

**Capital Flows and Monetary Management
after the Asian Crisis:
Issues and Policy Implications for Thailand**

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Concerns of Short Term Capital Inflows

- S-T capital inflows would tend to stimulate domestic *consumption* and *speculation* rather than real investment
- excessive capital inflows induce (1) *expanding money supply* and (2) *undue nominal appreciation of exchange rate*
- Large and volatile capital inflows cause *undue exchange rate appreciation* which directly hurt the export sector and hence worsen the current account balance
- *asset price inflation*

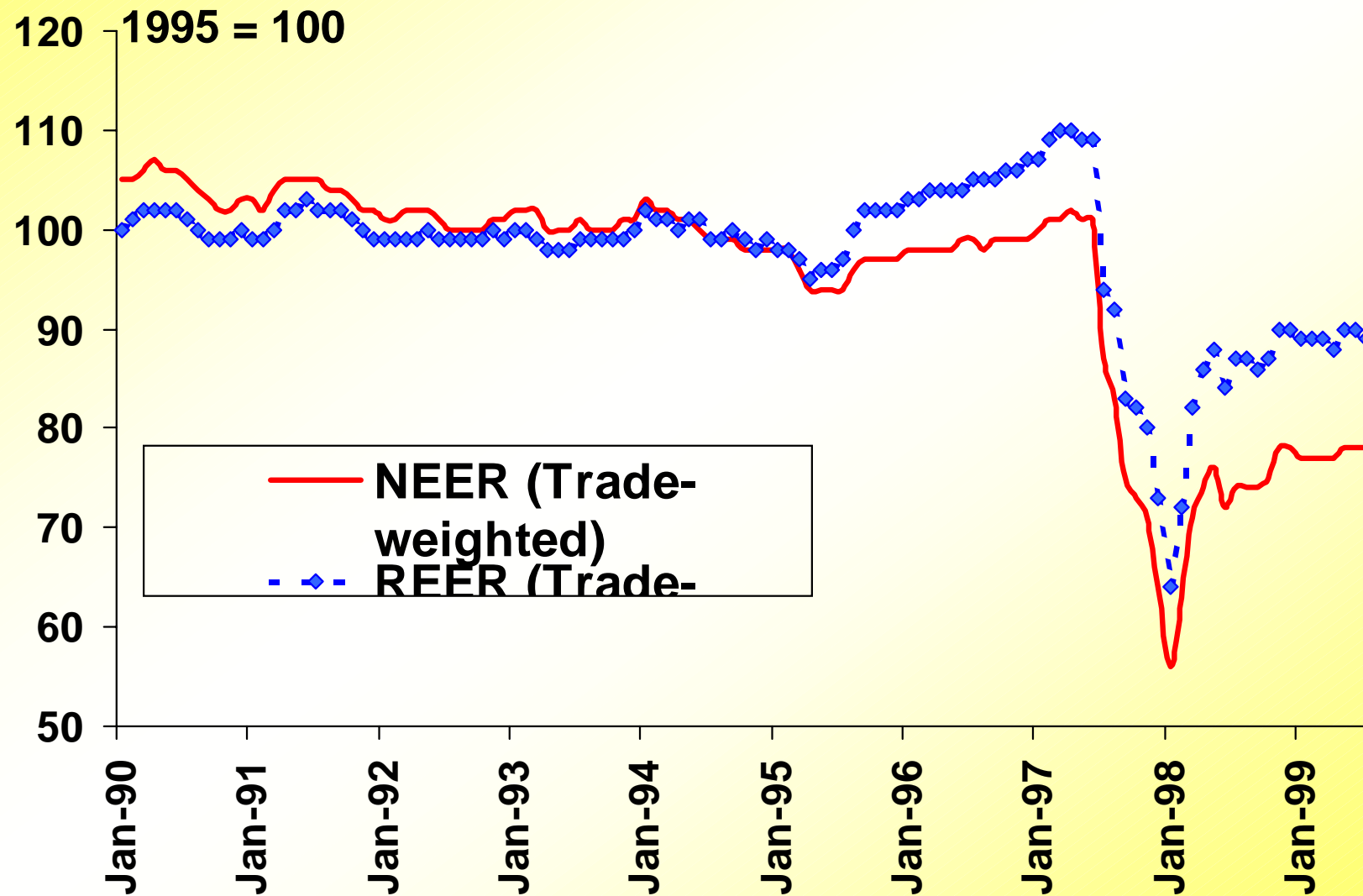
Table 3.3 Summary of Policy Mix

Country	Monetary Tightening & Sterilization	Positive Fiscal Impulse	Predictable Exchange Rates	Share of S-T to Total External Debt (1993 - 6) in percent
Indonesia	xxx	xx	Xxx	47
Korea	xx	xx	Xx	34
Malaysia	x	xx	X	25
Thailand	xxx	xx	Xxx	43

Xx : Medium Usage, xxx Strong Usage

Source : Modified from Alba et.AI (1998)

Figure 3.2 Thailand REER & NEER



Standard Policy Instruments

- Exchange rate appreciation in short run, to lessen the pressure on domestic prices
- Sterilized intervention in FX market to stabilize the exchange rate simultaneously with sterilization to offset the impact from increasing money supply
- Non-sterilized intervention, and
- Fiscal tightening
- Supplementary Measures
 - Price based measures e.g., Chilean Type Tax
 - Quantities based measures e.g., quota
 - Temporary capital controls

