

Adaptive Pricing Theory (APT)

Other factors also imp in eco's
int rate, employment, or other macroeconomic factors

$$P_1 \leftrightarrow P_2$$

Patent: P_1 \rightarrow P_2 \rightarrow P_3

P_3 \rightarrow P_4 \rightarrow P_5

P_5 \rightarrow P_6 \rightarrow P_7

It is a macroeconomic financial model which is used to estimate expected return of an asset by considering multiple factors that may influence its performance. It is a multi-factor model that allows for a broader range of influences on asset returns.

$$E(R_i) = R_f + \beta_{11} R_{P_1} + \beta_{12} R_{P_2} + \dots + \beta_{1k} R_{P_k}$$

where R_f = expected excess return & $\beta_{11}, \beta_{12}, \dots, \beta_{1k}$

Bank Lending Business: \rightarrow \rightarrow
 \rightarrow \rightarrow \rightarrow \rightarrow \rightarrow

Bank - abroad
indirect bank
short term and short term

GOOD WRITE

Management of Financial Institutions (MOFI)

PAGE

1/08/2024

5/8/24

Financial Intermediaries

Commercial Banks

Scheduled

- II schedule of RBI Act 1934 criteria w/s 42(6)

- duly regt co.
paid up cap > 25 lakhs

CRR: kept with RBI

borrowing from RBI

- less risky

Clearing Houses: automatically become members of clearing house

Nationalized BK

Public \rightarrow 12 \leftarrow SBI & Associates

PT \rightarrow

Small fin BK \rightarrow ICICI, etc.

Coop BK \rightarrow 43 \leftarrow J&K State Cooperative BK

RRB \rightarrow 43 \leftarrow State Coop. Bk

Foreign BK - 45

Lebanon Banking

Today no Associates \rightarrow merged

(State BK of Patiala, etc.)

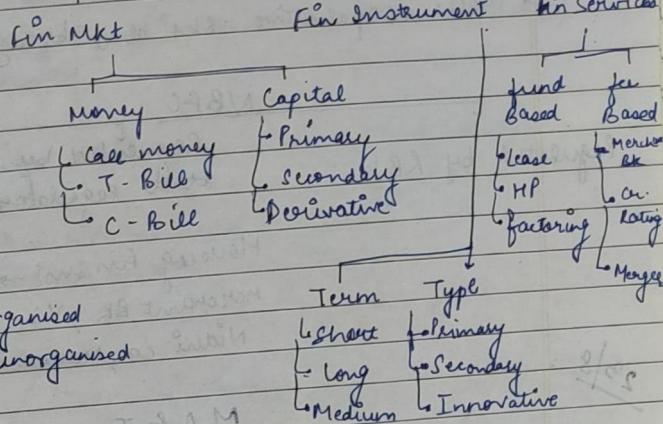
GOOD WRITE

Indian Financial system

[exp]

[exp]

[exp]



Factoring

If book of debts (90 days)

Factor

80 or today @ 3% pa → this step is optional

Ac settle in 45 days - full 100 cr
Taxes commission 2%

Bad debt less might be borne by
either Co or Factor

then taxes (Interest + commission)

Recourse Factoring

Non-Recourse factoring

lease

- ownership tfb after last payt
- Down Payt
- dep charged by user from 1st day

lease

GOOD WRITE

Asset Liab Mgt (ALM)

3 pillars

ALM Info System

ALM Organisation ALM Process

- MIS
- Info availability, accuracy, adequacy

- Structure & Responsibility
- Top Mgt involved
- Risk Measure
- Risk Mgt
- Risk Policies & Tolerance

R&B

Bangladesh - FM design

Md. Yunus → Nobel Peace Prize 2006 (Microfinance)

Lease financing

- owner of Asset (lessor) provides asset for use to another & right to use it for agreed pd of time (lessee)
- ownership NOT transferred
- If lessor transfers substantial part of risk & rewards, it is finance lease, else operating lease

Sales & Lease Back where very specific asset required & capital intensive eg EV charging stations, aviation

Hire Purchase

owning tf when last instalment paid

NHB → only subsidiary of RBI

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Banking Regulation Act 1949

→ whole India inc. J&K

→ 1966: cooperative bks also brought under it

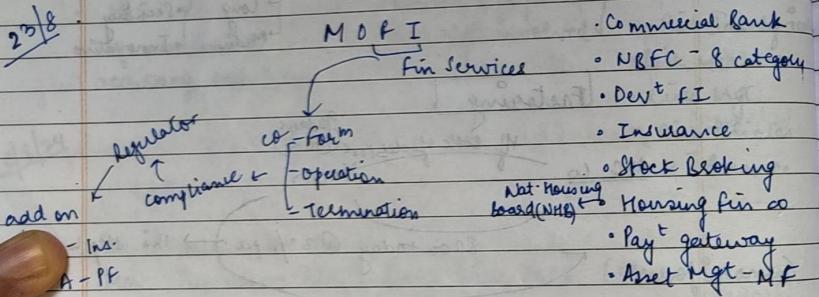
NBFC
Regulated by RBI

Regulated by other regulators
State Fin → 17 corp

Housing fin Inst → NHB

Merchant BK, VC - SERI

Nidhi co., Mutual Benefit co - MCA



BANK
(deposit + Loan) → ? what interest
portfolio → out of total loan → which sectors?
bank healthy or not?
Foreign bank can open Bk in India 'independent'
ICICI, Bajaj Insurance cannot open independently
Joint Venture

→ India → state
→ state → province

GOOD WRITE

Indian Financial System

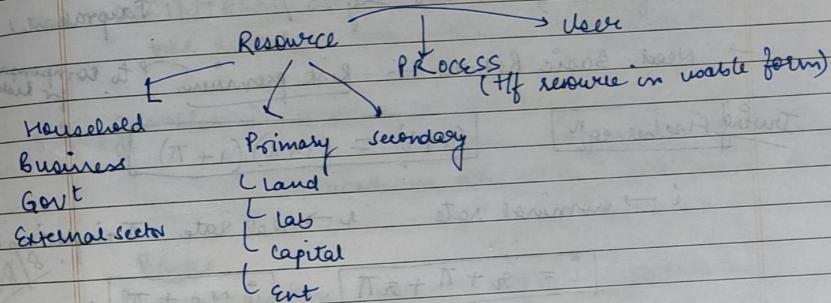
20 - project group, 3/10 report
39 - 4 test
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economy is an environment where people get livelihood
2 identity → sovereignty - (independence, take decision)
→ currency

• European Union - European Central Bank (ECB)

• BRICS → New developmental BK (NDB)

• BIMSTEC, SAFTA, NAFTA - Block



• Closed & free ecy → only 2 sectors → hh & Bus.
no external → no

• closed & regulated ecy → 3 sectors

• open & regulated ecy - all 4 sectors

degree of openness = $\frac{\text{value of M} + \text{X}}{\text{value of Total ecy}}$

Outward open Inward open
↓
more developed eg Afghanistan 80% imports

27/8
Money → Movement through system →
proxy for resource → arrangement of organs for function

GOOD WRITE

$$[Y - C = S] \quad [Y - S = C]$$

saving should be
investment made

DATE: your first
PAGE: c

Savings

HS

BS

GS

ES

Invest/Borrowing

HS

BS

GS

ES

any combination from
anyone to other

→ saving is the sacrifice of consumption

financial discipline most imp.

say 20% saving
if $Y \uparrow$, S also say 25%.

