FOREIGN EXCHANGE RESERVES IN INDIA

PROJECT SUBMITTED

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FOR THE AWARD OF THE DEGREE OF

BACHELOR OF ARTS IN ECONOMICS

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MARCH 2024

CERTIFICATE

This is to certify that the project titled "Foreign exchange reserves in India." submitted in partial fulfilment of the requirement for the award of the degree of Bachelors of Arts in Economics to St. Teresa's College (Autonomous) (Affiliated to Mahatma Gandhi University, Kottayam) is a bonafide record of the work done by the project group under my supervision and guidance.

Head of the Department	Guide and supervisor
Dr. Anupa Jacob	Dr. Thushara George

DECLARATION

We here by declare that the project “Foreign exchange reserves in India” submitted by us for the Bachelor of Arts Degree in Economics is our original work.

Signature of the supervisor	**Signature of the candidates**
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CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

According to NASDAQ, foreign exchange reserves is the total of a country's foreign currency deposits and bonds held by the central bank and monetary authorities. However, the term often refers to the total of a country's gold holdings, convertible foreign currencies held in its banks, plus special drawing rights (SDR) and exchange reserve balances with the International Monetary Fund (IMF). Each of these components play an important role in the economy.

In the ever-evolving world of global finance, foreign exchange reserves, often called forex reserves, play a crucial role in safeguarding the country’s economic stability and resilience against external shocks, especially for developing countries like India.They are used to support liabilities and influence monetary policy, including foreign exchange rates. Usually, reserve levels are evaluated in relation to a nation’s GDP. A high reserve-to-GDP ratio is an indicator of a country’s robust financial health.

The importance of foreign exchange reserves for developing countries cannot be overstated. These nations often face unique challenges such as volatile capital flows, currency fluctuations, and external debt burdens, which make them particularly vulnerable to financial crises and macroeconomic instability. These reserves serve as a buffer against external shocks, providing countries with the means to mitigate financial crises, maintain currency stability, and facilitate international trade and investment.

The fluctuation of foreign exchange reserves displays a range of trends and patterns across various regions and economies, showing distinct economic conditions, policy decisions, and external factors. Understanding these patterns is crucial for policymakers, economists, and investors, as they offer valuable insights into the economic condition, vulnerabilities, and future outlook of nations. However, the management of foreign exchange reserves has its own difficulties. Developing countries often struggle with finding the middle-ground between accumulating an adequate reserve buffer and allocating resources towards developmental needs such as infrastructure, healthcare, and education. Moreover, the composition of reserves, including the choice between holding liquid assets versus diversifying into riskier, higher-yielding investments, poses complex trade-offs and requires careful consideration.

In India, foreign exchange is governed by the Reserve Bank of India Act of 1934 and Foreign Exchange Management Act of 1999. As of 12 April 2024, India's foreign exchange amounts of $648562 million US dollars. During the 1950s, the country's foreign exchange fell from $2161 million to $762 dollars, averaging around $1500 million dollars in the decade. The forex reserves further fell in the 1960s to as low as $524 million dollars in 1964-65. Reserves showed an upward increase in the following decades owing to the increase in exports, remittances from abroad especially the Middle-Eastern countries, foreign aids, reforms, policy measures, etc.

1.2 REVIEW OF LITERATURE

Green and Torgerson (2007) in their occasional paper examined the causes and costs of foreign exchange reserve accumulation among reserve holders in the world's largest emerging markets. Their analysis primarily indicates that the net marginal return on additional reserves is low, if not extremely negative, providing little support for the claim that the largest reserve holders held foreign exchange reserves only as a precaution and that their policies were unrelated to the distribution of existing reserves, but from the accumulation of additional reserves. They focused on emerging market economies, looking at them based on the determinants of foreign exchange reserves or finding out how adequately they maintain reserves based on the determinants. Green and Torgerson considered a different approach where they covered all the bases by estimating reserve demand using multiple variables. Their assessment of such a measure describes the relative weight of different sources of vulnerability. This approach does not indicate deviations from appropriate reserve levels, as countries may have followed suboptimal reserve policies in the past. However, assuming that countries generally have adequate reserves relative to baselines, estimates can be used to determine whether out-of-sample reserve levels are adequate.

Sahu (2015) mainly focused on determining and maintaining an adequate reserve level. He measured the level of foreign exchange reserves of India using criteria. The research period of his research was 2001-02 - 2014-15 (December). He highlighted the level of foreign exchange reserves of India. It remained valid during the survey period and it was revealed that the import coverage ratio clearly exceeds the international 3-month standard. The ratio of India's foreign exchange reserves to imports was more than 25% (normal reference value) in all years, and foreign exchange reserves were higher than imports in the first seven years. This indicator showed that India's foreign exchange reserves were adequate, but imports are not the only factor that determines the level of adequate foreign exchange reserves. The generally accepted short-term external debt coverage ratio is 1. That is, the foreign exchange reserve must cover 100% of the country's short-term debt and it must not fall below 100%. In India, this ratio was found to be always greater than 1, which implies that India's foreign exchange reserves were always adequate during the study period. Kapteyn (2001) suggested a reserve equal to 5-20% of M2 depending on the exchange rate. system as a suitable buffer. India maintains a market-determined exchange rate and it has been noted that the ratio of foreign exchange reserves to broad money (M2) has always been above 10%. When Sahu combined all three factors, counter-evidence was found and it showed a trend of foreign exchange reserve deficit. The deficit was estimated as the difference between estimated foreign exchange reserves and year-end imports, short-term foreign debt and broad money, and actual foreign exchange reserves, excluding gold reserves.

Bhakri Suman, and Verma Aman. (2020) – This paper says that the foreign exchange reserves of India have great significance in the different periods of economy especially during different policy period. It analysed the trends in the foreign exchange reserves of India during the period of liberalisation, globalisation, world recovery and the global financial crisis. The study used the regression and graphical methods to determine the growth rate of the foreign exchange reserves. It was found out that during the period of liberalisation there was positive growth in the foreign exchange reserves of India, also the level foreign exchange reserves increased during globalisation. But during the world recovery period a decreased growth rate was found whereas during the period of global financial crises it indicated a large amount of increase in the foreign exchange reserves.

The Hindu Business line (December 2023) - The recent increase in India's foreign currency assets (FCA) to $549.747 billion, marking a substantial rise of $4.698 billion, is a significant development that warrants attention in the context of the nation's economic outlook. This surge in foreign currency assets, particularly as the primary component of India's forex reserves, indicates a positive trajectory and potential reinforcement of the country's financial stability. Notably, this increase holds particular significance when juxtaposed with the challenging economic landscape that characterized 2022, during which India experienced a cumulative slump of $71 billion in its forex reserves. This contrasting trend in recent forex reserve dynamics suggests a shift towards improved economic resilience in the more recent period.

Additionally, the decline in gold reserves by $102 million to a total of $474.74 billion during the week provides further insights into the composition of India's forex assets. The evolving composition of foreign exchange reserves, where gold reserves play a crucial role, calls for a comprehensive evaluation of the factors influencing India's reserve holdings. Foreign exchange reserves, being the assets held by a nation's central bank or monetary authority, are vital in shaping overall economic stability, currency valuation, and monetary policy decisions. They offer a buffer against external economic shocks and provide a means for ensuring confidence in a country's financial position.

Given the importance of forex reserves in influencing a range of economic factors, such as exchange rate management, monetary policy decisions, and overall economic stability, the recent surge in India's FCA and the fluctuation in gold reserves call for detailed analysis and monitoring. By examining the components and trends within India's forex reserves, policymakers, economists, and financial analysts can gain valuable insights into the country's economic resilience, potential policy considerations, and the broader trajectory of its financial position. Therefore, the recent findings present an important starting point for in-depth exploration and examination of India's foreign exchange reserves and their implications for the nation's economic outlook.

1.3 RESEARCH PROBLEM

Forex reserves or foreign exchange reserves are assets that are held by a nation’s Central Bank and monetary authority. It is generally held in reserve currencies usually the US Dollar and to a lesser degree the Euro, Japanese Yen and Pound Sterling. The trend of foreign exchange reserves is fluctuating day by day. This change reflects the country’s economic dynamics and global financial conditions. With fluctuations and trends reflecting the nation’s economic landscape, understanding forex reserves is essential. An increase or decrease of foreign exchange reserves has its effects on liquidity, debt and debt maturity. Also, accumulation of forex reserves affect consumption. This study aims to identify the trend and patterns of India’s foreign exchange reserves and also tries to analyse how the accumulation of forex reserves affect the economy. The project seeks to bring into focus about the economic condition of India in relation with foreign exchange reserves.

