limit of borrowing is USD 3 million per financial year in INR or any other freely convertible foreign currency or both.</p>
2017	No changes.
2018	The MAMP requirement for the ECB by the infrastructure sector has been reduced from 5 years to 3 years. The mandatory hedge coverage has been reduced from 100 percentage to 70 percentage for ECBs raised under Track I
2019	The ECB framework is revised in the following manner. Mergers of the tracks, expansion of the eligible borrowers' list, raised the MAMP and the individual limit of availing ECB.
2021	With an objective to provide relief to the COVID-affected borrowers the unutilised ECB proceeds can be parked in term deposits.
2022	The individual limit of availing ECB is raised from USD 750 million to USD 1.5 billion.

Source: Master Circulars and RBI notifications on ECB policy changes

Table 1. ECB Flows in India (USD Million)

Year	Inflows	Outflows	Net Flows	% Change in Inflows	% Change in Net Flows
1990-91	4282	2028	2254		
1991-92	3152	1690	1462	-26.39	-35.1375
1992-93	1179	1545	366	-62.60	-74.9658
1993-94	3015	2329	686	155.7252	87.43169
1994-95	4249	3125	1124	40.92869	63.8484
1995-96	4261	2977	1284	0.282419	14.23488
1996-97	7579	4723	2856	77.86904	122.4299
1997-98	7382	3372	4010	-2.59929	40.40616
1998-99	7231	2864	4367	-2.04552	8.902743
1999-00	3207	2874	333	-55.6493	-92.3746
2000-01	9621	5318	4303	200.00	1192.192
2001-02	2687	4272	1585	-72.0715	-63.1652
2002-03	3514	5206	1692	30.77782	6.750789
2003-04	5228	8153	2925	48.77632	72.87234
2004-05	9084	3890	5194	73.75669	77.57265
2005-06	14343	11835	2508	57.893	-51.7135
2006-07	20883	4780	16103	45.59716	542.0654
2007-08	30293	7684	22609	45.06058	40.40241
2008-09	15223	7361	7862	-49.7475	-65.2262
2009-10	14954	12146	2808	-1.76706	-64.2839
2010-11	23089	11162	11927	54.40016	324.7507
2011-12	32590	22247	10344	41.14947	-13.2724
2012-13	27617	19132	8485	-15.2593	-17.9718
2013-14	30060	18283	11777	8.846001	38.79788
2014-15	28368	25638	2729	-5.62874	-76.8277
2015-16	24157	28686	4529	-14.8442	65.95823
2016-17	22584	28686	6102	-6.51157	34.73173
2017-18	38879	39062	183	72.15285	-97.001
2018-19	42162	31746	10416	8.444147	5591.803
2019-20	46149	23188	22960	9.456383	120.4301
2020-21	31388	31522	134	-31.9855	-99.4164
2021-22	30110	21975	8135	-4.07162	5970.896

Source: Handbook on Indian Economy, RBI (various issues)