

Case-1: Calculation of Standard Gap on the basis of changes in interest rate

International Bank has the following re- pricing assets and liabilities:

Call money. - Rs.500 cr

Cash credit loans. - Rs.400 cr

Cash in hand. - Rs.100 cr

Saving bank. - Rs.500 cr

Fixed Deposits. - Rs.500 cr

Current deposits - Rs.200 cr

There is reduction in rate of interest by 0.5% in call rates, 1% for cash credit, 0.1% for saving bank and 0.8% for FD.

On the basis of above information, answer the following questions:

01 What is the adjusted gap in repricing assets and liabilities?

a Rs.200 cr positive

b Rs.200 cr negative

c Rs.100 cr positive

d Rs.100 cr negative

Que-1: Adjusted gap = (SB + FD) - (Call money +CC) = (500 + 400) - (500)

+ 500) = Rs.100 cr (assets are less than liabilities - Hence negative gap). The cash in hand and current account deposits are not subject to re- pricing, hence these have been ignored.

O2 Taking into account, the change in interest rate, calculate the amount of repricing assets as per the standard gap method in repricing assets and liabilities?

a Rs.700 Cr

b Rs.650 Cr

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c Rs.600 cr d inadequate information

a Rs.150 cr negative b Rs.175 cr positive c Rs.200 cr positive d Rs.250 cr negative

Que-2: Call money $500 \times 0.5\% = \text{Rs.}250 \text{ cr} + \text{Cash credit } 400 \times 1\% = 400 \text{ cr}$ Total = 650 cr

Taking into account, the change in interest rate, calculate the amount of repricing liabilities as per the standard gap method in repricing assets and liabilities?

a Rs450 cr
b Rs.400 Cr
c Rs.300 Cr
d insufficient informa

Que-3: Explanation
Total = 450 cr

Que-4: Explanation: Assets - Call money $500 \times 0.5\% = Rs.250 \text{ cr} + Cash$ credit $400 \times 1\% = 400 \text{ cr}$ Total = 650 cr Liabilities - SB $500 \times 0.1\% = 50 \text{ cr} + FD <math>500 \times 0.8\% = 400 \text{ cr}$ Total = 450 cr Net change = 650 - 450 = Rs.200 cr positive

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Case – 2 Effect of change in rate of interest on Net Interest Income.

International Bank raised funds by way of 91 days term deposit at 6% rate of interest. It has following options to invest these funds:

- (a) 91 clays treasury bills @ 8%
- (b) 91 clays floating rate loan @ 8% with monthly re-pricing.
- (c) 3 -year term loan @ 8%.

01 If bank makes in during the 91 days what will be chang after 91 days?

a 1%

b 0.5%

c no change

d inadequate informa

Que-1: Existing cost of de

8%.

and

ate,

nt

NII

$$= 8 - 6 = 2\%$$

New cost of deposit = 6 + 1 = 7%. New recurrent treasury bills :

$$= 8 + 1 = 9\%$$
. NII $= 9-7 = 2\%$

Hence no change in NII. It will continue to be 2%.

02 If bank invests the funds in 91 days floating rate loan @ 8% with monthly repricing and there is interest rate rise, what will be impact on net interest income of the bank.

a NII will increase

b NII will decrease

c No change in NII

d information is inadequate.

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Que-2: Bank is asset sensitive because change in rate of interest on loan will take place twice in 91 days period due to monthly repricing of the loan while the deposit rate will not change during this period. Hence if interest rate increases, the interest income will increase and the NII will increase.

03 If bank invests the funds in 91 days floating rate loan @ 8% with monthly repricing and there is in the fall, what will be impact on net interest income.

a NII will increase b NII will decrease c No change in NII d information is inad

Que-3: Bank is asselloan will take place of the loan while the Hence if interest rate NII will decline.



04 If bank invests these funds an @8%, what will be impact on net interest income of the bank, if there is increase in interest rates.

a NII will increase b NII will decrease c No change in NII d information is inadequate.

