

# The Financial System and the Economy

## Chapter Objectives

This chapter will enable you to develop an understanding of the following:

- 1 *Types of economic units*
- 2 *Role of a financial system in the economy*
- 3 *National income accounts*
- 4 *Flow of funds analysis*
- 5 *Trends in saving and investment*
- 6 *Trends in household financial saving and liabilities*
- 7 *Relationship between a financial system and economic growth.*

## Types of Economic Units

- Surplus-spending economic units:  
Income > consumption + planned investment
- Deficit-spending economic units:  
Income < consumption + planned investment

## INTRODUCTION

All economies operate with a stock of real and financial assets. Real assets may be tangible or intangible. Examples of tangible real assets are land and natural resources, buildings, inventories, equipment, durables, and infrastructure. Examples of intangible real assets are human capital, organizational systems, and governments. Every asset represents savings either by the owner himself or by lenders of surplus savings. Most of the real assets are financed through borrowings (suppliers of surplus savings). Financial assets, or claims, or securities, or instruments come into existence to enable transfer of savings for investment. Financial assets may be classified as equity instruments, debt instruments, deposits, units, and insurance policies. In a modern market economy, the real and financial assets must interact for the process of capital formation to take place.

## Types of Economic Units

In any economy, there are two types of economic units or entities—surplus-spending economic units and deficit-spending economic units.

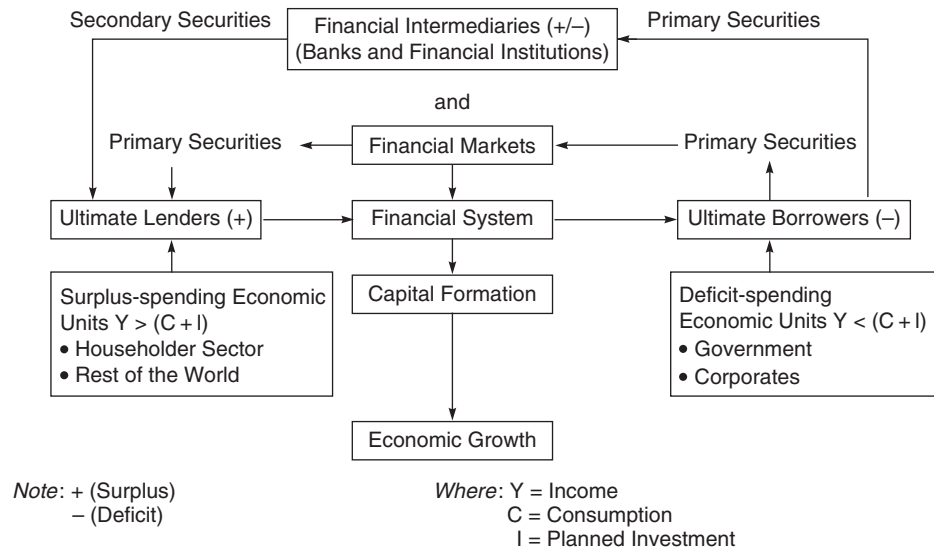
**Surplus-spending Economic Units** These are units whose consumption and planned investment are less than their income. The surplus savings that they have is held in the form of cash balances or financial assets. The acquisition of financial assets or making of loans is, in fact, lending for productive investment. Such lending by the surplus-spending sector can be termed as demanding financial assets or supplying loanable funds. In India, the household sector is a net-surplus spending economic unit. The household and other sectors are discussed in detail in the flow of funds analysis.

**Deficit-spending Economic Units** These are units whose consumption and planned investment exceeds income. The deficit-spending economic units have negative savings; they finance their needs by borrowing or by decreasing their stock of financial assets. Borrowing by deficit-spending units creates a supply of financial securities or demand for loanable funds. In India, the government and the corporate sector are deficit-spending economic units.

The surplus savings of the surplus-spending household units have to be transferred to the deficit-spending economic units. A link in the form of a financial system is necessary to transfer surplus savings to deficit units. The surplus and deficit units can be brought together either directly through external financing or indirectly through intermediation (banks and other financial institutions).

Figure 2.1 illustrates how surplus-spending economic units lend funds to financial intermediaries and financial markets—two important components of the financial system. Financial intermediaries issue secondary securities like deposits, insurance policies, and units to the ultimate lenders. The ultimate borrowers may acquire funds either by issuing primary securities to financial intermediaries or by issuing primary securities in the financial markets. This transfer of funds from the surplus-spending sector to the deficit-spending sector through the financial system leads to capital formation and economic growth. Economic growth, in simple terms, is the increase in the real national product or output over time.

Besides linking savings and investment, the financial system helps in accelerating the rate of savings and investment by offering diversified financial services and instruments. This promotes a larger production of goods and services in the economy, leading to economic growth.



### Figure 2.1 Financial System and Economic Growth

## A MACRO-ECONOMIC FRAMEWORK ANALYSIS FOR EXPLORING THE ROLE OF THE FINANCIAL SYSTEM IN THE ECONOMY

The financial system is the most important institutional and functional vehicle for economic transformation. The pace of achievement of broader national objectives depends on the efficiency of the financial system.

To understand the role of the financial system in the economy, some frameworks and concepts of macroeconomics are deployed. The main tools of analysis are as follows.

**National Income Accounts** National income accounts extend the accounting concept to the economy as a whole. National income accounts of the sector-of-origin reveal the contribution made by different sectors of the economy to the national income and the portion of the national income they consume.

**Flow of Funds Accounts** The savings and investment process creates a flow of funds among sectors. Moreover, many transactions in the economy that are not included in the national income accounts take place as well. Hence, an analysis of the flow of funds accounts becomes necessary. Flow of funds brings out patterns of financing economic activities and the financial relations among various sectors of the economy. The national income accounts are combined with the flow of funds accounts to form a framework for describing the transfer of funds and supply and demand in the securities market. This framework helps to grasp the saving–investment process in the economy, essential for comprehending the working of the financial system.

**Trends in Saving and Investment** One of the basic influences of financial development on growth is the saving and investment rate. Among the many roles of the financial system is the augmenting and channelizing of savings into productive avenues for economic growth. A study of trends in saving and investment is necessary to evaluate this role.

## National Income Accounts

- **Use:** To measure production in the economy and earnings derived from production.

## NATIONAL INCOME ACCOUNTS

National income accounts is the best-known system of macro-economic flow statistics. It is used to measure production in the economy and earnings derived from production.

Both national income and product are flow concepts and are measured over a given or specified period of time. National product refers to the flow of goods and services produced by the residents of a country during any given period of time. National income represents the flow of total factor earnings available for purchasing the net flow of goods and services in the economy during any given period of time.

The data furnished by the national income accounts can be put to a variety of uses. The annual series on the economy's national income classified by industry-of-origin provides useful information about the structure of the economy. National income accounts classified by sector-of-origin show what kind of income has been generated in each sector of the economy and the total value of the goods and services produced by each sector.

In India, the task of national income estimation is entrusted to the Central Statistical Organization (CSO). The CSO compiles the data and the Government of India publishes it. The base year has been shifted seven times from 1948–49 to 1960–61 in August 1967, then to 1970–71 in January 1978, to 1989–81 in February 1988, to 1993–94 in February 1999, to 1999–2000 in February 2006, to 2004–05 in January 2010 and to 2011–12 in January 2015.

## Classification of the Indian Economy

The Indian economy is classified into the following industrial sectors:

- **Primary sector:** agriculture, forestry and logging, fishing, and mining and quarrying
- **Secondary sector:** manufacturing, (registered and unregistered), construction, electricity, gas, and water supply
- **Transport, communication, and trade:** transport, storage and communication, trade, hotels, and restaurants
- **Finance and real estate:** banking and insurance, real estate ownership of dwellings, and business services
- **Community and personal services:** public administration and defence, other services
- **Foreign sector:** foreign sector

The combined gross output of all the sectors of the country except the foreign sector is called the Gross Domestic Product (GDP) at factor cost or the real GDP. The GDP is a broad measure of the output of goods and services in an economy. It is not merely a sum total of the value of all of the output but a sum total of 'value-added' of output. There are two ways in which the GDP can be measured. It can be measured at the production stage or as the sum total of consumption. Both the methods should yield the same result. When measured from the production side, the GDP is broadly divided with three sectors: agriculture, industry and services. In measuring output from the consumption side, the GDP is equal to the sum of private consumption, government consumption, investment and net exports.

GDP, as a statistical indicator, is used to describe and quantify the process of value addition in the economy. This new series of 2011–12 captures large segments of the economy, and thereby the value chain more completely; updates in other segments, the basis for computing value addition and also describing corporate value addition in all segments of the economy. The new series also describes growth in value addition better, through its greater use of value-linked indicators. This is important because as an economy develops, growth in value added comes from improvements in the per unit value addition rather than in growth of volume.

As per international practices, industry-wise estimates are now presented as Gross Value Added (GVA) at basic prices instead of factor cost, while 'GDP at market prices' is referred to as GDP.