Hijaya Mallaya
Ariel Ambani
Jaiprakash

→ Need basic return + risk premium to compensate for risk

Irving Fisher eqn

$$(1+i) = (1+r)(1+\pi)$$

$i \rightarrow$ nominal rate

$r \rightarrow$ real rate $\pi \rightarrow$ inflation rate

$$i = r + \pi + r\pi$$

$$i \approx r + \pi$$

$$r \approx i - \pi$$

Int'l. CB Policy (IRP) \rightarrow esp. for short term Real Rate should be =
Real Rate \rightarrow around 2% global

Monetary policy based on this. Short term Lpo rate etc.

this is assuming no risk. If Risk \uparrow , need RP

3 behaviour from Inv't angle

• conservative
(Highly Risk centric)
wants to minimize
Risk. principal safe

• moderate
• aggressive
Return centric
agrees to take
Risk

Investor \rightarrow not affected by price move

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→ Michael Podolsky study \rightarrow avg return Investor 18-22%.
(50 yr pd research) Speculator < 15%.
Bankruptcy rare investor. High for speculator

→ For investor - biggest intermediary: Bank
(opaque wall)

ultimate lender & borrower don't meet each other
INTERMEDIATED MARKET \rightarrow Bank, MF, Money market
DISINTERMEDIATED MKT \rightarrow eg capital mkt
take risk on own. Investment analysis

gambler in France \rightarrow mathematician is friend
came with probability theory
used in all other fields except gambling

Banks

Payment system: cash \rightarrow digital (fast + safe)

co: B/S

Assets

Monetary

↳ loans & advances
created by banks

Non Monetary

↳ L & B, vehicle,
furniture

Monetary

↳ DEPOSITS
(CASA
term deposit)

NML
↳ sh cap
R&S
short term
Bonds, etc

Main exp of BK: Interest payt

Current A/c \rightarrow volatile
(life of fund with
BK not certain)

Saving A/c \rightarrow vulnerable
fund out, not very Repo
TERM deposit \rightarrow stable
maturity specified

Risk \uparrow
speculator
↳ stop loss threat
more in Gambler
GOOD WRITE
not even stop loss
calculated Risk

→ Minimum Balance

Current A/c Min. Balance
• volatile ✓ • stable • vulnerable → fluctuating (historic pattern)

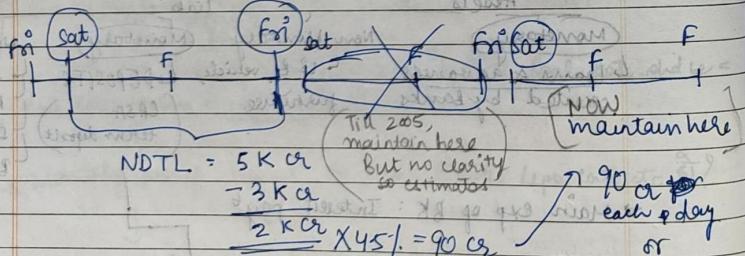
3/9 - AlCO Asset Mgt Committee - headed by CMD / Director / Head
Net Demand Time Liability (NDTL)
CRR = 4.5%
CRR → 4.5%
OD deposit → Saving, current
Time deposit - FD, RD

→ Net = deposit - Withdrawal
calculate fortnightly / alternate Friday (15 days)
divided 1-13 + 2

→ A remittance - 15 days banking bill 2024
(New on 15th & last day of every month)

Working
→ Declared Holiday - declared at least 3 days advance
9th Sep holiday - declared by 5th Sep
declaratory purpose (dates known before)

3/11/24 4th holiday not known - postpone
decided by Dealee's Association (majority of RBL)



Withdrawing of 5000
Interest rate 12%
Based on 1st
that progressive
Bank
(growth deposit >
GROWTH WITHDRAWAL
behest of 5000)

this is
additional
apart from what
it was previously
maintained
Marginal Banks

IT DOLES
NDPL

3/9

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Overall Maintenance
In 3rd fortnight
1 13 14
90 90 every day ✓

suppose maintain 80

$$90 \times 14 = 1260$$

$$80 \times 13 = -1040$$

Maintain on 14th day → 220

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13 14

80 (1-13th day)

Additional on 14th day
220 - 80 = 140 Cr

emergence of call money shortfall ← (10 x 14)

• Daily maintenance
fluctuates. currently 90%.

Penalty

① Overall not maintained, daily maintained

② Daily not maintained, overall maintained
3% above RBL Rate. Next day onwards - 5%.

③ Neither overall, nor daily

④ Daily not maintained for 2 days, 3 days, ---

MORAL SUASION

4/9

GII - Global Innovation Index

- Corruption Transparency Index

- Investor Sentiment Index

- Inclusion Index

- Economic Offender Bill

capital formation - capacity building - income gen -

6/9.

- 4% growth in infra leads to 1% growth in GDP
- Keynesian philosophy capital disbursement for capex by govt
- New setting targets talk in 2018 → \$5 tr by 2024-25
- new targets:

2031 \$10 trn

2047 \$30 trn

Gap Analysis

	China	Japan	Germany	China	America
	\$ trn				
2024	4.12	4.29	4.7	20	29
	↓ 2.1	↓ 1.1	↓ 0.9%		
2025	4.41	4.33	4.74		
	↓	↓	↓		
2026	4.72	4.38	4.78		
	already 2nd target				

- Target achievable now to make 7% → 8%. (11)
- crowding out
- crowding In
- 1990s - gov ↑ a lot
then Vaipayee - (though not clear majority)

some very good things: Road (Golden Quadrilateral)
Energy (Ultra mega power project, Nuclear, Petroleum)

till 1999 - US supported Pakistan
good (Vaipayee called Clinton to India)

- Nudge theory - poor is poor b/c he is poor

→ Many D since 1997-99

Disinvestment, PPP, privatisation, invite FDI
Earlier financing decision impacted Investment decision afterwards: decide how to finance the requirement?

1969-90: Banks' health paralysed

→ Post 1991 - development

→ 2018: new stimulus for Banks after IBC 2016
(to stop loss of Banks)

→ as per data: now banks healthy? But still cannot compete

9/9.

→ Factors affecting Daily Maintenance of CRR

→ Behaviour of different govt's

→ How much CRR?

MAX CRR

prior 2005: 3-15% (since Independence) RBI has operational freedom (NOT policy freedom)
Act passed in 2003
→ cap removed

prior to 2005: suppose 8% CRR → RBI gives int on 5% (8% 3%)

repealed in 2005

Now RBI → can keep any limit b/w 0-100%.

→ prior to 2001: no legal LAF

meanwhile CRR decided availability of liquidity in mkt

→ India garden pd: 15% CRR & 35% SLR

→ 2001 Dep. Govt. decided by 2001

GOOD WRITE

SLR → quantum of deposits in Qualified assets
 (Billion - cash, G-Sec, T-Bill)
 ↓
 6.8%.

Deposit	100	@ 7.5%	= 107.5
- CRR	4.5	- no int	
SLR [Cash	3	- no int	
G-Sec	15	→ int = ①	

$$\text{Available} = 77.5$$

Bks need
 7.5 for int on deposit
 3.5 for survival

$$\begin{array}{l} \boxed{11} \\ \text{earned only } 2 \rightarrow \text{Remaining} = 10 \text{ (need to earn)} \\ \frac{10}{77.5} = 12.9\% \approx 13\% \text{ lend} \end{array}$$

1969-89 → Dark Era - Bkcs challenge
 borrowing rate → 22-26%.

