

CHAPTER 5

FINANCIAL CRISIS AND CAPITAL FLIGHT FOR THE SIX SELECTED COUNTRIES

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- ***CAPITAL ACCOUNT LIBERALIZATION AND ESTIMATED
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CHAPTER 5

FINANCIAL CRISIS AND CAPITAL FLIGHT FOR THE SIX SELECTED COUNTRIES

5.1: INTRODUCTION

Financial crisis often caused a significant deterioration in growth, fiscal and trade balance, price stability. Macroeconomic variables noticeably improved when the crisis was being resolved. From the discussion of the previous chapter it is clear that the financial position of a country is naturally reflected on some macro variables. Specifically external debt, price index, overall balance position and the growth rate of GDP are the basic indicators of the economies financial position. Let us take a look into some of the Macro- economic indicators of our selected countries over the period of study (1987-2004-06). Here we place the relevant table and graph for each of the countries to show the change in these variables before the financial crisis, during the crisis and after the crisis. On this background the macroeconomic position of our six selected countries are depicted here in this part of the study.

In each case the tabular presentation is done for the basic macroeconomic indicators over the period of study, then the graphical presentation is done for the same and finally there is the statistical analysis representing the relation with CF and OI. Therefore CF is linked with the other macroeconomic variables along with OI (the data regarding CF and OI are drawn from CHAPTER 3 of this present study). The regression equation and the correlation for each of the variables with the other are shown below.

The correlation for among these variables is also drawn here.

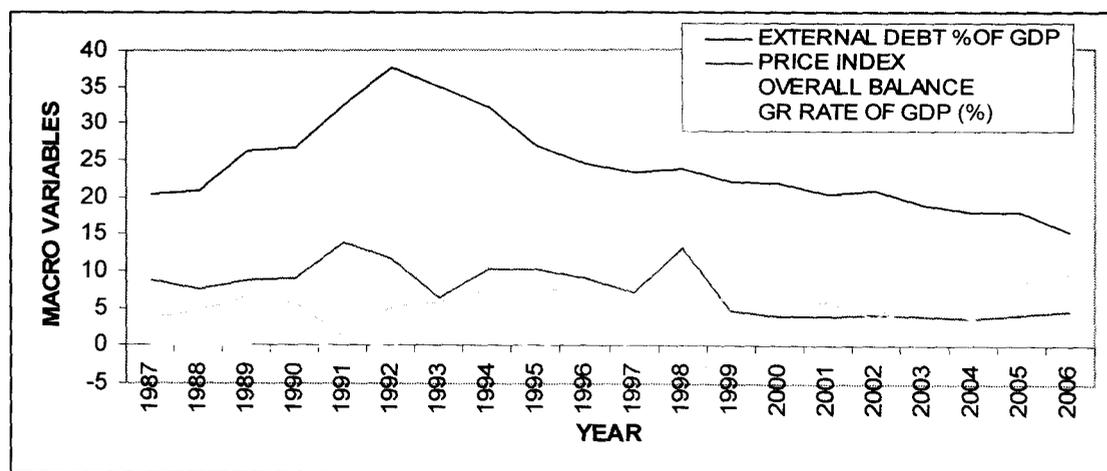
5.2: STATISTICAL ANALYSIS OF FINANCIAL CRISIS AND CF

5.2.1 INDIA:

TABLE 5.1: MACROECONOMIC POSITION OF INDIA

YEAR	EXTERNAL DEBT %OF GDP	PRICE INDEX	OVERALL BALANCE	GR RATE OF GDP (%)
1987	20.5	8.8	0.0	3.8
1988	21.0	7.7	0	4.6
1989	26.1	8.8	0.1	6.7
1990	26.7	9.0	-0.8	5.6
1991	32.5	13.8	0.9	1.3
1992	37.6	11.8	-0.2	5.1
1993	34.9	6.4	3.0	5.9
1994	32.2	10.2	1.8	7.3
1995	26.9	10.2	-0.3	7.3
1996	24.5	9.0	1.7	7.8
1997	23.2	7.2	1.1	4.8
1998	23.8	13.2	1.0	6.5
1999	22.2	4.7	1.4	6.1
2000	21.9	4.0	1.3	4.4
2001	20.5	3.9	2.4	5.8
2002	21.0	4.1	3.4	3.8
2003	19.0	4.0	5.3	8.5
2004	18	3.7	3.8	7.5
2005	18.0	4.2	1.9	8.4
2006	15.4	4.7	4.0	9.4

FIG. 5.1: GRAPHICAL REPRESENTATION OF INDIA'S MACROECONOMIC POSITION



Regression Analysis: CF versus EXT DEBT, PR INDX, OVRL BLNCE, GDP GR, OI (INDIA)

The regression equation is

$$CF = - 0.0086 + 0.00737 \text{ EXT DEBT} - 0.00062 \text{ PR INDX} - 0.00183 \text{ OVRL BLNCE} + 0.00095 \text{ GDP GR} + 0.168 \text{ OI}$$

Predictor	Coef	SE Coef	T	P
Constant	-0.00859	0.03760	-0.23	0.823
EXT DEBT	0.0073738	0.0009805	7.52	0.000
PR INDX	-0.000615	0.002027	-0.30	0.767
OVRL BLN	-0.001828	0.004182	-0.44	0.670
GDP GR	0.000949	0.002592	0.37	0.721
OI	0.1682	0.1467	1.15	0.274

S = 0.01741 R-Sq = 87.3% R-Sq(adj) = 82.1%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	5	0.0250959	0.0050192	16.56	0.000
Residual Error	12	0.0036381	0.0003032		
Total	17	0.0287339			

Source	DF	Seq SS
EXT DEBT	1	0.0243231
PR INDX	1	0.0002176
OVRL BLN	1	0.0000530
GDP GR	1	0.0001034
OI	1	0.0003987

Unusual Observations

Obs	EXT DEBT	CF	Fit	SE Fit	Residual
6	37.6	0.26089	0.29172	0.01123	-0.03083
					-2.32R

R denotes an observation with a large standardized residual

Durbin-Watson statistic = 1.33

Possible curvature in variable OI (P-Value = 0.035)

