

Annex 1

Correlation between NPA and Net Profit of Nabil Bank Ltd

Year	NPA to L&A (X)	Net Profit to L&A (Y)	X ²	Y ²	XY
2003	7.14	3.51	50.9796	12.3201	25.0614
2004	5.54	5.27	30.6916	27.7729	29.1958
2005	3.35	5.33	11.2225	28.4089	17.8555
2006	1.32	5.32	1.7424	28.3024	7.0224
2007	1.25	5.24	1.5625	27.4576	6.55
	X=18.6	Y=24.67	X ² =96.1986	Y ² =124.2619	XY=85.6851

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 85.6851 - 18.6 \times 24.67}{\sqrt{5 \times 96.1986 - 18.6^2} \times \sqrt{5 \times 124.2619 - 24.67^2}} = \frac{-30.4365}{41.4126} = -0.7350$$

∴ There is high degree of inverse relation between the NPA and Net Profit of Nabil Bank.

Correlation Analysis between NPA and RoE of Nabil Bank

Year	NPA to L&A (X)	RoE (Y)	X ²	Y ²	XY
2003	7.14	55.25	50.98	3052.56	394.49
2004	5.54	84.66	30.69	7167.32	469.02
2005	3.35	92.61	11.22	8576.61	310.24
2006	1.32	105.49	1.74	11128.14	139.25
2007	1.25	129.21	1.56	16695.22	161.51
	X=18.60	Y=467.22	X ² =96.20	Y ² =46619.85	XY=1474.50

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 1474.50 - 18.60 \times 467.22}{\sqrt{5 \times 96.20 - 18.60^2} \times \sqrt{5 \times 46619.85 - 467.22^2}} = \frac{-1317.792}{1413.9412} = -0.9320$$

∴ There is high degree of inverse relation between the NPA and RoE of Nabil Bank.

Correlation Analysis between NPA and RoA of Nabil Bank.

Year	NPA to L&A (X)	RoA (Y)	X ²	Y ²	XY
2003	7.14	1.53	50.98	2.34	10.92
2004	5.54	2.43	30.69	5.90	13.46
2005	3.35	2.73	11.22	7.45	9.15
2006	1.32	3.06	1.74	9.36	4.04
2007	1.25	3.23	1.56	10.43	4.04
	X=18.60	Y=12.98	X ² =96.20	Y ² =35.50	XY=41.61

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 41.61 - 18.60 \times 12.98}{\sqrt{5 \times 96.20 - 18.60^2} \times \sqrt{5 \times 35.50 - 12.98^2}}$$

$$= \frac{-33.378}{34.9}$$

$$= -0.9564$$

Annex 2

Correlation between NPA and Net Profit of Himalayan Bank Ltd.

Year	NPA to L&A(X)	Net Profit to L&A(Y)	X ²	Y ²	XY
2003	12.1	2.64	146.41	6.9696	31.944
2004	10.08	2.12	101.6064	4.4944	21.3696
2005	8.88	2.2	78.8544	4.84	19.536
2006	7.44	2.48	55.3536	6.1504	18.4512
2007	6.14	3.12	37.6996	9.7344	19.1568
	X=44.64	Y=12.56	X ² =419.924	Y ² =32.1888	XY=110.4576

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 110.4576 - 44.64 \times 12.56}{\sqrt{5 \times 419.624 - 44.64^2} \times \sqrt{5 \times 32.1888 - 12.56^2}} = \frac{-8.3904}{18.3368} = -0.4576$$

∴ There is high degree of inverse relation between the NPA and Net Profit of Himalayan Bank Ltd.

Correlation Analysis between NPA and RoE of Himalayan Bank

Year	NPA to L&A (X)	RoE (Y)	X ²	Y ²	XY
2003	12.10	60.26	146.41	3631.27	729.15
2004	10.08	49.45	101.61	2445.30	498.46
2005	8.88	49.05	78.85	2405.90	435.56
2006	7.44	47.91	55.35	2295.37	356.45
2007	6.14	59.24	37.70	3509.38	363.73
	X=44.64	Y=265.91	X ² =419.92	Y ² =14287.22	XY=2383.35