12-13% lending
 2% profit
 15% → genuine borrower will not take
 loan at this rate

→ CROWDING OUT → no space for pvt players
 to take loan even if they
 (corruption + nationalisation of Bk (bankers → Bureaucrat))

→ 1970s, 80s → dark era → ecys worsen
 India collapsing

→ similar for Sri Lanka, Pak these days

SLR limit 25% - 40% (prior to 2005)

- that is why now these days govt taking loan from outside (External Borrowing)
- Banks borrowing & availability for people
- Unified Loan Service (ULS) coming
- 59 more loan processing

CROWDING IN

1993 → free int rate (Narsimhan Committee)

1996 → open for pvt players + foreign
 provision → bank competition → efficiency ↓
 Monopolistic competition: differentiation -

1999 - xoper in Insurance sector

SBI Share mutual is listed (threat to BSNL)

Goldman Sachs downgrades SBI Rate - SELL Rate

PSU Banks fundamentally strong
 - good profit margins
 - NPA around all-time low
 - setting govt policies → pro creation/capex

NIFTY bank high today

NBFC

- 1998 onwards - regulate by RBI
- RBI - 1934 - also a pvt body
- US - 1913 Federal Reserve
- 1929 - Great Depression
- Pvt banks not ready to follow RBI
- Public Depository Act 1948 (RBI pvt → public)
- RBI free from shareholder's grip
- Banking Regulation Act 1949
 - ↳ necessary to register with RBI
 - those who didn't want to follow RBI : NBFC
 - (But cannot do payment & settlement)
 - cheque X
 - cannot accept demand deposit X
 - (saving A/c, current A/c)
 - VPI also NOT possible X
 - can take time deposit
- No guardian situation → no RBI compliance business flourished - 8 categories broad (1960s - 1980s)
- More than 10 lacs NBFC during 1990s.
- situation came with complaints agst NBFC
 - by 1997, govt also change
 - Requested RBI to look into the matter
- RBI → Order : NBFC won't accept deposit
- Another reason why 1990s onwards many NBFC
 - capital mkt scam
 - Mkt transaction reduced
 - Money moved to NBFCs

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late 1989-90 → Adhoc T Bill Scam
(Accommodation Bill Scam)
ITAT
30M 10S
Revenue shared w/ NSE
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till 1988 - controller of capital issues
1992 onwards → SEBI

1998 - RBI NBFC Regulation 1998-99
RBI gave alphabetical newspaper list : NOT invest in these

- Sahara → list of HIT STF, advertised itself as good (pass RBI test), etc
 - fall by 2008
- 2004 - onwards : Not many changes in NBFC

2015, 2019, 2022 : many changes in NBFC

Bandhan Bank (was earlier NBFC)

13/9 [SLR]
SLR ↑ → money ss ↓ → inflation ↓ (common perception)
Does PSLR really lead to inflation ??

→ Highest SLR & CRR during India Gandhi phase
↳ highest inflation
↳ & lowest economic growth

→ Govt SLR 18% = 3% as cash = 15% where ?

→ Amt raised through SLR invested in G-Sec → govt gets money again distributes to public (maybe as T/t payt)

Money ss has NOT ↓

It is actually

18/09

- NDTL - Inter Bank transfer? op - 7891 001
- Monetisation: govt prints money

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- SLR also on Incremental Basis
- some investment will mature also. \Rightarrow SLR reduces by that amt. Manage this also.
- what are qualified instruments?

Ans: cash, Bullion, T-Bill, G-Secs

- ↳ How to decide? which instrument?

Ans:

Risk \rightarrow T-Bill low risk

gov might print (Monetisation) - more

Arun Jaitley did this: redeem a T-Bill using other securities

abnormal statement Barack Obama statement "Food inflation big food more demanded by developing country"

India - 18% shortage of food
37% wastage

after this - 2010-11 drive started for warehouses

Nature of expenditure tells economic status.

Q Critically examine the public debt of India both domestic & external.

- govt debts
- Q till monetarily tightening \Rightarrow inflation till
- ETT?

GOOD WRITE

India ahead of China in equity index
(18/09/2024)

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- rate $\uparrow \rightarrow$ disposable Inc $\downarrow \rightarrow$ Money movement \downarrow
- lose competitiveness \rightarrow forex problem \rightarrow CAD problem
- why we need 18% SLR? Qualities etc.

18/09/2024 Fed Int Rate Cut Impact (50 bps) (4 yrs)

- Borrowing cost \downarrow
- foreign inv in India \uparrow (Economic Affairs Sec Ajay Sethi won't greatly influence flows in India)
- INR appreciate $\Rightarrow X \downarrow$

Shaktikanta Das - India might not follow suit

SBI chairman CS Setty - RBI unlikely to lower

due to food inflation

Retail Inflation July 3.54% Sep \rightarrow 5.5%.

Aug 3.65%

Aug MPC meeting - Repo same @ 6.5% (governor since Feb 2023)

1855 - BSE operating as native association

1875 - registered as BSE

BSE - oldest exch in Asia - But other exch ahead of us what was wrong??

earlier : India 47 - 49% GDP of world

today 3% WHY ??

US pop - 340 mn (34 cr) \rightarrow India has more working pop

1913 : Nobel Prize for Behavioural Finance to a psychology professor (not finance prof)

→ Trickle Down Theory (Induced Impact)

Cement Industry, Steel Industry - Core Industry

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- Impact of Trump & Harris on economy which will be good for India?
 - 6 postulates of Charles Dow theory
 - . Price discounts everything (but in efficient mkt)
 - Oscillation : come down to central place

price of gold - momentum

Interest rate - oscillation (6% to 600% of EMT)

2003-04: \$ appreciation started

current A/c surplus

24/09.

RBI → money mkt regulator

1913 - Fed Reserve created

1934 - RBI established

1 Apr 1935 → RBI operational

yesterday PM said: India will share digital infra with world

per capita income - India 136th

12 th economy: UPI

22 th economy: accepting \$ in world

by 2027: target of 50 crb using ₹

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(bcz of being
legal tends)

Fiat currency - has purchasing power but no intrinsic value

RBI twin objective →
Price stability → Economic growth
control inflation

India highest Policy Rates (than China, UK, Japan, US, Europe)
financial cost ↑

EMDE → Emerging Market Developing Econ → around 8%
AE → Advance Econ → around 3%
world - around 7%.

India Retail Inflation Aug 2024: 3.65%
(falling in range of AE)

25/9/2024

Q: How much impacting int rates affect inflation?

→ bcz int rates affect all sides of money.

→ But inflation mainly due to

2015-16 tussle b/w Fin Minister & RBI Governor

→ PCA: Prompt corrective Action (read)

how RBI was influencing Banks

NPA: 3 Lakh Cr. very high

2008:

2010: European: sovereign debt crisis (Greece, Portugal)

GOOD WRITE STUPID

Greece : one yr - 3 elections expense
mainly elderly

- Germany loans to Greece instead of bailouts
- Britain not part of currency union
2016 : BREXIT

• PCA -
Lawyer Arun Jaitley (SRCC)
Raghuram Rajan (foreign ex econ)
Alahabad HC suggestion fin min (general statement)

Clause 7 : MoF can exercise this.
2015-16 : MoF can instruct RBI to do what it says

- govt under pressure
- direct convert : Mann ki Bat

2011 → 3 lakh Cr NPA
2014 → 7 lakh Cr

RBI instruction to BK to NOT give loan
else we'll penalise

- 2016 → IBC, Demonetisation, GST, etc

NPA ↑ huge

after 2018 : NPA ↓ (gradually banks
GOOD WRITE are becoming strong)

by 2031 : expected India's BK system best & strong

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- Policy Repo Rate - 6.5% (indicative/Reference pt)
- Term Structure
- Zero Coupon Yield Curve (ZCYC)
- Preemptive corrective Action (PCA)

30/9/24
T-2

SLR
How to decide instrument?