Overall lack of fit test is significant at P = 0.035

Correlations: EXT DEBT, PR INDX, OVRL BLNCE, GDP GR, CF, OI (INDIA)

	EXT DEBT	PR INDX	OVRL BLN	GDP GR	CF
PR INDX	0.630 0.005				
OVRL BLN	-0.338 0.171	-0.627 0.005			
GDP GR	-0.175 0.488	-0.229 0.361	0.342 0.164		
CF	0.920 0.000	0.512 0.030	-0.231 0.357	-0.080 0.753	
OI	-0.462 0.053	-0.621 0.006	0.741 0.000	0.372 0.128	-0.289 0.245

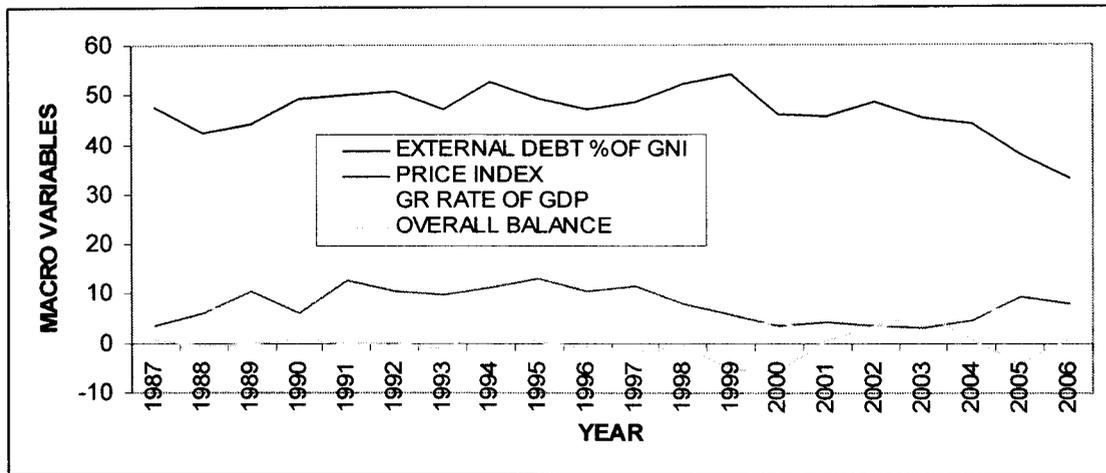
Cell Contents: Pearson correlation

5.2.2: PAKISTAN

TABLE 5.2: MACROECONOMIC POSITION OF PAKISTAN

YEAR	EXTERNAL DEBT %OF GNI	PRICE INDEX	GR RATE OF GDP	OVERALL BALANCE
1987	47.4	3.6	6.5	0.8
1988	42.5	6.3	7.6	-0.4
1989	44.1	10.4	5.0	0.0
1990	49.5	6.0	4.5	1.0
1991	50.2	12.7	5.5	0.0
1992	50.7	10.6	7.3	0.3
1993	47.3	9.9	1.8	-1.2
1994	52.6	11.2	3.7	3.1
1995	49.5	13.1	5.0	0.4
1996	47.3	10.7	4.8	-0.7
1997	48.6	11.8	1.0	-1.7
1998	52.4	7.8	2.6	-0.5
1999	54.3	5.7	3.7	-5.3
2000	45.9	3.6	4.3	-5.5
2001	45.7	4.4	1.9	0.5
2002	48.7	3.5	3.2	3.6
2003	45.4	3.1	5.1	6.3
2004	44.4	4.6	6.0	0.8
2005	37.9	9.3	7.7	-4.0
2006	33.4	7.9	6.9	1.0

FIG. 5.2: GRAPHICAL REPRESENTATION OF PAKISTAN'S MACROECONOMIC POSITION



Regression Analysis: CF versus EXT DEBT, PR INDX, OVRL BLNCE, GDP GR, OI (PAKISTAN)

The regression equation is

$$CF = -0.0314 + 0.00911 \text{ EXT DEBT} + 0.00165 \text{ PR INDX} + 0.00724 \text{ OVRL BLNCE} - 0.00863 \text{ GDP GR} + 0.168 \text{ OI}$$

Predictor	Coef	SE Coef	T	P
Constant	-0.03144	0.07694	-0.41	0.689
EXT DEBT	0.009113	0.001972	4.62	0.000
PR INDX	0.001649	0.001792	0.92	0.372
OVRL BLN	0.007236	0.003440	2.10	0.053
GDP GR	-0.008634	0.002583	-3.34	0.004
OI	0.1682	0.1369	1.23	0.238

S = 0.02636 R-Sq = 89.3% R-Sq(adj) = 85.7%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	5	0.087103	0.017421	25.07	0.000
Residual Error	15	0.010424	0.000695		
Total	20	0.097527			

No replicates. Cannot do pure error test.

Source	DF	Seq SS
EXT DEBT	1	0.066667

PR INDX	1	0.000405
OVRL BLN	1	0.005775
GDP GR	1	0.013207
OI	1	0.001049

Durbin-Watson statistic = 2.60

No evidence of lack of fit (P > 0.1)

**Correlations: EXT DEBT, PR INDX, OVRL BLNCE, GDP GR, CF, OI
(PAKISTAN)**

	EXT DEBT	PR INDX	OVRL BLN	GDP GR	CF
PR INDX	0.100 0.667				
OVRL BLN	0.177 0.444	-0.136 0.556			
GDP GR	-0.351 0.118	0.009 0.970	-0.051 0.826		
CF	0.827 0.000	0.147 0.526	0.373 0.096	-0.627 0.002	
OI	0.684 0.001	0.220 0.337	0.376 0.093	-0.503 0.020	0.814 0.000

