Indian Financial System – An overview

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Introduction

Financial Markets are very important in developing countries as capital is scarce and hence opportunity cost of misallocation is higher

The rates of return on investments vary largely within the same sector across different enterprises - It is difficult for the Government to promote high return investments without simultaneously promoting low return entities also

Financial markets, when competitive and well developed, have the ability to separate such businesses and enterprises

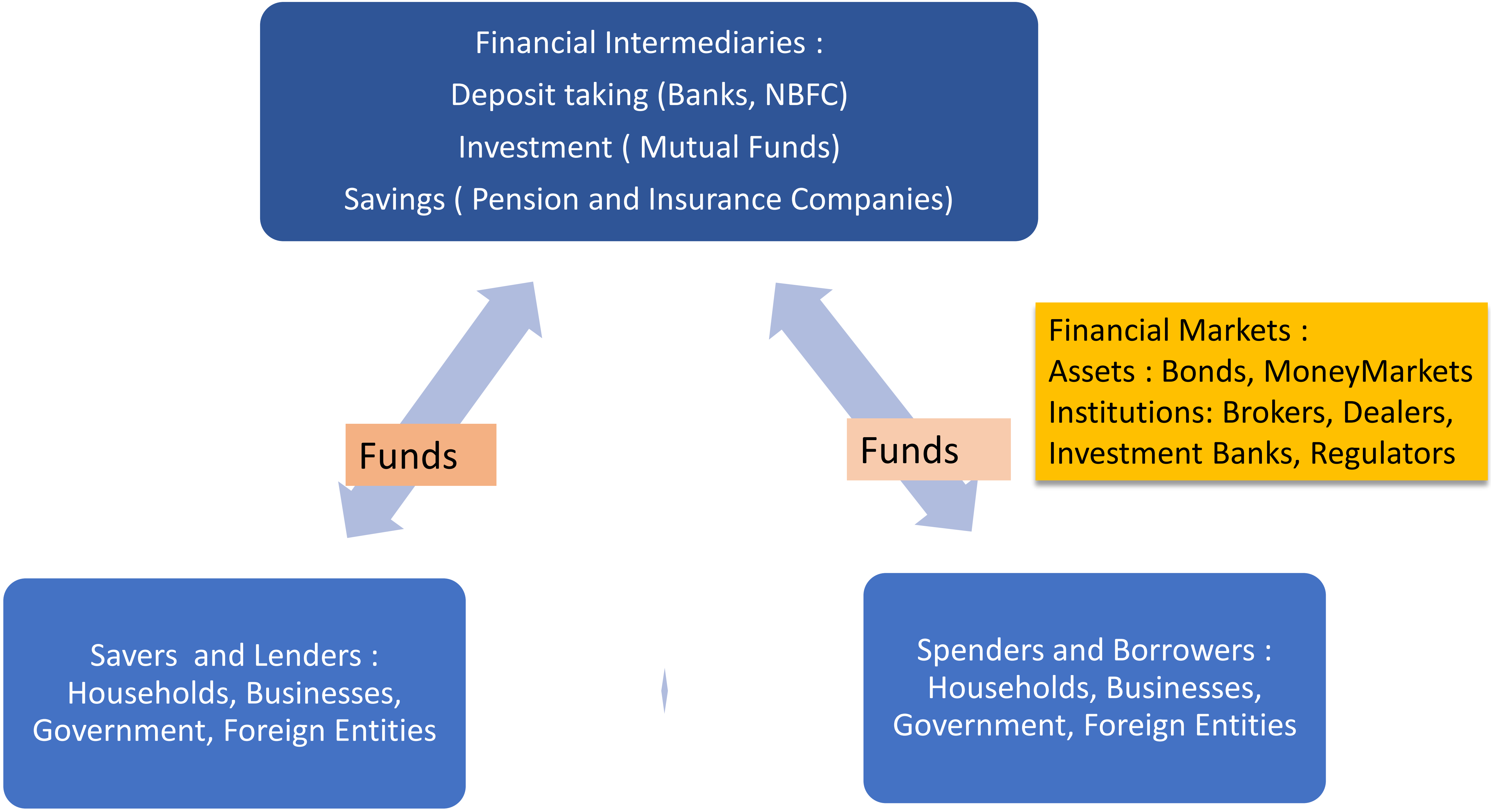
Overview

The subject is very wide, technical and specialized

Overview , Capital markets , Banking sector

Financial System –

- Who are the players ? Set of markets, organizations and individuals
- What do they do ? They engage in borrowing or lending of funds
- How do they do ? Through different instruments such as bank credit, stocks, bonds, commercial paper and instruments that derive from them