1.4 OBJECTIVES:

1) To examine the trend and pattern of foreign exchange reserves.
2) To analyse how accumulation of foreign exchange reserves affect the economy.

1.5 THEORECTICAL FRAMEWORK

Foreign Exchange Reserves represent the foreign currencies and various assets that a nation's central bank or monetary authority holds. These reserves serve multiple purposes, including strengthening the value of the domestic currency in the foreign exchange market and aiding in the management of sudden capital outflow or currency crises. The significance of foreign exchange reserves cannot be overstated, as they inspire confidence among businesses and trading partners in maintaining the stability of a nation's currency and its ability to meet financial obligations.

1. The Balance of Payment Theory enables the analysis of all economic transactions between a country's residents and the rest of the world. By examining the trends and patterns of India's foreign exchange reserve, valuable insights into the country's resilience to global uncertainties, external economic dynamics and policy responses can be gained. This analysis involves evaluating reserve accumulation, policy implications, and the relationship between current and capital account dynamics. Through this framework, a comprehensive understanding of India's position in the global economy is demonstrated.
2. The Optimal Reserve Level Theory seeks to elucidate the optimal level of foreign exchange reserves necessary to mitigate external vulnerabilities while maximizing economic advantages. It analyses how the accumulation of foreign exchange reserves impacts the economy, contributing to macroeconomic stability, policy efficacy, exchange rate dynamics and investment allocation. By examining this accumulation across diverse economic indicators and policy goals, this theoretical framework underscores the pivotal

role of foreign exchange reserves in influencing economic outcomes and informing decisions concerning reserve management.

1.6 METHODOLOGY

The entire study was conducted based on secondary data obtained from official sources. The data was collected from the Reserve Bank of India (RBI) Handbook and annual publications available on the official website (rbi.org.in). The secondary data for foreign exchange reserves were obtained from the RBI annual publications and the data for India's foreign trade and exchange rates were obtained from the RBI's 'Handbook of Statistics on Indian Economy'. The tables and graphs used for analysis were prepared using Microsoft Excel.

1.7 LIMITATIONS OF THE STUDY

1. The major drawback is that we didn't get the first-hand data, we have to use the secondary data, which lacks to have hypothetical experience by the researcher.
2. The inability to retrieve IMF data can pose a significant obstacle, impeding efforts to tackle urgent economic challenges and promote global collaboration. This lack of transparency may cause different stakeholders to question the credibility and impact of the IMF.

1.8 CHAPTER SCHEME

The chapter 1 of our study consists of a brief introduction to our topic, review of literature, objectives of the study, theoretical framework, methodology and the limitations of our study.

CHAPTER 2

AN OVERVIEW OF FOREIGN EXCHANGE RESERVES IN INDIA

2.1 FOREIGN EXCHANGE

Foreign exchange involves converting one country's currency into another's typically through a transaction where a set amount of one currency is exchange for another at a predetermined rate.

There are two main interpretations of foreign exchange:

Firstly, Foreign exchange refers to the system or process of converting one national currency into another and transferring funds between different currencies.

Secondly, Foreign exchange can denote foreign currencies themselves. For instance, the Foreign Exchange Management Act (FEMA) define foreign exchange as foreign currency, encompassing deposits, credits, balance payable in foreign currencies, as well as various financial instruments drawn by entities outside India but payable in Indian currency.

2.2 FOREIGN EXCHANGE RESERVES

Foreign exchange reserves also known as forex reserve, are assets held by central banks or monetary authorities, including foreign currencies, gold reserves, treasury bills, and other government securities. In India, the Reserve Bank of India (RBI) is responsible for managing these reserves, as outlined by the Reserve Bank of India Act 1934 and the Foreign Exchange Managements Act 1999.

2.3 FOREIGN EXCHANGE IN INDIA

Foreign Exchange Reserves in India encompass holdings of cash, bonds, and foreign currency deposits, managed by the RBI for the Indian government. These reserves are vital for currency stability, currency transformation, and ensuring the availability of backup funds in case of rapid currency devaluation. They consist of major reserves like gold, SDRs, and IMF, as the British pound, euro, US dollar, and Japanese yen. These reserves play a crucial role in supporting the national currency and are influenced by factors like RBI interventions in the foreign exchange market and external borrowing. The RBI manages these reserves to ensure optimal returns, safety, and liquidity while adhering to international standards, which include the criteria such as import covers, external debt coverage, currency stability, and international liquidity standards, aimed at building confidence in the currency.

2.4 COMPONENTS OF FOREIGN EXCHANGE RESERVES IN INDIA

Foreign Exchange Reserves in India consist of four categories: -

i. ASSESTS OF FOREIGN CURRENCY
ii. GOLD
iii. SDR (SPECIAL DRAWING RIGHTS)
iv. RESERVE WITH THE IMF

i. ASSESTS OF FOREIGN CURRENCY

The Foreign currency reserves are a vital component of India's assets, primarily comprising major currencies like USD, EUR, and GBP. These reserves offer diversification, facilitating international trade transaction and ensure the liquidity. Holding major currencies boosts stability and investor confidence, strengthening India's position in the global financial markets.

ii. GOLD

Gold Reserves are a crucial component of India's foreign exchange holdings, boasting historical significance, diversification benefits, adherence to international standards, liquidity, and cultural importance. Incorporation gold into reserves provides added protection and value, serving the purpose of hedging against inflation and providing safety during economic downturns. This inclusion enhances the value and security of India's foreign exchange reserves.

iii. SDR

SDRs, or Special Drawing Rights, are reserve assets established by the IMF with the purpose of bolstering foreign exchange reserves. Their presence has boosted international liquidity and contributes to global initiatives aimed at stabilizing the international monetary system, including enhancing India's foreign exchange reserves.

iv. RESERVES WITH THE IMF

India maintains reserves with the International Monetary Fund (IMF) as part of its foreign exchange reserves, which reflects its position and voting power within this global financial institution. This practice also signifies India's role and influence within the IMF, impacting its foreign exchange reserves and strengthening its international standing.

2.5 FOREIGN EXCHANGE RESERVES DURING THE PRE-REFORM PERIOD

During the period from 1981 to 1991, India underwent significant changes in its foreign exchange reserves management. Before the economic reforms of 1991, India's foreign exchange reserves were very limited. The country was going through a severe balance of payment crisis, leading to further depletion of the foreign exchange reserves. The low reforms posed a significant threat to the country's economic stability. In 1991, India's forex reserves could barely cover two weeks' worth of imports showing the terrible state of India's reserves and this left India extremely vulnerable to external shocks. The period was also characterized by a continuous current account deficit and falling reserves position. Events like the Iraq-Kuwait War, political uncertainty and instability, slow growth of India's major trading partners, increase in imports, low infrastructure development, high government spending, etc added fuel to the flame. India was dependent on external borrowings to finance development projects and this put a huge burden on the government in financing the debt. This resulted in the depletion of foreign exchange reserves.

India faced substantial challenges in managing its foreign exchange reserves during this period, including trade deficits and mounting external debt obligations. To counter these challenges, a series of structural reforms were introduced to recalibrate the country's economic trajectory. These initiatives were geared towards fostering a more conducive environment for foreign investment and trade, and ultimately strengthening India's foreign exchange position.

In summary, during the pre-reform period in India, foreign exchange reserves were low, and the country faced challenges in managing its external finances. Structural constraints, import dependency, and inefficient policies contributed to limited export earnings and frequent balance of payments crises. The government's response included import substitution, foreign exchange controls, and limited export promotion measures. These factors collectively constrained economic growth and necessitated external assistance to stabilize the economy.

2.6 FOREIGN EXCHANGE RESERVES DURING THE POST-REFORM PERIOD

Indian foreign exchange market has been liberalised for more than a decade. During pre- reform period India had faced many issues mainly centred on desirability, capital account, monetary policies etc. Though the desire for accumulation of foreign exchange reserves arises for several reasons, the pull and push factors are also equally responsible for flow of reserves to emerging economies like India.

The evolution of India's foreign exchange reserves may be viewed in line with shift in India's foreign exchange rate policies. The post- reform period (1992 onwards) witnessed several wide-ranging reform measures aimed at development of foreign exchange reserves and liberalisation of exchange control regimes. In 1991 forex reserves had a significant growth. This was due to liberalisation policies, increased foreign investment and trade expansion. The Reserve Bank of India actively managed these reserves to ensure economic stability and to stabilize currency. The foreign exchange reserves position was under some pressure during 2000-01. This is because of some steps taken by RBI to meet excess demand in foreign exchange market. The rising trend of foreign exchange reserves increased in 2001-02.