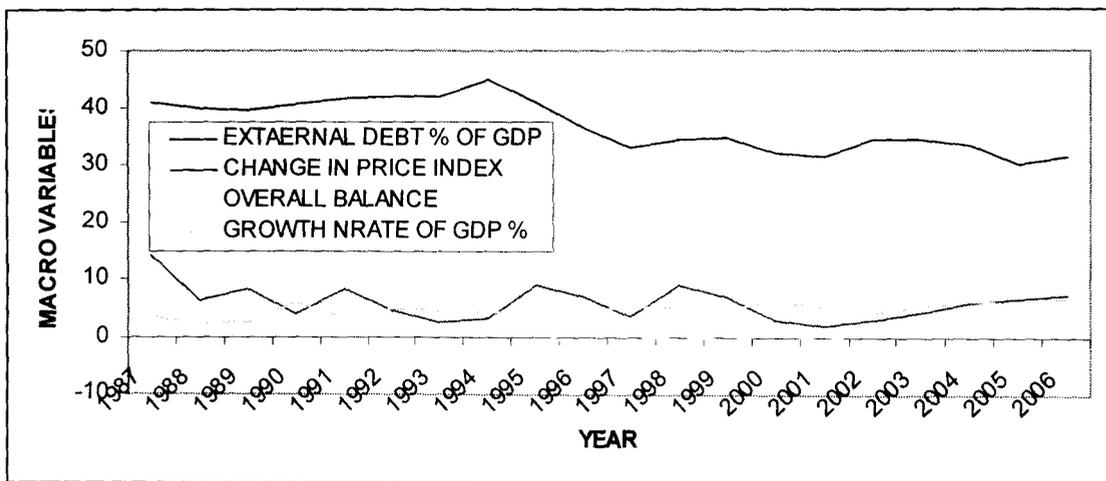
Cell Contents: Pearson correlation P-Value

5.2.3: BANGLADESH

TABLE 5.3: MACROECONOMIC POSITION OF BANGLADESH

YEAR	EXTRAERNAL DEBT % OF GDP	CHANGE IN PRICE INDEX	OVERALL BALANCE	GROWTH NRATE OF GDP %
1987	40.7	13.9	2.1	3.7
1988	39.78	6.3	1.7	2.1
1989	39.5	8.4	1.3	2.7
1990	40.4	3.9	0.5	5.9
1991	41.6	8.3	2.2	3.3
1992	41.8	4.6	1.7	5.0
1993	41.8	2.7	1.5	4.6
1994	44.9	3.3	2.4	4.1
1995	40.7	8.9	1.2	4.9
1996	36.6	7.0	-2.6	4.6
1997	33.0	3.7	-0.4	5.4
1998	34.4	9.0	0.1	5.2
1999	34.9	7.0	-0.4	4.9
2000	32.1	2.8	0.4	5.9
2001	31.4	1.9	-0.6	5.3
2002	34.3	2.8	0.9	4.4
2003	34.3	4.4	1.6	5.3
2004	33.5	5.8	0.3	6.3
2005	30.0	6.5	0.1	6.0
2006	31.2	7.2	0.6	6.7

FIG.5.3: GRAPHICAL REPRESENTATION OF BANGLADESH'S MACROECONOMIC POSITION



3. Regression Analysis: CF versus EXT DEBT, PR INDX, OVRL BLNCE, GDP GR, OI (BANGLADESH)

The regression equation is

$$CF = 0.0283 + 0.00770 \text{ EXT DEBT} + 0.000877 \text{ PR INDX} + 0.00200 \text{ OVRL BLNCE} + 0.00240 \text{ GDP GR} + 0.0805 \text{ OI}$$

Predictor	Coef	SE Coef	T	P
Constant	0.02827	0.03841	0.74	0.476
EXT DEBT	0.0077035	0.0007425	10.38	0.000
PR INDX	0.0008771	0.0005837	1.50	0.159
OVRL BLN	0.001999	0.001694	1.18	0.261
GDP GR	0.002399	0.001973	1.22	0.247
OI	0.08054	0.06025	1.34	0.206

S = 0.006527 R-Sq = 96.5% R-Sq(adj) = 95.1%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	5	0.0141632	0.0028326	66.49	0.000
Residual Error	12	0.0005113	0.0000426		
Total	17	0.0146744			

Source	DF	Seq SS
EXT DEBT	1	0.0138925
PR INDX	1	0.0000141
OVRL BLN	1	0.0000153
GDP GR	1	0.0001652
OI	1	0.0000761

Durbin-Watson statistic = 2.41

Correlations: EXT DEBT, PR INDX, OVRL BLNCE, GDP GR, CF, OI (BANGLADESH)

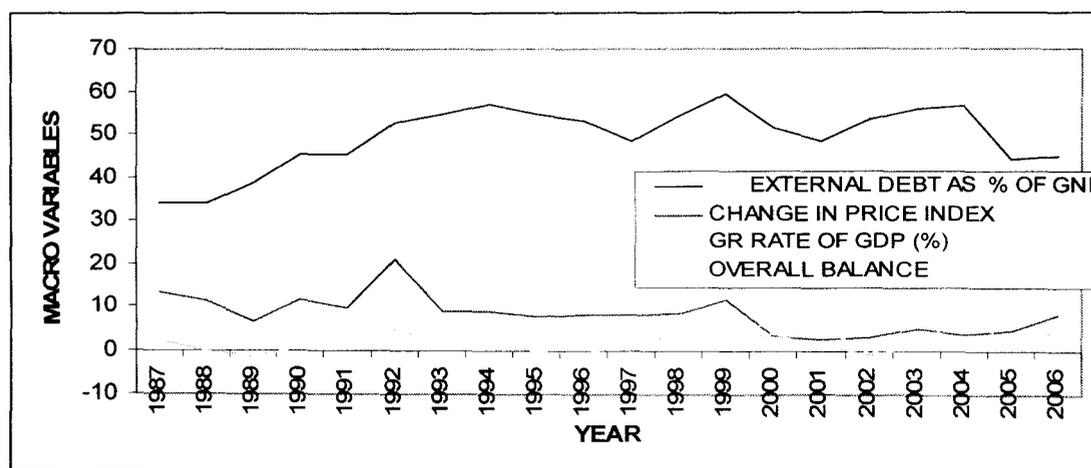
	EXT DEBT	PR INDX	OVRL BLN	GDP GR	CF
PR INDX	0.275				
	0.269				
OVRL BLN	0.635	0.157			
	0.005	0.533			
GDP GR	-0.525	-0.408	-0.438		
	0.025	0.093	0.069		
CF	0.973	0.297	0.643	-0.439	
	0.000	0.231	0.004	0.068	
OI	-0.840	-0.415	-0.629	0.677	-0.773
	0.000	0.086	0.005	0.002	0.000