Financial Intermediaries :
Deposit taking (Banks, NBFC)
Investment (Mutual Funds)
Savings (Pension and Insurance Companies)
Funds
Funds
Financial Markets :
Assets : Bonds, MoneyMarkets
Institutions: Brokers, Dealers,
Investment Banks, Regulators
Savers and Lenders :
Households, Businesses,
Government, Foreign Entities
Spenders and Borrowers :
Households, Businesses,
Government, Foreign Entities

Savings and borrowings – channels

Lenders : households whose current income is more than their current expenditure ; business that generate more profits than their investment needs, government entities which spend less than their revenues and foreign entities who have funds to invest

Borrowers are symmetrically: households whose current income is less than their current expenditure ; business that generate less profits than their investment needs, government entities which have fiscal defects and foreign entities who want to borrow

Savers often use indirect channels through a set of intermediaries (Banks, NBFC, Mutual Funds, Pension and insurance companies) who channel savings into loans and investment in securities ; sometimes savers may also do direct lending or investments

Debt and Equity instruments

Debt – Bonds and mortgages

Bond pays an annual return as a percentage of face value and has a maturity date on which the bond is redeemed at face value

holder of the bond does not have any claim over the assets of the issuer of the bond

Annual return of the bond reflects prevailing interest rate and the risk of default of the issuer

The greater the risk, the higher the return required to persuade the lender to part with his money

The risk of the bonds is assessed by Credit Rating Agencies such as CRISIL, ICRA, CARE

Bonds – publicly traded and privately placed

India – Corporate bond market is thin most of them have issued as private placements

When interest rates raise, new public issues of bonds must offer higher rates of return – this means that the price of existing traded bonds, which were issued when interest rates were lower, would fall – or lese there is arbitrage opportunity

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Debt and Equity instruments

Most of the publicly traded bonds in India are issued by Central and State Governments (size chart)

The principal source of financing fiscal deficit is through issuance of these G-Secs

Some blue-chip PSUs and private sector companies also issue the bonds

Equity – shares or stocks – a stock gives the buyer a share in the ownership of the borrower’s firm

Stocks – Private equity and Public issues – public shares can be bought and sold in the market

Stocks are purchased with the expectation that in the future the enterprsie will do well and the prices will rise

Stocks do not promise an annual return but the enterprise issuing it may occasionally distribute a part of profit as dividend to its shareholders

Stocks do not have a maturity date and hence can be bought and sold indefinitely

Debt and Equity instruments

Markets in securities can be either primary or secondary

Primary – borrowers issue and sell new securities – e.g., IPO

Secondary – already issued securities are traded either in stock exchange or over the counter

Financial Institutions – brokers, dealers, stock markets, investment banks and other financial intermediaries

Brokers assist clients buying and selling securities

Dealers – buy and sell securities for themselves

Stock markets – centralized facilities for purchase and sale of shares – BSE, NSE
Commodity exchanges – one can trade commodities such as gold, silver, cotton, coffee, corn, oil etc.

Investment Banks – Goldman Sachs, JP Morgan etc. – handle all aspects of sale of new issue of bonds or stocks – how much and when and where to rise and through combination of which instruments and at what price – the link between investors and companies- market makers – also do equity research – do brokerage services to help manage portfolios of pension and insurance funds

Financial markets functions

- Channel savings to productive investments – savers themselves don’t know how their funds can be invested to bring high returns at low risk

- FIs such as commercial banks, mutual funds, NBFCs, pension and insurance funds do the above job
- Markets help diversify risk – borrowers transfer risk to either FIs or savers – FIs and savers diversify by investing enterprises with wide risk – return combination – the only free lunch in Finance – Markowitz – Nobel Prize

- Markets provide liquidity to owners of assets as there are many buyers and sellers and assets can be sold to raise money at short notice
- Markets – provide information and coordination to savers and lenders – Investment banks collect, analyze and disseminate information (link to an equity research report)

Financial regulators – RBI, SEBI, IRDAI, PFRDA

- RBI –
  - Regulator of all deposit taking institutions and is responsible for security of millions of bank customers
  - Regulates foreign exchange market
  - Payment and settlement system
  - Manager of debts of central and state governments
  - Banker to state and central governments
- SEBI
  - Market regulator of bonds, stocks and their derivative products
  - Frames and implements rules for new stock issuances
  - Registers and regulates all entities such as stock brokers, share transfer agents, underwriters, portfolio managers, foreign institutional investors, credit rating agencies, venture capital funds, mutual funds, stock exchanges
  - Also regulates commodity derivatives markets

