Economics for Engineers

SYLLABUS (2019 onwards) Unit 2

What is Public Sector Economics?

Public sector economics is concerned with justifying the existence of governments and explaining how they can affect economic activity. It explains how the 'invisible hand' of the market is tempered by the 'visible hand' of government in the mixed economy of both private and public sectors adopted by the vast majority of nations.

Traditionally, public-sector economics has been concerned with the study of how governments can deal with the failure of markets to achieve efficient outcomes. Possible remedies which are considered include using public expenditure and taxation, taking some firms into state ownership and introducing regulation. These are all areas of microeconomic theory, policy and practice.

But the very nature of the 'public' sphere has recently changed. In particular, we need to take account of political economy: how alternative economic theories are used to provide intellectual justification for ideological, moral and ethical beliefs.

These have recently been made manifest in 'rolling back the frontiers of the state' through privatization, contracting out to the private sector the provision of public services, the use of private finance initiatives and public-private partnerships for school education, hospitals and other public services and reforms of social security benefits.

We are used to thinking about the incentives that firms and individuals face: in considering 'public choice' we consider the incentives that governments face. An example of this is the use of emissions permits rather than a carbon tax in the European Union. The explanation for this cannot be economic – a carbon tax is demonstrably preferable. But polluting industries resist the levying of a carbon tax, and so 'grandfathering' (giving out permits for free) is a way to limit the emission of carbon without coming up against significant political opposition.

Public sector economics is certainly not confined within the covers of a dry and dusty textbook. It is not heavily theoretical nor an abstract area of intellectual enquiry. It is out there in the real world, influencing the small details that make up our everyday lives.

NATURE AND SCOPE OF PUBLIC SECTOR ECONOMICS

Nature of Public Finance

Nature of Public finance implies whether it is a science or art or both.

1. Public Finance is a Science: Science is a systematic study of any subject which studies casual relationship between facts. Public finance is a systematically study relating to revenue and expenditure of the government. It also studies the casual relationship between facts relating to revenue and expenditure of the government. Prot. Plehn has advanced the following arguments in favour of public finance being science:

i. Public finance is not a complete knowledge about human rather it is concerned with definite and limited field of human knowledge.
ii. Public finance is a systematic study of the facts and principles relating to government revenue and expenditure.
iii. Scientific methods are used to study public finance.
iv. Principles of public finance are empirical.

Science is of two types:
a) Positive science and
b) Normative science.

In positive science one knows about factual situation or facts as they are. It describes "what is". As against it, normative science presents norms or ideals. It describes "what ought to be" or what is right or wrong i.e. value judgement. By the study of public finance one gets factual information about the problems of government's revenue and expenditure. Public finance is therefore, a positive science. Study of public finance also reveals what should be the quantum of taxes. Which taxes, direct or indirect, should be imposed. On what items more or on what items less of public expenditure be incurred. Public finance is therefore a normative science. Thus, study of public finance offers suggestions regarding revenue and expenditure of the government as also apprises of their factual position.

2. Public Finance is an Art: In the words of J.N. Keynes, "Art is the application of knowledge for achieving definite objectives." Fiscal policy which is an important instrument of public finance makes use of the knowledge of the government's revenue and expenditure to achieve the objectives of full employment, economic equality , economic development and price stability, etc. To achieve the objective of economic equality taxes are levied at progressive rate. Since every tax is likely to be opposed, it becomes essential to plan their timing and volume. The process of levying tax is certainly an art. Budget making is an art in itself. Study of public finance is helpful in solving many practical problems. Public finance is therefore an art also.
In sort, public finance is both science and art. It is a positive science as well as normative science.

Scope of Public Finance (Subject Matter of Public Finance)

The scope of public finance may be summarized as under:
1. Public Revenue
2. Public Expenditure
3. Public Debt
4. Financial Administration
5. Economic Stabilization

1. Public Revenue: Public revenue concentrates on the methods of raising public revenue, the principles of taxation and its problems. In other words, all kinds of income from taxes and receipts from public deposit are included in public revenue. It also includes the methods of raising funds. It further studies the classification of various resources of public revenue into taxes, fees and assessment etc.