5.2.4: NEPAL

TABLE 5.4: MACROECONOMIC POSITION OF NEPAL

YEAR	EXTERNAL DEBT AS % OF GNI	CHANGE IN PRICE INDEX	GR RATE OF GDP (%)	OVERALL BALANCE
1987	33.8	13.3	1.7	2.2
1988	33.8	11.1	7.9	-0.2
1989	38.7	6.3	4.4	-1.3
1990	45.1	11.5	4.5	0.6
1991	45.2	9.8	6.6	5.1
1992	52.9	21.1	4.3	4.4
1993	54.8	8.8	3.5	1.9
1994	57.1	9.0	8.6	1.6
1995	54.9	7.6	3.3	-0.1
1996	53.2	8.1	5.3	-0.4
1997	48.5	8.1	5.3	1.2
1998	54.4	8.3	2.9	3.9
1999	59.3	11.4	4.5	2.9
2000	51.6	3.5	6.1	3.9
2001	48.5	2.4	5.6	1.3
2002	53.5	2.9	-0.6	-0.8
2003	55.7	4.8	3.2	0.9
2004	56.8	3.9	3.5	8.8
2005	44.3	4.5	2.4	1.1
2006	45.0	8.0	2.4	5.0

FIG.5.4: GRAPHICAL REPRESENTATION OF NEPAL'S MACROECONOMIC POSITION



Regression Analysis: CF versus EXT DEBT, PR INDX, OVRL BLNCE, GDP GR, OI (NEPAL)

The regression equation is

$$CF = - 0.0053 + 0.00952 \text{ EXT DEBT} - 0.00171 \text{ PR INDX} - 0.00343 \text{ OVRL BLNCE} + 0.00173 \text{ GDP GR} - 0.069 \text{ OI}$$

Predictor	Coef	SE Coef	T	P
Constant	-0.00527	0.05406	-0.10	0.924
EXT DEBT	0.009517	0.001651	5.76	0.000
PR INDX	-0.001712	0.001990	-0.86	0.403
OVRL BLN	-0.003429	0.003684	-0.93	0.367
GDP GR	0.001729	0.003294	0.52	0.607
OI	-0.0688	0.1624	-0.42	0.678

S = 0.03280 R-Sq = 87.1% R-Sq(adj) = 82.8%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	5	0.108740	0.021748	20.21	0.000
Residual Error	15	0.016142	0.001076		
Total	20	0.124881			

Source	DF	Seq SS
EXT DEBT	1	0.105786
PR INDX	1	0.000654
OVRL BLN	1	0.001722
GDP GR	1	0.000385
OI	1	0.000193

Durbin-Watson statistic = 1.25

Correlations: EXT DEBT, PR INDX, OVRL BLNCE, GDP GR, CF, OI (NEPAL)

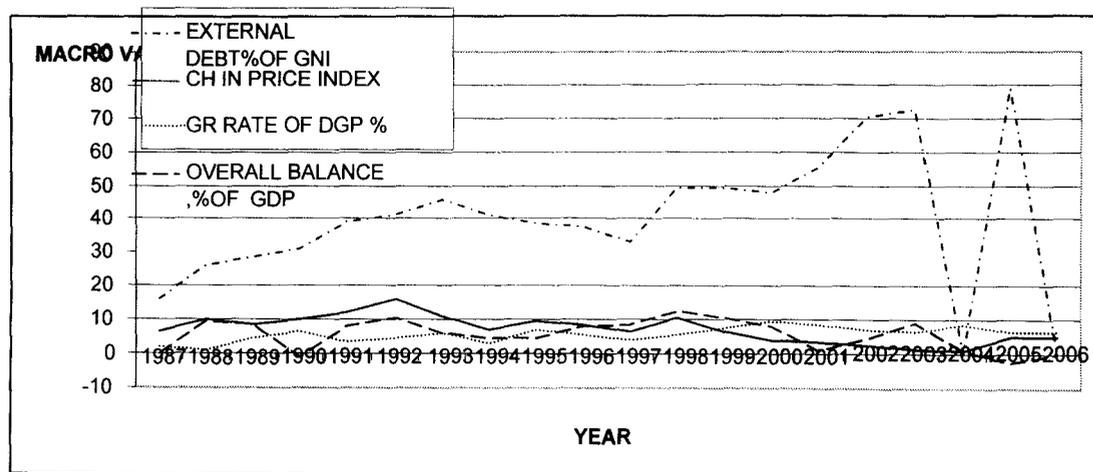
	EXT DEBT	PR INDX	OVRL BLN	GDP GR	CF
PR INDX	-0.214				
	0.352				
OVRL BLN	0.094	0.082			
	0.686	0.722			
GDP GR	0.210	0.145	-0.007		
	0.360	0.530	0.977		
CF	0.920	-0.267	-0.037	0.238	
	0.000	0.241	0.872	0.298	
OI	0.787	-0.413	0.289	0.029	0.690
	0.000	0.063	0.204	0.900	0.001

5.2.5: BHUTAN

TABLE 5.4: MACROECONOMIC POSITION OF BHUTAN

YEAR	EXTERNAL DEBT%OF GNI	CH IN PRICE INDEX	GR RATE OF DGP %	OVERALL BALANCE ,%OF GDP
1987	16.3	6.4	1.9	NA
1988	26.2	10.1	1.0	9.7
1989	28.8	8.8	4.7	8.5
1990	31.4	10.0	6.6	-1.1
1991	39.2	12.3	3.5	8.0
1992	41.1	16.0	4.5	10.5
1993	45.6	11.2	6.1	6.1
1994	41.2	7.0	2.9	4.7
1995	38.7	9.5	7.3	4.8
1996	37.9	8.8	5.8	8.0
1997	33.0	6.5	4.2	8.6
1998	49.3	10.6	5.8	12.5
1999	49.2	6.8	7.8	10.6
2000	47.7	4.0	9.5	7.9
2001	55.4	3.4	8.6	1.0
2002	70.6	2.5	7.1	4.8
2003	72.2	1.8	6.8	8.9
2004	NA	1.3	8.7	1.2
2005	79.0	5.1	6.8	-2.5
2006	NA	5.0	6.5	NA