Financial regulators – RBI, SEBI, IRDAI, PFRDA

- IRDAI –
  - Regulates all aspects of insurance markets in India
  - Issues licenses to all insurance companies, agents
  - Approves the policies, terms and conditions
  - Protects the interests of policyholders
- PFRDA
  - Regulates New Pension Scheme
  - Registers and regulates intermediaries who collect, manage pension subscriptions
  - Approves the terms and conditions of pension schemes

Resource Mobilization through Public and Rights Issues Equity Markets – SEBI Annual Report

Particulars	2017-18		2018-19		Share in Total Amount (per cent)	
	No.	Amount (Cr)	No.	Amount (Cr)	2017-18	2018-19
Public Issues,	202	83,696	123	16,087	79.6	88.2
of which						
IPOs	201	83,684	123	16,087	79.6	88.2
FPOs	1	13	0	0	0	0
Rights Issues	21	21,400	10	2,149	20.4	11.8
Total	**223**	**1,05,097**	**133**	**18,235**	**100**	**100**

Equity and Debt Markets

- India has a thriving equity market starting from 1991
- From mid 2000 onwards, a series of reforms in debt markets also
- Private placements dominate both equity and debt markets
- Market capitalization of BSE is 84.8% of GDP in 2017-18 and in absolute value in excess of US $ 2 trillion and is the 10th largest in the world