2. Public Expenditure: In this part of public finance we study the principles and problems relating to the expenditure of public funds. This part studies the fundamental principles that govern the flow of Government funds into various streams.

3. Public Debt: In this section of public finance, we study the problem of raising loans. Public authority or any Government can raise income through loans to meet the short-fall in its traditional income. The loan raised by the government in a particular year is the part of receipts of the public authority.

4. Financial Administration: Now comes the problem of organisation and administration of the financial mechanism of the Government. In other words, under financial or fiscal administration, we are concerned with the Government machinery which is responsible for performing various functions of the state.

5. Economic Stabilization: Now –a-day's economic stabilization and growth are the two aspects of the Government economic policy which got a significant place in the discussion on public finance theory. This part describes the various economic polices and other measures of the government to bring about economic stability in the country.

From the above discussion, we can say that the subject-matter of public finance is not static, but dynamic which is continuously widening with the change in the concept of state and functions of the state. As the economic and social responsibilities of the state are increasing day by day, the methods and techniques of raising public income, public expenditure and public borrowings are also changing. In view of the changed circumstances, it has given more responsibilities in the social and economic field.

ROLE OF PUBLIC AND PRIVATE SECTORS IN ECONOMIC DEVELOPMENT

Introduction

Public sector and private sector plays significant role in achieving economic growth of a nation. An effect of their function is noticed on the achievement of country's socio-economic development. Strong and leading Bhutanese public sector was established in 1961 with the inception of first five year plan. Moreover, it played driving role for the development of Bhutanese economic.

Privatization was declared during the 6th FYP with the objective that the private sector should play an increasingly important role in fostering economic growth and as a source of employment. Since, from that period, private sector along with Royal Government of Bhutan has enhanced socio- economic development and Bhutan is recognized as one of the fastest economic growing country in the South East Asia. However, both the sectors are still under developed in terms of financial, human resources, efficiency and management. Furthermore there are many difficulties in the path of developing both public and private sector.

Thus, this assignment will discuss roles of public and private sector, their development history, indicators for economic development, contribution made in GDP as well as employment and difficulties for their development.

Definition of Private Sector and Public sectors

Private sector can be define as the part of economy in which the factors of production is owned by an individual or the group of people, with profit maximization as their main objective.

Private goods – produced by the private sector- are produced only for profit motive and its rival in consumption. Benefits are enjoyed by only a person who pays, with no benefit to society and therefore it's exclusive in nature. Private entrepreneur go for self benefit rather than social welfare. Competition is the one thing that occurs between each and every private entrepreneur and this leads to efficient use of resources.

According to Willson & Clark public sector refers to the part of national economy that is owned by whole society and operated for social welfare. Public sector includes all sorts of government (central, state and local). It provides basic goods or services that are either not, or cannot be, provided by the private sector, for example schools, roads, etc.

Public goods are non rival in consumption that anyone can derive utility by consuming. For example road, no one can object any one from using and there is equal right for the consumption. But level of satisfaction derived depends upon individual to individual. Public sector carries those activities that cannot be finance by private and those related to social welfare. Public sector does not do activities for sole benefit rather it is concerned with the society as a whole.

Relative Role of Public Sector in India:

Public sector occupied a worthy place for achieving systematic and planned development in a developing country like India. In a country like India suffering from multi-dimensional problems, private sector is not in a position to make necessary effort for the development of its various sectors simultaneously.

Thus, in order to provide the necessary support to the development strategy of the country, the public sector offers the necessary minimum push for bringing the economy to a path of self sustained growth.

Thus it is now well recognised that public sector plays a positive role in the industrial development of the country by laying down a sound foundation of industrial structure in the initial stage of its development.