FIG.5.5: GRAPHICAL REPRESENTATION OF BHUTAN'S MACROECONOMIC POSITION



Regression Analysis: CF versus EXT DEBT, PR INDX, OVRL BLNCE, GDP GR, OI (BHITAN)

The regression equation is

$$CF = -0.238 + 0.0139 \text{ EXT DEBT} - 0.0011 \text{ PR INDX} + 0.0210 \text{ OVRL BLNCE} + 0.0096 \text{ GDP GR} - 0.313 \text{ OI}$$

17 cases used 2 cases contain missing values

Predictor	Coef	SE Coef	T	P
Constant	-0.2380	0.2596	-0.92	0.379
EXT DEBT	0.013914	0.003586	3.88	0.003
PR INDX	-0.00113	0.01089	-0.10	0.919
OVRL BLN	0.02099	0.02042	1.03	0.326
GDP GR	0.00964	0.01192	0.81	0.436
OI	-0.3132	0.2504	-1.25	0.237

S = 0.1260 R-Sq = 81.3% R-Sq(adj) = 72.8%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	5	0.75891	0.15178	9.56	0.001
Residual Error	11	0.17471	0.01588		
Total	16	0.93362			

No replicates. Cannot do pure error test.

Source	DF	Seq SS
EXT DEBT	1	0.72983
PR INDX	1	0.00103
OVRL BLN	1	0.00321
GDP GR	1	0.00000
OI	1	0.02485

Unusual Observations

Obs	EXT DEBT	CF	Fit	SE Fit	Residual
8	45.6	0.0613	0.3285	0.0538	-0.2672
					-2.35R

R denotes an observation with a large standardized residual

Durbin-Watson statistic = 2.52

No evidence of lack of fit (P > 0.1)

**Correlations: EXT DEBT, PR INDX, OVRL BLNCE, GDP GR, CF, OI
(BHUTAN)**

	EXT DEBT	PR INDX	OVRL BLN	GDP GR	CF
PR INDX	-0.488 0.040				
OVRL BLN	0.610 0.007	-0.548 0.015			
GDP GR	-0.003 0.992	0.269 0.280	-0.267 0.283		
CF	0.900 0.000	-0.562 0.012	0.642 0.003	-0.161 0.524	
OI	-0.016 0.951	0.056 0.820	0.237 0.329	0.514 0.029	-0.131 0.593

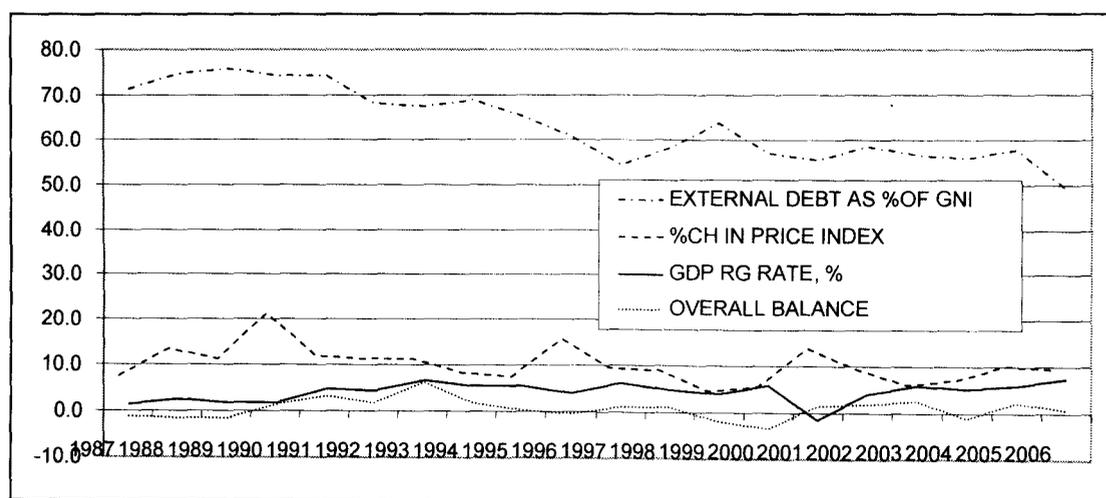
Cell Contents: Pearson correlation
P-Value

5.2.6: SRI LANKA

TABLE 5.6: MACROECONOMIC POSITION OF SRI LANKA

YEAR	EXTERNAL DEBT AS %OF GNI	%CH IN PRICE INDEX	GDP RG RATE, %	OVERALL BALANCE
1987	71.4	7.7	1.6	-1.0
1988	74.8	14.0	2.8	-1.3
1989	75.9	11.6	2.0	-1.3
1990	74.6	21.5	2.0	1.5
1991	74.6	12.2	4.8	3.2
1992	68.0	11.4	4.4	2.0
1993	67.5	11.7	6.9	6.4
1994	68.9	8.4	5.6	2.0
1995	65.1	7.7	5.5	0.4
1996	60.6	15.9	4.0	-0.5
1997	54.4	9.6	6.4	1.1
1998	57.9	9.4	4.7	1.0
1999	63.7	4.7	4.3	-1.7
2000	57.1	6.2	6.0	-3.2
2001	55.3	14.2	-1.5	1.4
2002	58.6	9.6	4.0	2.0
2003	56.7	6.3	6.0	2.8
2004	55.8	7.6	5.4	-1.0
2005	57.5	10.6	6.0	2.1
2006	49.3	9.6	7.4	0.8

FIG.5.6: GRAPHICAL REPRESENTATION OF SRI LANKA'S MACROECONOMIC POSITION



Regression Analysis: CF versus EXT DEBT, PR INDX, OVRL BLNCE, GDP GR, OI (SRI LANKA)

The regression equation is
 $CF = 0.767 + 0.00167 \text{ EXT DEBT} - 0.00177 \text{ PR INDX} - 0.00167 \text{ OVRL BLNCE} - 0.00682 \text{ GDP GR} - 0.471 \text{ OI}$

Predictor	Coef	SE Coef	T	P
Constant	0.7674	0.1224	6.27	0.000
EXT DEBT	0.0016696	0.0009389	1.78	0.101
PR INDX	-0.001771	0.001382	-1.28	0.224
OVRL BLN	-0.001669	0.002856	-0.58	0.570
GDP GR	-0.006825	0.002219	-3.08	0.010
OI	-0.4707	0.1162	-4.05	0.002

S = 0.01744 R-Sq = 89.5% R-Sq(adj) = 85.1%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	5	0.0310485	0.0062097	20.41	0.000
Residual Error	12	0.0036511	0.0003043		
Total	17	0.0346996			

No replicates. Cannot do pure error test.