The Net National Product (NNP) is the net production of goods and services in a country during the year. It is simply the GNP adjusted for depreciation charges. The NNP gives an idea of the net increase in the total production of the country. It is helpful in the analysis of the long-run problem of maintaining and increasing the supply of physical capital in the country.

The growth rate of the GDP in the 1990s at 6.9 per cent was distinctly higher than that of the 1980s. The industrial and service sectors experienced high growth rates in the 1990s while agriculture registered a low growth rate in comparison with the 1980s. This reflects a major structural shift in the Indian economy in the 1990s wherein economic growth has become less vulnerable to agricultural performance and to the vagaries of the monsoon.

### GDP at Factor Cost

- It is a broad measure of the output of goods and services in an economy.

### GNP at Factor Cost

- It is arrived at by adding the net factor income from abroad to the GDP at factor cost.

### Box 2.1 The Gross Domestic Product

The GDP is not merely a sum total of the value of all of the output but a sum total of 'value-added' of the output. There are two ways in which GDP can be measured. It can be measured at the production stage or as the sum total of consumption. Both the methods should yield the same result. When measured from the production side, GDP is broadly divided with three sectors; agriculture, industry and services. In measuring output from the consumption side, GDP is equal to the sum of private consumption, government consumption, investment and net exports. The GDP at factor cost by economic activity is adjusted by adding indirect taxes net of subsidies to arrive at the estimated GDP at market prices, so that it equals the expenditure on gross domestic product.

Gross capital formation refers to the aggregate of gross additions to fixed assets (fixed capital formation), increase in stocks and inventories, or change in stocks and valuables. Gross fixed capital formation (GFCF) comprises two main components: (i) construction and (ii) machinery and equipment. Only new 'Construction' forms part of GFCF from construction. The GFCF from machinery and equipment includes the ex-factory value of capital goods produced in the registered and unregistered manufacturing sectors and the excise duties paid on them, net imports of capital goods and TTMs, software production, fixed assets in livestock and installation charges of wind energy systems.

**TABLE 2.1** GVA by Economic Activity (at 2011–12 prices)

Industry	2013–14 (2 <sup>nd</sup> Revised Estimate – New Series)	2014–15 (1 <sup>st</sup> Revised Estimate)	2015–16 (Provisional Estimates)	Percentage change over previous year	
				2014–15	2015–16
1	2	3	4	5	6
1. Agriculture, Forestry & Fishing	15,88,237	<b>15,84,293</b>	<b>16,04,044</b>	<b>–0.2</b>	<b>1.2</b>
2. Mining and Quarrying	2,67,378	2,96,328	3,18,377	10.8	7.4
3. Manufacturing	15,79,721	16,67,069	18,21,926	5.5	9.3
4. Electricity, Gas and Water Supply	2,00,861	2,16,970	2,31,228	8.0	6.6
<b>Industry (2 + 3 + 4)</b>	<b>20,47,960</b>	<b>21,80,367</b>	<b>23,71,531</b>	<b>6.5</b>	<b>8.8</b>
5. Construction	8,18,494	8,54,636	8,87,957	4.4	3.9
6. Trade, Hotels, Transport and Communication	16,69,844	18,33,997	19,98,292	9.8	9.5
7. Financing, Real Estate and Pro- fessional Services	18,44,070	20,39,460	22,48,845	10.6	10.3
8. Public Administration, Defence and other Services	11,15,765	12,34,737	13,16,522	10.7	6.6
Services (5 + 6 + 7 + 8)	54,48,173	59,62,830	64,51,616	9.4	8.2
GDP at Factor Cost	90,84,369	97,27,490	1,04,27,191	7.1	7.2

Source: MoSPI

There was a marked difference in the sectoral composition of growth within the industrial sector. The major impetus to growth came from manufacturing while the services sector experienced a higher growth in sectors such as trade, hotels, restaurants, financing/insurance, real estate and business services. This indicates an increase in finance-related activities and financial intermediation.

India recorded one of the highest growth rates in the world: 9.6 per cent in 2006–07, second only to China among the emerging market economies. A rebound in agriculture, increased investment and output in the manufacturing sector, a turnaround in electricity generation, buoyant software exports, and growth in new economy services such as trade, hotels, transport and communication contributed to this increase in the GDP. Competition, fall in interest rates, better infrastructure facilities and a growth in exports led to a manufacturing boom and made manufacturing grow faster than services.

Investment led growth in the manufacturing and services sectors, coupled with comfortable foreign exchange reserves and a robust increase in exports continued till 2007. The pace of GDP growth rate slowed down in 2008 on account of the decelerating growth in the industrial sector, international price increases in oil and commodity prices, increasing inflation, increasing cost of funds, moderating capital inflows, depreciation in the rupee against the dollar and the impact of global financial crisis. After sharp recovery from the global financial crisis, the GDP growth rate accelerated to 8.4 per cent in 2009–10. But this growth rate slowed down to 6.5 per cent—a nine year low—during 2011–12.

The new series (with 2011–12 as the base year) reveals that there was noticeable improvement in some of the macro-aggregates of the economy in 2013–14, which got further strengthened in 2014–15. Agriculture sector supported growth rate in GDP in 2013–14 and accounted for 16.1 and 15.4 per cent of GVA during 2014–15 and 2015–16, respectively. The decline in agriculture growth rate was due to delayed monsoon. The Index of Industrial Production (IIP) picked up in 2014–15, reversing the stagnating trend of the last two years while the services sector remained the major driver of economic growth contributing 72.4 per cent of the GDP in 2014–15. The manufacturing sector grew by 2 per cent during 2015–16 aided by robust growth in petroleum refining, automobiles, wearing apparels, chemicals, electrical machinery and wood products and furniture. The growth in GVA in the services sector slowed down to 8.2 per cent during the year (9.4 per cent in 2014–15). The services sector accounted for 61.87 per cent of the GVA for 2015–16. We can aim at achieving a higher GDP growth rate by enhancing growth in all the three sectors.

The national income accounts present macro-economic data such as GDP, GNP, NNP, savings, and investment. With the help of this data, surplus and deficit sectors can be identified but it does not provide information on issues such as inter-sectoral fund flows, linkages and instruments. For this the national income accounts have to be used in combination with the flow of funds accounts in order to have an understanding of the financial inter-relationship among various sectors of the economy.

## FLOW OF FUNDS ACCOUNTS

Savings and investment in the economy can also be approached through an analysis of the flow of funds in the economy. The flow of funds accounts reflect the diversified savings and investment flows from the broad sectors of an economy through various credit and capital market instruments. In other words, the accounts bring out the pattern of financing economic activities and the financial inter-relationship among various sectors of the economy.

The flow of funds accounts are essential for any comprehensive analysis of financial market behaviour. They help identify the role of finance in the generation of income, savings, and expenditure. They also help identify the influence of economic activities on financial markets. A temporal and cross-section comparison of these accounts provides an insight into the changing pattern and degree of development in the process of intermediation. The channel through which savings find a way into the investment sectors is highlighted through these accounts. The volume of financial flows with respect to the index of economic activities, say the GNP, the NNP, or capital formation, provides a reliable indicator of the growing use of financial instruments. The flow of funds accounts are also employed as an important tool for financial planning and forecasting. By utilizing historical flow of funds, emerging trends in the economy and changes in financial patterns can be tracked. This, in turn, can help in forecasting the flow of funds for the economy for a coming period of time. In short, they are very useful in understanding the financial institution structure, assets structure, financial inter-relationships, and the nature of financial development in the country.

The flow of funds accounts disclose the level, depth, and nature of financial activities in the economy. They are organised along two dimensions—economic sectors and financial instruments—to provide sector-wise and instrument-wise financial flows. The FoF accounts are now prepared by the RBI by corresponding it to the new series of national accounts as well as in its ‘Sequence of Accounts’ by the Central Statistics Office (CSO). The FoF accounts divide the economy into five institutional sectors, namely (i) the financial corporations sector, which includes the Central Bank (CB), Other Depository Corporations (ODCs)—commercial banks, co-operative banks, Deposit-taking Non-banking Financial Companies (NBFCs-D) and Deposit-taking Housing Finance Companies (HFCs-D)—and Other Financial Corporations (OFCs) that mainly comprise all-India financial institutions, Non-Deposit taking Non-banking Financial Companies (NBFCs-ND), Non-Deposit taking Housing Finance Companies (HFCs-ND), insurance corporations, provident funds and pension funds and mutual funds; (ii) non-financial corporations, including both public including central public sector non-departmental non-financial enterprises, state power utilities and port trusts and privatenon-financial corporations including both public and private limited non-financial companies; (iii) General Government (GG) that comprises the central government and the state governments; (iv) the House Hold (HH) sector; and (v) Rest of the World (RoW).

These sectors participate in the financial activities through borrowing (issuing claims on themselves) and lending (accepting claims on others). If the borrowing exceeds the lending, the sector is termed as a deficit sector; in the reverse case, it is a surplus sector.