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 2383.35 - 44.64 \times 265.91}{\sqrt{5 \times 419.624 - 44.64^2} \times \sqrt{5 \times 14287.22 - 265.91^2}} = \frac{46.5276}{276.986} = 0.1680$$

Correlation Analysis between NPA and RoA of Himalayan Bank

Year	NPA to L&A (X)	RoA (Y)	X ²	Y ²	XY
2003	12.1	1.14	146.41	1.30	13.79
2004	10.08	0.91	101.61	0.83	9.17
2005	8.88	1.06	78.85	1.12	9.41
2006	7.44	1.11	55.35	1.23	8.26
2007	6.14	1.55	37.70	2.40	9.52
	X=44.64	Y=5.77	X ² =419.92	Y ² =6.89	XY=50.16

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 50.16 - 44.64 \times 5.77}{\sqrt{5 \times 419.92 - 44.64^2} \times \sqrt{5 \times 6.89 - 5.77^2}}$$

$$= \frac{-6.7728}{11.1202}$$

$$= -0.6091$$

Annex 3

Correlation between NPA and Net Profit of Bank of Kathmandu Ltd.

Year	NPA to L&A (X)	Net Profit to L&A (Y)	X ²	Y ²	XY
2003	8.11	0.2	65.7721	0.04	1.622
2004	8.67	1.81	75.1689	3.2761	15.6927
2005	6.66	2.26	44.3556	5.1076	15.0516
2006	4.99	2.36	24.9001	5.5696	11.7764
2007	2.52	2.79	6.3504	7.7841	7.0308
	X=30.95	Y=9.42	X ² =216.5471	Y ² = 21.7774	XY= 51.1735

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 51.1735 - 30.95 \times 9.42}{\sqrt{5 \times 216.5471 - 30.95^2} \times \sqrt{5 \times 21.7774 - 9.42^2}} = \frac{-35.6815}{50.1544} = -0.7114$$

.. There is high degree of inverse relation between the NPA and Net Profit of Bank of Kathmandu Ltd.

Correlation Analysis between NPA and RoE of Bank of Kathmandu

Year	NPA to L&A (X)	RoE (Y)	X ²	Y ²	XY
2003	8.11	2.00	65.77	4.00	16.22
2004	8.67	17.72	75.17	314.00	153.63
2005	6.66	27.50	44.36	756.25	183.15
2006	4.99	30.10	24.90	906.01	150.20
2007	2.52	43.67	6.35	1907.07	110.05
	X=30.95	Y=120.99	X ² =216.55	Y ² = 3887.33	XY= 613.25

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 613.25 - 30.95 \times 120.99}{\sqrt{5 \times 216.55 - 30.95^2} \times \sqrt{5 \times 3887.33 - 120.99^2}} = \frac{-678.3905}{773.9684} = -0.8765$$

.. There is high degree of inverse relation between the NPA and RoE of BoK Ltd.

Correlation Analysis between NPA and RoA of Bank of Kathmandu

Year	NPA to L&A (X)	RoA (Y)	X ²	Y ²	XY
2003	8.11	0.15	65.77	0.02	1.22
2004	8.67	1.1	75.17	1.21	9.54
2005	6.66	1.34	44.36	1.80	8.92
2006	4.99	1.42	24.90	2.02	7.09
2007	2.52	1.65	6.35	2.72	4.16
	X=30.95	Y=5.66	X ² =216.55	Y ² = 7.77	XY= 30.92

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 30.92 - 30.95 \times 5.66}{\sqrt{5 \times 216.55 - 30.95^2} \times \sqrt{5 \times 7.77 - 5.66^2}}$$

$$= \frac{-20.577}{29.1678}$$

$$= -0.7055$$

Annex 4

Correlation between NPA and Net Profit of Nepal Industrial and Commercial Bank Ltd

Year	NPA to L&A (X)	Net Profit to L&A (Y)	X ²	Y ²	XY
2003	8.16	2.64	66.5856	6.9696	21.5424
2004	6.66	2.12	44.3556	4.4944	14.1192
2005	3.92	2.2	15.3664	4.84	8.624
2006	3.78	2.48	14.2884	6.1504	9.3744
2007	2.6	3.12	6.76	9.7344	8.112
	X=25.12	Y=12.56	X ² =147.356	Y ² =32.1888	XY=61.772

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 61.772 - 25.12 \times 12.56}{\sqrt{5 \times 147.356 - 25.12^2} \times \sqrt{5 \times 32.1888 - 12.56^2}} = \frac{-6.6472}{18.3694} = -0.3619$$

∴ There is low degree of inverse relation between the NPA and Net Profit of Nepal Industrial and Commercial Bank Ltd.