Source	DF	Seq SS
EXT DEBT	1	0.0193023
PR INDX	1	0.0006249
OVRL BLN	1	0.0048725
GDP GR	1	0.0012568
OI	1	0.0049919

Unusual Observations

Obs	EXT DEBT	CF	Fit	SE Fit	Residual
4	74.6	0.58371	0.55727	0.01245	0.02644
2.16R					

R denotes an observation with a large standardized residual

Durbin-Watson statistic = 2.13

No evidence of lack of fit (P > 0.1)

**Correlations: EXT DEBT, PR INDX, OVRL BLNCE, GDP GR, CF, OI
(SRI LANKA)**

	EXT DEBT	PR INDX	OVRL BLN	GDP GR	CF
PR INDX	0.402 0.098				
OVRL BLN	-0.244 0.330	-0.481 0.043			
GDP GR	0.065 0.797	0.229 0.360	0.249 0.320		
CF	0.746 0.000	0.177 0.481	-0.454 0.059	-0.302 0.223	
OI	-0.775 0.000	-0.385 0.114	0.437 0.069	-0.109 0.666	-0.839 0.000

Cell Contents: Pearson correlation
P-Value

The chart suggests that the average economic growth declined by almost 4 to 5 per cent between the period of economic set back and the recovery. The time periods vary from country to country depending on their economic performances. After the recovery the growth moved upward strongly, averaged over 5% in the following periods. The overall deficit also shows the similar trend as the growth rate in the economic downfall and the recovery phases. The recovery of deficits takes a longer time than the recovery of growth rate. The chart also shows that the rise in average inflation before and during the economic fall out and stabilization policies brought down the inflation lower. No country experienced deflation during the period.

Then we consider Capital Flight along with these macroeconomic variables over the study period for the selected countries. The statistical analysis considers a linear regression equation where Capital Flight as a function of countries External Debt (taken as percentage of GNI), percentage growth rate of GDP, changes in average price level (inflation rate), country's Overall Balance and Openness Index (as described earlier – ratio of total foreign trade to GDP). The calculation of Capital Flight is done earlie, here we just apply those results.

The Domestic macroeconomic and regulatory problems are amongst the key causes of Capital Flow

The factors contributing to financial crisis in and the consequent Flight of Capital seem quite well-known by now—although the debate on the division of responsibility between the different elements is likely to continue for some time (IMF, WEO, December 1997 and October 1998; World Bank, 1998). Most observers stress domestic policy errors as the prime cause of contributing an illegal economy that caused Capital Outflow which is not generally captured in normal BOP accounts, which also on the other hand precipitated the financial crisis. In these six countries of the South Asian region, however, the financial sector was relatively under-developed and weak to begin with. Governments attempted to promote domestic industrial and service producers through directed lending to priority sectors, interest ceilings and state-run financial institutions. To facilitate the implicit subsidization of various producers through the financial sector it had to restrict international competition. In addition, financial sector interventions were influenced for political and personal reasons.

In some cases a bubble economy emerged in the beginning of 1990s and in cases of Bangladesh and Sri Lanka it was in the mid 1990s, when strong private credit extension coupled with weak prudential regulation and supervision, provoked “risky” lending and declining investment productivity. In fact, current account deficits (an indicator of domestic excess demand) became quite large and, over the years, accumulated to considerable external debt in some countries. Initially, nontransparent accounting and corporate governance structures made it possible to obscure growing financial and corporate sector problems. When the bubble ultimately burst and banks and enterprises got into difficulties, weak or absent bankruptcy laws and procedures made things worse.

When (poorly informed) international investors ultimately recognized that they had invested in a bubble economy, and debt had reached a magnitude which undermined the credibility of the implicit government guarantees, domestic and foreign “capital flight” set in. Underdeveloped financial markets made things worse [that had happened in Indonesia and the Republic of Korea in time of Asian crisis], where foreign financing was heavily skewed towards short-term lending. When large amounts of foreign short-term liabilities became due, and markets became illiquid, staggering exchange rate depreciations and near-debt defaults in these two countries followed. This resulted in severe liquidity shortages, affecting virtually all financial transaction.

Sometimes the flow of this capital finances an inflow: China and India are examples. In India resident capital outflows financed the smuggling of gold into the country in the pre-gold liberalization period. ²⁹ In China, the outflows returned in the guise of foreign direct investment arbitraging a tax differential³⁰. This aspect cannot be gauged by merely observing the estimated series. Country specific analysis is also needed.

5.3: CAPITAL ACCOUNT LIBERALISATION AND ESTIMATED OUTFLOWS

It is reasonable to expect that with capital account liberalization, estimated resident capital outflows would go down legal channels now available to transfer capital abroad. Twelve countries are used as an illustration to examine this expectation. Table 5.7 summarizes the timing of liberalization and the behaviour of estimated flows.

TABLE 5.7: DOES LIBERALISATION OF THE CURRENT AND CAPITAL ACCOUNT AFFECT ESTIMATES OF RESIDENT, HOT MONEY FLOWS AND MISINVOICING? AN ANALYSIS OF SELECTED COUNTRIES.

Country	Cap. Account Liberalization	Resident Capital Flows	Under & Over Invoicing	Hot money Flows
India 1994	Gradual liberalization of inflows since 1990s	Both inflows & outflows seen. Continuous repatriation since 1996	A tendency to under-invoice exports and over-invoice imports. Repatriation in some years including 1993-96	Tendency towards inflows since 1984. Outflows registered in 1996 and 1997
Bangladesh 1995-96	Inflow liberalized in mid 1980s, out flow in early 1990s	Both inflows and outflows seen. Repatriation observed after liberalization till 1993 and 1996, otherwise outflows	Frequent change in sign. Overall, after liberalization of the capital account, a tendency for capital to leave.	Tendency towards inflows
Pakistan 1994-95	Gradual liberalization of in & out flow since 1995	Both inflows and outflows in the entire period	Outflows of capital through this channel throughout	Inflows in most years since 1993. A slight turn around after 1998.