Financial assets and liabilities are classified under ten major categories of financial instruments. Financial instruments across sources and uses of funds of the various institutional sectors include currency and deposits, debt securities, loans and borrowings, equity, investment funds (such as mutual funds), insurance, pension and provident funds, monetary gold, other accounts (including trade debt) and other liabilities/assets Not Elsewhere Classified (NEC). The instrument-wise analysis of financial flows reveals the aggregate preference pattern of various sectors for different financial instruments.

Financial claims are divided into two categories: (i) primary issues or securities signifying all forms of debt, marketable or otherwise, issued by the ultimate borrowers; and (ii) secondary issues or indirect securities reflecting debt and claims issued by financial intermediaries in order to acquire and hold primary securities. The total flow of finance in the economy is represented by the total financial issues, which is the aggregation of funds raised by primary and secondary issues.

This system is designed as a matrix. The matrix is prepared by examining the balance sheets of the various sectors at the beginning and at the end of a period. The net increase in assets is treated as uses of funds and increase in liabilities as sources of funds. Tables 2.2 and 2.3 show changes or flow of funds between two points of time. They include only the inter-sectoral flows and not the intra-sectoral flow of funds. In other words, the flow of funds accounts present a net flow of funds between sectors and between two points of time.

Table 2.2 exhibits financial flows by different sectors. The RBI publishes this data and it is available upto 2014–15.

The overall financial resource balance in the economy—measured by the net acquisition of financial assets less net increase in liabilities—as a proportion to Net National Income (NNI) at current market

### Uses of Flow of Funds Accounts

- Help identify the role of finance in the generation of income, savings, and expenditure.
- Help identify the influence of economic activities on financial markets.
- An important tool for financial planning and forecasting.
- Disclose the level, depth and nature of financial activities in the economy.

### Flow of Funds Accounts for the Indian Economy

- Provide information on six sectors: households, private corporate business, banking, other financial institutions, government, and the rest of the world (RoW).

### The Total Flow of Finance in an Economy

- Equals the aggregation of funds raised by primary issues and secondary issues.

### Primary Issues

- Funds which flow directly from surplus to deficit sectors.

### Secondary Issues

- Funds which flow through financial intermediaries.



<b>TABLE 2.2</b>		Sectoral Financial Resource Balance			
		<i>(% of NNI at current market prices)</i>			
		2011–12	2012–13	2013–14	2014–15
<b>1</b>	<b>None-Financial Corporations</b>	<b>–9.0</b>	<b>–7.6</b>	<b>–6.6</b>	<b>–5.2</b>
	1.a Public Non-Financial Corporations	–0.6	–0.9	–1.9	–1.1
	1.b Private Non-Financial Corporation	–8.4	–6.7	–4.8	–4.1
<b>2</b>	<b>Financial Corporations</b>	<b>2.1</b>	<b>1.4</b>	<b>1.8</b>	<b>0.5</b>
<b>3</b>	<b>General Government</b>	<b>–9.8</b>	<b>–7.6</b>	<b>–8.8</b>	<b>–8.5</b>
<b>4</b>	<b>Household Sector</b>	<b>8.3</b>	<b>8.4</b>	<b>8.7</b>	<b>8.7</b>
<b>5</b>	<b>Total (1 + 2 + 3 + 4)</b>	<b>–8.4</b>	<b>–5.4</b>	<b>–4.9</b>	<b>–4.5</b>

<b>TABLE 2.3</b>		Net Saving and Net Investment of Different Sectors			
		<i>[As percent of Net National Income (NNI) at current market prices]</i>			
		<i>(Per cent)</i>			
		2011–12	2012–13	2013–14	2014–15
<b>1.i</b>	<b>Public Non-Financial Corporations</b>				
	(i) Net Saving	–0.1	–0.2	–0.3	–0.5
	(ii) Net Capital Formation	2.7	2.5	2.2	2.0
	(iii) Resource Gap [(i) c (ii)]	–2.5	–2.3	–2.3	–2.4
<b>1.ii</b>	<b>Private Non-Financial Corporations</b>				
	(i) Net Saving	4.8	5.2	6.2	7.9
	(ii) Net Capital Formation	9.9	10.4	9.9	10.7
	(iii) Resource Gap [(i) – (ii)]	–4.8	–5.1	–3.3	–2.3
<b>2</b>	<b>Financial Corporations</b>				
	(i) Net Saving	3.4	3.4	2.9	3.0
	(ii) Net Capital Formation	0.5	0.3	0.3	0.4
	(iii) Surplus [(i) – (ii)]	3.4	3.5	3.0	2.9
<b>3</b>	<b>General Government</b>				
	(i) Net Saving	–3.3	–3.0	–2.7	–2.3
	(ii) Net Capital Formation	2.7	2.7	3.0	3.6
	(iii) Resource Gap [(i) – (ii)]	–7.0	–6.8	–6.5	–5.9
<b>4</b>	<b>Household Sector</b>				
	(i) Net Saving	22.5	21.0	19.3	17.3
	(ii) Net Capital Formation	13.7	12.3	10.3	8.2
	(iii) Surplus Gap [(i) – (ii)]	8.7	8.8	9.1	9.1
<b>5</b>	<b>Tortal (1 to 4)</b>				
	(i) Net Saving	27.2	26.3	25.4	25.3
	(ii) Net Capital Formation	29.5	28.2	25.6	24.8
	(iii) Resource Gap [(i) – (ii)]	–2.3	–1.8	–0.1	0.5
<b>6</b>	<b>Valuables</b>	3.3	3.1	1.6	1.8
<b>7</b>	<b>Errors and Omissions</b>	–0.7	0.4	0.0	0.2
<b>8</b>	<b>Overall Resource Gap [5(iii)-6-7]</b>	<b>–4.9</b>	<b>–5.3</b>	<b>–1.7</b>	<b>–1.5</b>

Note: The sectoral data on net saving are adjusted for capital transfers receivable/payable.

Source: Central Statistical Office.

prices, narrowed in 2014–15. This improvement was primarily driven by a reduction in net borrowings of non-financial corporations, which benefited from saving on input costs due to decline in commodity prices, and general government reflecting the ongoing fiscal consolidation at the central government level. Net lending by financial corporations declined mainly on account of the slowdown in bank credit on asset quality concerns in an environment of subdued investment activity. Deposits constitute the largest source of funds for the banks and they were mobilised primarily from the household sector which remained the largest supplier of finance to the economy. The RoW sector has played an important role in flow of funds since 1993–94. There was a significant capital flow through the direct as well as portfolio between 2003–04 to 2007–08. There was a substantial financial flow in India from the RoW sector during 2014–15 and 2015–16 on account of easing of foreign direct investment and allowing portfolio investors to invest coupons from government securities outside the residual maturity limit of three years set in July 2014 (which was subsequently extended to corporate bonds). In the case of private non-financial corporations, their major source of finance was RoW sector, insurance companies and non-banking financial companies.

In terms of financial flows by instruments, as usual, currency and deposits were the preferred financial instruments. The share of loans and borrowings declined steadily over 2011 to 2014–15 on account of decline in credit by banks and financial institutions to private corporate sector. Deposits and loans and borrowings accounted for more than 60 per cent of total liabilities issued during 2011–12 to 2014–15. While the share of 'equity and investment fund shares' and 'insurance, pension and provident funds' increased to 17 per cent and 6.1 per cent, respectively in 2014–15.

The total sources of funds or the total issues can be segregated into primary issues (i.e., funds which directly flow from surplus to deficit sectors) and secondary issues (i.e., funds which flow through financial intermediaries, such as banks and other financial instruments). Table 2.4 reveals a rise in the total issues from ₹46,384 bn. in 2011–12 to ₹58,255 bn. in 2014–15. There was a steady increase in both the primary and secondary issues.