Correlation between NPA and RoE of Nepal Industrial and Commercial Bank Ltd

Year	NPA to L&A (X)	RoE (Y)	X ²	Y ²	XY
2003	8.16	1.31	66.59	1.72	10.69
2004	6.66	4.81	44.36	23.14	32.03
2005	3.92	11.64	15.37	135.49	45.63
2006	3.78	17.44	14.29	304.15	65.92
2007	2.60	13.32	6.76	177.42	34.63
	X=25.12	Y=48.52	X ² =147.36	Y ² =641.92	XY=188.91

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 188.91 - 25.12 \times 48.52}{\sqrt{5 \times 147.36 - 25.12^2} \times \sqrt{5 \times 641.92 - 48.52^2}} = \frac{-274.2724}{300.8156} = -0.9118$$

Correlation between NPA and RoA of Nepal Industrial and Commercial Bank Ltd

Year	NPA to L&A (X)	RoA (Y)	X ²	Y ²	XY
2003	8.16	0.17	66.59	0.03	1.39
2004	6.66	0.66	44.36	0.44	4.40
2005	3.92	1.37	15.37	1.88	5.37
2006	3.78	1.69	14.29	2.86	6.39
2007	2.60	1.08	6.76	1.17	2.81
	X=25.12	Y=4.97	X ² =147.36	Y ² =6.36	XY=20.35

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times 20.35 - 25.12 \times 4.97}{\sqrt{5 \times 147.36 - 25.12^2} \times \sqrt{5 \times 6.36 - 4.97^2}}$$

$$= \frac{-23.0967}{27.4041}$$

$$= -0.8428$$

Annex 5

Correlation between NPA and Net Profit of Machhapuchhre Bank Ltd

Year	NPA to L&A (X)	Net Profit to L&A (Y)	X^2	Y^2	XY
2003	10.45	-6.47	109.2025	41.8609	-67.6115
2004	2.08	1.02	4.3264	1.0404	2.1216
2005	0.98	1.84	0.9604	3.3856	1.8032
2006	0.39	1.65	0.1521	2.7225	0.6435
2007	0.28	2.18	0.0784	4.7524	0.6104
	X=14.18	Y=0.22	$X^2=114.7198$	$Y^2=53.7618$	XY=-62.4328

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times -62.4328 - 14.18 \times 0.22}{\sqrt{5 \times 114.7198 - 14.18^2} \times \sqrt{5 \times 53.7618 - 0.22^2}} = \frac{-315.2836}{316.4182} = -0.9964$$

.. There is high degree of inverse relation between the NPA and Net Profit of Machhapuchhre Bank Ltd.

Correlation between NPA and RoE of Machhapuchhre Bank Ltd

Year	NPA to L&A (X)	RoE (Y)	X^2	Y^2	XY
2004	2.08	2.81	4.33	7.90	5.84
2005	0.98	8.49	0.96	72.08	8.32
2006	0.39	14.43	0.15	208.22	5.63
2007	0.28	18.74	0.08	351.19	5.25
	X=3.73	Y=44.47	$X^2=5.52$	$Y^2=639.39$	XY=25.04

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{4 \times 25.04 - 3.73 \times 44.47}{\sqrt{4 \times 5.52 - 3.73^2} \times \sqrt{4 \times 639.39 - 44.47^2}} = \frac{-65.7131}{68.824} = -0.9548$$

Correlation between NPA and RoA of Machhapuchhre Bank Ltd

Year	NPA to L&A (X)	RoA (Y)	X ²	Y ²	XY
2004	2.08	0.64	4.33	0.41	1.33
2005	0.98	1.35	0.96	1.82	1.32
2006	0.39	1.31	0.15	1.72	0.51
2007	0.28	1.48	0.08	2.19	0.41
	X=3.73	Y=4.78	X ² =5.52	Y ² =6.14	XY=3.58