91 day T Bill

364 day T Bill

2 yr Maturity Bond

5 yr Bond

10 yr Bond

(two things)
states here +
Bond Theorem

⇒ Bond price \propto $1/T$

duration $>$ maturity

4 TM

int rate $\uparrow \rightarrow$ bond price \downarrow (Price Risk)
it will lead to loss

⇒ longer the maturity \rightarrow more will be impact
(total risk bond risk until maturity total risk)

⇒ Higher the coupon, lower impact

[Int Rate Risk] \propto Δr \propto $\frac{1}{T}$ Duration
Duration determines holding pd

Duration is holding pd of instrument which
represents holder of Int Rate risk

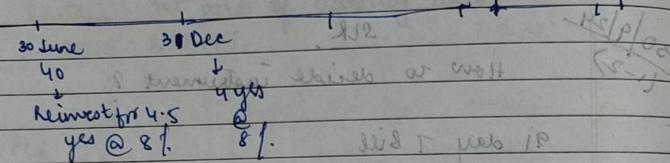
→ bond analysis & interest rate risk: 1805 pg

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e.g. bond 5 yrs @ 8%.

semi annual get int \rightarrow reinvest the int
(240)

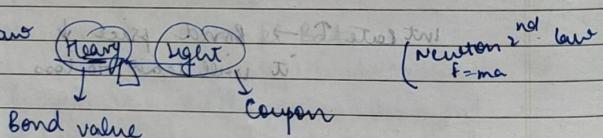
case 1 mkt rate also 8% for 5 yrs \rightarrow get fixed
(any) mkt rates types are



case 2: int rate \uparrow to 9% \Rightarrow Bond value ↓
But int reinvested at higher rate

Duration $<$ Maturity

case 3: int rate \downarrow to 7% \Rightarrow Bond value ↑
Int reinvested



shift Heavy persons nearer to fulcrum
to balance [

Bank 5000 - 4793 usual requires not verified etc

Stk → considers face value.

GOOD WRITE how to mitigate int rate risk?

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Duration Wandering

e.g. $M \rightarrow 5$ yrs \rightarrow duration Δ
 $D \rightarrow 4.1$ yrs \rightarrow duration also Δ
after 6m $M \rightarrow 4.5$ yrs \rightarrow duration doesn't approach
for e.g. $D \rightarrow 3.8$ in same way as Maturity approaches

→ Zero Coupon Bond $[D = M]$ (purchase when
you don't know mkt will go up or down)

1/10/24 in Lanka

Japan

→ Abenomics (Shinzo Abe) (now not)

8% mkt + Japan

PM earlier - Fumio Kishida

now (w.e.f 1 Oct 2024) Shigeru Ishiba \rightarrow China supported

that's why Indian mkt also fell yesterday (31/09)

Today: Indian met up (1 Oct '24) \rightarrow robust econ
(growth in all sectors)

- strengths of Indian econ

- inflation

- fiscal & FDI

- PPC & Mt gen, startup ecosystem

Inclusive econ is need of the hour.

how many are excluded? \rightarrow It is a challenge

→ banking system \rightarrow leading indicator of econ

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Deposit growth Rate ↓ Lending Rate ↑

4 Certificate of Deposit (CD) being issued by banks

Policy Repo Rate → 6.5% → at which Banks borrow from RBI
 Fixed Reverse Repo Rate → 3.35% (T liquidity assets liquidity)

MSF/Bank Rate = 6.75%
 1
 Spread
 Repo = 6.5%
 SDF = 6.25%
 reverse Repo = 3.35%
 spread ↓ over time → to ↑ efficiency of mkt
 (low margin ↑ & ↑ efficient & efficient ET)
 → fixed reverse Repo ↑ & ↑ (e.g. 3%)

COVID time: deposit growth ↓
 but people not taking loans
 so banks started depositing money with RBI

Rates on higher side
 { Base Rate 9.1 - 10.4% (8-9.1%)
 MCLR (overnight) 6.7 - 8%
 (ss ↓)

(mkt g. liquidity ↑)
 call rate → 5.1% - 6.9% (1 month 6.9% upper 5%)

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3.65%: Inflation current
 + 2.1% → Real Rate
 5.65%: Nominal Rate ETAT But
 call rate [5.1 - 6.9%]
 (inter Bank)
 (means customer को ही 3.65% रेट के तरीका)

G Sec Rate 2034 → 6.75%. (long term)
 (10 yrs ATM) (call rate ↑ higher)
 Price Gap = ATM rate T2 deposit T1 & lend T1
 gap neutral → no change in gap

If gap ↑ (positive) then benefit
 Maturity gap → we want maturity to match
 2 yrs deposit vs loan Administrative Cost

2 yrs loan, deposit 1 yr → liquidity problem
 7/10. - appraisal on some criteria
 credit rating for borrower including govt (sovereign rating)

CAMELS
 1. Background
 2. Parameter
 3. Ratings (1-5)
 4. Dp. prof.
 - BK business - set bks - depends on trust
 - foreign central BK does sth to Indian Bank in foreign - impacts in India also
 "Bank of England said "We are keeping vigil on R.R. & Baroda" → next day India & Bank of Baroda

GOOD effect ₹ 371

SPARC - Supervisory Programme for Assessment of Risk & capital
(risk-based supervisory mechanism)

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we are keeping watch
RBI 3rd Statement
at Bank fail etc

→ does things secretly → gives rating - CAMELS
→ only known to ALCO CMD
→ members → directors.

else ppl will open up
in bk with best rating

Capital Adequacy : Ratio of capital to risk weighted asset

Asset Quality: GNPA

Management Quality: Ratio of non int. exp. to Total Assets

Earnings Quality - fund Based & fee Based / ROA

Liquidity (like money at all point) → includes ATM param.

Sensitivity towards market risk

In fact now, CAMELS
risk weighted asset

2015 to year gov-sec : risk free asset

But Greece failed (Ireland, Spain, Portugal, Turkey, Ukraine, Denmark, Ireland, Spain, Portugal, Turkey, Ukraine)

Spain ने दूसरे वर्ष 4 लाख : every 1 in 3rd person
was unemployed

right now France also frustrated and on
route of FREXIT (since last 7-8 yrs)

Even sovereign debt not safe

Cyprus country

Till 1993: Dept of Banking operations & Devt (DBOD)
GOOD WRITE (Regulatory + supervisory f')

Quant Finance, Risk finance, Green finance, Entrepreneurial finance
supervisory Rating System to classify bank's overall credit
1988] RBI empowered supervisor [CAMELS Rating] 1993] Narasimhan Committee Banks

1994 → RBI established board for Financial Supervision
(DBS & DNBS fn under BFS)
(Banks were weak → not capability to compete)

1995 - universal banking get adopted

1998 - Planning Commission Secretary wrote article
"Indian Banks at crossroads"

BFS constituted sub committee for audit quality, etc & upgradation

RBI Off site Monitoring & Surveillance System (OSMOS)
(1995) initiated, trigger for timely remedial action
supervise banks - off site (monitor health b/w 2 on site)
12 returns (DSB Returns) called from financial institutions

On Site Inspection : annual basis | Head office controlling office
certain Banks

1995 : RBI set up grp under Shri S. Padmanabhan
to review Banking supervision system
recommended International CAMELS rating commences from 1998

5 pt scale: initially A to E (now 1 to 5 rating)
best worst best worst best worst

2, 3, 4 → known as composite Rating
high possibility of bank failure
needs action immediately

- 1 - Robust, complies with risk mgt practices
- 2 - financially sound (moderate weakness)
- 3 - supervisory concern in several dimensions
- 4 - serious concern, practices (unsafe due to serious prob.)
- 5 - fundamentally unsound (inadequate risk mgt practice)
(unsatisfactory) (Immediate corrective action)

Migrate from CAMELS to SPARC
2013 → Not released to public to prevent possible Bank Run
GOOD WRITE institution with CAMELS rating downgrade.