Following are some of the important relative roles of the public sector in the economic development of a country like India:

(a) Promoting economic development at a rapid pace by filling gaps in the industrial structure;

(b) Promoting adequate infrastructural facilities for the growth of the economy;

(c) Undertaking economic activity in those strategically significant development areas, where private sector may distort the spirit of national objective;

(d) Checking monopolies and concentration of power in the hands of few;

(e) Promoting balanced regional development and diversifying natural resources and other infrastructural facilities in those less developed areas of the country;

(f) Reducing the disparities in the distribution of income and wealth by bridging the gap between the rich and the poor;

(g) Creating and enhancing sufficient employment opportunities in different sectors by making heavy investments;

(h) Attaining self-reliance in different technologies as per requirement;

(i) Eliminating dependence on foreign aid and foreign technology;

(f) Exercising social control and regulation through various public finance institutions;

(k) Controlling the sensitive sectors such as distribution system, allocating the scarce imported goods rationally etc.; and

(l) reducing the pressure of balance of payments by promoting export and reducing imports.

Relative Role of Private Sector in India:

India, being a mixed economy, has assigned a great importance on the private sector of the country for attaining rapid economic development. The Government has fixed a specific role to the private sector in the field of industries, trade and services sector.

The most dominant sector of India, i.e., agriculture and other allied activities like dairying, animal husbandry, poultry etc. is totally under the control of the private sector. Thus private sector is playing an important role in managing the entire agricultural sector and thereby providing the entire food supply to the millions.

Moreover, the major portion of the industrial sector engaged in the non-strategic and light areas, producing various consumer goods both durables and non-durables, electronics and electrical goods, automobiles, textiles, chemicals, food products, light engineering goods etc., is also under the control of the private sector.

Private sector is playing a positive role in the development and expansion of aforesaid group of industries. Besides, the development of small scale and cottage industries is also the responsibility of the private sector.

Finally, the private sector is also having its role in the development of tertiary sector of the country. The private sector is managing the entire services sector providing various types of services to the people in general. The entire wholesale and retail trade in the country is also being managed by the private sector in a most rational manner.

Moreover, the major portion of the transportation, especially in the road transport is also managed by the private sector. With the growing liberalisation of Indian economy in recent years, the private sector is being assigned with much greater responsibility in various spheres of economic activities.

PUBLIC EXPENDITURE AND PUBLIC DEBT

What is Public Expenditure?

Examine the classification of Public Expenditure. The term public expenditure refers to the expenses of public authorities like the Central, state and local governments. Public expenditure occupies a very important place in the study of public finance. It is the end of all financial activities of the government. Public expenditure is incurred basically to maximize social welfare. Classification of public expenditure refers to the systematic arrangement of different items on which the government incurs expenditure.

1. **Revenue and Capital Expenditure:**

(A) Revenue Expenditures are recurrent or consumption expenditures incurred on public administration, defence forces, public health and education, maintenance of government machinery, subsidies and interest payments. These expenditures are recurrent in nature and they do not create any capital assets. Revenue expenditure is classified into development and non-development expenditure

i) Development Expenditure: The part of revenue expenditure that directly or indirectly contributes to the development of the country is known as development revenue expenditure. It includes expenditures on the maintenance and functioning of social and community services and physical infrastructure. For example, maintenance of education and public health infrastructure like schools, hospitals, irrigation facilities, electricity boards etc.

ii) Non-Development Expenditure: The part of revenue expenditure that may not directly contribute to economic development is known as non-development revenue expenditure. They include expenditures on the maintenance of defence establishments, administrative expenditure, interest payments, payment of old age pension etc.

(B) Capital Expenditures are incurred on building durable assets, like highways, multipurpose dams, irrigation projects, buying machinery and equipment. They are a non-recurring type of expenditure in the form of capital investments. Such expenditures are expected to improve the productive capacity of the economy.

i) Not all capital expenditures are productive. Non-development capital expenditure on defence establishment which does not have any direct impact on economic development but is necessary for the security of the nation.

ii) Capital expenditures on social infrastructure like government schools, hospitals, primary health centers may not generate revenue and therefore cannot be termed productive in that sense, but they indirectly contribute to improving productivity..

iii) Productive and Unproductive Expenditure

(a) Productive Expenditure: Expenditure on infrastructure development, public enterprises or development of agriculture increase productive capacity in the economy and bring income to the government through tax and non-tax revenues. Thus they are classified as productive expenditure.