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{4 \times 3.58 - 3.73 \times 4.78}{\sqrt{4 \times 5.52 - 3.73^2} \times \sqrt{4 \times 6.14 - 4.78^2}}$$

$$= \frac{-3.5094}{3.7388}$$

$$= -0.9462$$

Annex 6

Correlation between NPA and Net Profit of Nepal Bangladesh Bank Ltd

Year	NPA to L&A (X)	Net Profit to L&A (Y)	X ²	Y ²	XY
2003	12.26	0.81	150.3076	0.6561	9.9306
2004	12.73	0.9	162.0529	0.81	11.457
2005	10.81	0.03	116.8561	0.0009	0.3243
2006	19.04	-7.79	362.5216	60.6841	-148.322
2007	29.57	-19.94	874.3849	397.6036	-589.626
	X=84.41	Y= - 25.99	X ² =1666.12	Y ² =459.75	XY= -716.23

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{4 \times -716.23 - 84.41 \times -25.99}{\sqrt{5 \times 1666.12 - 84.41^2} \times \sqrt{5 \times 459.75 - (-25.99)^2}} = \frac{-671.1}{1398.9} = -0.4797$$

.. There is high degree of inverse relation between the NPA and Net Profit of Nepal Bangladesh Bank Ltd.

Correlation between NPA and RoE of Nepal Bangladesh Bank Ltd

Year	NPA to L&A (X)	RoE (Y)	X ²	Y ²	XY
2003	12.26	18.27	150.31	333.79	223.99
2004	12.73	19.86	162.05	394.42	252.82
2005	10.81	0.73	116.86	0.53	7.89
2006	19.04	-104.12	362.52	10840.97	-1982.44
2007	29.57	-249.63	874.38	62315.14	-7381.56
	X=84.41	Y= -314.89	X ² =1666.12	Y ² =73884.85	XY= -8879.3

$$r_{x,y} = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

$$= \frac{5 \times -8879.3 - 84.41 \times -314.89}{\sqrt{5 \times 1666.12 - 84.41^2} \times \sqrt{5 \times 73884.85 - (-314.89)^2}} = \frac{-17816.6351}{18050.5609} = -0.987$$

Correlation between NPA and RoA of Nepal Bangladesh Bank Ltd

Year	NPA to L&A (X)	RoA (Y)	X ²	Y ²	XY
2003	12.26	0.59	150.31	0.35	7.23
2004	12.73	0.6	162.05	0.36	7.64
2005	10.81	0.02	116.86	0.00	0.22
2006	19.04	-5.65	362.52	31.92	-107.58
2007	29.57	-15.30	874.38	234.09	-452.42
	X=84.41	Y=-19.74	X ² =1666.12	Y ² =266.72	XY=-544.91

$$\begin{aligned}
 r_{x,y} &= \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}} \\
 &= \frac{4 \times -544.91 - 84.41 \times -19.74}{\sqrt{5 \times 1666.12 - 84.41^2} \times \sqrt{5 \times 266.72 - (-19.74)^2}} \\
 &= \frac{-513.3866}{1066.7518} \\
 &= -0.4813
 \end{aligned}$$

Annex 7

Test of Hypothesis 1

Banks	NPA(07) X	$X - \bar{X}$	$(X - \bar{X})^2$
Nabil	1.25	-5.81	33.7561
HBL	6.14	-0.92	0.8464
BoK	2.52	-4.54	20.6116
NIC	2.6	-4.46	19.8916
MPBL	0.28	-6.78	45.9684
NBBL	29.57	22.51	506.7001
Total	X=42.36	$(X - \bar{X}) = 22.51$	$(X - \bar{X})^2 = 627.77$

$$\bar{X} = \frac{\sum X}{n} = \frac{42.36}{6} = 7.06$$

$$S^2 = \frac{1}{n-1} \sum (X - \bar{X})^2 = \frac{1}{6-1} \times 627.77 = 125.554$$

Population Mean (μ) = 4

Step 1: Null Hypothesis (H_0) : $\mu=4$

There is no significant difference between the sample mean and population Mean.