(TABLE 5.7 CONT.)

Country	Cap. Account Liberalization	Resident Capital Flows	Under & Over Invoicing	Hot money Flows
Nepal 1996-97	Complete liberalization in 1997	Inflows and outflows have occurred both with the closed and open capital account.	Throughout the Period a general tendency for underinvoicing exports and underinvoicing imports. No relationship to liberalization discernible	Frequent change in signs. No obvious trend
Bhutan	1994-95	Continuous repatriations, inflow and outflow	Tendency of Misinvoicing throughout	No specific trend follows
Sri Lanka	1993-4	Continuous outflow and inflow	Outflow of capital over the period	Inflow occurred , no specific trend of outflow.

The above cases studied illustrate that capital movements through the channels covered by these estimates take place with and without capital controls. The belief that capital controls lead to the movement of capital which remains largely unrecorded in the balance of payments is not borne out by the estimates carried out for this study. The movement of resident capital has occurred with and without capital controls

It is not always the case that liberalization signals credibility and leads to repatriation of these flows. Individual country experiences vary. Pakistan and Sri Lanka experienced a brief period of repatriation after liberalization which later turned into an outflow. India , Nepal are other examples of countries where was followed by repatriation. However both have been experiencing outflows in recent years. In the East Asian countries in the sample, liberalization was not accompanied by repatriation, whereas Bangladesh experienced a steady inflow and outflow over the period. In case of Bhutan there is no specific case trend of inflow, only outflow is more prominent.

[Thailand experienced both inflows and outflows.]. Liberalization of the current account in most cases led to a jump in misinvoicing which then petered out. It is possible that estimated resident capital outflows could also be a consequence of liberalization in as far as they capture inadequacies in reported data on capital flows such as the problems in recording the flow of capital due to derivative

transactions, changes in asset prices, FDI only recorded at book value in the balance of payments and also leads and lags in the current account³¹. However, as argued in the next paragraph it is possible that estimated resident capital flows may capture some domestic investors' perception of risk and may conduct transactions which are not recorded as they are a response to instability. In some countries, resident capital outflows may simply arbitrage a tax differential and bring back the capital in the guise of foreign investment. It was pointed out in section III that the estimates of resident flows include assets of the banking sector. It is possible that flight of capital can take place through perfectly legal channels too. It is for this reason they have not been subtracted from the estimate of resident capital flow.

There is reason to believe that in the recent past, there has been substantial reverse capital flight. Partial evidence is available from an analysis of the trade data. This is plausible because both direct and indirect taxes (customs duties) have come down and also because the exchange rate is more realistic now. As a result, perhaps, the exporters and importers may find it less attractive than in the past to keep their money abroad, or cycle it to avoid taxes.

It is also likely that, with the adoption of current account convertibility and liberalized trade, the financing needs of illegal imports have come down. That is evident from some reduction in the difference between legal and hawala (illegal) exchange rates. The link between the hawala market and illegal imports through smuggling of gold was very clearly brought out in a discussion paper in the RBI (Gold Mobilization as an Instrument of External Adjustment) in 1992 by Atul Sarma, A.Vasudevan, K.Kanagasabapathy, Mythili Narayan and Mahua Roy, under the aegis of the Development Research Group. The relevant extracts is that:

“Large smuggling of gold is operationally feasible only if the foreign exchange can be obtained outside the level foreign exchange market. Hawala market provides this channel. This hawala premium can therefore be reasonable expected to reflect the demand for foreign exchange for smuggling gold, it being the major commodity for illegal imports. Transaction of foreign exchange in the hawala market can be expected to depend on the availability of foreign exchange provided by non-resident Indians outside the legal supply of foreign exchange as in the case of FCNR deposits, remittances, etc. To the extent hawala premiums attract these foreign currencies, their inflow into the country through legal channels will decline. It is generally recognized that over-invoicing of imports and under-invoicing of exports have given rise to large capital flight. At least a part of this leakage provides a source of supply of foreign exchange in the hawala market. Therefore, the magnitude of annual capital flight is likely to influence the supply of fund for smuggling gold.”

Though gold import has been liberalized, there is still demand for illegal foreign exchange to finance import of gold both through smuggling and non-resident channels. However, the demand from smugglers of consumer goods seems to be down as a result of reduction in duties and liberalization of such imports.

Overall, the incentives for, as well as magnitudes of capital flight through illegal channels appear to have come down drastically, though they still persist to some extent. As mentioned, the introduction of current account convertibility had reduced the financing needs of illegal imports. But, the current account convertibility provides scope for capital movement, in the guise of current transactions as long as the incentive structures encourage such capital flows. In fact, this was clearly anticipated by the High Level Committee on Balance of Payments (Chairman Dr.C.Rangarajan) in April 1993.

The Report states "In the medium-term, care has to be taken to ensure that there is no capital flight through liberalized windows of transactions under invisibles." What is significant is that, in the guise of current transactions, both capital inflows and outflows can occur – nor merely a one-way flow.

As regards legal flows, there is evidence to show reverse capital flight. Although there was a drop in non-resident deposits to the tune of US \$ 1.5 billion in 1991, it was soon followed by subscriptions to India Development Bonds. More important, when the Bonds matured during this year, about US dollar one billion was transferred to the residents. No doubt, there are some who argue that a part of NRI deposits are, in any case, in the nature of reverse capital flight. There are some who hold that a part of the amounts raised by our corporate may also be a channel for reverse capital flow. It is hard to obtain evidence of the flows arising from criminal activities. Perhaps, it is reasonable to presume that no new developments are noticeable.

First, it is clear that, there is at present, no evidence of larger capital flight out of the country through legal or illegal channels after the reform process has been initiated as compared to the pre-reform period. On the contrary, there is a possibility of net reverse capital flight. Except Nepal and Pakistan, their political condition is somehow responsible for that.

Secondly, there is no reliable basis for suspecting large capital outflow now, through trade transactions.