Global Rankings

7th highest globally with $ 2.17 trillion*

2nd largest globally with 32.85 million#

7th largest globally with 24.8 million#

2nd Largest globally with 46.56 million#

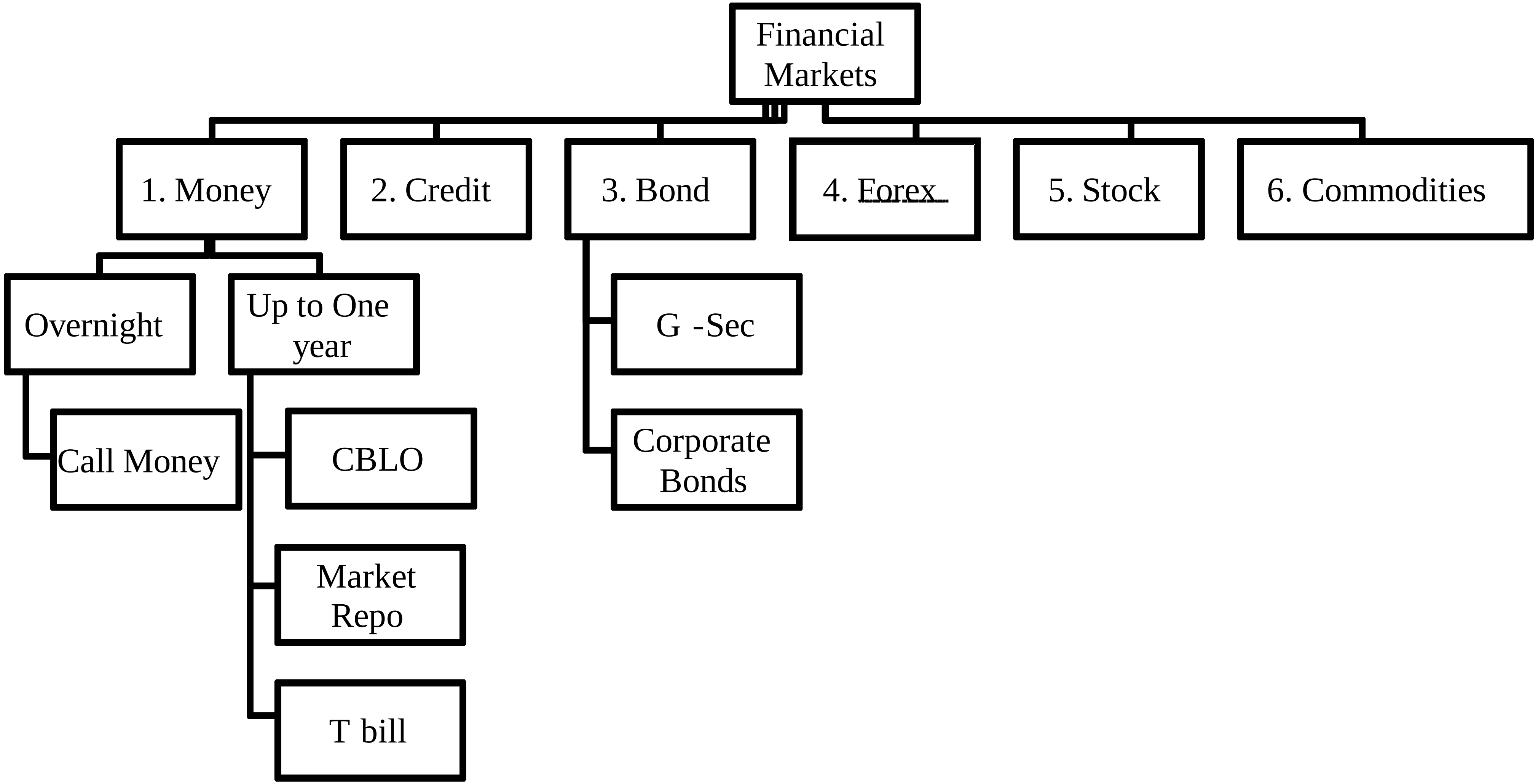
*Highest globally with 5,519**

**Data as on December 2019*
 # Data for the month of December 2019
Source: BSE/WFE

Corporate debt market

- In India, the maturity period of all corporate debt instruments is five years or less
- As on end of June,2018 outstanding corporate debt in India is Rs 28.4 trillion or 16.6% of GDP ; UK (114.4%), Japan (64.7%), USA (107.4%), China (57%), Malaysia (59.7%)
- In comparison to equity corporate bonds are very complex instruments and hence sophisticated institutional investors have only subscribed to them – retail investors only account for 3%
- Pension, provident and insurance funds have very restrictive investment norms – once they are relaxed the demand for corporate bonds would increase
- Market for long maturity bonds is nonexistent in India – Government can use credit enhancement fund towards this
- Loans on bank books are shown at book value whereas bonds are marked to market (classic NPA problem) – this asymmetry needs to be resolved
- Banks exposure to large corporates needs to be limited – they should also be forced to raise a proportion of funding from bond market

Figure 2: Financial Markets in India



Note: CBLO: Collateralized Borrowing and Lending Obligations; G-Sec: Government Securities; T bill: Treasury Bill

Banking Sector: Investing productively

- Banking is the backbone of the financial sector
- Households are risk averse and would like to park their savings in instruments with minimum risk of default while getting a reasonable return
- In addition to taking deposits, banks facilitate transactions between buyers and sellers – till digital wallets came, banks were the only entities which were clearing non-cash transactions amongst households, business and governments – payment and settlement systems
- While the above tasks are done efficiently by the banks, where they find it challenging is investing collected funds in activities that maximize their returns at reasonable risk
- Banks have not developed the ability to distinguish between high and low return projects for a give level of risk

Banking Sector: Investing productively

- In 1947, all banks in India were private
- In 1955, to expand the bank branch network rapidly in rural areas and to bring credit to agriculture sector, the Imperial bank was nationalized and SBI was formed
- In 1969, mostly political considerations lead to natuonalise 14 banks with deposits of Rs 500 million or more and in 1980 six more were nationalized
- Aggressive bank branch expansion in rural areas and promotion of priority sector lending – up to 40% of total credit to sectors such as agriculture, exports and MSMEs
- Tight control over interest rate and credit allocations
- High financial repression – high Cash Reserve Ratio and Statutory Liquidity Ratio