Bank's revenue depends on uses to generate income for Bank
int'l Instalment

Performing Standard NPA Non Performing Asset / Loan DATE: over due > 90 days
A/c due not recd for 2 yrs till 2004
amt due not recd for 1 yr + till 2004
for 1 QTR post 2004
91 days

(25) 4 types of asset

1. Standard Asset - Not NPA

over due > 90 days OR remains NPA

2. Sub-Standard asset - created after 1 QTR for upto 12 months
it has weakness → possibility of loss of deficiency not correct

3. Doubtful asset - after 1 year (remains SS for 6 months)
collection - highly improbable

4. Loss - timing not given
(written off when declared by Bank)

loss identified by Bk/auditor / B&L → uncollectable

If an instalment is overdue → continuance as Bank's asset not warranted

entire O/S Amt → 1 cr loan

1 instalment not paid of 5 lakh int'l

due on 30 Sep

not paid by 31 Dec

1 Jan → entire 1 cr NPA → Sub-Standard
(credit worthiness of borrower suffers)

→ What if 1 instalment not paid (Sep) but
afterwards paid (Oct, Nov, Dec) - ?

8/10/2024 → fund based & default chances

→ Moratorium - int'l calculate but payment

gestation pd: (int'l accrues but does not get due)

e.g.: Ed'l loan

e.g.: loan for installation of big project
takes time (say 2 yrs) → revenue not generated

A/c classification Borrower wise & not facility wise
upgrade of C from NPA to Standard

NBFC - 60 months for dt deposit
MBFC - 84 months for dt deposit

Liu's monetary policy paper on
DATE: 84 copy
PAGE:

2020 case: lockdown → cond' of no revenue generation
gov statement "No amt will be due"

→ NBFC suffered most → it extends more loans than Bk

→ loan to MSME B&L

Inflow of 3T 281

May 2020 → 20 lakh cr package

measures - ① int'l free loan

② return when you start earning

→ 2018 तक NPA very high. 32% of NPA ↓

[construction, metal, mfg → 49.5% dip]

GDP → 24% dip in that Qtr

AQH - increase in health prioritised

2nd wave: economy prioritised, health not

27 Jan - detect 10 Mar - 1st death

→ all this classical eg of financial engineering

• Long Term Repo Rate

• MSME def'n

another issue: small NBFCs (93%) का ना हुआ
अे NBFCs (7%) का हुआ

to NBFC def'n further extended

All this led Indian econ to recover faster

90 days → NPA (In normal Term loan)

further classification

overdue 30 days → Special Mention Ac 1

60 days → SMA 2

90 days → NPA

In Agriculture loan (depends on cropping season)
long pd crop: harvest more than 1 year

short pd

overdue 1 crop season → NPA

short pd crop - not long (eg: cereals)

overdue > 2 crop season - NPA

Doubtful Asset : remained NPA for > 12 months

loss Asset - loss identified by Bank/ internal or external auditors / etc
considered uncollectable
continuance as Bankable asset not warranted

no date mentioned now

But earlier on RBI website: 24 months → 18 m

If Bank still shows as asset > 24 m :
Penalty (misrepresentation)

Evergreening of loan

DATE: / /
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[Monetary]

Asset Liability Mgt

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Loans Advances → Deposits ← saving current Demand
Time

(excluding CRR, SLR)

Net Interest Margin

$$\text{Int Revenue} - \text{Int Exp} = \text{Net Int Income (NII)}$$
$$(\text{Amt}) \quad (\text{Amt}) \quad (\text{overdue Amt})$$

$$\% - \% = + \% \text{ Net Int Margin (NIM)}$$

grayscale strengthen

weighted avg Deposit

LCA

Saving

Time

3.5%

5.9%

6.2%

Warmer or cooler :
(less risk tolerance)

loans & Adv

Riskier - personal loan (most exp)

diff categories : weighted avg → weight of amt

Commercial Banks view other Financial Inst →
to manage risk & manage assets

more in

Retail

ASSET

liab

(SITREP control ref) # on going balance sheet

Liability) extreme focus on

asset

mental balance sheet ref to risk and

other benefits were at no ITU - 2005

10/10

for BK → ALCO - Asset liab committee
 for FI → a) AMC - Asset Mgt Company - knows where to invest

→ Bks deposit - non standard (no defined maturity & amt)

→ But FSS design own product (with diff types of features)

2 segment layering

① MATURITY
 What is maturity of assets & liab?
 Asset > Liab : money blocked

Asset < Liab : require to re-invest (administrative cost)

② PRICE / rate sensitivity - influences Profit Margin
 RSG → Res (Rate sensitive gap)

No fixed rate will be treated as fixed rate
 (20 yrs back) after 3 yrs. Lender can change rate as
 (Apr 2004) when required.

ET Article title: "floating is floating. Fixed is also floating"

fixed rate had given problem to UTI

mid 1990s / 1980s product → Giril Child Scheme
 but inflation ↑, int rate ↓ to 10-11%.

2002 - UTI on its own changed rate
 court case, etc

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 PAGE

16/10/2024

loan pricing

Fund Based (main)
 (Interest)

$SP = \text{cost} + \text{profit}$

→ Int paid to depositors (deposit rate)

Weighted avg : [current A/c 0% - FD 8%]

• Prime rate → Base/minimum rate

Sub-prime crisis : credit worthiness (Best → another bank)

→ Call Rate - Reference rate (+ reflects liquidity in)

→ BK will give loan to C at higher than call rate

2 factors ① cost of funds → 21.21 current A/c
 X (Liab mgt)

cost of deposit + operating cost

(rent, salary, etc)

7% + 3% + profit 2% = 12%

5% + 2% + 2% = 9%

→ Another Bank

survival only possible when you are efficient

1997 : Delhi Electricity Board (bankruptcy time)

Billing time reduced

Bank - 3 days off money

→ Rotate money best

→ ABS
MBS

securitisation
 mortgage 1st 2nd 3rd 4th

because : original borrower doesn't pay, still
 Non-Recourse : if u → my loss

GOOD WRITE

GOOD WRITE

2 credit worthiness

DATE: 7/10/13
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- here word - collateral

- Nature of loan

- most costly loan - Personal loan (no reason, no collateral)

loan price disturbance

Govt. subsidies : ~~airline~~ - ~~driving~~ - ~~driving~~

Intervention

Subvention

Subsidy

Intervention - int exp = gap (B/I)

2. expenses other

1. NIM

too excess + traps for too

Rate sensitive - whose rate Δ bcz of Δ mkt rate

If lib rate same Asset rate $\uparrow \rightarrow +$ gap

int rate \uparrow

RSA $\frac{21}{16}$ $\frac{22}{17}$

RSL $\frac{21}{15}$ $\frac{22}{17}$

int rate \downarrow : RSA $\frac{21}{16}$ sensitive $\frac{22}{17}$

loan price

- cost of deposit + operating cost
- % gain (cost plus concept)
- price of competitor \rightarrow lower to attract but not compromised margin
- Nature of loan - Risk premium

GOOD WRITE

cost for

2002 Oriental Bank of commerce training on [CASH MGT] and c.Narang (Dynamic Cash Mgt) our invest in cash money met DATE: / / PAGE: _____

Business should be continuing (instead of waiting for customer to take loan) \rightarrow problem due to time lag

Time cost very imp complete project in time (else cost \uparrow) + don't take loan for time more than reqd

Cash is Inventory for Bank

Mgt: Just In Time (JIT) - 7 stages

① dynamic cash mgt - liquidity + inventory mgt

Being professional banker, how to manage cash keeping liquidity + profitability in mind

cross each other

liquidity factors

past pattern

In digital era \rightarrow if we keep high liquidity \rightarrow huge opportunity cost relieved

Inventory mgt!