Step 2: Alternate Hypothesis(H_1): $\mu < 4$

The population mean is greater than sample mean(left tail test)

Step 3: Test Statistics under H_0

$$t_{cal} = \frac{X - \mu}{\frac{S}{\sqrt{n}}} = \frac{7.06 - 4}{\frac{11.2051}{\sqrt{6}}} = 0.6689$$

Step 4: Critical value under H_1

The tabulated value of t for d.f. =6-1=5 at 5% level of significance is given by:

$$t_{tab} = 2.015$$

Step 5: Decision

$$t_{cal} < t_{tab}$$

.. H_0 is accepted.

.. There is no significant difference between the NPA level of Nepalese commercial banks and the international standard of 4%

Annex 8

Test of Hypothesis 2

NPA											
NaBL	HBL	BOK	NIC	MPBL	NBBL						
X1	X2	X3	X4	X5	X6	X1 ²	X2 ²	X3 ²	X4 ²	X5 ²	X6 ²
7.14	12.1	8.11	8.16	10.45	12.26	50.98	146.41	65.77	66.59	109.20	150.31
5.54	10.08	8.67	6.66	2.08	12.73	30.69	101.61	75.17	44.36	4.33	162.05
3.35	8.88	6.66	3.92	0.98	10.81	11.22	78.85	44.36	15.37	0.96	116.86
1.32	7.44	4.99	3.78	0.39	19.04	1.74	55.35	24.90	14.29	0.15	362.52
1.25	6.14	2.52	2.6	0.28	29.57	1.56	37.70	6.35	6.76	0.08	874.39
X1=	X2=	X3=	X4=	X5=	X6=	X1 ² =	X2 ² =	X3 ² =	X4 ² =	X5 ² =	X6 ² =
18.6	44.64	30.95	25.12	14.18	84.41	96.20	419.92	216.55	147.36	114.72	1666.13

$$\begin{aligned}
 T &= X_1 + X_2 + X_3 + X_4 + X_5 + X_6 \\
 &= 18.6 + 44.64 + 30.95 + 25.12 + 14.18 + 84.41 \\
 &= 217.9
 \end{aligned}$$

$$\text{Correlation Factor (CF)} = \frac{T^2}{n} = \frac{217.9^2}{30} = 1582.68$$

$$\begin{aligned}
 \text{Sum Square due to Total (SST)} &= X_1^2 + X_2^2 + X_3^2 + X_4^2 + X_5^2 + X_6^2 \\
 &= 96.20 + 419.92 + 216.55 + 147.36 + 114.72 + 1666.13 \\
 &= 2660.88
 \end{aligned}$$

Sum Square due to column

$$\begin{aligned}
 (\text{SSC}) &= \frac{(\sum X_1)^2}{n_1} + \frac{(\sum X_2)^2}{n_2} + \frac{(\sum X_3)^2}{n_3} + \frac{(\sum X_4)^2}{n_4} + \frac{(\sum X_5)^2}{n_5} + \frac{(\sum X_6)^2}{n_6} - CF \\
 &= \frac{18.6^2}{5} + \frac{44.64^2}{5} + \frac{30.95^2}{5} + \frac{25.12^2}{5} + \frac{14.18^2}{5} + \frac{84.41^2}{5} - 1582.68 \\
 &= 668.07
 \end{aligned}$$

$$\text{Sum Square due to Error (SSE)} = \text{SST} - \text{SSC} = 2660.88 - 668.07 = 1992.81$$

Step 1: Null Hypothesis $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6$. There is no significant difference between the NPA levels of the Commercial Banks of Nepal.

Step 2 : Alternate Hypothesis : $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 \neq \mu_5 \neq \mu_6$. There is significant difference between the NPA levels of the Commercial Banks of Nepal.

One way Anova and Calculation of F

Causes of Variance	Sum Square	Degree of Freedom (D.F.)	Mean Sum Square	F-Ratio
Due to Column (between the banks)	SSC = 668.07	$C - 1$ $= 6 - 1 = 5$	$MSC = \frac{SSC}{C - 1} = \frac{668.07}{5}$ $= 133.614$	$F = \frac{MSC}{MSE} = \frac{133.614}{49.7}$
Due to Error (within the Banks)	SSE = 1192.81	$n - C$ $= 30 - 6 = 24$	MSE = $\frac{SSE}{n - C} = \frac{1192.81}{24}$ $= 49.7$	$= 2.6884$

Step 4 : Critical Value under H_1

The tabulated value of F with degree of freedom (5, 24) at 5% level of significance due to two tailed test is given by

$$F_{\text{tab}} = 2.62$$

Step 5 : Decision

$$F_{\text{cal}} > F_{\text{tab}}$$

.. H_1 is accepted.