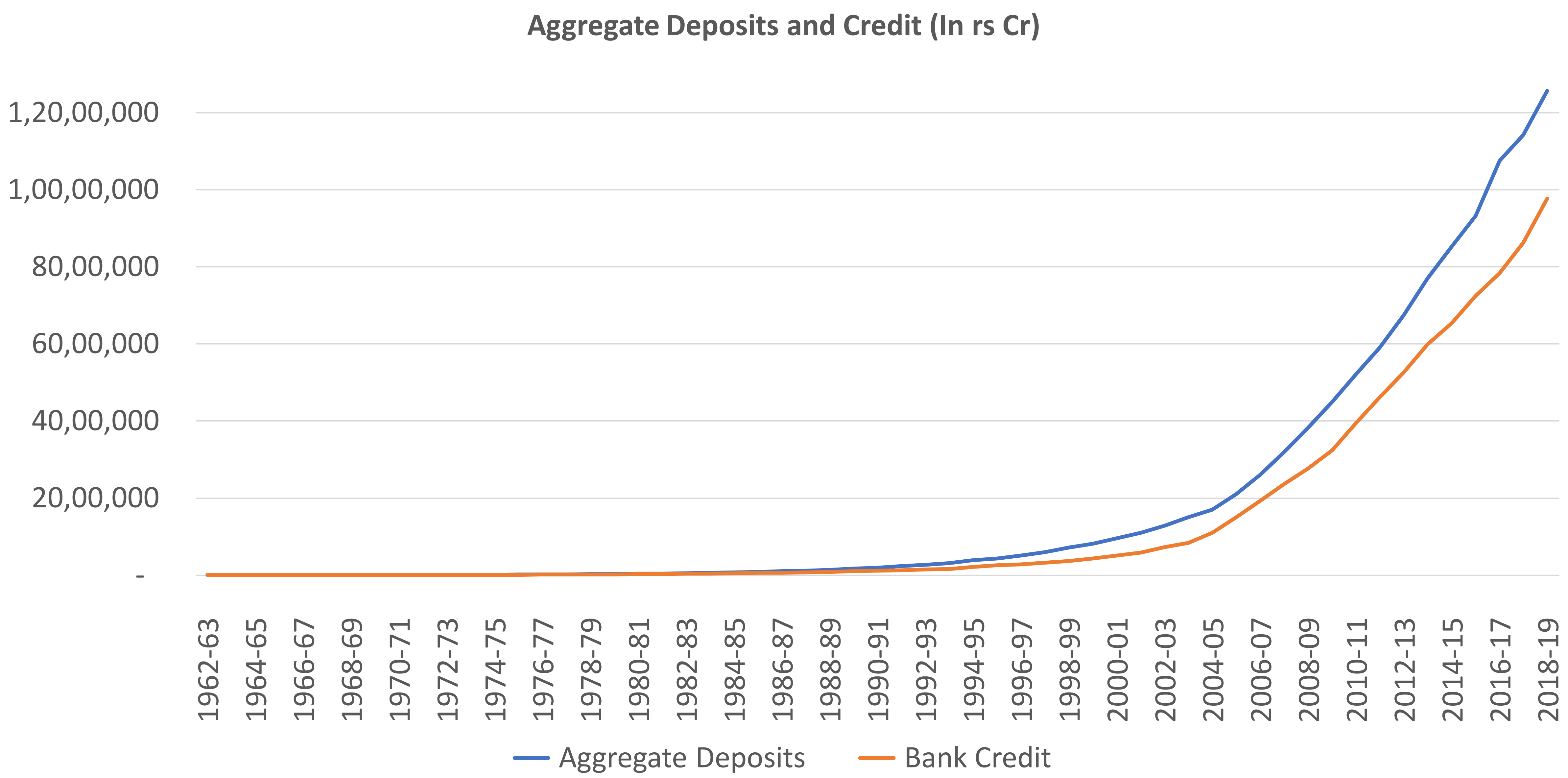
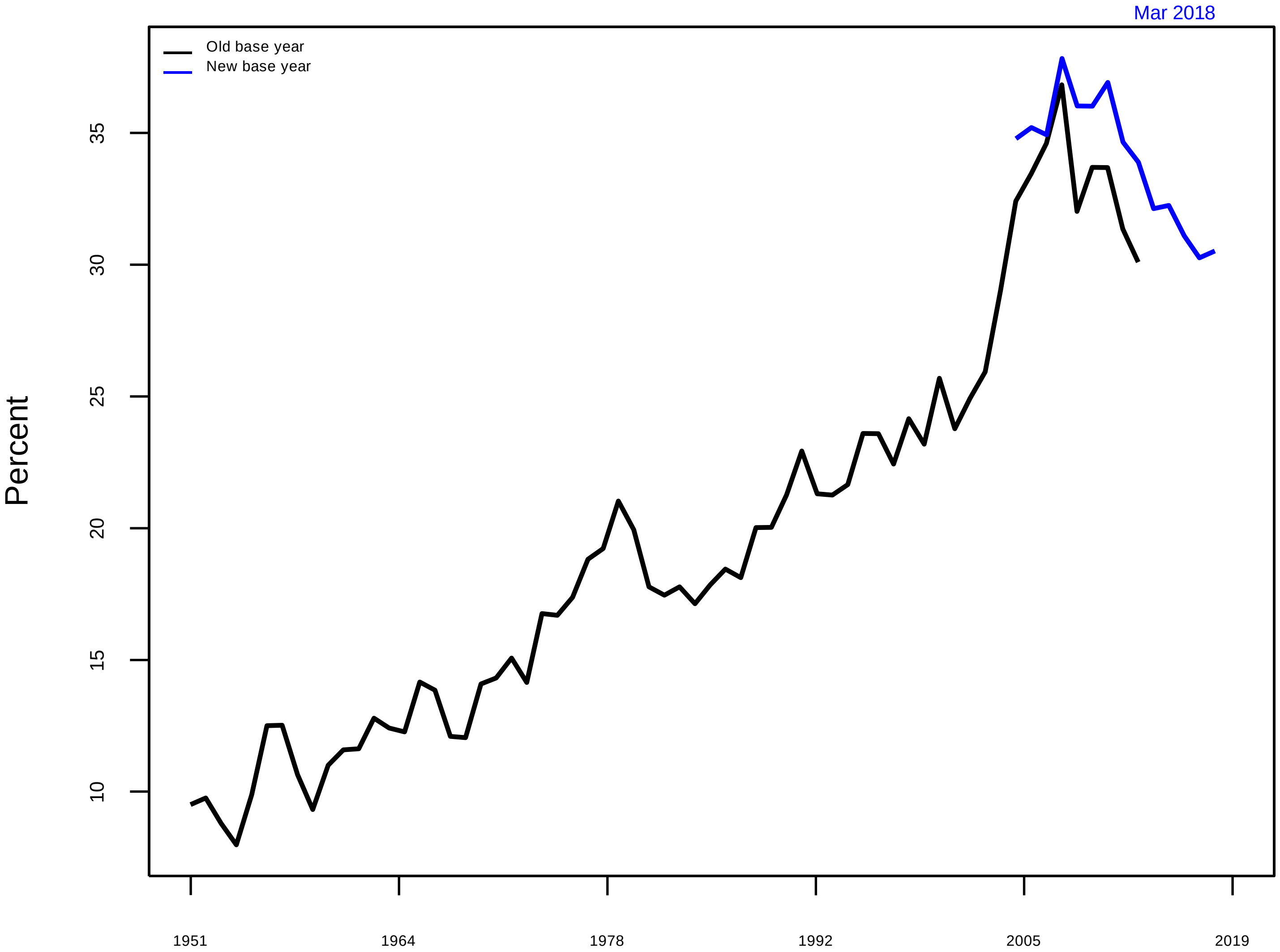