## Flow of Funds-based Indicators of Financial Development

The role of the Indian financial system in capital accumulation and formation can be best gauged by certain finance-deepening ratios. The financial development of a country is studied by examining changes in the following ratios which were constructed by Goldsmith (1969):

**Finance Ratio (FR)** It depicts the process of financial deepening in the economy. It is an indicator of the rate of financial development in relation to economic growth. It is a ratio of the total issues consisting primary and secondary claims in relation to the national income.

$$FR = \frac{\text{Total financial claims}}{\text{Net income}} = \frac{\text{Total issues}}{\text{Net national product at factor cost}}$$

**Financial Inter-relation Ratio (FIR)** It reflects the proportion of financial issues with respect to net capital formation in the economy. It reflects the relationship between the financial structure and the real-asset structure of the economy. In other words, the relationship between financial development and capital formation is best captured by this ratio.

$$FIR = \frac{\text{Financial assets}}{\text{Physical assets}} = \frac{\text{Total issues}}{\text{Net domestic capital formation}}$$

**New Issue Ratio (NIR)** It is the ratio of primary issues to net domestic capital formation. It measures the proportion of primary claims issued by non-financial institutions to net capital formation. In other words, NIR indicates how far direct issues to the savers have financed the investment by the investing sectors.

$$NIR = \frac{\text{Primary issues}}{\text{Net physical investments}} = \frac{\text{Primary issues}}{\text{Net domestic capital formation}}$$

**Intermediation Ratio (IR)** It is the ratio of secondary issues to primary issues and indicates the importance of financial intermediaries in channelizing financial resources. It depicts the institutionalization of financing in the economy. It is the ratio between the financial claims issued by the financial institutions and the financial instruments issued by non-financial institutions.

$$IR = \frac{\text{Total secondary issues}}{\text{Total primary issues}}$$

### Flow of Funds-based Indicators of Financial Development

- Finance Ratio
- Financial Inter-relation Ratio
- New Issue Ratio
- Intermediation Ratio

**TABLE 2.4** Financial Ratios: 2011–12 to 2014–15

		(Amount in ₹ Billion)			
		2011–12	2012–13	2013–14	2014–15
1.	Secondary Issues <sup>#</sup>	18,584	22,257	23,374	24,807
2.	Primary Issues <sup>##</sup>	27,800	27,118	32,437	33,448
	2.1 Domestic Sectors	27,634	26,103	29,825	29,462
	2.2 Rest of the World	167	1,015	2,612	3,986
3.	Total Issues (1 + 2)	46,384	49,375	55,811	58,255
4.	Net Domestic Capital Formation <sup>@</sup>	24,858	27,828	27,131	29,430
5.	National Income <sup>@</sup>	77,421	87,746	99,344	1,10,076
6.	Finance Ratio (Ratio of 3 to 5)	0.60	0.56	0.56	0.53
7.	Financial Inter-relations Ratio (Ratio of 3 to 4)	1.87	1.77	2.06	1.98
8.	New Issue Ratio (Ratio of 2 to 4)	1.12	0.97	1.20	1.14
9.	Intermediation Ratio (Ratio of 1 to 2)	0.67	0.82	0.72	0.74

<sup>#</sup>: Refers to issues by financial intermediaries (i.e. ODCs and OFCs).

<sup>##</sup>: Refers to issues by all sectors other than financial intermediaries.

<sup>@</sup>: At current prices.

Source: RBI Bulletin, August 2016

All four ratios significantly increased from 1990–91 to 2015–16. The FR increased from 0.401 in 1990–91 to 0.53 in 2014–15 indicating a deepening of the financial markets leading to a marked rise in the institutionalization of financing investment. It also reflects separation between the acts of saving and investment.

The FIR significantly increased in the 1990s, the range being 1.75 to 2.87. This indicates that the financial structure in India grew more rapidly than the national income and there was a higher level of participation of the financial system in capital formation. The FIR declined from 2004–05 to 2012–13 but improved from 2013–14 (Table 2.4).

The new issue ratio was at a high of 1.618 in 1991–92 due to capital market reforms and opening up of the economy. The NIR now ranges between 0.97 to 1.20 during 2011–12 to 2014–15 indicating a higher amount of primary issues such as IPOs and FPOs for capital formation (Table 2.4).

The importance of financial intermediaries in channelizing the financial resources is reflected in the IR which touched an all time high of 0.89 in 1999–2000. It now hovers in the range of 0.67 to 0.74 during 2011–12 to 2014–15 reflecting higher involvement of the financial intermediaries in the secondary issues as compared to primary issues, and importance of financial intermediaries such as banks and financial institutions in the financing real activities (Table 2.4).

All four ratios exhibit the growing importance of financial intermediation in the economy and the growth of financial flows in relation to economic activity both in the form of direct and indirect finance. This growth indicates a deepening and widening of the Indian financial system.

## TRENDS IN SAVING AND INVESTMENT

The two most important concepts in economics and finance are saving and investment. Economic objectives like price stability, maintaining high levels of income and employment, and high rates of economic growth have a close relationship with the concepts of saving and investment.

Saving is income minus expenditure. In other words, saving is the income that exceeds consumption. Investment involves the sacrifice of current consumption and the production of investment goods which are used to produce commodities. It includes the accumulation of inventories. Investment refers to investment in real assets and includes investment in expenditure for plant and equipment, residential and other construction, and additions to inventories. In other words, investment is capital formation, one of the most important factors that determines the rate of economic growth of a country. Capital formation is the net investment in fixed assets. In the national accounts, investment is the sum of Gross Fixed Capital Formation and the physical change in stocks and work in progress. Gross Fixed Capital Formation includes depreciation while Net Capital Formation excludes it.

### Flow Concepts

- Saving is income that exceeds consumption.
- Investment is investment in real assets.



Both saving and investment are flow concepts and refer to the addition of the stock of capital (wealth) that occurs over a period of time. The stock concept 'savings' refers to the holding of wealth in some form, usually financial claims. Savings refers to financial capital at a point of time and saving refers to addition to the capital over a period of time.

Many changes in the economy issues such as fluctuation in supply of money, creation of new capital, surplus/deficit of the government sector, and introduction of new types of claims determine the supply and demand for securities. These changes are essential to the study of financial markets. To understand these changes, one needs to look at the flow concept of saving and investment.

## Why Study Saving and Investment

The concepts of saving and investment help analyse some important aspects of macro-economics such as fluctuations in economic activity between prosperity and recession, the process of economic growth, and the method of financing Gross Domestic Capital Formation.

Changes or fluctuations in economic activity may occur when investment spending is greater or smaller than the savings at a given level of income. Moreover, the resources going into the productive process, *i.e.*, capital formation, may have a direct relationship with economic growth. In other words, growth in economic activity may result either from widening the application of capital (capital widening) or intensifying its user—utilizing more capital per unit of labour and output (capital deepening). Lastly, all economic activities—agricultural, industrial, or services—depend on the availability of financial resources. These resources needed for economic growth must be generated. The amount of financial resources and the volume of capital formation depend upon the intensity and efficiency with which savings are encouraged, gathered, and directed towards investment. An institutional mechanism—the financial system—performs this role to aid economic growth. As more saving moves through the financial system, financial depth increases.

## Saving and Investment in India

Estimates of savings are prepared by the CSO. The organization defines saving as the excess of current income over current expenditure. It is the balancing item on the income and outlay accounts of producing enterprises and households, government administration, and other final consumers.

For the purpose of estimating the domestic saving, the economy has been divided into three broad institutional sectors: (i) household, (ii) private corporate, and (iii) public.

The household sector comprises heterogeneous entities such as individuals, unincorporated business enterprises (sole proprietorships and partnership concerns), farm production units, and a number of non-profit institutions. Household saving equals income of households not allocated to current expenditure.

The saving of the household sector is measured as the total of financial saving and saving in the form of physical assets. Financial saving involves possession of currency, net deposits, investment in shares and debentures, net claims on government in the form of central and state government securities and small savings, net increase in the claims of life insurance, and provident funds. Physical assets include construction machinery and equipment and stocks held by individuals, firms, and other institutions constituting the household sector.

The private corporate sector comprises non-government, non-financial companies, private financial institutions, and co-operative institutions. The saving of the private corporate sector is the excess of its revenues over expenditure.

The public sector comprises the government, administrative departments, and enterprises both departmental and non-departmental. The saving of the government administration is defined as the excess of current receipts over current expenditure.

The term investment refers to domestic capital formation. Investment in an economy equals the savings available to it. Its size in any country depends on the domestic saving and capital inflow. There are two broad categories of investments: private and public. Public investment includes government's investment in infrastructure, health, and education. Private investment refers to investment in plant, machinery, and buildings by firms, and households.

The trend in saving and investment rates reveals the following features:

- The Gross Domestic Savings (GDS) rose as a proportion of the GDP from 16.6 per cent in the 1970s to 23.9 per cent in the 1990s (Table 2.5). In the same period, there was a simultaneous increase in the rates of financial savings of the household sector and the private corporate sector. The saving rate improved in 2002–03 due to reduced public sector dissavings. The savings rate was still below the peak of 25.1 per cent achieved in 1995–96. The savings rate in the economy touched an all-time high of 37.7 per cent of the GDP in 2007–08 (Table 2.6). Since 2008–09 there has been a decline in the

### Use of the Concepts of Saving and Investment

To analyse

- fluctuations in economic activity.
- process of economic growth.
- method of financing gross domestic capital formation.

### Forms of Savings of the Household Sector

- Physical assets
- Financial assets

### Trends in Saving and Investment

- Gross domestic and investment savings rate in the tenth plan was 34.1 per cent of the GDP.
- Household sector—the largest saving sector—accounts for over three-quarters of the total savings in India.
- Since 2000–01, the household sector's preference for investment in physical assets increased.
- The saving and investment rates of the private corporate sector have improved
- There was a saving–investment surplus for the first time in 2001–02.