.. There is significant difference between the levels of NPA among the six commercial banks.

Annex 9

Key indicators of Nabil Bank Ltd.

Particulars	Indicators	Financial Year					
		2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
1. Net Profit/Gross Income	%	16.67	29.18	31.92	34.33	36.32	32.18
2. Earnings Per Share	Rs	56.25	84.66	92.61	106.46	129.21	137.08
3. Market Value per Share	Rs	700	740	1,000	1,525	2,240	5,060
4. Price Earning Ratio	Times	12.67	8.74	10.80	14.27	17.34	36.84
5. Dividend (including bonus) on share capital	%	30.00	50.00	65.00	70.00	85.00	140.00
6. Cash Dividend on Share Capital	%	30.00	50.00	65.00	70.00	85.00	100.00
7. Interest Income/Loans & Advances	%	10.34	9.83	9.45	8.70	8.29	8.14
8. Employee Expense/Total Operating Expense	%	19.48	30.34	29.43	31.50	28.93	24.41
9. Interest Expense on Total Deposit and Borrowings	%	2.91	2.09	1.97	1.55	2.09	2.54
10. Exchange Gain/Total Income	%	9.41	10.09	11.03	12.24	10.31	10.02
11. Staff Bonus/ Total Employee Expenses	%	30.45	31.51	39.75	42.20	40.68	41.43
12. Net Profit/ Loans & Advances	%	3.51	5.27	5.33	5.32	5.24	4.62
13. Net Profit/ Total Assets	%	1.53	2.43	2.73	3.26	3.23	2.72
14. Total Credit/Deposit	%	50.31	60.34	60.55	75.25	68.63	68.13
15. Total Operating Expenses/Total Assets	%	4.20	4.06	3.69	3.73	3.66	3.97
16. Adequacy of Capital Fund on Risk Weighted Assets							
a. Core Capital	%	10.53	11.45	12.12	11.35	10.78	10.40
b. Supplementary Capital	%	3.33	1.60	1.44	1.26	1.52	1.84
c. Total Capital Fund	%	13.68	13.05	13.56	12.44	12.31	12.04
17. Liquidity (CRR)	%	6.78	8.51	8.97	6.93	3.26	8.00
18. Non Performing Loans/Total Loans	%	7.14	5.54	3.35	1.32	1.38	1.12
19. Weighted Average Interest Rate Spread	%	4.02	4.51	4.45	5.21	4.90	4.15
20. Book Net Worth per Share	Rs	233	267	301	327	361	418
21. Total Shares	Number	4,916,544	4,916,544	4,916,544	4,916,544	4,916,544	4,916,544
22. Total Employees	Number	362	325	372	426	441	427
23. Others							