Aggregate Deposits and Credit (In rs Cr)
1,20,00,000
1,00,00,000
80,00,000
60,00,000
40,00,000
20,00,000
-
1962-63
1964-65
1966-67
1968-69
1970-71
1972-73
1974-75
1976-77
1978-79
1980-81
1982-83
1984-85
1986-87
1988-89
1990-91
1992-93
1994-95
1996-97
1998-99
2000-01
2002-03
2004-05
2006-07
2008-09
2010-11
2012-13
2014-15
2016-17
2018-19
Aggregate Deposits
Bank Credit

Figure 1 Aggregate savings rate



Source: National Accounts Statistics, various years

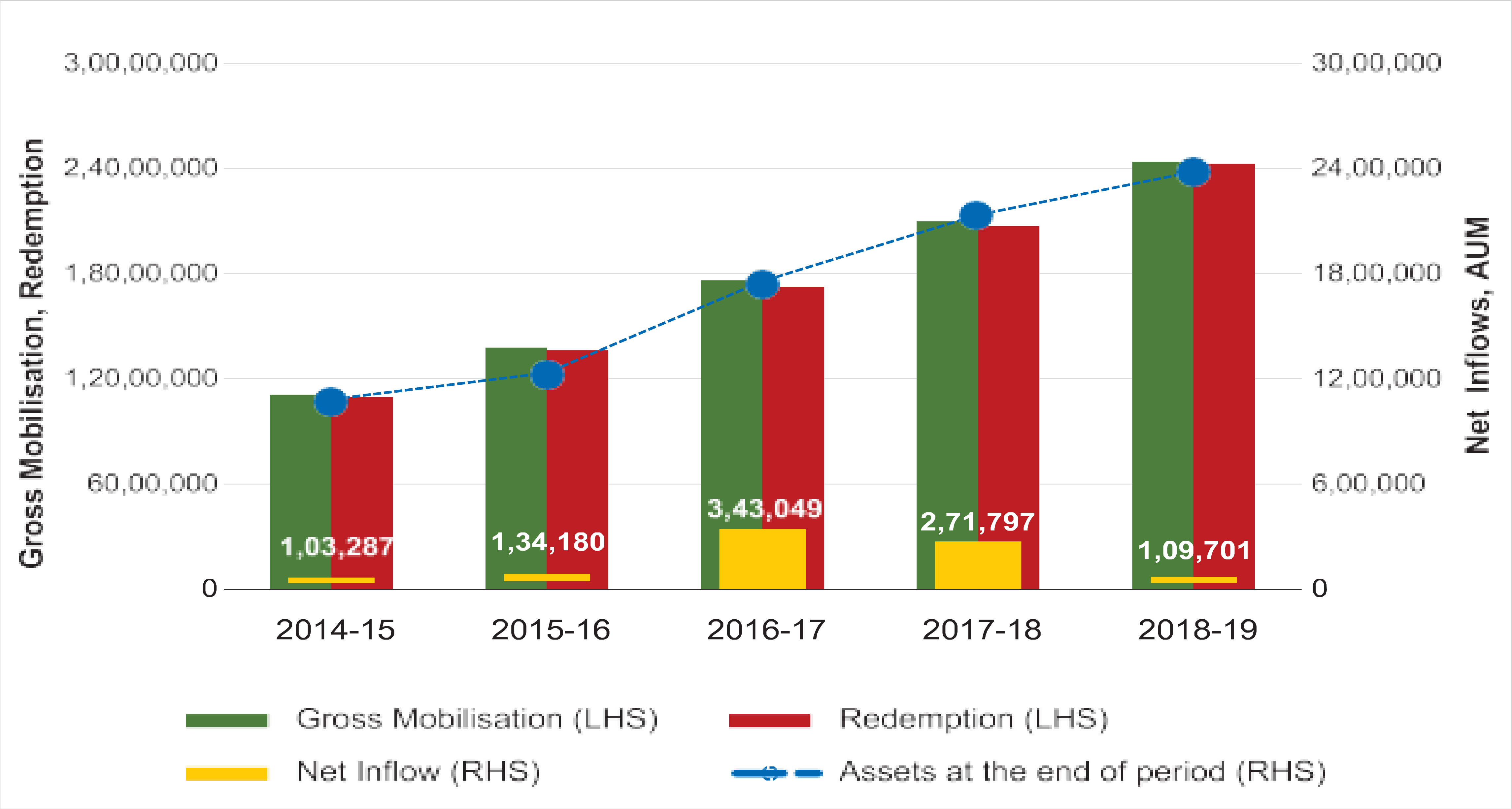
Key Statistics of Indian Economy	2017-18	2018-19
Rate of Growth of GDP (Per cent)	7.2	6.8
Inflation (Per cent)	4.3	2.9
Gross Saving (` billion)	52,160	NA
Gross Saving (Per cent of GNDI)	30.1	NA
Gross Capital Formation (` billion)	55,269	NA
Gross Capital Formation (Per cent of GDP)	32.3	NA
Fiscal Deficit (Per cent of GDP)	3.5	3.4
Current Account Deficit (Per cent of GDP)	1.9	2.6
Exchange Rate (Indian Rupees Per US Dollar	65.0	69.2
Foreign Exchange Reserves (USD billion)	424	412

	March 31, 2018	March 31, 2019	Change year -on year (per cent)
Free Float Market Capitalization (Rs cr)			
NSE	63,48,290	70,08,235	10.4
BSE	68,00,679	70,98,989	4.4
Total Market Capitalization (Rs cr)			
NSE	1,40,44,152	1,49,34,227	6.3
BSE	1,42,24,997	1,51,08,711	6.2
Free Float Market Capitalization as per cent of Total Market Capitalization			
NSE	45.2	46.9	-
BSE	47.8	47.0	-

Mutual Funds

- Mutual funds combine savings of large pool of investors and manage them as a single pool of money