Que-4: Bank is liability sensitive because change in rate of interest on deposit will take place after each period of 91 days, as deposits have to be rolled over. On the other hand, the interest on loan will not



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change during this period. Hence if interest rate increases, the cost of deposits to the bank will increase and there will be no change in interest income. Hence NII will decrease.

05 If bank invests these funds in a 3 -year term loan @8%, what will be impact on net interest income of the bank, if there is fall in interest rates.

a NII will increase b NII will decrease c No change in NII d information is inadequat Que-5: Bank is liabilit on deposit will take pla ve to be rolled over. (ot change during this of deposits to the ba in interest income. He Case-3 Calculation U **ed** on Standard Approach for

The assets side of balance sheet of International Bank provides the following information:

Fixed Assets - 500 cr, Investment in Central govt. securities - Rs. 5000 cr.

In standard loan accounts, the Retail loans - Rs.3000 cr, House Loans-Rs.2000 cr (all individual loans below Rs.30 lac and fully secured by mortgage), Other loans - Rs.10000 cr. Sub-standard secured loans - Rs.500 cr, sub-standard unsecured loans Rs.150 cr, Doubtful loans Rs.800 cr (all DF-1 category and fully secured) and other assets-Rs.200 cr.



Based on this information, by using Standard Approach for credit risk, answer the following questions.

01 What is the amount of risk weighted assets for retail loans?

a Rs.3000 Cr b Rs.2500 Cr c Rs.2250 cr d Zero, as retail loans are risk free Que-1: RW is 75% on retain 02 What is the amou a Rs.2000 cr Rs.1800 h cr c Rs.1500 Cr Rs.1000 cr J Rs.30 Que-2: RW is 50% on he lac. RW value = $2000 \times 50\%$

03 What is the amount of risk weighted assets for investment in govt. securities

a Rs.5000 cr b Rs.2500 cr c Rs.1000 Cr d nil

Que-3: On claims against Central govt., the risk weight is zero. 5000 x 0% = 0

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04 What is the amount of risk weighted assets for sub-standard secured accounts?

a Rs.250 cr

b Rs.500 cr

c R5.750 cr

d Rs.1000

cr

Que-4: RW is 150%, if the provision is less than 20% and 100%, if the provisions is 20% and 50%, with is 50% of the outstanding balance. In sub-

05 What is the an unsecured accounts

a Rs.75 cr

b Rs.112.50 cr

c Rs.150 Cr

d Rs.225 cr

Que-5: RW is 150%, if the provisions is 20% and 50%, which is 50% of the outstanding balance. In sub-standard unsecured account, the provision being 25%, RW is 100%. Hence RWA = $150 \times 100\%$ = 150 Cr

06 What is the amount of risk weighted assets for doubtful accounts?

a Rs.400 Cr

b Rs.600 cr

c Rs.800 Cr

d Rs.1600

Cr

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Que-6: RW is 150%, if the provision is less than 20% and 100%, if the provisions is 20% and 50%, where the provision is 50% of the outstanding balance. In doubtful up to one year category (DF-1) account, the provision being 25%, RW is 100%. Hence RWA = $800 \times 100\% = 800 \text{ cr}$

Case-4 Asset Liability Management:

The bank-wise maturity profile of select deposit category of banks in %age terms of select maturity buckets—————31, 2010 is as under: (figures in %age)

Liability / Asset

Deposits
Up to 1 year
Over 1 yr to 3 years
Over 3 yrs to 5 years

Over 5 years.

On the basis of given information

uestions?

O1 There is decline in rate of interest of 2% for a period up to 1 year. The bank group which will gain most is:

a PSU Banks

b Old Private Banksc New Private Banksd Foreign Banks

Que-1: Old private banks are dependent up to 54% deposits in up to 1 year category. Hence, they gain most.