Annex 10

Key indicators of Himalyan Bank for last five years

SNO.	PARTICULARS	UNIT	FY	FY	FY	FY	FY
			2001/2002 2058/2059	2002/2003 2059/2060	2003/2004 2060/2061	2004/2005 2061/2062	2005/2006 2062/2063
1	Net Profit/Total Income	Percent	28.96	27.51	30.75	32.98	35.16
2	Per Share Income	Rs.	60.26	49.45	49.05	47.91	59.24
3	Per Share Market Value	Rs.	1,000	836	840	920	1,100
4	Price Earning Ratio	Ratio	16.59	16.91	17.12	19.20	18.57
5	Dividend in Share Capital (Including Eonus)	Percent	35	25	20	31.58	35
6	Cash Dividend in Share Capital	Percent	25	1.32	0	11.58	30
7	Interest Income/Loan and Advances	Percent	12.89	11.08	9.64	10.75	10.32
8	Staff Expenses/Total Operating Expenses	Percent	48	39	40	41.95	41.57
9	Interest Expenses in Total Deposit	Percent	3.11	2.64	2.23	2.25	2.45
10	FX Fluctuation Gain/Total Income	Percent	12.89	7.54	7.40	7.80	9.42
11	Staff Bonus/Total Staff Expenses	Percent	27.63	24.98	23.45	24.53	22.28
12	Net Profit/Loan and Advances	Percent	2.64	2.12	2.20	2.48	3.12
13	Net Profit/Total Assets	Ratio	1.14	0.91	1.06	1.11	1.55
14	Total Loan/Deposits	Percent	47.89	47.61	54.30	50.07	55.27
15	Total Operating Expenses/Total Income	Percent	21.31	23.19	27	29.19	30.02
16	Capital Adequacy Ratio:						
	A. Core Capital	Percent	6.55	7.07	7.69	8.33	8.65
	B. Supplementary Capital	Percent	5.01	3.85	2.96	2.68	2.62
	C. Total Capital Fund	Percent	11.56	10.93	10.65	11.01	11.26
17	Liquidity (CRR)	Ratio	11.69	6.30	8.28	7.85	5.92
18	Non-performing Loan/Total Loan	Percent	12.10	10.08	8.88	7.44	6.60
19	Weighted Average Interest Rate Spread	Percent	3.53	3.33	3.25	3.19	3.80
20	Book Networth	Rs.	220.02	247.81	246.93	239.59	228.72
21	Total Shares	Number	3,900,000	4,290,000	5,362,500	6,435,000	7,722,000
22	Total Staff	Number	357	385	455	501	561

Annex 11

Key indicators of Machhapuchhre Bank Ltd. for last five years

विवरण	सूचकांक	आ. व.	आ. व.	आ. व.	आ. व.	आ. व.
		२०१८-२०१९	२०१९-२०२०	२०२०-२०२१	२०२१-२०२२	२०२२-२०२३
१. स्व. नाफा/कुल आयानी प्रतिभत	प्रतिभत	(११)०७	१०,१३	१९,१६	१९,०२	२०,००
२. प्रति शेयर आयानी	रु.	-	२.०१	२.१९	१५.१३	१८.७५
३. प्रति शेयर बन्जर मूल्य	रु.	-	१००.००	१२५.००	२३०.००	३२०.००
४. मूल्य आयानी अनुपात (PE Ratio)	अनुपात	-	३५.११	१७.७२	१६.३६	१७.००
५. शेयर पूजीमा नगद सामारा (बोनस रुद्रित)	प्रतिभत	-	-	-	-	१५.७५
६. शेयर पूजीमा नगद सामारा भुक्तानी	प्रतिभत	-	-	-	-	०.७९
७. व्याज आयानी/कर्जा तथा सापट	प्रतिभत	१०.७०	८.३९	७.८७	७.१६	८.८०
८. कर्मचारी खर्च/कुल सञ्चालन खर्च	प्रतिभत	३३.७५	१३.६६	११.३०	१०.७०	१०.३९
९. कुल निक्षेप तथा सापटीमा व्याज खर्च	प्रतिभत	६.५०	४.००	३.९०	३.६६	३.६०
१०. बटोरी प्रदत्त आयानी/कुल आयानी	प्रतिभत	४.०२	(०.२५)	२.२२	२.६५	५.२९
११. कर्मचारी बोनस/कुल कर्मचारी खर्च	प्रतिभत	-	९.७६	२६.१*	१३.१०	३०.७०
१२. स्व. नाफा/कर्जा सापट	प्रतिभत	(२.४७)	१.०२	१.०४	१.६५	२.१०
१३. स्व. नाफा/कुल सम्पति	अनुपात	(३.०३)	०.६५	१.३५	१.३१	१.५०
१४. कुल कर्जा/निक्षेप	प्रतिभत	६५.८५	८४.०९	९२.५४	९१.०३	७७.८७
१५. कुल सञ्चालन खर्च/कुल सम्पति	प्रतिभत	३.९७	५.३२	५.१०	४.२०	५.२१
१६. जीविस भरित सम्पतिमा पूजीकोषको पर्याप्तता						
(क) प्राथमिक पूजी कोष	प्रतिभत	७.९९	२३.९०	१७.०*	१०.१२	११.९५
(ख) पूरक पूजी कोष	प्रतिभत	२.६९	०.७७	०.००	०.८५	०.८५
(ग) कुल पूजी कोष	प्रतिभत	१०.६८	२४.७१	१७.००	११.३६	१२.७९
१७. तरलता (CRR)	अनुपात	२.०१	४.९०	४.९*	८.२७	५.१०
१८. निष्कृ कर्जा/कुल कर्जा	प्रतिभत	१०.५५	२.००	०.९०	०.३६	०.२०
१९. व्याज दर अन्तर (Weighted Average Interest Rate Spread)	प्रतिभत	४.३६	३.४०	३.७०	३.९७	३.५०
२०. बुक नेटवर्थ	रु.	७९,१४,०३३	५०१,७०५,०९०	५५४,२२१,०५३	६३७,७३९,३८५	९३१,०९१,३९७
२१. कुल शेयर	संख्या	१,३६३,००१	५,५५१,७५०	५,५००,०००	५,५००,०००	५,१५०,०००
२२. कुल कर्मचारी	संख्या	६६	७५	८५	९३	११६
२३. प्रति कर्मचारी उत्पादकत्व	रु. हजारमा	१५१.६६	३०४.१*	५४२.२९	६१९	६०६.६६
२४. प्रति शेयर किलाबी मूल्य	रु.	५०.५०	९२.२०	१००.७७	११९.९५	१३०.२२