- Professional fund managers decide where to invest the money
- The assets are run by AMC – Asset Management Company
- Each AMC makes an offer of multiple schemes to cater to different type of investment requirements
- They are highly liquid and withdrawals are easy and take very little time

Mobilisation of resources by Mutual Fund Industry in India – SEBI Annual Report



Schemes	No. of Schemes	Gross Funds Mobilised (` crore)	Repurchase/ Redemption (` crore)	Net Inflow/ Outflow of Funds	AUM as on March 31, 2019 (crore)	% of total AUM
A. Income/ Debt Oriented Schemes						
i) Liquid/Money Market	65	2,33,86,284	2,33,10,191	76,093	4,36,224	18.3%
ii) Gilt	27	2,106	5,547	-3,441	8,099	0.3%
iii) Debt (other than assured returns)	1,252	5,49,508	6,70,633	-1,21,124	7,18,919	30.2%
iv) Infrastructure Development	10	153	0	153	2,650	0.1%
Subtotal (i-iv)	1,354	2,39,38,051	2,39,86,371	-48,320	11,65,891	49.0%
B**. Growth/ Equity Oriented Schemes**						
i) ELSS	69	20,382	7,611	12,771	96,019	4.0%
ii) Others	485	2,83,424	1,88,224	95,200	7,96,082	33.5%
Subtotal (i+ii)	554	3,03,805	1,95,835	1,07,970	8,92,101	37.5%
C. Balanced Schemes	27	51,621	44,756	6,864	1,80,648	7.6%
D**. Exchange Traded Funds**						
i) Gold ETFs	12	128	539	-411	4,447	0.2%
ii) Other ETFs	66	1,00,158	56,807	43,351	1,34,626	5.7%
Subtotal (i+ii)	78	1,00,286	57,346	42,940	1,39,072	5.8%
E. Fund of Funds Investing Overseas	29	600	353	246	1,871	0.1%
TOTAL (A+B+C+D+E)	2,042	2,43,94,362	2,42,84,661	1,09,701	23,79,584	100.0%