(b) Unproductive Expenditure: Expenditures in the nature of consumption, such as defence, interest payments, expenditure on law and order, public administration do not create any productive asset which can bring income or returns to the government. Such expenses are classified as unproductive expenditures.

3. Non-Transfer and Transfer Expenditure:

(a) Non-transfer Expenditures: Are incurred for buying or using goods and services. These include expenditure on defence, education, public health etc. Investment expenditures on capital assets are also non-transfer expenditures as the government gets capital goods and assets in return for them.

(b) Transfer Expenditures: Refer to those expenditures against which there is no corresponding transfer of real resources i.e. goods or services. These include expenditures incurred on old age pension, unemployment allowance, sickness benefits, interest payments on public debt and subsidies.

4. Plan and Non-Plan Expenditure:

(a) Plan Expenditures: Refer to the spending of the annual funds allocated by the Central government for development schemes outlined in the ongoing Five Year Plan. For example: Industrial Development, Agricultural Development, Infrastructure, Education & Health etc. (b) Non-Plan Expenditures: Include all those expenditures of the government that are not included in the ongoing Five-Year Plan. They include both development and non-development expenditure. Part of the expenditure is obligatory in nature e.g. interest payments, pensions etc. and a part is essential obligation e.g. defence and internal security.

5. Dalton's Classification:

Economist Hugh Dalton has provided the following comprehensive classification of public expenditure: i) Expenditures on political executives i.e. maintenance of ceremonial heads of state, like the President. ii) Administrative expenditure to maintain the general administration of the country, like government departments and offices. iii) Security expenditures to maintain armed forces and the police forces. iv) Expenditures on administration of justice include maintenance of courts, judges, public prosecutors. v) Developmental expenditures to promote growth and development of the economy, like expenditure on infrastructure, irrigation etc. vi) Social expenditures on public health, community welfare, social security etc. vii) Public debt charges include payment of interest and repayment of principal amount.

6. Causes for Rapid growth of Public Expenditure in India. (OR) the Wagner's Law of Public Expenditure.

The size of public expenditure has been rising in developed countries since early twentieth century and in developing countries since the middle of twentieth century. This is because governmental functions have increased. This increase has far reaching impact on economic growth and development through production, distribution, consumption, saving and investment. Increase in public expenditure has been explained by Wagner's Law and Wiseman-Peacock Hypothesis. According to Wagner public expenditure in any economy increases because of an increase in the role of government. The government in every economy is performing the following fundamental duties.

1. Defence: One of the major contributors to rising public expenditure in India is the growing defence expenditure. Defence expenditure has increased from Rs.3,600 crore in 1980-81 to Rs.86,879 crore in 2009-10.

2. Population: In 1951, India's population was 36 crore. It rose to 102.9 crore in 2001. This massive growth in population has made it necessary for the government to spend ever increasing amounts on education, health, infrastructure, subsidies and development programmes.

3. Rise in National Income:Rise in public expenditure is directly related to rise in national income and per capita income. This is because, as income rises beyond subsistence level, and the basic necessities of people are satisfied, demand for public goods like education, communication, transportation, health care etc. tend to increase. Thus, governments are expected to spend more on such goods.

4. Urbanisation:With economic development and industrialization, urbanization has taken place. In 1951, the percentage of urban population was 17 percent, whereas in

2001 it was around 28 percent. With urbanization, public expenditure or urban infrastructure has increased.

5. Subsidies:The government gives subsidies to different sectors in order to make essential goods and services affordable to the poor. In India Central Government subsidies have increased from Rs.9,581 crore in 1990-91 to Rs.1,06,004crore in 2009-10.

6. Development Programmes:The government of India has always been committed to planned development. This requires heavy investments in various physical and social infrastructure projects. The Government's Plan expenditure was Rs.3,25,149crore in 2009-10.

7. Poverty Alleviation and Employment Generation:As part of the planned programme, the government has launched several plans.