After the implementation of NEP especially liberalisation, India's foreign exchange reserves had grown to substantial levels providing a buffer against external shocks and contributing to overall economic resilience.

CHAPTER 3

ANALYSIS OF FOREIGN EXCHANGE RESERVES IN INDIA

3.1TREND AND PATTERN OF FOREIGN EXCHANGE RESERVES IN INDIA

3.1.1 GROWTH OF FOREIGN EXCHANGE RESERVES IN INDIA 1981-82 TO 2001-02

YEAR	SDR		GOLD		FOREIGN CURRENCY ASSETS		TOTAL	
	₹ CRORE	US $ MILLION	₹ CRORE	US $ MILLION	₹ CRORE	US $ MILLION	₹ CRORE	US $ MILLION
1981-82	444	473	226	335	3355	3582	4025	4390
1982-83	291	291	226	324	4265	4281	4782	4896
1983-84	248	230	226	320	5498	5099	5972	5649
1984-85	181	145	246	325	6817	5482	7244	5952
1985-86	161	131	274	417	7384	5972	7819	6520
1986-87	232	179	274	471	7645	5924	8151	6574
1987-88	125	97	274	508	7287	5618	7686	6223
1988-89	161	103	274	473	6605	4226	7040	4802
1989-90	184	107	281	487	5787	3368	6252	3962
1990-91	200	102	6828	3496	4388	2236	11416	5834

1991-92	233	90	9039	3499	14578	5631	23850	9220
1992-93	55	18	10549	3380	20140	6434	30744	9832
1993-94	339	108	12794	4078	47287	15068	60420	19254
1994-95	23	7	13752	4370	66005	20809	79780	25186
1995-96	280	82	15658	4561	58446	17044	74384	21687
1996-97	7	2	14557	4054	80368	22367	94932	26423
1997-98	4	1	13394	3391	102507	25975	115905	29367
1998-99	34	8	12559	2960	125412	29522	138005	32490
1999-00	16	4	12973	2974	152924	35058	165913	38036
2000-01	11	2	12711	2725	184482	39554	197204	42281
2001-02	50	10	14868	3047	249118	51049	264036	54106

Table 1

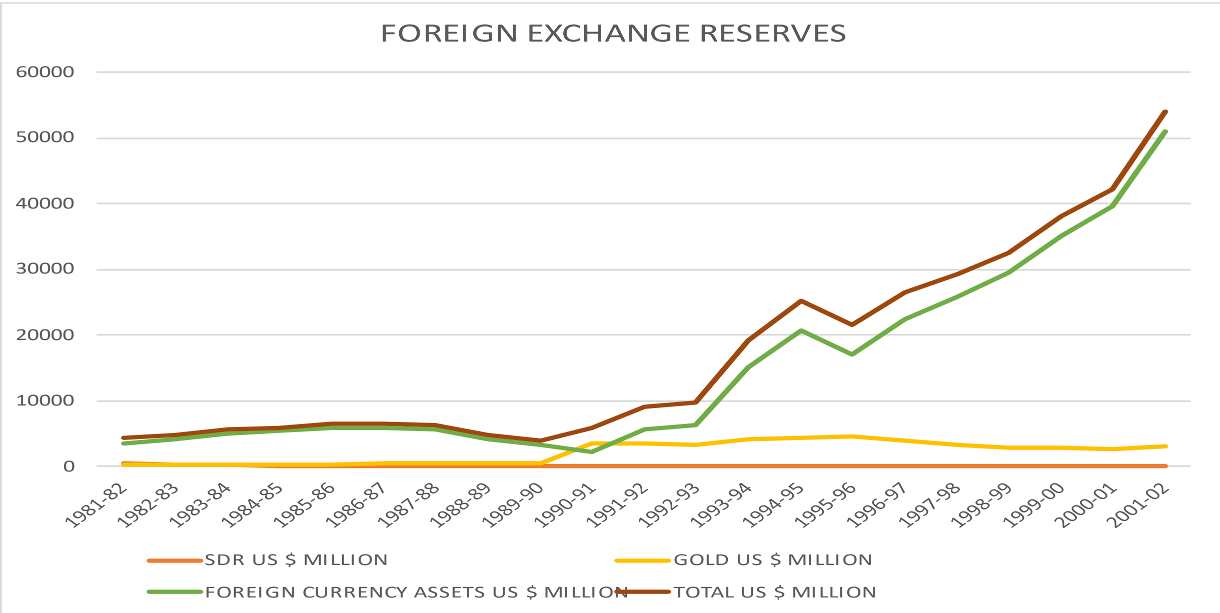

Fig 1

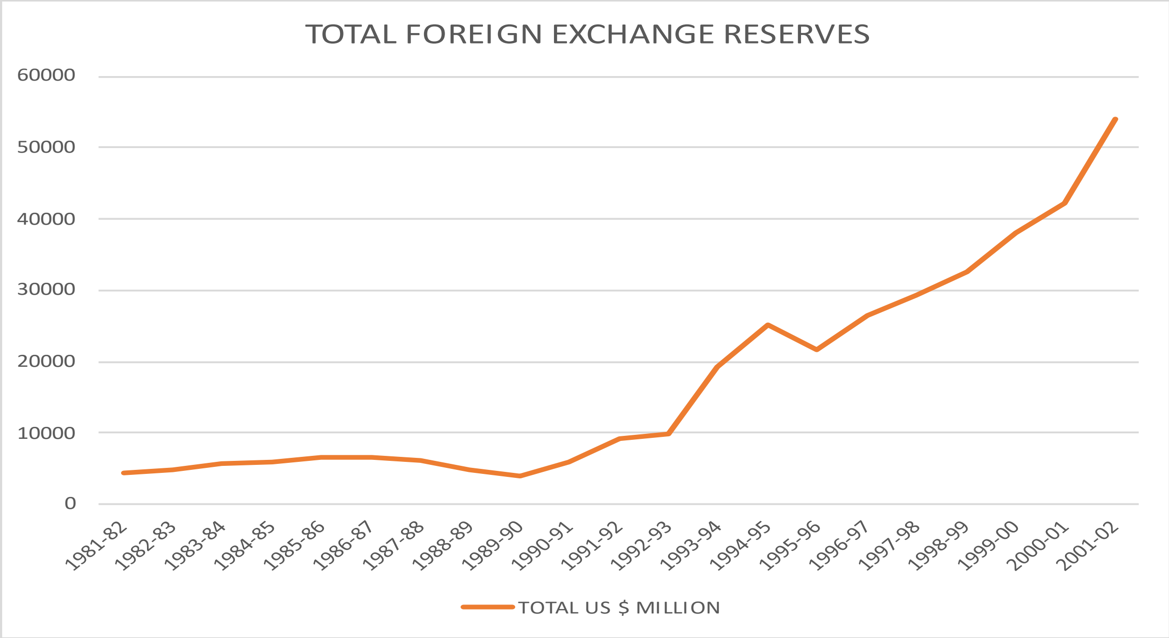

Fig 2

The given data shows the growth of the Indian foreign exchange reserves from 10 years before the reform period to 10 years after the reform period. It is seen that total reserves show significant fluctuations over the years, but there's a general increasing trend. The largest increases occur in the early 1990s and early 2000s.There's a significant drop from 1994-95 to 1995-96. The largest single-year increase is from 2001-02. SDR values fluctuate over the years. The highest increase is seen from 1992-93 to 1993-94. The highest decrease is from 1993-94 to 1994-95. Gold reserves also show significant variations. The highest increase is from 1989-90 to 1990-91. The highest decrease is from 1996-97 to 1997-98. Foreign currency reserves generally increase over time and its highest increase is from 1992-93 to 1993-94 and the highest decrease is from 1994-95 to 1995-96. From the data it is clear that the total reserves show a general increasing trend over the years. The highest increase is from 2000-01 to 2001-02. The highest decrease is from 1994-95 to 1995-96.