Determinants of Intrinsic Value: The Present Value Equation

Net operating profit after taxes − Required investments in operating capital = Free cash flow (FCF)

Free cash flow (FCF)

$$\text{Value} = \frac{FCF_1}{(1 + WACC)^1} + \frac{FCF_2}{(1 + WACC)^2} + \cdots + \frac{FCF_\infty}{(1 + WACC)^\infty}$$

Weighted average cost of capital (WACC)

Cost of debt

Cost of equity

Market interest rates

Market risk aversion

Firm's debt/equity mix

Firm's business risk

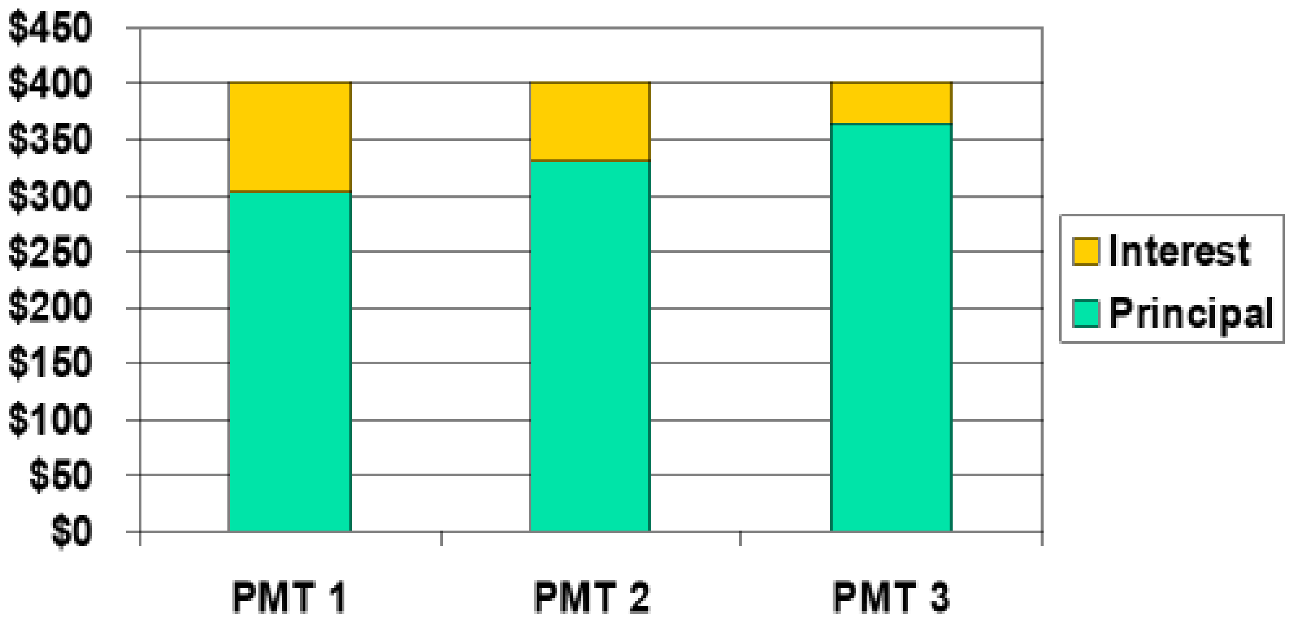
Amortization

- Construct an amortization schedule for a $1,000, 10% annual rate loan with 3 equal payments.
- Examples

Amortization Table

YEAR	BEG BAL	PMT	INT	PRIN PMT	END BAL
1	$1,000	$402	$100	$302	$698
2	698	402	70	332	366
3	366	402	37	366	0
TOT		1,206.34	206.34	1,000	

Interest declines because outstanding balance declines.



25