PUBLIC DEBT

The meaning and types of Public Debt

Public debt or public borrowing is considered to be an important source of income to the government. If revenue collected through taxes and other sources is not adequate to cover government expenditure, government may resort to borrowing. Public debt may be raised internally or externally. Internal debt refers to public loans floated within the country, while external debt refers loans floated outside the country. Loans taken by the government may be from individuals, banks, financial institutions like the International Monetary Fund, World Bank etc. The instruments of public debt take the form of government bonds or securities of various kinds. Types of public Debt: Government loans are of different kinds. They may differ in respect of time of repayment, the purpose, conditions of repayment, place of their floating and the method of covering the liability.

Types: 1. Internal and External Debt:

The internal loans are raised within the country and subscribed mainly by its own citizens and/or institutions. It is repayable only in domestic currency. An internal debt may be either voluntary or compulsory. Internal debtimply a redistribution of income and wealth within the country and therefore it has no direct money burden. External loans are raised from foreign countries or international institutions. These loans are repayable in foreign currencies. External loans help to take up various development programme in developing and underdeveloped countries. These loans are usually voluntary. An external loan involves, initially a transfer of resources from foreign countries to the domestic country but when interest and principal amount are being repaid a transfer of resources takes place in the reverse direction.

2. **Voluntary and Compulsory debt**: Public debts may be incurred through voluntary or compulsory loans. Generally, public loans are voluntary in nature. In this case the government makes an announcement regarding the floating of loans. This announcement may be accompanied by some kind of publicity. The government floats a loan by issuing certificates, bond, etc. Individuals, banks and other financial institutions lend to the government willingly by purchasing these securities. On the other hand, compulsory loans are those which are raised by using coercive methods. A compulsory loan is a rare phenomenon in modern public finance unless there are some special circumstances like war or crisis. The rate of interest on such loans may be low. Considering the compulsion aspect, these loans resemble a tax, the only difference is that loans are repaid but tax is not. In India, Compulsory Deposit Scheme is an example of compulsory debt.

3. **Productive and unproductive debts:** Public debt is said to be productive when it is raised for productive purposes and is used to add to the productive capacity of the economy. If the borrowed money is invested in the construction of railways, irrigation projects, power generations, etc. It adds to the productive capacity of the economy and also provides a continuous flow of income to the government. The interest and principal amount is generally paid out of income earned by the government from these projects. Unproductive are those which do not add to the productive capacity of the economy. Such debts are not necessarily self-liquidating. The interest and the principal amount may have to be paid from other sources of revenue, generally from taxation, and therefore, such debts are a burden on the community. Public debt used for war, famine relief, social services, etc. is considered as unproductive debt.

4. **Short Term, Medium Term and Long-Term Debt:** Here the basis of classification is duration of loans. Short-term debt matures within duration of 3 to 9 months. Generally, rate of interest is low. For instance, in India, Treasury Bills of 91 days and 182 days are examples of short term debts incurred to cover temporary shortages of funds. The treasury bills of government of India, which usually have a maturity period of 90 days, are the best examples of short-term loans. Interest rates are generally low on such loans. Long-term debt has a maturity period of ten years or more. Generally the rate of interest is high. Such loans are raised for development programmes and to meet other long0-

term needs of public authorities. Medium-term debt has a maturity period in between short-term and long-term loans. The rate of interest is intermediate. They are generally raised for welfare programmes.

5. **Redeemable and Irredeemable Debt:** Redeemable debt is repaid at some specific future date and therefore, government has to make arrangement for repayment of interest and principle amount within a specific time period. These loans are terminable. The debts which the government promises to pay off at some future date are called redeemable debts. In case of irredeemable debt, no definite date for final repayment is promised for the rate of interest is paid regularly. Therefore, the government makes arrangements for interest payment only. Such debts are likely to become perpetual and therefore, they are considered as undesirable on the grounds of sound finance. The maturity period is not fixed. Such loans create a burden as taxes would be raised to pay the debt in the future.