→ 14th flop

white ATM
Integrated ATM

→ ATM is inventory.

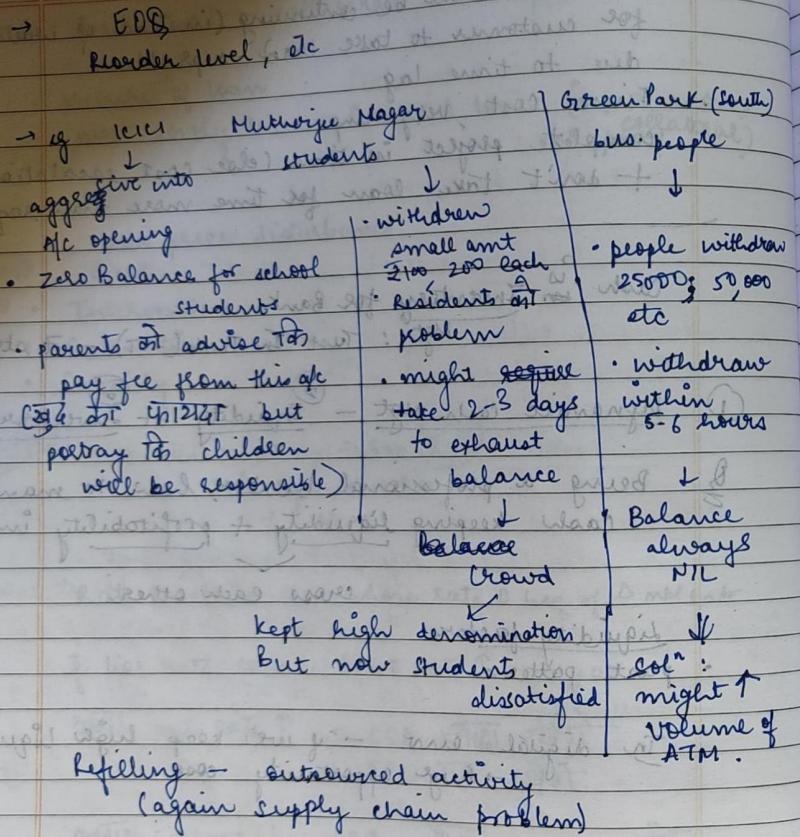
→ How much money should be there

① there in ATM \rightarrow down \leftarrow short

② to do denomination \rightarrow short \leftarrow \uparrow

GOOD WRITE

→ ATM inefficiency → no cash but guard
 (X whole city) DATE: _____
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Cash Mgt

1) forecasting - inflow/outflow
 Non cash Business → monthly forecast
 Bank → weekly / [Best → DAILY]

{ Income → end of pd
 Exp → Beginning of pd}

GOOD WRITE

Dynamism in 50 days
 # 20 days, envt. today, daily p.m.
 1000 today (Regd) 300 (Regd) 2000 (Regd) [opportunity loss]

(longer last longer)
 Bucket it → 1000 invest for longer term
 300 for 20 days
 200 for 50 days.

→ FI defn
 → RBI obj + "min risk" → 4-5 dues
 → NBFC + Commercial Bank

→ Mgt: Monetary A & L ad: 200 miles 2V
 (Investigations miles)

→ Performance parameter: NDTL
 compliance: CRR + SLR (Numerical)

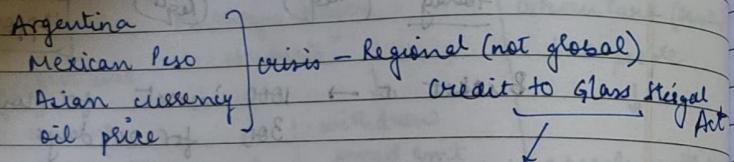
→ for sustainability - Capital Adequacy (philosophy since 1960s)
 global regt → 8% / Indian regt → 9%.
 Rated NBFC → 12% Non Rated → 15% /

Basel - BIS headquartered Geneva, Switzerland
 2009 onwards - critic: why Banks failing despite Basel
 (majorly in Advanced ecy)
 vis's perspective: 2012 Basel at 2nd, 3rd, 4th

Glass Steagal 1933
 Gram Breach Act 1999 → repeal
 (Clinton)
 (on Banker's request since Regan's time) → Universal Banking
 AAA BANK

GOOD WRITE

2008 crisis → declared in 2008
any crisis takes time also



commercial Bk & Investment Bk said NOT be together

within 1 decade - Subprime crisis
then Sovereign debt crisis

→ US again alert : Dodd Frank Act 2010
(again Regulation)

US on recovery path - control द्वारा लिया

Europe द्वारा पाया. → didn't stay together

EU fragment : Brexit (2016)

UK → अपने प्रौद्योगिकी के लिए बड़ी समस्या

India one of easiest easy

Brexit

Spain : 1/3rd person unemployed

Germany problems

2008 onwards

US, Europe

India bankrupt bank

Global Trust Bk (GTB)

GOOD WRITE

India NO Bank
Bankrupt in last 20 yrs
(except)

2004-05 : stock mkt scam

wife, also wife's
student → debt division head
excellent → SBI's student

→ 1948 IFCI Act
→ 1st FI of India modern
went to Bank of India

1996-97 : BIS established after IFCI

① IFCI (headquarters - Delhi) → RBI 3 times auction
with Mr. Vipin Rai - transformed it (financial engineering)

ICICI 1955 LIC 1956

UTI 1963

IDBI 1964

(1960s when war)

① IFCI

1947 : open economy but people didn't have funds
everything making by govt money ?

investment high interest rate, etc.

IFCI issue Bond & Banks subscribed

IFCI - loan to only public sector

② ICICI → pvt funding

(Act 1955) 1961 : 2nd largest bank in India

③ IDBI → bridge, road, transport, infra

sector specific 1966 EXIM

CFC - shipping
film industry

NBFC 1972 SEBI 1978

Indiscipline

→ Bank of Punjab Ltd - fraud

Agra bank branch - misappropriation

→ Global Trust Bk : stock mkt scam

Dabholi 1992 - Jan 1993

GOOD WRITE

[NPA Provisioning Guideline Latest R.B.I.
Numerical] DATE: _____
SPP PAGE _____

→ 1968: Indian BIS on failure stage
instead of nationalising: Indira Gandhi
(but not good soln)

→ by 1988: BIS not in position to survive
Narsimhan Committee
Bifurcate assets in Ageing Bucket
(how much overdue?)

Asset classification

3 m: NPA, etc and provision NOT be
covered by standard system.

Create provision for NPA [NPA Provision]

2015

0.4%:

1%:

unsecured loan mat < 1 yr: 100%.