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There is decline in rate of interest of 2% for a period up to 1 02 year. The bank group which will gain least is:

a PSU Banks

b Old Private Banks

c New Private Banks

d Foreign Banks

Que-2: Public sector banks have the lowest amount of deposit in this category 33%. Hence, they gain least

There is increase in 03 period above 1 year to affected adversely is

a PSU Banks

b Old Private Banks c New Private Banks d Foreign Banks

Que-3: PSU banks hav highest in all the 4 bank

ueposit with a 04 There is increase in rate period above 1 year to 5 years. The bank group which will be least affected adversely is:

a PSU Banks

b Old Private Banks

c New Private Banks

d Foreign Banks

Que-4: Old private banks have 39% of their deposits in this category which lowest. Hence, they are least affected.



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05 The bank group which is more relaying on long term deposits above 3 years.

a PSU Banks

b Old Private Banks

c New Private Banks

d Foreign Banks

Que-5: PSU banks are having 30% of their deposits in this category, which is highest.

Willeli is flightest.					
CASE 5 Asset Liabili	t				
The bank-wise matur					15
of select maturity b					n
%age)			1		
					The same of the sa
Liability / Asset					
100					
Deposits	100				
Up to 1 year	81	40			
Over 1 yr to 3 years	15	3			4-16
Over 3 yrs to 5 years	2	6	2	3	
Over 5 years.	2	7	2	2	

On the basis of given information, answer the following questions?

O1 There is increase in rate of interest of 2% for a period over 5 years. The bank group which will lose most is:

a PSU Banks

b Old Private Banks

c New Private Banks

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d Foreign Banks

Que-1: Old private banks carry the largest %age borrowing of 7% in this bucket. Hence highest cost increase.

O2 There is increase in rate of interest of 2% for a period over! years up to 3 years. The bank group which will lose most is:

a PSU Banks

b Old Private Banksc New Private Banksd Foreign Banks

Que-2: New private this bucket. Hence

O3 There is decre over 3 years to 5 years a PSU Banks

b Old Private Banks c New Private Banks d Foreign Banks



Que-3: Old private banks carry the largest %age borrowing of 6% in this bucket. Hence highest cost decrease.

O4 There is decrease in rate of interest of 0.5% for a period of up to 1 year. The bank group which will gain least is:

a PSU Banks

b Old Private Banksc New Private Banksd Foreign Banks

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Que-4: New private banks carry the smallest %age borrowing of 51% in this bucket. Hence lowest cost decline.

The bank group which is depending most on over 3 years' 05 borrowing is:

a PSU Banks

b Old Private Banks

c New Private Banks

d Foreign Banks

Que-5: Old private banks

this bucket.

Case-6 Asset Liab

The bank-wise matu in %age terms of se under: (figures in %ag

Liability / Asset	PSU			
	Banks	bc.		7
		Private	PVL	
Deposits	100	100	100	100
Up to 1 year	39	42	42	54
Over 1 yr to 3 years	37	32	31	18
Over 3 yrs to 5 years	11	6	12	4
Over 5 years.	13	20	15	24

There is increase in rate of interest of 0.5% for a period of up 01 to 1 year. The bank group which will gain most is:



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a PSU Banks b Old Private Banks c New Private Banks d Foreign Banks

Que-1: Foreign banks carry the largest %age loans and advances of 54% in this bucket. Hence highest interest increase on loans.

O2 There is increase in rate of interest of 0.5% for a period of up to 1 year. The bank group which will a decided a period of up

a PSU Banks

b Old Private Banks c New Private Banks d Foreign Banks

Que-2: PSU banks coin this bucket. Hence

o3 There is decreabove 1 year to 3 year a PSU Banks

b Old Private Banks c New Private Banks d Foreign Banks

Que-3: Foreign banks carry the smallest %age loans and advances of 18% in this bucket. Hence lowest interest decreases on loans.