Thirdly, while it is true that our country, like many other developing countries, might have faced capital flight in the past, a good part of such capital has been simultaneously used for financing illegal import of gold valued at billions of US dollars each year. In fact, even now, most of gold imports may be financed through such capital flight. Hence, it would be inappropriate to estimate the stock of capital held abroad illegally as the sum of gross capital flight that took place in the past.

Fourthly, there is reason to believe that capital flight in our country now is very much a two-way process or a two-way flow. A one-way flow is a real resource transfer. A two-way flow, whenever it is in the nature of recycling of money, essentially means that there is an erosion of domestic tax base. For example, an exporter may over-invoice exports and use that foreign exchange to under-invoice imports in order to save on customs duty on imports. Such an exporter is simply avoiding tax but there is no net capital outflow.

Fifthly, the problem of capital flight was viewed, in the past, in the context of scarcity of foreign exchange and fear of devaluation. Now, our foreign currency reserves are comfortable, and our currency has exhibited significant stability in relation to all major currencies in the world in a market-led exchange rate regime. Some observers feel that, in regard to foreign currency resources, we have moved from struggling with scarcity to managing plenty.

5.4: ISSUES RELATING TO CAPITAL FLOW AND MACROECONOMIC POSITION

It appears reasonable to assume that, of late, there is a reduction in extra-legal or illegal gross capital flight. There are indications of reverse capital flight in the recent past which may continue for sometime. The recently approved Budget is widely believed to encourage reverse capital flight, more so when voluntary disclosure scheme takes off. These developments have the effect of enhancing normal capital inflows. Hence, the issue of managing large capital inflows assumes significance. This would call for an appropriate exchange rate, intervention and sterilization policies.

In spite of substantial liberalization and a drastic reduction in illegal transactions in the foreign exchange market, the hawala market for foreign exchange still exists and there is some, through vastly reduced, premium for foreign exchange in this market. This establishes continued existence of gross capita flight through illegal or extra-legal channels. If a reasonable assumption is made that there is little or no incentive in the current policy stance for residents to keep the capital outside the country, we have to find reasons for this still active hawala market.

Firstly, there is an inevitable demand for domestic consumption of gold. This demand is, at present, met mostly through imports by some non-residents, who are believed to specialise in this activity, and by smugglers. There is a belief that import by non-residents is financed by non-residents themselves out of foreign exchange that would not be otherwise coming into our country. Considering the large value of such imports, it is safe to assume that most of these imports are financed through the hawala market, just as almost a similar magnitude of gold smuggling is financed. In fact according to the World Gold Council Report, 1996, India was the largest importer of gold in 1996. Data indicates that total import of gold during 1996 was 379 tonnes valued at about \$ 4.7 billion, of

which about 266 tonnes valued at \$ 3.3 billion was through official channels. It is possible to argue, perhaps convincingly, that as long as the unstoppable domestic demand for gold is not permitted legally and liberally, the hawala market for foreign exchange and consequent distortions will persist.

Secondly, there are some consumer goods whose import is subject to quantitative restrictions and perhaps some of them are illegally imported through smuggling using the hawala market. Currently, these magnitudes appear small, but some though not all of them, do create scope for hawala.

Thirdly, transaction costs, particularly delays in actual transfer of non-resident remittances of small amounts through official banking channels could provide scope for hawala, though this need not necessarily add to the premium over legal rate.

Fourthly, there may still be procedural bottlenecks which make it cumbersome for resident Indians to obtain foreign exchange through legal channels for meeting their genuine needs. This also gives scope for some demand, certainly not very significant, for foreign currency in the illegal market. Any approach to eliminating capital flight through illegal channels will thus have to tackle all these issues.

As regards capital flight to finance criminal activities, two issues may need attention. First, whether the enforcement agencies are in a position to give adequate attention to serious crimes, since under the current FERA, very large number of routine transactions are accorded the status of crimes. The second relates to whether the existing legal framework is adequate to tackle serious crimes in areas such as money laundering. The Finance Minister had already announced that FERA will be replaced with the Foreign Exchange Management Act and that there would be a new Act to tackle money laundering.

There are a few other issues of a general nature which warrant attention and I will refer to some of them now. Like some developing countries, if we were to extend some facilities such as guarantees to foreign investors and if the domestic corporate do not get a similar or compensatory treatment, there would be asymmetry. In such a situation, while foreign capital comes in, domestic capital may go out. In fact, domestic investors may even try to take domestic capital out and bring it back in the garb of foreign investment. In the former case, there is an outflow of domestic capital while in the latter case there is both an outflow and a corresponding inflow of capital.

We are in the process of financial integration with the rest of the world. In such an integrated market, there would be both inflows and outflows of capital. Ideally, we should ensure that they occur through legal channels. Further, we should have efficient procedures for recording these flows. Unfortunately, recording procedures are not in a position to keep pace with the rapid developments in financial instruments. We have to address this issue, and we in the Reserve

Bank of India, intend undertaking a special exercise for this purpose. Recently, a Sub-Group was formed in the RBI to report on foreign exchange transactions by authorized Dealers (Ads). It recommended that data could be collected on a simplified basis on electronic media every fortnight from the Authorized Dealers' branches which are identified as 'critical' from the point of view of compilation of balance of payments data. Over a period of time, the data could be provided through online connectivity, once the entire financial sector is covered by V-Sat communication network.

In today's world, capital is extremely mobile and it moves wherever it perceives profit and security. It is extremely difficult to hold on to capital, both domestic and foreign, in the face of perceived economic instability or inappropriate policy framework. With capital controls, such mobility may be restricted, but now, as never before, there is increased scope for circumventing such controls and mobility occurring through illegal channels. Without capital controls, such mobility may be made easier, but the advantage is that capital flows can be monitored better and policy response could be proactive.

There are advantages of some capital control, but effectiveness and benefits are being rapidly overtaken by the costs of such controls. But, the downside risks of totally dismantling capital controls could be high, if the will for and faith in sound macroeconomic management is lacking. Hence, as mentioned by Dr.Rangarjan, in his address at Carnegie Mellon University

“Reduction in fiscal deficit, moderation in inflation and a flexible financial system which can adapt to the changing situation are some of the essential preconditions for capital account convertibility.”