3rd	Reversal of income	Moratorium → pd during which nothing	Capitalised Int. not to be reversed.
4th	If adv → NPA; not accrued & credited to income ac in first periods reverse	nothing	
5th			
12			
2nd	Int on Adv ac KVP NCC Team Report Inc. Recognition	Int Policy → take to Income ac Objective criteria, 3K and NOT late to pay interest or any NPA	
3.1	3.2.		
3.2.2	Moratorium - Interest net reverse		
3.5			

Asset Classification - Standard, NPA

Provisioning → BK mgt + Stat auditors

Amnesty Period

Seized Loan - Master Loan

SPP DATE: _____
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→ loss	→ write off else
→ doubtful	100% provision
→ secured	preventive
→ unsecured	100%
→ upto 1 yr	25%
1 yr - 2 yr	40%
> 3 yr	100%
→ Secured	late
→ upto 1 yr	25%
1 yr - 2 yr	40%
> 3 yr	100%

10% allowance for ECGC Substandard → 15% (Secured)
+ 10% = 25% [Unsecured] for ECGC
Covered securities available

Standard : farm credit + Std → 0.25%.
Inst: Housing loans.
Inst: More
wrt to Adv to commercial real estate → 1%.
CRE - Residential → 0.75%.

All other std → 0.4%.

5.5.2 → Provision on Std Asset → NOT for Net NPA
→ show separately under other lines

5.5.2	UNSECURED	Invest in Bond Corporate
		Maturity > 5 yrs → 20%.
		mat bala 4-5 yrs → 40%.
		3-4 → 60%.
		2-3 → 80%.
		1-1 → 100%.

→ G-sec [0.25/- 1% (Maturity wise)
0.4/- (Maturity Not known)]
2015

Financial Statement Analysis

→ Capital Adequacy Ratio (not very strong parameter)
 2014 Basel Norms - BIS - 8% bcz regulatory reqd
 India - 9%.

Tier 1 + 2 Capital
 core capital

Basel II

how do we know bank has failed?
 → 3% margin \rightarrow fail means

1968 problem \rightarrow 1.29% capital \rightarrow fail (no guidelines)
 globally - Basel II norm: \rightarrow Nationalisation of Banks
 \rightarrow 1968 & 1980

But by 1988 - Narasimhan Committee \rightarrow Banks collapsed
 follow Basel \rightarrow RBI accepted
 (full date = Nationalisation not reversed)

NML = shares + bond issued etc. \rightarrow CAR
 Risk weighted asset

RWA \Rightarrow 100 CAR \Rightarrow 9% means shd have

$\boxed{\text{Tier 1}}$ \rightarrow very very long term (perpetual)
 $\boxed{\text{Tier 2}}$ \rightarrow Limited duration (Debt) e.g. Bond issues

e.g. Capitalisation

Tier 1 + 2 = 9%

Eq = 3 & Debt = 7 \rightarrow 0.908 and fund
 Not complying

Tier 1 shd be 50%

Tier 2 cannot be more than 1

\rightarrow 3 + 3 = 6 \rightarrow overall shortfall of 3 (9 reqd)

But we shd have 4.5 Equity \rightarrow 3 + $\boxed{1.5}$ = 4.5
 already 4.5 debt \rightarrow $\boxed{1.5}$

eg

2002 \rightarrow size key $\uparrow \rightarrow$ Business \rightarrow Asset \uparrow at CAR
 problem

2006 \rightarrow perpetual Bond provisions (Bank at risk)

2009 \rightarrow also for corporate bond
 within 6 months - Reliance also issued
 Put in TIER 1

SDF: money bank can deposit with RBI
 (6.25) \rightarrow irregular and short maturities
 whenever it needs

reverse Repo \rightarrow park with RBI but through instruments
 (3.35) regular instruments (longer)

Bank short duration \rightarrow 2F-P x 08

2F-P x 08

total F3F = 15

2F-P x 08

12/11/2024

CRR

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- B) Bank has 8000 Cr deposited & 3000 Cr withdrawn in a given fortnight. During same pd, Inter Bk asset = ₹ 400 Cr Inter Bk liability = ₹ 600 Cr calculate the last day CRR reqt if Bk maintains 90% CRR during 1st 13 days of eligible pd.

Ans
 $\frac{8000}{(3000 + 400)} \times 3000 = 5000$ Cr
 $5000 \times 1.15 = 2450$ Cr
 $2450 - 400 = 2050$ Cr
 $NDTL = 5200$

Overall \rightarrow
 $2450 \times 14 = 3430$ Cr
 $2450 \times 13 = 3061.8$ Cr
 $last\ day\ Regt = 340.2$ Cr
 538.2 Cr

- (a) Bank falls short of 30 Cr each consecutive day but maintain overall calculate penalty.

- (b) Overall shortfall of 80 Cr

Ans (a) $30 \times 9.75\% \times \frac{1}{365} = 0.00801369863$ Cr

$30 \times 11.75\% \times \frac{1}{365} = 0.00965753425$ Cr

₹ 1.767 Lakh

(b) $80 \times 9.75\% \times \frac{1}{365} = 0.0547945$ Cr

Total = 5.479 + 1.767 Lakh =

(1993) \rightarrow Pines Club \rightarrow credit card 1st American Express - 2nd

\rightarrow Standing facility

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Distress - liquidity cushion (NIM)
(Net Interest Income)

Ratios for performance

Fund Based Income
(NPA)

1st money : (1997 after project A solution)

① Net Interest Income (NII) = Recd - paid of mst

② Net Interest Margin (NIM)

ratio
ATM
Lmt
S (amt x rate)
Amt

Current
Saving
Term

Rate

First exp] amt as weights

Asset \rightarrow 5% und debt

CRR = 0%

SLR - same % Return

loans of diff pd

Tenure: Nature purpose

eg: Personal loan

eg: credit card loan

↳ agency (Master, Visa)
which creates facility

↳ Bank (extends credit)

↳ collection agents \rightarrow TFR defuse STT problem

Asset reconstruction
(Bad Bank)

Buy loss asset WRITE
(once credit appraised, limit set & keep using that)

earlier

2002 → SARFAESI Act → PSC → boom
Banks → Banks, NPA, etc.

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PAGE

base III

NIM use
fin st analysis
ARM
Gap analysis

→ RAG → Rate Adjusted Gap
RSG → Rate Sensitive Gap

Capital Adequacy Ratio (CAR) : Tier I & Tier II

Loan to deposit Ratio (LTD) → also at Branch level

Fund Based Income vs fee Based income,
BOTT → BOTT Better

Issue Mgt (RLO, FPO, etc)
head Mgt
M&A

Guarantee
Reasonably certain that it will - 912

18/11/2024

① Fund based
fee based

- what it is?
- How calculated?
- what it signifies?

② NII, NIM

cap. Adequacy → Tier 1 & Tier 2 (various rules after 912)

③ Solvency

NPA % - GNPA,

Liquidity Coverage Ratio → Stock of High Quality Liquid Assets

GOOD WRITE

1995 - universal banking adopted by RBI
(AAA Banking) → Anytime, Anywhere, Any way
DATE
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right time right But

1999 IRDA → Insurance sector open ₹ 377

2004: HDFC, BOB, analysts (4 bands at first)
permission PNB to manage pension fund

BSRB → Banking sector Recruitment Board

PO → probationary officer hard work

→ PNB Karel Bagh - scarcity of staff (only Mgr & per)
(Banana seller retired as Mgr)

→ But actual BSRB start ₹ 377 2002 के बाद से

→ Kotak - 1st pvt MF in India

→ 1956 ₹ 377 insurance privatised (But no regulated)

① Ratios

② Regulatory framework ③ LCR

→ EXIM Bank

↳ Letter of credit (new credit flows)
domestic → 1 लाई ₹ 1

→ 8 principles of
Insurance

↳ line of credit (International)
(series of credits) (Noida Toll project)
funded by World Bank

→ Regulators

PRFDA, IRDA → RBI
fund

1-9-2013 नियमानुसार

बाबूदास

(1-9-2013)

लक्ष्मी

राजेश

21/11

HOPE Fin St. & SBI 11/11/2011

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Total Income
 Interest [on advances/bills
 on investment
 on balance with RBI / Inter Bank
 others]

Other Income

→ Fund Based → Lower Better
 fee Based

→ NII HOFC SBI
 10.9 16.0

→ % Gross NPA to Gross Advances
 → % Net NIA to Net Advances

HOFC HOFC
 24 23
 Gross 1.24% 1.12% ↑ Ing.
 Net 0.33% 0.27% ←

20/11

84.9

Incremental provision
 ↑ ↓
 Standard 408x8.1% 32.84 0.4% 10.13056
 Substandard 408 - 12.1% (408.62) (42.20)
 Doubtful

850 AVG NPA = $6450 \times 6.5\% = 419.25$

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(i) Provision @ 50%.