O4 There is decrease in rate of interest of 1.5% for a period of above 1 year to 3 years. The bank group which will lose most a PSU Banks

b Old Private Banksc New Private Banksd Foreign Banks



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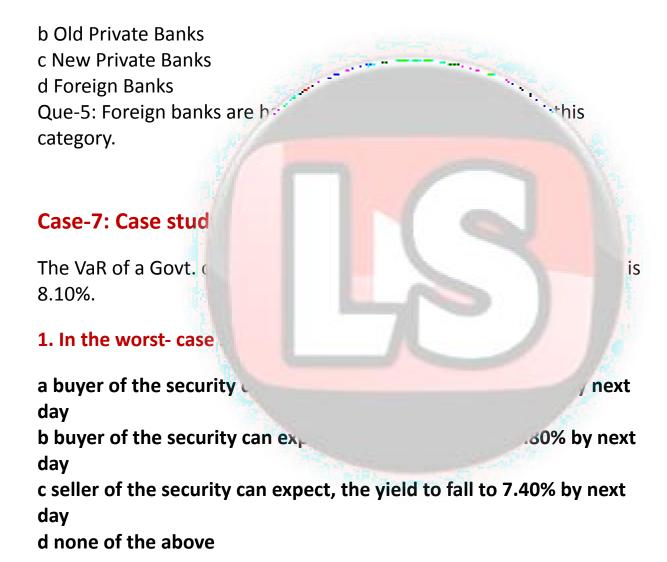
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Que-4: PSU banks carry the highest %age loans and advances of 37% in this bucket. Hence highest loss of interest.

O5 If there is upward movement in interest rate scenario for loans the bank group having highest %age of loans due for repricing for up to one year term is:

a PSU Banks



Explanations:

1. VaR of 0.70% means that the maximum change in the yield can be 0.70%. Hence in a worst-case scenario, the buyer of the security can



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expect, the yield to fall to 7.40% (8.10 - 0.70%) by next day and the seller can expect the yield to rise to 8.80% (8.10 + 0.70%).

2. In the worst- case scenario, the prospective:

a seller of the security can expect, the yield to fall to 7.40% by next day

b buyer of the security can expect, the yield to rise to 8.80% by next day

c of the security can expect, the

2. VaR of 0.70% me be 0.70%. Hence in a can expect, the yield the seller can expect

3. In the above case

a there is 5% possibilities

b 1% possibility for the year there is 5% possibility of acd dinadequate information to draw

nan 0.70%

d can

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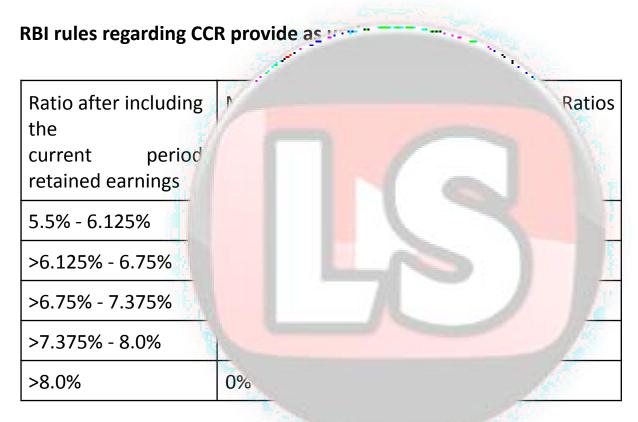
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3. At 95% confidence level, the possibility for an adverse change in yield being higher than 0.70% is only to the extent of 5% (i.e. loss being higher than 0.70%). At 99% confidence, this possibility is to the extent of 1% only.



Case 8 study on Capital Conservation Buffer in Basel III

Bank-A earned a net profit after tax and provisions of Rs.3000 and Bank-B of Rs.1200 cr. Common Equity Tier I capital ratio of Bank-A is 6.75% after including the current period retained profits. This ratio for Bank-B is 7%. Both the banks propose to mobilize fresh capital through public issue and to make the issue attractive, want to pay highest dividend.