3.1.2 GROWTH OF FOREIGN EXCHANGE RESERVES IN INDIA 1981- 82 TO 1990-91

YEAR	SDR		GOLD		FOREIGN CURRENCY ASSETS		TOTAL	
	₹ CRORE	US $ MILLION	₹ CRORE	US $ MILLION	₹ CRORE	US $ MILLION	₹ CRORE	US $ MILLION
1981-82	444	473	226	335	3355	3582	4025	4390
1982-83	291	291	226	324	4265	4281	4782	4896
1983-84	248	230	226	320	5498	5099	5972	5649
1984-85	181	145	246	325	6817	5482	7244	5952
1985-86	161	131	274	417	7384	5972	7819	6520
1986-87	232	179	274	471	7645	5924	8151	6574
1987-88	125	97	274	508	7287	5618	7686	6223
1988-89	161	103	274	473	6605	4226	7040	4802
1989-90	184	107	281	487	5787	3368	6252	3962
1990-91	200	102	6828	3496	4388	2236	11416	5834

Table 2

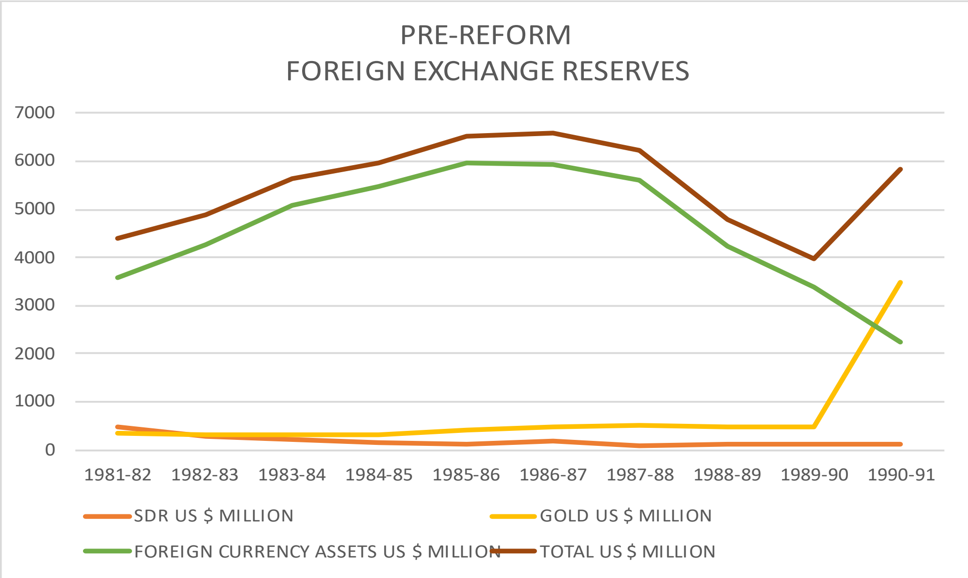

Fig 3

The table2 and the graph show the trend analysis of foreign exchange reserves in India during the pre- reform period from 1981-82 to 1990-91. It can be found that the reserves generally increased overtime with fluctuation. The largest increase occurs from 1989-90 to 1990-91, while the largest decrease occurs from 1988-89 to 1989-90. Total reserves show a significant increase from 1981-82 to 1990-91, indicating overall economic growth.

3.1.3 GROWTH OF FOREIGN EXCHANGE RESERVES IN INDIA 1990- 91 to 2001-02

YEAR	SDR		GOLD		FOREIGN CURRENCY ASSETS		TOTAL	
	₹ CRORE	US $ MILLION	₹ CRORE	US $ MILLION	₹ CRORE	US $ MILLION	₹ CRORE	US $ MILLION
1991-92	233	90	9039	3499	14578	5631	23850	9220
1992-93	55	18	10549	3380	20140	6434	30744	9832
1993-94	339	108	12794	4078	47287	15068	60420	19254
1994-95	23	7	13752	4370	66005	20809	79780	25186
1995-96	280	82	15658	4561	58446	17044	74384	21687
1996-97	7	2	14557	4054	80368	22367	94932	26423
1997-98	4	1	13394	3391	102507	25975	115905	29367
1998-99	34	8	12559	2960	125412	29522	138005	32490
1999-00	16	4	12973	2974	152924	35058	165913	38036
2000-01	11	2	12711	2725	184482	39554	197204	42281
2001-02	50	10	14868	3047	249118	51049	264036	54106

Table 3

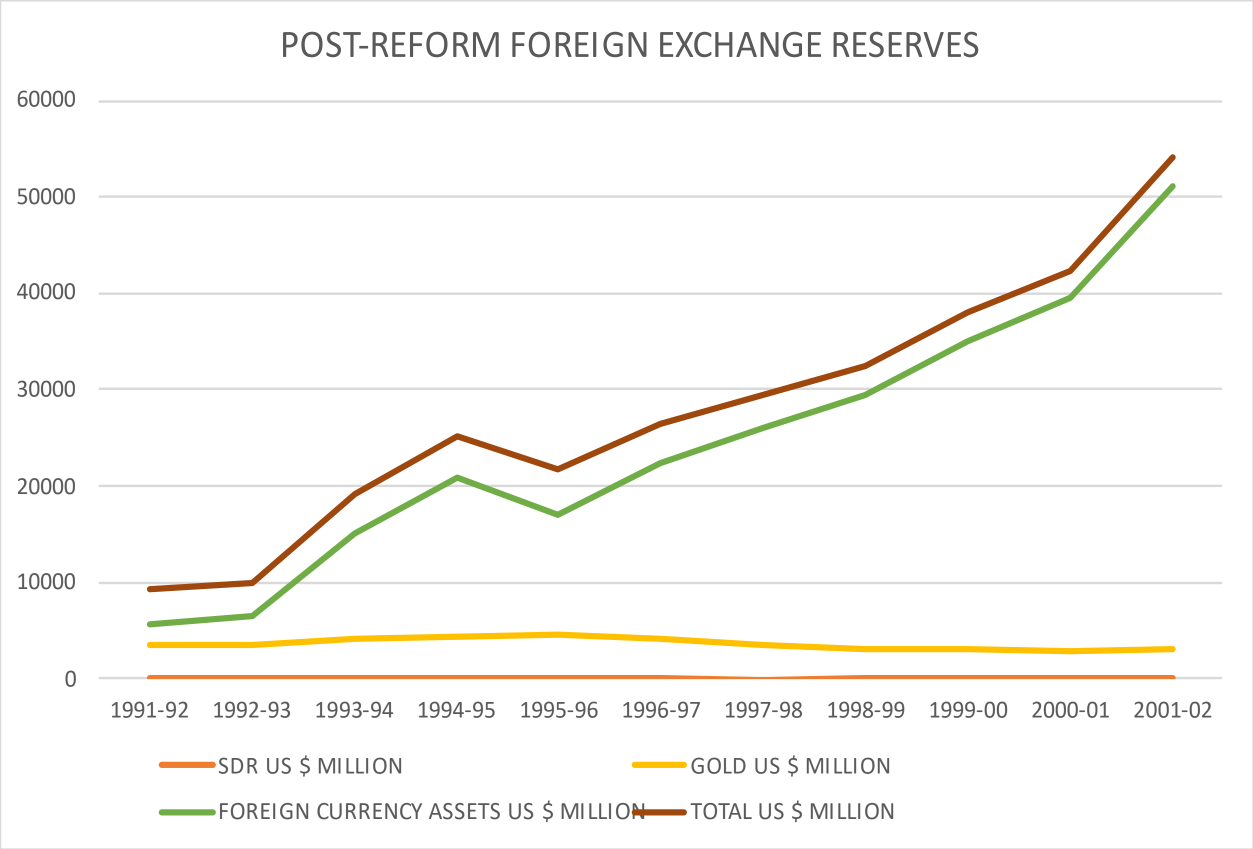

Fig 4

The given data show the trends of the Indian foreign exchange reserves during the post- reform period from 1991- 92 to 2001-02. It is found that Total reserves show significant fluctuations over the years. There's a general increasing trend from 1991-92 to 2001-02, with some years showing larger increases than others. The largest increase occurs from 2000-01 to 2001-02, with a rise of ₹66,832 crore and $11,825 million. Total reserves show a substantial increase over the specified period. The late 1990s and early 2000s show particularly rapid growth in total reserves.