6. **Funded and unfunded debts:** The basis of division is duration of the loan. It has a maturity period of at least twelve months at the time of issue. The period is generally longer than this and it may be even 30 years or more. Funded debt has an obligation to pay a fixed sum of interest, subject to an option to the government to repay the principal. The government may repay it even before the maturity if market conditions are favourable. Unfunded debt has an obligation to pay at due date with interest. In such debts duration is comparatively short say a year. Unfunded debts are incurred to meet temporary needs of the government. The rate of interest is low. Q.2 Examine the trends and composition of Public Debt in India. During recent years public debt in India has been growing at an alarming rate, with the budget deficit increasing significantly. Debt obligations of the Central government are divided into (i) Internal Liabilities, and (ii) External Debts. Besides, the State governments debts and liabilities are also growing

FISCAL POLICY

Fiscal policy is a government's decisions regarding spending and taxing. If a government wants to stimulate growth in the economy, it will increase spending for goods and services. This will increase demand for goods and services. Since demand goes up, production must go up. If production goes up, companies may need to hire more people. People that were once unemployed may now have jobs and money to spend on goods and services.

This will further increase the demand and require more production and, hopefully, the cycle of growth will continue. Barry may even get more business as people have more money to spend on products at his store. Consequently, government spending tends to speed up economic growth.

If the government thinks the economy is overheating - or growing too fast - the government may decrease spending. A decrease in government spending will decrease overall demand in the economy.

Businesses will slow production, which means profits will decline, resulting in less hiring and business investments. A cut in government spending may hurt Barry's business, because there will be less money in people's pockets to spend at his store, possibly from being laid off. If Barry provides goods or services to the government, he may take a double-hit.

The other side of fiscal policy is taxes. Decreasing taxes tends to stimulate economic growth. If taxes go down, Barry will have more money in his pocket. He'll either spend it or save it. If he spends it, he increases demand and businesses have to produce more. This means they may have to hire more people. These people will then have more money to save or spend - maybe at Barry's store. On the other hand, if Barry saves the money, he'll put it in his bank. The bank will loan the money he deposited, and borrowers will spend it.

Tools: Budget and Taxation

MONITORY POLICY

It is the process by which the monetary authority of a country, generally the central bank, controls the supply of money in the economy by its control over interest rates in order to maintain price stability and achieve high economic growth.[1] In India, the central monetary authority is the Reserve Bank of India (RBI). It is designed to maintain the price stability in the economy. Other objectives of the monetary policy of India, as stated by RBI, are:

Price Stability: Price Stability implies promoting economic development with considerable emphasis on price stability. The centre of focus is to facilitate the environment which is favourable to the architecture that enables the developmental projects to run swiftly while also maintaining reasonable price stability.

Controlled Expansion Of Bank Credit: One of the important functions of RBI is the controlled expansion of bank credit and money supply with special attention to seasonal requirement for credit without affecting the output.

Promotion of Fixed Investment

The aim here is to increase the productivity of investment by restraining non essential fixed investment.

Restriction of Inventories and stocks

Overfilling of stocks and products becoming outdated due to excess of stock often results in sickness of the unit. To avoid this problem, the central monetary authority carries out this essential function of restricting the inventories. The main objective of this policy is to avoid over-stocking and idle money in the organisation.

To Promote Efficiency

It is another essential aspect where the central banks pay a lot of attention. It tries to increase the efficiency in the financial system and tries to incorporate structural changes such as deregulating interest rates, easing operational constraints in the credit delivery system, introducing new money market instruments, etc.

Reducing the Rigidity

RBI tries to bring about flexibilities in operations which provide a considerable autonomy. It encourages more competitive environment and diversification. It maintains its control over financial system whenever and wherever necessary to maintain the discipline and prudence in operations of the financial system.

Monetary policy committee

The Reserve Bank of India Act, 1934 (RBI Act) was amended by the Finance Act, 2016, to provide for a statutory and institutionalised framework for a Monetary Policy Committee, for maintaining price stability, while keeping in mind the objective of growth. The Monetary Policy Committee is entrusted with the task of fixing the benchmark policy rate (repo rate) required to contain inflation within the specified target level. As per the provisions of the RBI Act, three of the six Members of the Monetary Policy Committee will be from the RBI and the other three Members will be appointed by the Central Government.