Annex 12

Key indicators of Nepal Industrial and Commercial Bank

	Indicators	FY 2001/02	FY 2002/03	FY 2003/04	FY 2004/05	FY 2005/06
1.	Percent of Net Profit/Gross Income	4.97	14.31	29.28	38.89	30.68
2.	Earning Per Share	NPR 1.36	5.19	13.65	22.75	16.10
3.	Market Value Per Share	NPR 245	220	219	366	496
4.	Price Earning Ratio	179.55	42.43	15.97	14.09	30.81
5.	Dividend (including bonus) on Share Capital	Percent -	-	-	30.00	10.53
6.	Cash Dividend on Share Capital	Percent -	-	-	10.00	0.53
7.	Interest Income/Loans and Advances	Percent 10.56	9.74	9.40	8.72	8.04
8.	Staff Expenses/Total Operating Expenses	Percent 9.89	14.89	13.23	11.32	10.27
9.	Interest Expenses/Total Deposits and Borrowings	Percent 4.23	4.57	4.45	5.89	4.08
10.	Exchange Gain/Total Income	Percent 5.58	(0.01)	0.90	0.34	0.38
11.	Total Cost/Total Revenue	Percent 52.24	45.71	35.46	30.98	32.67
12.	Staff Bonus/Total Staff Expenses	Percent 3.49	13.31	10.53	46.93	30.20
13.	Staff Cost/Per Employee	NPR 212,516	264,272	251,616	248,130	214,061
14.	Net Profit/Per Employee	NPR 53,709	202,673	487,578	724,599	581,853
15.	Total Credit/Deposits	Percent 74.84	81.51	82.73	78.66	78.74
16.	Total Operating Expenses/Total Assets	Percent 7.18	5.53	3.69	4.22	4.27
17.	Adequacy of Capital Fund on Risk Weighted Assets					
	Core Capital	Percent 13.54	17.44	12.92	11.37	9.94
	Supplementary Capital	Percent 2.36	1.43	0.83	0.92	3.80
	Total Capital Fund	Percent 20.90	18.37	13.75	13.29	13.54
18.	Liquidity (CRR)	Percent 14.66	9.01	6.53	1.07	6.10
19.	Gross Non-Performing Credit/Total Credit	Ratio 3.16	6.66	3.92	3.78	2.60
20.	Net Non-Performing Credit/Total Credit	Ratio 5.28	2.33	0.02	0.82	0.06
21.	Weighted Average Interest Rate Spread	Percent 3.02	4.08	3.06	3.33	2.74
22.	Return on Total Assets	Percent 0.17	0.36	1.37	1.69	1.08
23.	Return on Equity	Percent 1.31	4.81	11.64	17.44	13.29
24.	Book Net Worth	NPR 526,096	552,079	620,398	684,194	736,462
25.	Number of Shares	4,998,900	4,999,545	4,999,995	5,000,300	6,000,000
26.	Number of Staff	127	128	140	157	186