3.1.4 SPECIAL DRAWING RIGHTS IN INDIA FROM 1981-82 TO 2001-02

YEAR	SDR	
	₹ CRORE	US $ MILLION
1981-82	444	473
1982-83	291	291
1983-84	248	230
1984-85	181	145
1985-86	161	131
1986-87	232	179
1987-88	125	97
1988-89	161	103
1989-90	184	107
1990-91	200	102
1991-92	233	90
1992-93	55	18
1993-94	339	108
1994-95	23	7
1995-96	280	82
1996-97	7	2
1997-98	4	1
1998-99	34	8
1999-00	16	4
2000-01	11	2
2001-02	50	10

Table 4

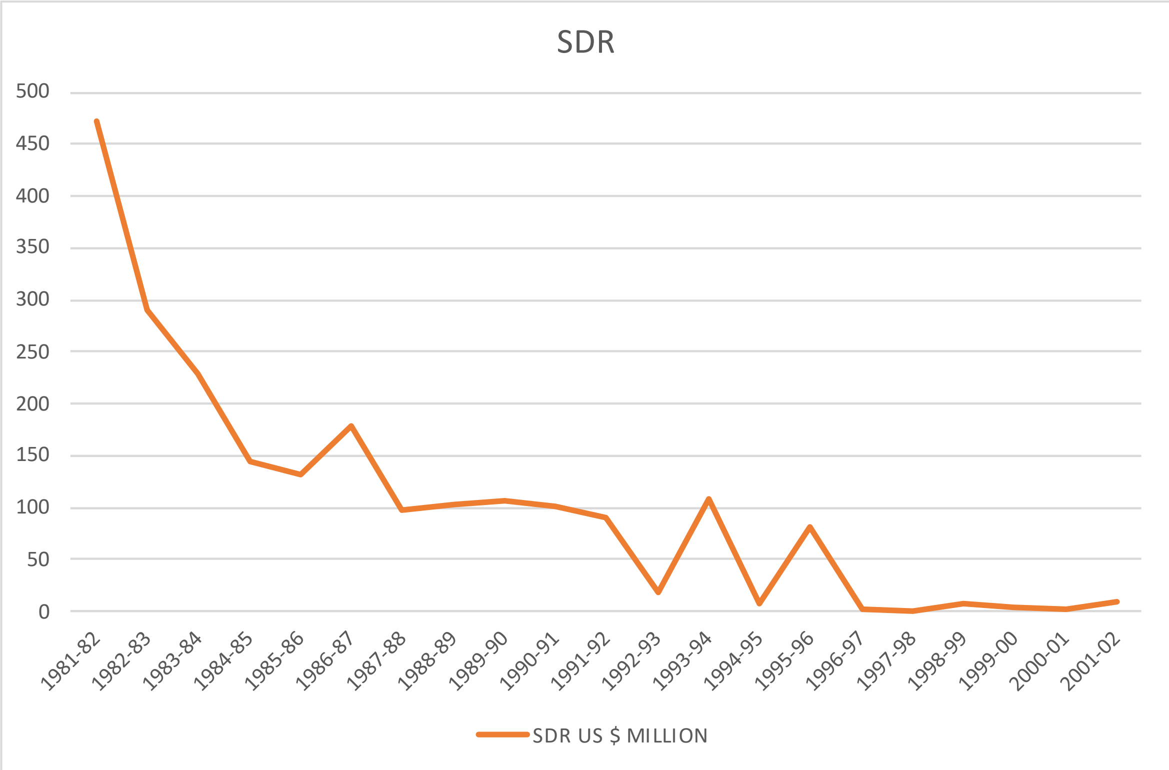

Fig 5

The given data illustrates the values of SDR from a period of 1981-82 to 2001-02. It shows that SDR values fluctuate over the years, with no consistent trend. There are notable increases and decreases in different years. The largest increase is from 1993-93 to 1993-94. The largest decrease is from 1993-94 to 1994-95. Thus, it is found that the SDR values show fluctuations but do not exhibit a clear overall trend.

3.1.5 GOLD RESERVES IN INDIA FROM 1981-82 TO 2001-02

YEAR	GOLD	
	₹ CRORE	US $ MILLION
1981-82	226	335
1982-83	226	324
1983-84	226	320
1984-85	246	325
1985-86	274	417
1986-87	274	471
1987-88	274	508
1988-89	274	473
1989-90	281	487
1990-91	6828	3496
1991-92	9039	3499
1992-93	10549	3380
1993-94	12794	4078
1994-95	13752	4370
1995-96	15658	4561
1996-97	14557	4054
1997-98	13394	3391
1998-99	12559	2960
1999-00	12973	2974
2000-01	12711	2725
2001-02	14868	3047

Table 5

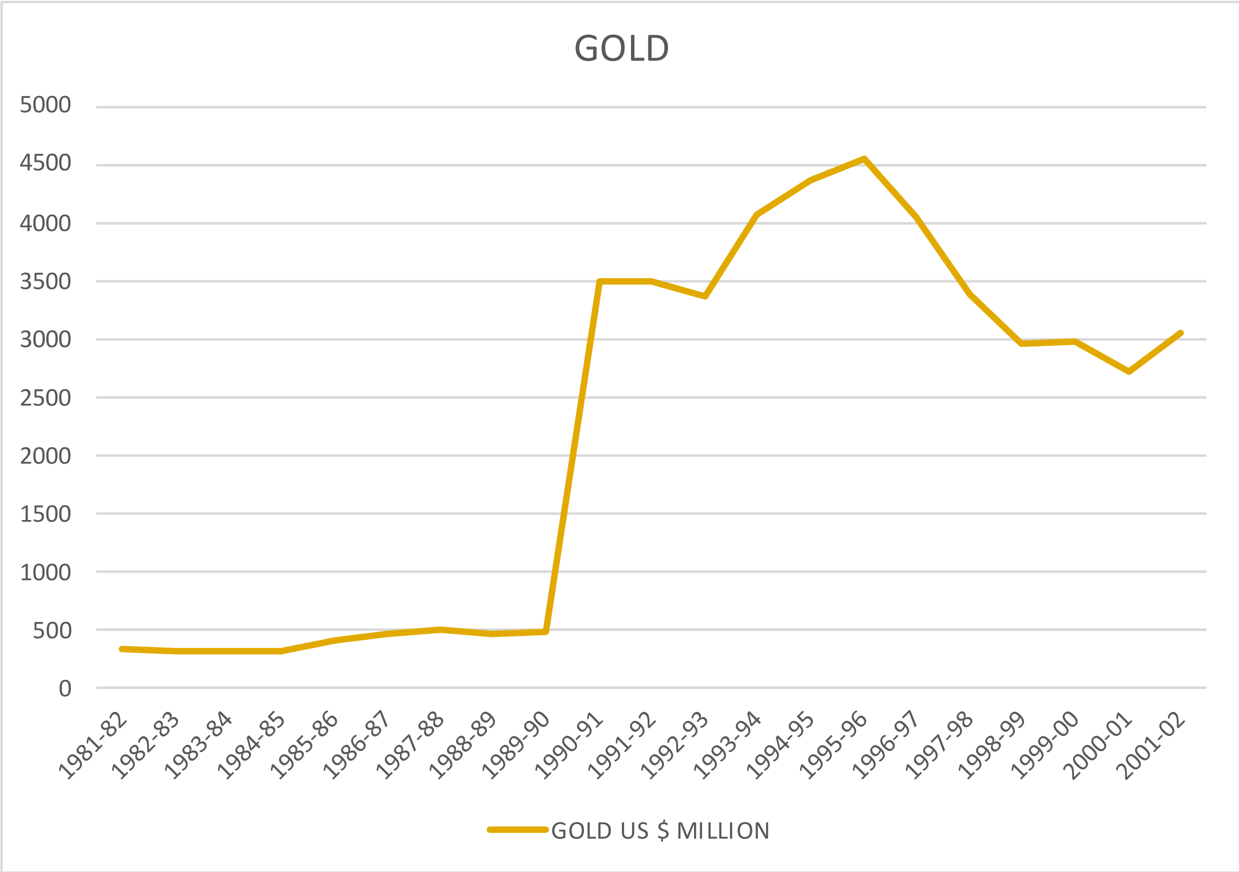

Fig 6

The above given data represents the gold reserves in India during a type period from 1981-82 to 2001-02. Gold reserves show significant fluctuations over the years. It shows periods of both growth and decline. There are years with substantial increases, such as 1989-90 to 1990-91 and 1992-93 to 1993-94. There are also years with significant decreases, like 1996-97 to 1997-98 and 1997-98 to 1998-99.