**TABLE 2.5** Trends in Gross Domestic Saving (As Per Cent of the GDP at Current Market Prices)

No.	Items	1970–71 to 1974–75	1975–76 to 1979–80	1980–81 to 1984–85	1985–86 to 1992–93	1993–94 to 1998–99	X Plan Average 2002–03 to 2006–07
1.	Household Sector	12	15.2	14.1	17.1	18.6	23.7
	1.1 Financial Saving	4	5.7	6.7	8.4	10.6	11.0
	1.2 Saving in Physical Assets	8	9.5	7.4	8.8	8	12.7
2.	Private Corporate Sector	1.7	1.5	1.6	2.4	4.1	6.0
3.	Public Sector	3	4.5	3.7	2	1.2	1.7
4.	Gross Domestic Saving	16.6	21.2	19.4	21.5	23.9	31.4

Note: Data for the period 1970–71 to 1992–93 are based on 1980–81 series and data for the period 1993–94 to 1998–99 are based on 1993–94 series. Data for the X Plan Average are based on 1999–2000 series.

Source: RBI, *Report on Currency and Finance*, 2007–08.

average saving rate. The rate of gross savings to gross national disposable income for 2014–15 stood at 32.3 per cent, the same level as in 2013–14. The rate of gross saving to GDP stood at 33.0 per cent for 2014–15, the same level as in 2013–14.

- In India, the bulk of the saving is sourced from the household sector (Table 2.7).
- Financial saving started assuming importance as a result of financial deepening following bank nationalization in 1969. The GDS rate fell during the first half of the 1980s due to an increase in household expenditure on consumer goods. During the 1990s, household sector saving and household financial saving emerged as the single greatest contributor to the GDS.
- The household sector accounts for over three-quarters of the total savings in India (Table 2.9). The increase in the share of financial saving of the household sector, which has been surpassing physical saving on a sustained basis, is indicative of increased financial intermediation, widening, and deepening of the financial system, as well as the movement of relative rates of return on assets of the household sector portfolio.
- The household net financial saving rate increased to 7.7 per cent of Gross National Disposable Income (GNDI) in 2015–16 from 7.5 per cent in 2014–15 and 7.4 per cent in 2013–14. The improvement reflected a higher rate of increase in gross financial assets in relation to that in financial liabilities. The increase in gross financial assets was driven primarily by a turnaround in small savings and increases in investment in equities and mutual funds, tax-free bonds by public sector units and currency holdings even as the growth in bank deposits held by the households slowed down. Financial liabilities also increased reflecting higher borrowings from banks and housing finance companies by the households during the year. (Table 2.10)
- The greater preference of the household sector for financial assets as against physical assets could be attributed to factors like removal of wealth tax on various forms of financial assets in the Union Budget 1992–93, growing financial intermediation and preference of households for less risky assets such as bank deposits, contractual savings, and small saving instruments. However, since 2000–01, the investment in physical assets has been in the form of gold and real estate. The declining interest rates coupled with lackluster capital markets has led to a spur in physical assets like housing, gold, and real estate.

**TABLE 2.5 A** Savings and Investment Rate

(Per Cent to GDP)										
(1)	Savings						Investment			
	Households			Private Corporate (5)	Public Sector (6)	Total (7)	Households (8)	Private Corpo- rate (9)	Public Sector (10)	Total* (11)
	Financial (Net) (2)	Physical (3)	Sub-Total (4)							
2005–06 to 2007–08	11.6	11.4	23.0	8.3	3.7	35.0	11.4	15.1	8.4	34.9
2008–09 to 2010–11	11.0	12.9	23.9	7.8	0.9	32.7	12.9	12.0	9.1	34.1
Change	–0.6	1.5	0.9	–0.4	–2.7	–2.2	1.5	–3.1	0.8	–0.9

\* Exclusive of investment in valuables.

Source : RB9, *Annual Report*, 2012

**TABLE 2.6** Gross Domestic Saving And Investment

S. No.	Item 1	₹ crore)				(per cent of GDP)			
		2011–12*	2012–13*	2013–14*	2014–15@	2011–12*	2012–13*	2013–14*	2014–15@
		2	3	4	5	6	7	8	9
	Household Saving of which:	20,65,453	22,33,950	23,60,936	23,80,488	23.6	22.4	20.9	19.1
1	a) Financial Assets	6,42,609	7,33,616	8,62,873	9,61,306	7.4	7.4	7.7	7.7
	b) Physical Assets	13,89,209	14,63,684	14,60,844	13,79,411	15.9	14.7	13.0	11.0
	c) Saving in Valuables	33,635	36,650	37,219	39,770	0.4	0.4	0.3	0.3
2	Non-Financial Corporations	8,47,134	9,90,322	12,18,020	15,32,262	9.7	10.0	10.8	12.3
3	Financial Corporations	2,72,371	3,00,599	2,94,180	3,35,679	3.1	3.0	2.6	2.7
4	General Government	–158,234	–160,048	–148,089	–131,729	1.8	1.6	1.3	1.1
5	Gross Savings	30,26,724	33,64,823	37,25,046	41,16,700	34.6	33.8	33.0	33.0
6	Net Capital Inflow from ROW	3,76,171	4,77,920	1,86,555	1,59,458	4.3	4.8	1.7	1.3
7	Gross Capital Formation	34,02,895	38,42,743	39,11,601	42,76,158	39.0	38.6	34.7	34.2
	Total Consumption Expenditure (a + b)	58,78,822	67,32,289	76,60,925	85,58,509	67.3	67.7	68.0	68.5
8	a) Privat Final Consumption Expenditure	49,10,447	56,70,929	65,07,932	71,93,046	56.2	57.0	57.7	57.6
	b) Government Final Consumption Expenditure	9,68,375	10,61,360	11,52,993	13,65,463	11.1	10.7	10.2	10.9
	<i>Memo Items</i>								
	Saving-Investment Balance (5–7)	–376,171	–477,920	–186,555	–159,458	4.3	4.8	1.7	1.3
	Household Sector	20,65,453	22,33,950	23,60,936	23,80,488	23.6	22.4	20.9	19.1
	Non-Financial Corporations	8,47,134	9,90,322	12,18,020	15,32,262	9.7	10.0	10.8	12.3
	Financial Corporations	2,72,371	3,00,599	2,94,180	3,35,679	3.1	3.0	2.6	2.7
	General Government	–158,234	–160,048	–148,089	–131,729	1.8	1.6	1.3	1.1

Notes: 1. The presentation of the table is as per the new terminology used after the base year revision.

2. GDP refers to 'GDP at market prices'.

3. The data has been revised as per the new series of national accounts.

\*: 2nd Revised Estimates- New Series.

@: 1st Revised Estimates.

Source: MoSPI

- The government has been pre-empting an increasing proportion of the household sector's savings through the insurance and provident fund system, minimum investment recourse to banks under the Statutory Liquidity Ratio (SLR), and recourse to Reserve Bank through deficit financing.
- The saving rates of the private corporate sector exceeded that of the public sector in the 1990s. The private corporate sector's saving rate increased from 1 per cent in the 1950s to 1.7 per cent in 1980s and 3.8 per cent in 1990s. The investment rate of the private corporate sector surpassed that of the public sector in 1995–96. This improved investment rate in the 1990s could be attributed to the liberalization measures introduced in the economy and the consequent impetus given to the private sector in the successive budgets in the 1990s. The saving rate of the private corporate sector, however, declined in the year 2001–02 but improved marginally in 2003–04 and 2004–05. The gradual reduction in corporate tax rates and debt servicing costs more than doubled the private corporate saving rate from 3.4 per cent in 2001–02 to 8.8 per cent in 2007–08 and to 12.3 per cent in 2014–15 (Table 2.6).

**TABLE 2.7** Gross Savings

<i>(Per cent of GNDI)</i>				
<i>Item</i>	<i>2011–12</i>	<i>2012–13</i>	<i>2013–14</i>	<i>2014–15</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
I. Gross Savings	33.8	33.0	32.3	32.3
1.1 Non-financial corporations	9.5	9.7	10.6	12.0
1.1.1 Public non-financial corporations	1.4	1.2	1.1	0.9
1.1.2 Private non-financial corporations	8.1	8.5	9.4	11.1
1.2 Financial corporations	3.0	3.0	2.6	2.6
1.2.1 Public financial corporations	1.9	1.7	1.4	1.3
1.2.2 Private financial corporations	1.2	1.2	1.1	1.3
1.3 General Government	–1.8	–1.6	–1.3	–1.0
1.4 Household sector	23.0	21.9	20.5	18.7
1.4.1 Net financial saving	7.2	7.2	7.5*	7.5*
Memo: Gross financial saving	10.4	10.4	10.1*	9.8*
1.4.2 Saving in physical assets	15.5	14.4	12.7	10.8
1.4.3 Saving in the form of valuables	0.4	0.4	0.3	0.3

\*: As per the latest estimates of the Reserve Bank, household financial saving for 2013–14 and 2014–15 are 7.4 per cent and 7.5 per cent of gross national disposable income (GNDI) and gross financial saving for the same period are 10.4 per cent and 10.0 per cent, respectively.

Note: Net financial saving of the household sector is obtained as the difference between gross financial savings and financial liabilities during the year.

Source: CSO.