Based on the given information, answer are one wing questions:

O1 What is the amount of net profit which the Bank-A is required not to distribute to ensure compliance of Basel III prescription.

a Rs.3000 cr

b Rs.2400

cr c Rs.1600

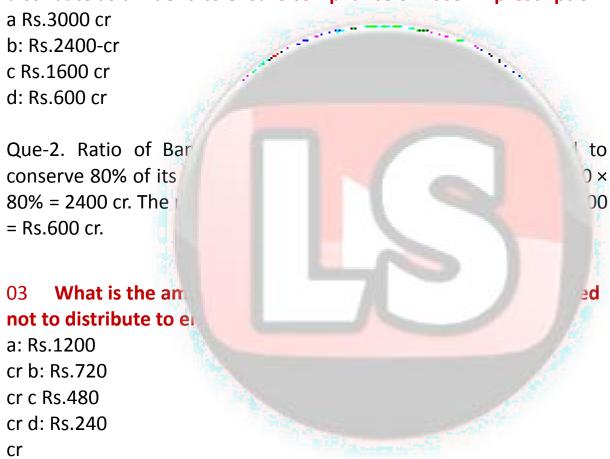
Cr d Rs.600

cr



Que-1. Ratio or Bank- is now due to which it is required to conserve 80% of its earning. Hence amount to be conserved = $3000 \times 80\% = 2400$ cr. The max amount that can be distributed = 3000 - 2400 = Rs.600 cr.

02 What is the maximum amount which the Bank-A can distribute as dividend to ensure compliance of Basel III prescription.



Oue-3. Ratio of Bank-B is 7% due to which it is required to conserve 60% of its earning. Hence amount to be conserved = $1200 \times 60\% = 720$ cr. The max amount that can be distributed = 1200 - 720 = Rs.480 cr.

04 What is the maximum amount which the Bank-A can distribute as dividend to ensure compliance of Basel III prescription.

a: Rs.1200 Cr b: Rs.720 cr



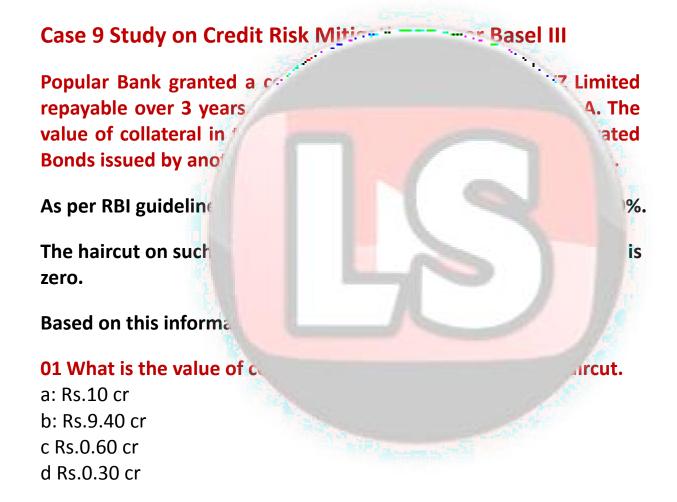
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c : Rs.480 cr d Rs.240 cr

Oue-4. Ratio of Bank-B is 7% due to which it is required to conserve 60% of its earning. Hence amount to be conserved = $1200 \times 60\%$ = 720 cr. The max amount that can be distributed = 1200 - 720 = Rs.480 cr.



Que-1. As per RBI guidelines, the risk weight for such loans is 50%. The heir cut for such exposure is zero. The hair-cut of collateral being 6%, the value of collateral = 9.40 cr (10 cr - 0.60 cr). Hence, the net exposure = Rs.0.60 cr. With 50% risk weight the value of RWA = $0.60 \text{ cr} \times 50\% = \text{Rs.} \cdot 0.30 \text{ cr}$.



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02 What is the value of net exposure after credit risk mitigation taking into account the collateral security with prescribed haircut.

a: Rs.10 cr

b: Rs.9.40 cr

c: Rs.0.60 Cr

d Rs.0.30 cr

Que-2. As per RBI guidelines, the risk weight for such loans is 50%. The heir cut for such exposure is zero. The hair-cut of collateral being 6%, the value of collateral = 9.40^{-1} Hence, the net exposure = Rs.0.60 cr. With 7.000 WA = 0.60 cr x 50% = Rs.0.30 Cr.