3.1.6 FOREIGN CURRENCY ASSETS IN INDIA FROM 1981-82 TO 2001-02

YEAR	FOREIGN CURRENCY ASSETS	
	₹ CRORE	US $ MILLION
1981-82	3355	3582
1982-83	4265	4281
1983-84	5498	5099
1984-85	6817	5482
1985-86	7384	5972
1986-87	7645	5924
1987-88	7287	5618
1988-89	6605	4226
1989-90	5787	3368
1990-91	4388	2236
1991-92	14578	5631
1992-93	20140	6434
1993-94	47287	15068
1994-95	66005	20809
1995-96	58446	17044
1996-97	80368	22367
1997-98	102507	25975
1998-99	125412	29522
1999-00	152924	35058

2000-01	184482	39554
2001-02	249118	51049

Table 6

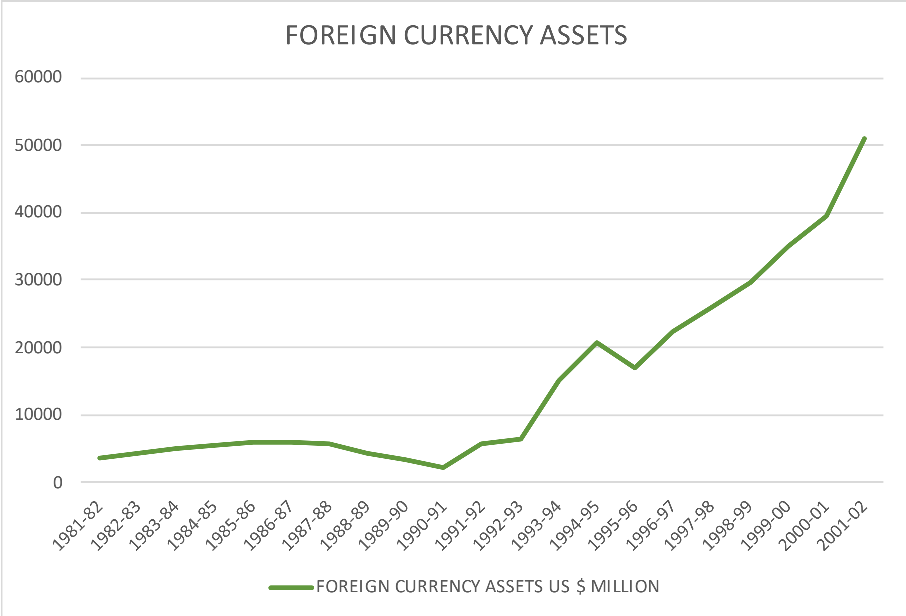

Fig 7

Fluctuations of foreign currency assets in India during a period from 1981-82 to 2001-02 is shown in the above data. Foreign currency assets generally increase over time, with periods of rapid growth and occasional declines. The largest increase occurs from 2000-01 to 2001-02. The largest decrease occurs from 1994-95 to 1995-96.

3.1.7 TOTAL GROWTH OF FOREIGN EXCHANGE RESERVES IN INDIA DURING PRE AND POST REFORMS

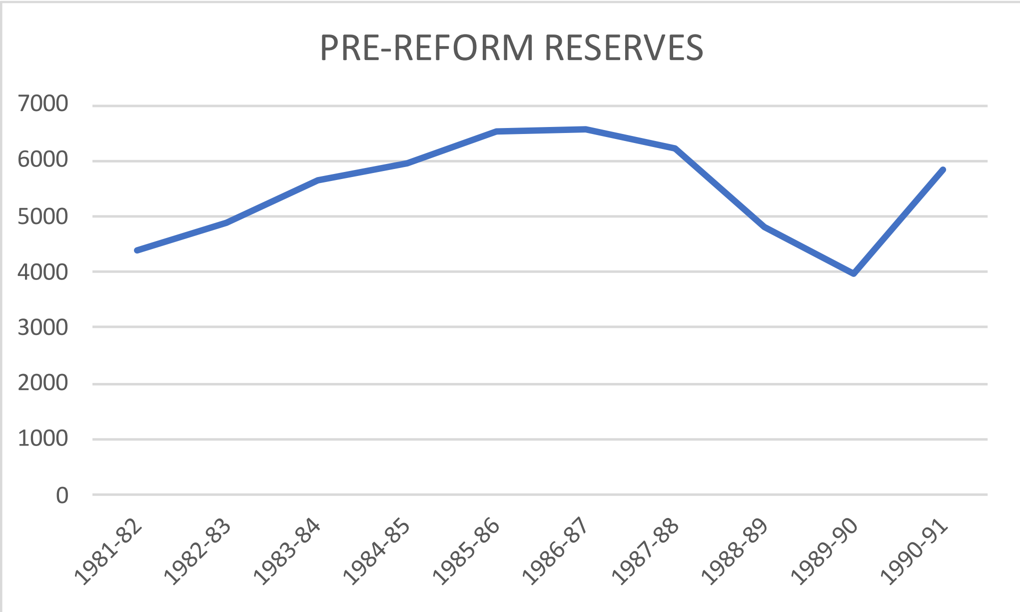

Fig 8

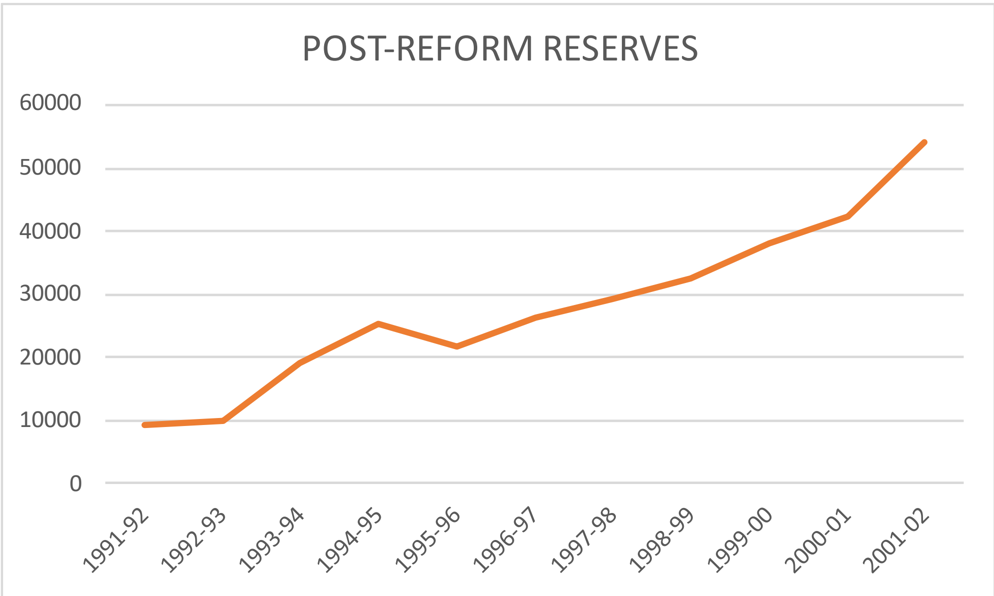

Fig 9

The above data show the growth of foreign exchange reserves in India both during pre-reform and post-reform periods. It can be seen that the foreign exchange reserves showed a gradual increase during the pre-reform period, but at a slower pace compared to the post-reform period. There was relatively modest growth in reserves, with the total reserve increasing from ₹4025 crore in 1981-82 to ₹11416 crore in 1990-91. The growth rate of reserves was relatively stable. Foreign exchange reserves witnessed a significant surge during the post-reform period, reflecting India's economic reforms and liberalization policies. The reserves increased rapidly from ₹23850 crore in 1991-92 to ₹264036 crore in 2001-02.

3.2 IMPACT ON THE ECONOMY DUE TO THE ACCUMULATION OF FOREIGN EXCHANGE RESERVES

3.2.1 EXPORTS RATE IN INDIA FROM 1981-82 TO 2001-02

YEAR	EXPORTS
1981-82	8703.9
1982-83	9107.6
1983-84	9449.4
1984-85	9878.1
1985-86	8904.5
1986-87	9744.7
1987-88	12088.5
1988-89	13970.4
1989-90	16612.5
1990-91	18145.2
1991-92	17865.4
1992-93	18537.2
1993-94	22238.3
1994-95	26330.5
1995-96	31794.9
1996-97	33469.7
1997-98	35006.4
1998-99	33218.7
1999-00	36822.4
2000-01	44560.3
2001-02	43826.7