- The public sector saving rate declined tremendously in the 1990s. In the last two years of the decade, it turned negative and touched –2.5 per cent in 2001–02 on account of increasing dissaving by government administration. This negative public savings is a major constraint on domestic resource mobilization and has lowered the aggregate domestic saving. This dissaving reduced marginally to –1.1 per cent in 2002–03 and further to –0.3 per cent in 2003–04. Savings of the public sector touched 2.2 per cent of the GDP in 2004–05, the highest level since the late eighties. The fast recovery from negative savings of 2 per cent of the GDP in 2001–02 was on account of the steady improvement in savings of the non-departmental enterprises—other public sector companies—from 1.5 per cent to 4.1 per cent of the GDP during 2003–04 to 2006–07. However, the savings of the department enterprises—mainly railways and telecom remained largely stagnant at 0.5 per cent of the GDP during this period. The saving rate of the overall public sector was 4.5 per cent in 2007–08 (Table 2.6). However, there was a reduction in the average public sector savings since 2008–09 on account of decline in the contribution of non-departmental enterprises and fiscal stimulus measures.
- Gross Domestic Capital Formation (investment) reached a peak of 26.9 per cent of the GDP in 1995–96, but fell to 24 per cent in 2000–01. The fall in 2000–01 was due to a deterioration in the public sector savings rate. The private corporate sector investment decelerated to 7 per cent in 2000–01 from a high of 9.4 per cent in 1995–96, but improved in the years 2001–02 and 2002–03 on account of increased

**TABLE 2.8** Sector-wise Domestic Savings at Current Market Prices (Per Cent)

	<i>1950–51 to 1959–60</i>	<i>1960–61 to 1969–70</i>	<i>1970–71 to 1979–80</i>	<i>1980–81 to 1989–90</i>	<i>1990–91 to 1999–2000</i>	<i>2000–01 to 2006–07</i>	<i>2008–09 to 2010–11</i>
Household Sector	68.5	63.7	66.5	72.9	77.6	77.4	73.7
Financial Saving	20.3	21.0	26.6	35.5	43.3	36.2	45.9
Physical Saving	48.2	42.7	39.9	37.4	34.3	41.2	54.1
Private Corporate Sector	10.4	11.2	8.7	9.5	17.2	18.9	24.0
Public Sector	21.1	25.1	24.8	17.6	5.2	3.7	2.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: RBI, and Annual Report, 2012.

**TABLE 2.9** Sector-Wise Domestic Savings (At Current Prices)

		(₹ Billion)		
S.No	Item	2012-13	2013-14	2014-15
	1	2	3	4
1	Gross Saving	33648.23	37250.46	41167.00
1.1	Non-financial corporations	9903.22	12180.20	15322.62
1.1.1	Public non-financial corporations	1239.93	1307.70	1173.51
1.1.1.1	Departmental enterprises	312.94	298.13	377.24
1.1.1.2	Non-departmental enterprises	926.99	1009.57	796.27
1.1.2	Private non-financial corporations	8663.29	10872.50	14149.11
1.2	Financial corporations	3005.99	2941.80	3356.79
1.2.1	Public financial corporations	1748.33	1630.73	1654.70
1.2.1.1	Departmental enterprises	51.72	59.61	63.52
1.2.1.2	Non-departmental enterprises	1696.61	1571.12	1591.18
1.2.2	Private financial corporations	1257.66	1311.06	1702.09
1.3	General Government	-1600.48	-1480.89	-1317.29
1.4	Household sector	22339.50	23609.36	23804.88
1.4.1	Financial Saving	7336.60	8628.73	9613.07
1.4.1.1	Gross financial saving	10640.41	11693.65	12502.45
1.4.1.2	Less Financial liabilities	3304.25	3064.92	2889.38
1.4.2	Saving in physical assets	14636.84	14608.44	13794.11
1.4.3	Saving in the form of valuables	366.50	372.19	397.70

profits. The private sector investments exceeded the public sector investments during 2003-04 and 2004-05. The investment was higher in fixed assets—machinery and investments. Capital formation in the public sector fell in the 1990s but rose to 6.9 per cent in 1999-2000. The rise was due to a buffer food stock and was not related with investment in fixed assets. The gross domestic capital formation rate reached a peak of 32.9 per cent in 2007-08 due to improvements in both public and private corporate investments. However this rate started declining since 2008-09. The rate of decline in investments was more than savings. An upward trend was noticed in gross capital formation from 2011-12 on account of an increase in capital inflows from the RoW. The gross domestic capital formation

**TABLE 2.10** Financial Saving of the Household Sector

(Per cent of GNDI)					
Item	2011-12	2012-13	2013-14*	2014-15*	2015-16*
1	2	3	4	5	6
A. Gross financial saving	10.4	10.4	10.4	10.0	10.8
Of which:					
1. Currency	1.2	1.1	0.9	1.1	1.4
2. Deposits	6.0	6.0	5.8	4.9	4.7
3. Shares and debentures	0.2	0.2	0.4	0.4	0.7
4. Claims on government	-0.2	-0.1	0.1	0.0	0.4
5. Insurance funds	2.2	1.8	1.6	1.9	2.0
6. Provident and pension funds	1.1	1.5	1.6	1.6	1.5
B. Financial liabilities	3.2	3.2	3.0	2.5	3.0
C. Net financial saving (A-B)	7.2	7.2	7.4	7.5	7.7

\*: As per the latest estimates of the Reserve Bank; GNDI : Gross national disposable income.

Note: Figures may not add up to total due to rounding off.

Source: CSO.



remained subdued in 20015-16 but a possible turnaround in the capital expenditure (investments) is expected.

- Gross Domestic Capital Formation rates remained higher than the Gross Domestic Saving till 2000–01. This resulted in a saving–investment gap. This gap in the public sector represents a fiscal deficit. The rise in the fiscal deficit was more than the rise in private savings, creating a gap which was filled in by bringing in foreign savings. Foreign savings can be explained better if we understand two measures, external current account deficit and external capital account surplus. A current account deficit means that the country's exports are not sufficient to fully pay for its imports. This results in a gap which can be covered by sale of assets, equity or debt securities to foreigners. Capital account surplus is a result of large inflows of foreign savings in the form of foreign investment and remittances. Thus, current account deficit equals capital account surplus.

Domestic saving has traditionally financed over 90 per cent of investment in India. The recourse to external saving has averaged less than one per cent of the GDP since 1991–92. There was an increased flow of foreign funds in the form of foreign capital and remittances. However, there was a deceleration of the investment rate in 2000–01 which reflected a failure of the investment demand to absorb the available resources. This led to a saving–investment surplus of 0.6 per cent of the GDP for the first time in 2001–02 after the period 1975–78 (Table 2.6). This surplus was mirrored in the current account surplus of the balance of payments. The current account balance has turned negative since 2004–05 on account of a higher investment rate as compared to savings rate.

## Household Sector Financial Saving

### Household Sector Financial Assets Portfolio

- Deposits
- Contractual savings
- Shares and debentures

The household sector saves in the form of currency, bank deposits, non-banking deposits, life insurance funds, provident and pension fund claims on government, shares and debentures including units of the Unit Trust of India.

For economic growth, it is necessary that saving is held in financial assets such as deposits, shares and debentures, and in the form of contractual savings rather than in currency. If savings are held in the form of currency, it is probable that they might be invested in unproductive assets like gold. Hence, an analysis of the composition of household sector savings was undertaken.

This analysis indicated that households held a large portion of their savings in the form of deposits (both banking and non-banking). Rapid expansion of the commercial banking sector was one of the important factors in mobilizing savings.

Contractual savings or savings under provident fund schemes, pension and life insurance funds were the next preferred form of savings by households. Funds raised from contractual savings are employed for long-term investment. An increase in household sector savings in the years 1999–2000 and 2000–01 was due to an increase in long-term contractual savings. In India, there is a great need for infrastructure projects and these projects can be financed through long-term contractual savings. Besides, contractual saving also has the potential of reviving the capital market and acting as a social security.

Financial saving in the form of shares and debentures showed a marked increase from 0.8 per cent during the period 1970–71 to 1973–74 to 3.9 per cent during the period 1993–94 to 1998–99, emerging as the third most popular financial asset (Table 2.9). This was due to reforms in the financial market undertaken by the government in July 1991 which led to a boom in new issues of shares and a rise in the Sensex. Besides this, the depth, size, and liquidity of financial markets had a significant impact on the household saving in financial assets. In 2005–06, financial saving in the form of shares and debentures declined to 0.1 per cent of the financial assets and further to –0.7 percent of the financial assets in 2011–12. Financial saving in the form of shares and debentures increased to 0.7 percent of GNDI in 2015-16 (Table 2.10).

Small investors are the pillars of Indian capital markets. A large and active small investor base helps in price discovery and serves as a counterweight to large powerful investors such as foreign institutional investors (FIIs). Recurrent scams, price volatility, fraudulent company management, and poor corporate governance have contributed to the diminishing faith of the individual investor in the stock market. However, the proportion of investment in shares and debentures has increased since 2011–12 on account of buoyant stock markets and strong macro-economic fundamentals.