The Government of India, in consultation with RBI, notified the 'Inflation Target' in the Gazette of India Extraordinary dated 5th August 2016 for the period beginning from the date of publication of the notification and ending on the March 31, 2021 as 4%. At the same time, lower and upper tolerance levels were notified to be 2% and 6% respectively.

Monetary operations

Monetary operations involve monetary techniques which operate on monetary magnitudes such as money supply, interest rates and availability of credit aimed to maintain price stability, stable exchange rate, healthy balance of payment, financial stability, and economic growth. RBI, the apex institute of India which monitors and regulates the monetary policy of the country, stabilize the price by controlling inflation.

Instruments of monetary policy: These instruments are used to control the money flow in the economy,

1. Open Market Operations

An open market operation is an instrument of monetary policy which involves buying or selling of government securities from or to the public and banks. This mechanism influences the reserve position of the banks, yield on government securities and cost of bank credit. The RBI sells government securities to control the flow of credit and buys government securities to increase credit flow. Open market operation makes bank rate policy effective and maintains stability in government securities market.

2. Cash Reserve Ratio (CRR)

Cash Reserve Ratio is a certain percentage of bank deposits which banks are required to keep with RBI in the form of reserves or balances. The higher the CRR with the RBI, the lower will be the liquidity in the system, and vice versa. RBI is empowered to vary CRR between 15 percent and 3 percent. Per the suggestion by the Narasimham Committee report, the CRR was reduced from 15% in 1990 to 5 percent in 2002. As of 27 December 2018, the CRR is 4.00 percent.[4]

3. Statutory Liquidity Ratio (SLR)

Every financial institution has to maintain a certain quantity of liquid assets with themselves at any point of time of their total time and demand liabilities. These assets have to be kept in non cash form such as G-secs precious metals, approved securities like bonds etc. The ratio of the liquid assets to time and demand liabilities is termed as the Statutory liquidity ratio. There was a reduction of SLR from 38.5% to 25% because of the suggestion by Narsimham Committee. As on 05-Dec-2018, the SLR stands at 19.50%, and is proposed to reduce by 25 basis points starting from the Jan-Mar quarter in 2019.

4. Bank Rate Policy

The bank rate, also known as the discount rate, is the rate of interest charged by the RBI for providing funds or loans to the banking system. This banking system involves commercial and co-operative banks, Industrial Development Bank of India, IFC, EXIM Bank, and other approved financial institutions. Funds are provided either through lending directly or discounting or buying money market instruments like commercial bills and treasury bills. Increase in bank rate increases the cost of borrowing by commercial banks which results in the reduction in credit volume to the banks and hence the supply of money declines. Increase in the bank rate is the symbol of tightening of RBI monetary policy. As of 1st August 2018, the bank rate is 6.75 percent.[8]

5. Credit Ceiling

In this operation, RBI issues prior information or direction that loans to the commercial banks will be given up to a certain limit. In this case, commercial bank will be tight in advancing loans to the public. They will allocate loans to limited sectors. A few examples of credit ceiling are agriculture sector advances and priority sector lending.

6. Repo Rate and Reverse Repo Rate

Repo rate is the rate at which RBI lends to its clients generally against government securities. Reduction in repo rate helps the commercial banks to get money at a cheaper rate and increase in repo rate discourages the commercial banks to get money as the rate increases and becomes expensive. Reverse repo rate is the rate at which RBI borrows money from the commercial banks. The increase in the repo rate will increase the cost of borrowing and lending of the banks which will discourage the public to borrow money and will encourage them to deposit. As the rates are high the availability of credit and demand decreases resulting to decrease in inflation. This increase in repo rate and reverse repo rate is a symbol of tightening of the policy

7. Others

Present Key indicators

As per the RBI statistics as of 6 June 2019, the key indicators are

Sl no	**Indicators**	**Present rate in %**
1.	**Inflation**	**2.68**
2.	**Marginal standing facility rate (MSF)**	**4**
3.	**CRR (Cash Reserve Ratio)**	**4**
4.	**SLR(Stationary Liquidity Ratio)**	**19.1**
5.	**REPO RATE**	**5.75**
6.	**REVERSE REPO RATE**	**5.50**