Table 7

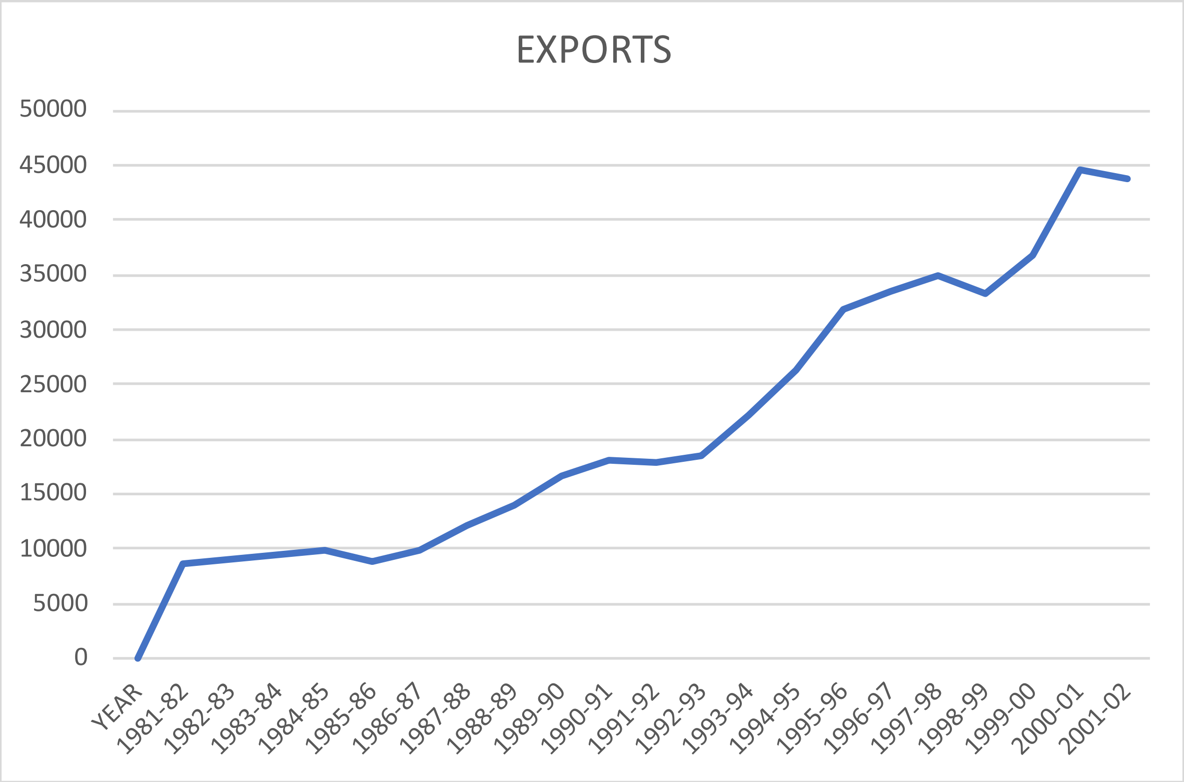

Fig 10

The given data shows the export trends in India from1981-82 to 2001-02. The export data shows a general increasing trend over the years, with some fluctuations. Exports showed moderate growth during the period from 1980s to early 1990s.There was a slight decline in exports in 1985-86. The growth rate significantly increased from 1986-87. There was a decline in exports in 1991-92, coinciding with the Balance of Payments crisis and economic reforms. Exports started to recover from 1992-93 onwards, with robust growth rates. The growth was driven by export-oriented policies, trade liberalization, and increased competitiveness. Exports showed significant growth in the mid-1990s, reflecting India's integration into the global economy. Export growth remained strong but moderated compared to the mid-1990s in the late 1990s to early 2000s. Exports experienced a slight decline in 2001-02.

3.2.2 IMPORTS RATE IN INDIA FROM 1981-82 TO 2001-02

YEAR	IMPORTS
1981-82	15172.9
1982-83	14786.6
1983-84	15310.9
1984-85	14412.3
1985-86	16066.9
1986-87	15726.7
1987-88	17155.7
1988-89	19497.2
1989-90	21219.2
1990-91	24072.5
1991-92	19410.5
1992-93	21881.6
1993-94	23306.2
1994-95	28654.4
1995-96	36675.3
1996-97	39132.4
1997-98	41484.5
1998-99	42388.7
1999-00	49670.7
2000-01	50536.5
2001-02	51413.3

Table 8

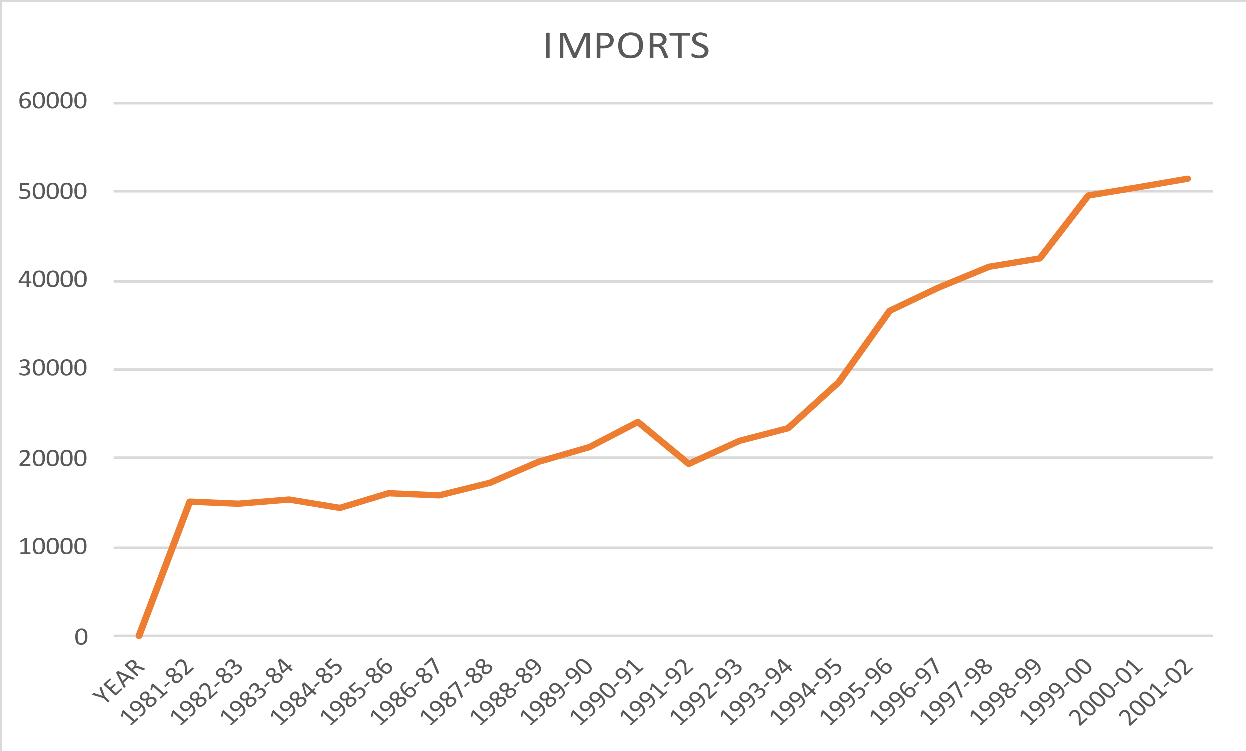

Fig 11

The data provided shows the total imports (in ₹ Billion) for each fiscal year from 1981-82 to 2001-02. There is a general increasing trend in imports over the years, with some fluctuations. Imports have shown significant growth from the early 1990s onwards. Imports fluctuated during the period from 1980s to early 1990s but generally increased. The growth rate was relatively moderate until the late 1980s.There was a significant drop in imports in 1991-92, coinciding with the Balance of Payments crisis and economic reforms. Imports started to recover from 1992-93 onwards, with rapid growth rates. The growth was driven by liberalization policies, increased consumer demand, and industrial expansion. The growth rate peaked in the mid-1990s, indicating a surge in imports as the economy opened up. Import growth remained strong but moderated compared to the mid-1990s. During the period of 2000-01 and 2001-02 Imports continued to grow, but at a slower pace.