Hence, the household sector's saving is increasingly distributed between financial assets such as deposits, insurance policies, and shares and debentures rather than in the form of currency. This is indicative of an increasing preference of the household sector for financial intermediaries and productive investment of the saving mobilized by financial intermediaries.

**Household Sector's Liabilities** As shown in Table 2.10, a study of the household sector's liabilities shows that it borrows the majority of its funds from banks. In the years 1999–2000 and 2000–01, the borrowings from banks increased by 40 per cent as compared to the year 1998–99. To compare figures, the borrowings from banks increased sixfold from ₹43,354 crore in 2001–02 to ₹2,64,991 crore in 2011–12. This was due to a decline in interest rates. Taking advantage of this, the household sector purchased durables and real estate. The second preferred source of finance of the household sector is loans and advances from other financial institutions. Table 2.6 also reflects that the household is a net surplus sector in the sense that the excess of saving and investment exceeds its financial liabilities.

In a nutshell, the household sector in India has emerged as the single most important contributor to the GDS. The performance of the private sector improved in terms of both saving and investment, but there was a negative saving on the part of the government. The public sector was the largest deficit sector due to its large fiscal deficits and the government has had to resort to market borrowings on a large scale to fill up the gap.

An analysis of trends in savings and investment reveals that financial development and intermediation have led to improvement in the saving rate of the country.

#### Financial Liabilities of the Household Sector

- Bank advances
- Loans by Financial Corporations and Non Banking Companies
- Loans and advances from government
- There was a rise in the financial liabilities of the household sector due to a regime of low interest rates

## Saving and Investment in the Long Run

India's saving rate seems to be fairly low when compared with East Asian economies.

There is considerable scope for improvement in the saving rate in India. An empirical estimate by the Reserve Bank of India (2001) indicates that the real per capita income and financial deepening have significant positive effects on the aggregate GDS rate and are its main determinants. Other things remaining the same, a 1 per cent increase each in income and intermediation ratio (secondary issues to primary issues ratio) would induce an increase in aggregate savings rate by 6.6 per cent points and 3.4 percentage points respectively.

There is potential for increasing the saving rate in India and this can be tapped by financial markets and intermediaries who can offer a higher rate of return.

## Conclusion

In the 1990s—the post-reforms period—the trend in the growth rate of the GDP was 5.7 per cent. The GDP growth rate further rose to 7.3 per cent between 2000–01 and 2007–08 which was distinctly high and a remarkable achievement. The GDS as a percentage of the GDP rose substantially in the 1990s at an average of 23.9 per cent of the GDP. It further improved to 33.8 per cent in 2009–10 but declined to 32.3 per cent in 2010–11 (Table 2.6). The household sector savings had been generally in favour of financial assets as compared to physical assets.

The average investment (Gross Domestic Capital Formation) rate of 29.8 per cent of GDP was achieved in the tenth plan. The private corporate sector investment responded enthusiastically to the changes in the economic policies.

This post-reforms performance was achieved in the middle of both domestic and international uncertainties such as the South-east Asian crisis, uncertainties of the economic prospects of Japan and the economies of Europe, political uncertainty, economic sanctions imposed by several industrial countries following India's nuclear test, suspension of fresh multilateral lending (except for some sectors), downgrading by international rating agencies, and reduction in investment by FIIs. India was in a position to withstand all these uncertainties only with the help of domestic savings (Table 2.11). Again, domestic savings helped Indian markets recover in the turbulent global crisis. The Columbia University economist Ragnar Nurkse, in 1953, rightly said, 'capital is made at home.'

Today the Indian economy has positioned itself amongst the top two fastest growing economies in the world. We are now aiming for 8 per cent GDP growth rate in the next five years and this can be achieved.

In the case of domestic savings, the public sector needs to generate positive savings. Foreign savings in the form of foreign direct investment (FDI) can be attracted only when macro-economic fundamentals are strong and there is a well-developed and sound financial system. The latter is a prerequisite for mobilizing higher domestic and foreign savings and allocating them efficiently for economic growth.

**TABLE 2.11** Saving Rate and Growth Rate of GDP in India vis-à-vis Select Asian Countries (In Per Cent)

Country	Gross Domestic Saving (Per Cent of GDP)						Growth Rate of GDP					
	1990	1995	2000	2005	2007	2015	1990	1995	2000	2005	2007	2015
China	35.2	39.6	38.0	46.6	49.9	49.2	3.8	10.9	8.4	10.4	13.0	6.9
Hong Kong	35.7	29.6	31.9	33.0	31.8	24.0	3.9	2.3	8.0	7.1	6.4	2.4
Republic of Korea	37.3	36.5	33.3	32.3	31.0	35.4	9.2	9.2	8.5	4.0	5.1	2.6
India	22.8	24.4	23.7	34.2	35.7	29.8	5.3	7.3	4.4	9.5	9.0	7.6
Indonesia	32.3	30.6	31.8	27.5	28.2	34.8	9.0	8.2	4.9	5.7	6.3	4.8
Malaysia	34.4	39.7	46.1	42.8	42.0	32.7	9.0	9.8	8.9	5.3	6.2	5.0
Singapore	44.0	50.1	46.9	48.8	52.4	53.2	9.2	8.2	10.1	7.3	7.8	2.0

\*Average for the period

Note: Data for India is for April-March and for others on a calendar year basis.

Source: World Bank, data.worldbank.org

## RELATIONSHIP BETWEEN THE FINANCIAL SYSTEM AND ECONOMIC GROWTH: SOME THEORETICAL AND EMPIRICAL EVIDENCE

### Importance of the Financial System

- Facilitates economic activity and growth.
- Helps accelerate the volume and rate of savings.
- Lower financial intermediation costs
- Makes innovation least costly.
- Helps in evaluating assets.
- Helps the central bank to conduct monetary policy.
- Monitors the management of companies.

The existence of an efficient financial system facilitates economic activity and growth. The growth of financial structure is a precondition to economic growth. In other words, markets, institutions, and instruments are the prime movers of economic growth. The financial system of a country diverts its savings towards more productive uses and so it helps to increase the output of the economy.

Besides mobilizing savings, the financial system helps accelerate the volume and rate of savings by providing a diversified range of financial instruments and services through intermediaries. This results in an increased competition in the financial system which channelises resources towards the highest-return investment for a given degree of risk. This lowers financial intermediation costs and stimulates economic growth.

A sophisticated financial system makes innovation least costly and most profitable, thereby enabling faster economic growth. Countries whose financial systems encourage diverse financing arrangements are able to maintain international competitiveness through updating their productive capacities.

In addition to affecting the rate as well as the nature of economic growth, a financial system is useful in evaluating assets, increasing liquidity, and producing and spreading information.

Financial systems often develop in response to changing patterns of demand for funds. In the 1970s, there was a worldwide increase in the demand for risk management services. Many financial systems met this demand by increasing trading activity and by the development of many new risk management products. Hence, economic growth can also stimulate growth of the financial system.

Financial markets represent the deep end of the financial system; the deeper the system, greater its stability and resilience. A well-developed money and government securities market helps the central bank to conduct monetary policy effectively with the use of market-based instruments. Well-developed financial markets are also required for creating a balanced financial system in which both, financial markets and financial institutions play important roles. An imbalance between the two leads to financial crisis, as it happened in South-east Asia.

The financial system plays an important role in disciplining and guiding management companies, leading to sound corporate governance practices. The domestic financial system when linked to the international financial system increases capital flow with the help of financial markets. This link reduces risk through portfolio diversification and helps in accelerating economic growth.

There has been much theorising about a two-way and symbiotic relationship between the financial system and economic growth. A sophisticated and sound financial system accelerates the rate of economic growth, and the financial system, in turn, develops more with higher economic growth. This relationship between a financial system and economic growth has received considerable attention in empirical literature also.

## Empirical Research Evidence on Relationship Between the Financial System and Economic Growth

Historical evidence of the relationship between the financial system and economic growth can be traced to observations by Gurley and Shaw (1955, 1960) and Goldsmith (1969) which indicate that self-financed

capital investment, as economies develop, first gives way to bank-intermediated debt finance and later to the emergence of equity markets as an additional instrument for raising external finance.

According to Hicks (1969), new technological inventions did not set off the industrial revolution in England in the eighteenth century. Rather, more liquid financial markets made it possible to develop projects that required large capital injections for long periods before the projects ultimately yielded results. The industrial revolution, therefore, had to wait for the financial revolution.

McKinnon and Shaw (1973) laid the theoretical grounds for the relationship between financial development and economic growth. According to them, government restrictions on the banking system (such as interest rate ceilings, high reserve requirements, and directed credit programmes—defined as financial repression) impede the process of financial development and, consequently, reduce economic growth. Hence, they advocated liberalization of financial markets and it was their work which encouraged financial liberalization in developing countries as part of economic reforms.