Profit before Provs	250
- Prov	58
Profit after Provs.	40.37
- Tax 35% (250)	(87.5)
<u>Net Loss</u>	<u>(47.13)</u>

Not a tax deductible exp.

(ii) write off 25%.

Profit before Provs	250
- write off (419.25×0.25)	(104.81)
Profit before TAX	145.19
- Tax $(35\% \text{ of } 145.19)$	(50.82)
<u>NET Profit</u>	<u>94.37</u>

Capital Adequacy

Asset \rightarrow 28. P1P

Amt: Risk weight 4% RWA

CRR	100	1.00	0	Weight (i)
SLR	0.25	250	0.25	Weight (ii)
Loan to PSVAD	32	0.50	0	Weight -
Claim on CDI	20	0.50	0	Weight -
Non SLR Inv.	278	(0.25) 0.25	0	Weight -
Issuance facility to PNB	67	0.25	0.25	Weight (iii)
General Provision & Loss Reserve	45	0.25	0.25	Weight (iv)
Subordinated debt	2-3 (18-24%)	28.13 (28. P1P)	0.25	Weight -
3-4 P1-24%	20	0.25	0.25	Weight -
4-5 (8-0%)	40	0.25	0.25	Weight -
within 1 yr	10	0.25	0.25	Weight -

PBT - Tax = PAT
= 280 - 40 = 60
PAT = 60
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B outstanding credit = 4580
outstanding balance in NPA = 620
Provision made on account of NPA = 145
Profit after Tax of Bank = 280
Tax \rightarrow 40%
calculate Earnings / NPA Ratio.
Net NPA / Net credit Ratio

$$\text{Ans 1)} \quad PBT = 280 \times 100 \quad \text{Rate} = 466.67 \%$$

$$\frac{\text{Earnings}}{\text{NPA}} = \frac{466.67}{620 - 145} = \frac{466.67}{475} = 0.9825 \quad \text{or } 98.25\%$$

$$\Rightarrow \text{Net NPA} = \frac{620 - 145}{4580 - 145} = \frac{475}{4435} = 10.7\%$$

B Loan amt = 2,00,000

Capital Adequacy = 8%.

Cost of deposit = 9%.

Operating expense = 3%.

Tax Rate \rightarrow 30%.

Determine loan price.

$$\text{Ans.} \quad \text{Equity} = 2,00,000 \times 8\% = 16,000$$

$$\text{Cost of equity} = 20\% \times 16,000 = 3200$$

$$\text{Pre tax cost of equity} = 3200 \times \frac{100}{100 - 30} = 4571$$

$$\text{Deposits} = 2,00,000 - 16,000 = 1,84,000$$

$$\text{Cost of deposit} = 1,84,000 \times 9\% = 16,560$$

$$\text{Cost of fund} = 4571 + 16,560 = 21,131$$

$$\text{Cost of fund} = \frac{21,131}{2,00,000} = 10.57\%$$

$$\text{Break-even} = 10.5\% + 3\% = 13.5\%$$

$$\text{Loan price} = 13.5\% + 4\% = 17.5\%$$

1M² \rightarrow benefit \rightarrow not

- ① RSA > RSL \uparrow
 RSA < RSL \downarrow

Profit before Prov	300	NPA
-	(140.625)	75×7.5
	159.375	1000
$-25\% \text{ tax}$	562.5	
PAT	119.53125	

→ Loss $\rightarrow 100\%$

→ Doubtful
Uns.

→ Sub Std

Un \rightarrow 25%

15% \rightarrow 15%

Std $\rightarrow 0.4\%$

$$40,493 = 2,40,000 \times 3 \times r \Rightarrow r = 13.5\%$$

$$A = P \left(\frac{1+r}{100} \right)^n$$

$$\sqrt[3]{1.40,493} = \sqrt[3]{(1+r)^3}$$

$$r = 12\%$$

4500

$$CPR \rightarrow 84.5\% = 202.5$$

$$SLR \rightarrow 18\% = 810$$

RSA	200	300	900
RSL	100	200	800
gap	100	100	100
Ratio	2	1.5	1.125

$$\frac{\text{Cap}}{\text{RWA}} = \frac{10}{100} = \frac{500}{0.7 \times n} \Rightarrow 7n = 50000$$

$$n = 7143$$

$$\frac{\text{Earning}}{\text{NPA}} = \frac{\frac{280}{0.7}}{620-145} = \frac{400}{475} = 84.21\%$$

$$\frac{\text{Net NPA}}{\text{Net credit}} = \frac{620-145}{4580-145} = \frac{475}{4435} = 10.71\%$$

→ Reference obligation \rightarrow becomes part of CDS
 Deliverable \rightarrow doesn't become part

26/11/2024

Rate	A	L	Gap	Income
0%	12 x E	17.5	8.5 - 5.5	0
7%	0	32	-32	-2.24
9%	19.2	0	(+1) 19	1.71
15%	0	24	-24	-3.6
16%	21.36	25	11	1.76
16.5%	0	15	-15	-2.475
17%	20	0	20 RH	3.4
18%	26.5	2500	2.126.5	4.77
	0.18			3.325

Maturity	CoP	CoE	RWA = A.R.	1000
1	A	0.5L	0.5 x 12.3	562.5
2	1.20	0.1 x 34.71		
3	2.1	0.1 x 34.71		
4				

- 1994 verdict - cumulative & redeemable pref sh. → relies on beta (gearing the capital)

Capital Adequacy

Risk weighted Asset = 3000 crore

Equity Capital & Reserves = 140 crore

Undisclosed Reserve = 45 crore

General Provision & Loss Reserve = 145 crore

Subordinated Debt

Within 1 year = 10 crore

2-3 = 20 crore

4-5 = 40 crore

Assume Undisclosed Reserves represent accumulation of post tax profits & are not encumbered by known liability. Assess whether Bank satisfies Capital Adequacy or not.

$$\text{RWA} = \text{RWA} \times 9\% = 3000 \times 9\% = 270 \text{ crore}$$

$$\text{Tier 1} \rightarrow \text{Equity} = 140$$

$$\text{Tier 2} \rightarrow 45 + \frac{37.5}{100} + \frac{40}{70} = 260$$

$$\text{Total} = 140 + 260 = 400 \text{ crore}$$

$$\text{CAR} = \frac{140 + 122.5}{3000} = 18.33\% \text{ or } 8.75\%$$

→ GPLR
Min 1.25% of RWA or actual GPLR → consider

$$\begin{aligned} \rightarrow \text{Subordinated} \\ 10\% &- 0 \rightarrow 0 \\ 20\% &- 40\% \rightarrow 8 \\ 4-5\% &- 80\% \rightarrow 32 \\ &\quad 40 \end{aligned}$$

→ minimum 18 months redeem → treat as equity