3.2.3 EXCHANGE RATE IN INDIA FROM 1981-82 TO 2001-02

YEAR	US DOLLAR
1981	8.6926
1982	9.4924
1983	10.1379
1984	11.3683
1985	12.364
1986	12.6053
1987	12.9552
1988	13.9147
1989	16.2238
1990	17.4992
1991	22.689
1992	25.9206
1993	31.4439
1994	31.3742
1995	32.4198
1996	35.428
1997	36.3195
1998	41.2665
1999	43.0552
2000	44.9401
2001	47.1857

Table 9

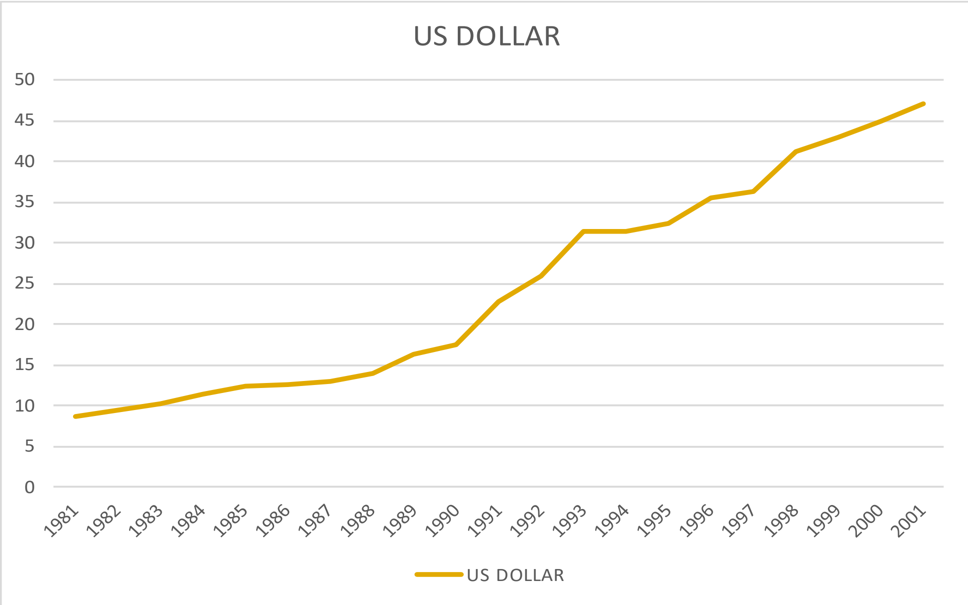

Fig 12

The given data shows the exchange rate values in India during the time period from 1981-82 to 2001-02. There is a general increasing trend in the USD to INR exchange rate over the years, indicating depreciation of the Indian Rupee against the US Dollar. The rate of depreciation varies from year to year. The exchange rate showed a steady increase during the period from 1980s to early 1990s, indicating rupee depreciation. The rate of depreciation accelerated in the late 1980s and early 1990s.There was a sharp depreciation of the rupee in 1991-92, coinciding with the Balance of Payments crisis and economic reforms. After the crisis, the exchange rate stabilized, with more moderate depreciation. From 1994 to 2001, the rate showed a relatively steady increase, indicating ongoing depreciation but at a slower pace. The stability in the mid to late 1990s and early 2000s was influenced by economic reforms, increased foreign investment. The exchange rate continued to increase in the early 2000s, reflecting ongoing depreciation.

CHAPTER 4

FINDINGS AND CONCLUSION

4.1 FINDINGS

Our project contains the performance of India's foreign exchange reserves using time series data from the period 1981-82 to 2001-02. The Government of India introduced NEP since 1991 especially in foreign trade sector; therefore, in order to examine the trend and pattern of forex reserves, the time period has been divided into 1981-82 to 1990-91 and 1990-91 to 2001-02.

- In the pre-reform period, there is an increased growth with fluctuations. In the year 1988-89 to 1989-90, there was a largest decrease in reserves. From 1989-91 there was a largest increase in the economy.

- In the post-reform period, there is a general trend of increasing the reserves. After liberalisation there is an upward growth of forex reserves when compared to the pre-reform period.

- Particularly analysing the components of foreign exchange reserves, it is found that Special Drawing Rights (SDR) has no consistent trend. There is fluctuations over the time period. It does not exhibit a general trend.

- By examining gold reserves, we can find that there is a certain change or shift both increase and decrease over the years. There are years like 1989-90 to 1990-91 and 1992-93 to 1993-94 with substantial increases. There are also years with decreasing trends such as 1996-97 to 1997-98 and 1997-98 to 1998-99. Gold offers stability and it can be highly valuable during fluctuations or uncertainties in the economy.

- Foreign currency Assets are increasing over time, with rapid rises and declines. Good economic growth projections and substantial overseas investments helps for the buoyant growth of foreign assets.

- In a nutshell, when comparing pre-reform and post-reform periods we can find that there is a rapid increase in foreign exchange reserves in the post-reform era when compared to the pre-reform period.

In accordance with our second objective to analyse how accumulation of foreign exchange reserves affect the economy, we collected the data of export, import and exchange rate values of India from 1981-82 to 20001-02.

- Export data showed an increasing trend over the years. There was an upward trajectory, indicating growth in India's trade activities over the years. The data shows fluctuations in exports from year to year, for example, there is a noticeable increase in exports from 1987-88 to 1990-91, followed by a dip in 1991-92. The period post-1991, when economic reforms were initiated, shows a significant increase in exports.

  There is a clear acceleration in export growth from the early 1990s onwards, indicating the positive impact on the foreign exchange reserves which was mainly due to the liberalization, privatization, and globalization (LPG) reforms on India's export sector. The highest growth rates in exports are observed in the mid to late 1990s and early 2000s, reflecting the success of economic reforms in boosting India's export competitiveness. In summary, the data shows a positive trend in India's exports over the analyzed period, with notable growth post-1991, albeit with occasional fluctuations influenced by various domestic and international factors.

- There is a general increasing trend in imports over the years, with occasional fluctuations. Imports showed an overall upward trajectory, indicating growth in India's demand for foreign goods and services over the years.

  Similar to exports, the data showed fluctuations in imports from year to year, reflecting changes in economic conditions, global demand, exchange rates, and policy changes. For example, there is a notable increase in imports from 1987-88 to 1990-91, followed by a decrease in 1991-92. This might be due to changes in government policies or international economic conditions. The period post-1991, when economic reforms were initiated, shows significant growth in imports.

  There is a noticeable acceleration in import growth from the early 1990s onwards, indicating the impact of accumulation of foreign exchange reserves as a result of liberalization, privatization, and globalization (LPG) reforms. There is a dip in imports in 1991-92, coinciding with the Balance of Payments crisis and economic reforms. This dip can be attributed to the initial adjustments required due to the economic reforms initiated during this period, including import restrictions and policy changes which was affected by the foreign exchange reserve accumulation.

- When analysing the foreign exchange rates, we can identify the general increasing trend in USD to INR exchange rate over the years. After balance of payment crisis exchange rate stabilized and increased over the time. From 1981 to 2001, the value of INR depreciated against the USD, indicating that it took more rupees to buy one US dollar over time. The rate of depreciation of INR against USD varied from year to year, but the trend was generally consistent. There are occasional fluctuations, but the overall direction is downward, indicating a steady depreciation of the Indian currency. The period from 1981 to 1989 saw a relatively stable exchange rate, with moderate depreciation. A sharp depreciation occurred in 1991. The early 1990s saw a period of rapid depreciation, reflecting adjustments in response to economic reforms and the liberalization of the Indian economy. The mid to late 1990s witnessed a more stable exchange rate, with relatively slower depreciation. From 1998 onwards, there was a significant depreciation trend, possibly influenced by global economic conditions and domestic economic policies. The data shows periods of both volatility and relative stability in the exchange rate.

4.2 CONCLUSION

The economic policy reforms have a positive impact on foreign exchange reserves of the Indian Economy. There is a development in trade, exports, and imports in the post-reform period. Although there is a development, there existed a trade deficit in the economy. Thus, the balance of payment of the country was unstable. India's export has increased in the post-reform period and the share of export to GDP became wider in the post-reform era when compared to the pre-reform period. The components of foreign exchange reserves such as foreign assets, SDR etc have an increasing trend and positively contribute to economic growth. The increase or decrease in India's foreign exchange reserves is not a random occurrence but a strategic decision made by the Central Bank of the country and Government. There are positive impacts of foreign exchange reserves for the development of the economy. Forex reserves provide stabilisation for the currency. It enhances the creditworthiness and attracts foreign investments.

While looking into the impact on the economy due to the accumulation of foreign exchange reserves in terms of export, import and exchange rate it can be concluded that the consistent growth in exports over the years reflects the increasing integration of India into the global economy. Higher export levels contribute positively to economic growth, employment generation etc. Also, the consistent growth in imports over the years reflects increasing consumption and investment demand in India. Higher import levels can contribute to economic growth by providing access to essential raw materials, technology, and capital goods. However, a high import bill can also put pressure on the trade balance. In the exchange rate o Indian currency, there is INR depreciation against USD influenced by various economic events and foreign exchange accumulation.

From this study on the foreign exchange reserves it can be concluded that there is a positive trend of foreign exchange and it promotes the growth of the economy and Gross domestic product.

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