McKinnon and Shaw's views were further extended by Cho (1986), who argued that financial market liberalization may remain incomplete without an efficient market for equity capital as a means of spreading risk. The development of both bank and equity market is a necessary condition for financial liberalization.

Kumar and Tsetseko (1992) argued that substitutability and complementarity between banks and securities market appear to be sensitive to the level of economic growth. According to them, an economic environment with a flourishing private sector and well-established banking system is conducive to the growth and expansion of equity market.

A study by Atje and Jovanovic (1993) concluded that stock markets on their own can raise a typical developing country's economic growth by an outstanding 2.5 per cent per annum.

King and Levine (1993) used several measures for the level of development of financial intermediaries for a cross-section of 77 countries for the period 1960–89. They found a statistically and economically significant relationship between the measures of financial development and growth variables.

Levine and Zervos (1995) explored the effects of liberalization of capital control. They indicated that countries which liberalized restriction on capital and dividend flows showed a marked improvement in the functioning of their stock exchanges.

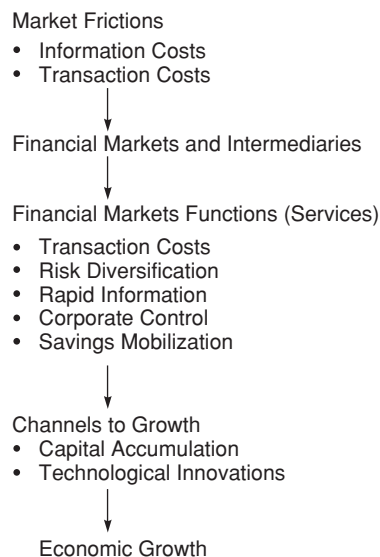
Greenwood and Smith (1996) showed that large stock markets can lower the cost of mobilizing savings and thereby facilitate investment in the most productive techniques.

Demirguc Kunt and Levine (1996) found that in the long-term, stock return volatility is lower in countries with more open capital markets. They concluded also that as countries grow and reach middle income (about \$2,000 per capita in 1990), the level of stock market development is positively correlated with the development of financial intermediaries. Thus, stock markets and financial institutions are generally complementary; they grow simultaneously.

Demitriade and Hussein (1996) found little to support the view that finance is a leading sector in the process of economic development. However, they found evidence that in quite a few countries, economic growth systematically causes financial development. On balance, however, most of the evidence seems to favour the view that the relationship between financial development and economic growth is a two-way one. The data provide support to the view that reforms, where they are able to contribute to the process of financial deepening, may also contribute to the more general process of economic development.

Levine and Sara Zervos (1996) focused on two measures of liquidity—the value traded ratio and the turnover ratio for a broad cross-section study of 49 countries over the period 1976–93 with the objective to measure the degree to which agents can cheaply, quickly, and confidently trade ownership claims of a large percentage of the economy's productive technologies. The researchers then assessed the strength of the empirical relationship among each liquidity measure and the three growth indicators—economic growth, capital accumulation, and productivity. Their results are consistent with views that the liquidity services provided by stock markets are independently important for long-term growth and that stock markets and financial intermediaries are complementary to one another and not substitutes. The research also shows that liberalization of cash flows opening to foreign investment enhances stock market development and liquidity.

Levine (1997) stressed the importance of stock markets in stimulating the financing of investment in less liquid investment projects. He constructed an endogenous growth model with a two-way relation between the financial system and economic growth. According to Levine, the financial system influences real sector activities through its functional ability. A need for reduction in information and transaction costs leads to the development of financial markets and intermediaries. Financial markets, through their functions (services), influence the rates of capital accumulation and technological innovations which are prerequisites for economic growth (Figure 2.2).



Source: Levin, 'Financial Development And Economic Growth: Views And Agenda,' *Journal Of Economic Literature*, Vol. 35, June 1997, P. 691.

**Figure 2.2** Relationship Between the Financial System and Economic Growth

Singh (1997) concentrated his research on the stock exchanges of developing countries between 1982 and 1992 and found that the total market capitalization of companies quoted on stock exchanges increased by a factor of 20, thereby highlighting the importance of the issue of financing through stock markets.

However, some researchers have found evidences contrary to the above. A cross-country study by Mayer (1990) covering the period 1970–85, concluded that internal savers finance bulk of corporate investment in major developed countries like the US, UK, Germany, Japan, Italy, Canada, and Finland and that the role of the stock market is very limited. Stiglitz (1994) criticized the financial liberalization thesis on the grounds that financial markets are prone to market failures.

Nagaraj (1996) compiled and analyzed some useful direct evidence for India for the period 1950–91. He concluded that capital market growth has changed domestic financial savings composition from bank deposits to shares and debentures, without favourably influencing the domestic savings rate or its share in financial assets. Equity capital's share in total market capitalization has declined since a bulk of such mobilization is in the form of debt. Capital market has little relation to the corporate investment rate and output growth rate. Corporate profitability declined in the 1980s, when the capital market boomed.

Singh (1997), while examining the implications of the rapid growth of market capitalization in developing countries between 1982 and 1992, concluded that financial liberalization, by making the financial system more fragile, is not likely to enhance long-term growth in developing countries.

Levine et al. (2000), on exploring the relationship between financial structure and economic development, find that financial structure does not help in understanding economic growth, industrial performance, or firm expansion. Instead, there was overwhelming evidence that legal and accounting reforms that strengthen creditors' rights, contract enforcement, and accounting practices boost financial intermediary development and, thereby, economic growth.

From the above empirical research evidences, we can conclude that there is a close, if not imperfect, relationship between the effectiveness of an economy's financial system and the level of its economic growth.

Many of the above studies have employed cross-section regression methodology to draw causal inferences. Moreover, their findings demonstrate that causality patterns vary across countries. Therefore, statistical inference based on cross-section studies which implicitly treat different economies as homogenous entities may not always be correct. In view of the above, empirical studies of individual countries are needed to determine the impact of the relationship between financial system and economic growth.



## KEY TERMS

Deficit-spending Economic Units

Gross National Product

Saving

Gross Domestic Product

Investment

Surplus-spending Economic Units

## SUMMARY

1. In any economy, there are two types of economic units or entities—surplus-spending economic units and deficit-spending economic units.
2. Surplus-spending economic are those units whose consumption and planned investment are less than their income.
3. Deficit-spending economic those are those whose consumption and planned investment exceeds income.
4. The financial system is the most important institutional and functional vehicle for economic transformation. The pace of achievement of broader national objectives depends on the efficiency of the financial system.
5. National income accounts is the best-known system of macro-economic flow statistics. This system is used to measure production in the economy and earnings derived from the production.
6. India recorded one of the highest growth rates in the world: 9.6 per cent in 2006–07, second only to China among the emerging market economies.
7. The increased contribution of banking and finance in the real GDP reflects the importance of financial intermediation activities in the economy.
8. Savings and investment in the economy can also be approached through an analysis of the flow of funds in the economy. The flow of funds accounts reflect the diversified savings and investment flows from the broad sectors of an economy through various credit and capital market instruments. They are organized along two dimensions—economic sectors and financial instruments—to provide information on sector-wise and instrument-wise financial flows.
9. Flow of funds-based indicators of financial development are Finance Ratio, Financial Inter-relation Ratio, New Issue Ratio, and Intermediation Ratio. All the four ratios exhibit the growing importance of financial intermediation in the economy and the growth of financial flows in relation to economic activity both in the form of direct and indirect finance.
10. The concepts of saving and investment help to analyse some important aspects of macro-economics such as fluctuations in economic activity between prosperity and recession, the process of economic growth, and the method of financing Gross Domestic Capital Formation.
11. For the purpose of estimating domestic saving, the economy has been divided into three broad institutional sectors: (i) household, (ii) private corporate, and (iii) public.
12. The Gross Domestic Savings rate in 2006–07 was 34.8 per cent of the GDP. The household sector was the largest saving sector accounting for over three-quarters of the total savings in India. Since 2000–01 the household sector's preference for investment in physical assets has increased. The saving and investment rates of the private corporate sector have improved. There was a saving–investment surplus for the first time in 2001–02.
13. The household sector's saving is increasingly distributed between financial assets such as deposits, insurance policies, and shares and debentures rather than in the form of currency.
14. A financial system facilitates economic activity and growth, helps accelerate the volume and rate of savings, lowers financial intermediation costs, makes innovation least costly, helps in evaluating assets, helps the central bank to conduct monetary policy, and monitors the management of companies.

## REVIEW QUESTIONS

1. Discuss the various indicators of financial development.
2. Examine critically the saving and investment trends in India.
3. 'There is a close relationship between financial system and economic growth.' Comment critically.
4. Explain surplus-spending and deficit-spending units briefly. What role do they play in economic growth?
5. Write notes on:
  - a. Flow of funds accounts
  - b. National income accounts
6. Why should saving and investment be studied? Discuss the trends in saving and investment in India.
7. What is GDP? How is it measured?
8. What are the flow-of-funds based indicators of financial development?
9. What are the different forms of household sector saving in India?

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