Nature of Capital Inflows v.s. Policy Options

	Constraints	Temporary Inflows	Sustained Inflows	Unbalanced Policy Mix
1. Sterilization	<ul style="list-style-type: none"> 1. Lack of suitable instruments 2. Level of market development 3. Large quasi fiscal deficits 	/		/
2. Fiscal	<ul style="list-style-type: none"> 1. Not suitable for S-T demand management 	<p style="text-align: center;">X</p> <p style="text-align: center;">(large adjustment cost)</p>	/	/
3. Exchange Rate appreciation	<ul style="list-style-type: none"> 1. Limited by competitiveness consideration in export sector 	/	<p style="text-align: center;">/</p> <p style="text-align: center;">(REER apprec.)</p>	/
4. Temporary Capital Controls				

**Table 4.1: Thailand:
Preconditions for Choosing Monetary Tools to Manage Capital
Inflows : Before and After the Crisis**

	Before Crisis	After Crisis
1. Composition of Capital inflows	Private led, S-R term, more debt related	Public, L-R term and more FDI
2. Availability of Monetary tools	- R/P market	- OMOs - R/P market - Bond market (developing)
3. Exchange Rate Regimes	Basket pegged	Managed float
4. Current Account Balance	Deficit	Surplus
5. Degree of Capital Mobility	High	Moderate
6. Economic Objectives	High, sustainable Growth Low inflation	“Sufficiency Economy” Inflation Targeting
7. Fiscal Position	Surplus	Temporary Deficit

Table 1.1 : Summary of Empirical Studies on the Degree of Capital Mobility in Thailand

	Period of Studies	Degree of Capital Mobility	Choice of dependent variables	Choice of independent variables					
				LIBOR	Exchange rate	Inflation	Monetary Supply	Financial Innovation	GDP
Hataisree & Misigrai (2000)*	M:91-M1099	0708**	Interbank	Positive & significant	Positive & significant	Positive & significant	Negative & significant	Negative & non-significant	Positive & significant
Hataisree (1995b)	Q1:80-Q491	089	Interbank	Positive & significant	Positive & significant	Positive & non-significant	Negative & significant	Negative & significant	Positive & significant
Hataisree (1995a)	Q1:80-Q492	085	Interbank	Positive & significant	Positive & significant	Positive & non-significant	Negative & significant	Negative & non-significant	Positive & significant
Robinson et al (1991)	Q1:78-Q490	1.01	Interbank	Positive & significant	-	Negative & non-significant	Positive & non-significant	-	Positive & non-significant
Schadler et al (1993)	Q1:77-Q491	073	Interbank	Positive & significant	Positive & non-significant	Positive & non-significant	Negative & significant	-	Positive & significant

* The methodology is based on the works of Edwards and Khan (1985) where interest rate is hypothesized to depend on a weighted average of domestic and foreign factors.

** Due to structural changes after the crisis, results remains to be quite inconclusive

**Table 2.5 :Thailand: Summary of Selective
Quantitative Studies on The Determinants of Capital
Flows**

Author(s)	Data	Choice of Dependent Variables	Choice of Independent Variables			
			Interest rate differentials	SET Yields	Swap premiums	Change in FX expectation (depreciation)
(1) Hataiseree (1995)	1990:1 1996:12	TCF, PCF, FDI, portfolio	Positive, significant		Positive, significant	Negative, significant
(2) Intrararak (1997)	1990:1 1996:12	TCF, Bank flow, Nonres	Positive, significant	Positive, significant	Positive, significant	Negative, significant
(3) Hataiseree & Musigchai (2000)	1990:1 1999:10	TCF, PCF, FDI, Nonres	Positive, non-significant		Positive, significant	Negative, significant

** TCF = total capital flows, PCF = private cap. flow, FDI = foreign direct investment, Nonres = Non-resident Baht account, bank flow = Bank sector cap. Flows

Table 4.2: Thailand: Summary of Empirical Studies on Sterilized Coefficients

	<u>Period of Estimations</u>	<u>Sterilized Coefficients</u>
Hataiseree & Musigchai (2000)	M1 : 90 - M8 : 99	- 0.61
Hataiseree (1995)	Q1 : 80 - Q4 : 90	- 0.38

Note: The estimation is based on the reaction function of the central Bank of the following form

$$\Delta MP = F(\Delta NFA, \text{various relevant variables})$$

ΔMP = the change in the central bank domestic assets

ΔNFA = change in net foreign assets

Table 3.2 Thailand's Outstanding External Debt

	(MILLIONS OF US\$)						
11-Jan-00 03:08:06 PM	1993	1994	1995	1996	1997	1998	1999 SEP p
TOTAL DEBT(1+2)	52107	64866	82568	90536	93,416	86,160	78,734
SHARE(%) Public	27.2	24.2	19.9	18.6	26.0	36.6	45.4
SHARE(%) Private	72.8	75.8	80.1	81.4	74.0	63.4	54.6
LONG-TERM	29473	35687	41472	52923	59,158	62,637	63,046
<i>SHARE(%)</i>	<i>56.6</i>	<i>55.0</i>	<i>50.2</i>	<i>58.5</i>	<i>63.3</i>	<i>72.7</i>	<i>80.1</i>
SHORT-TERM	22634	29179	41096	37613	34,258	23,523	15,688
<i>SHARE(%)</i>	<i>43.4</i>	<i>45.0</i>	<i>49.8</i>	<i>41.5</i>	<i>36.7</i>	<i>27.3</i>	<i>19.9</i>
FOREIGN ASSETS	31272	37135	46699	46087	35,855	42,372	46,495
MONETARY AUTHORITIES (RESERVES)	25439	30279	37027	38725	26,968	29,536	32,362
BANKS' FOREIGN ASSETS	5833	6856	9672	7362	8,887	12,836	14,133

- The trend of external debt shifted from short-term, private-led to a longer term, public led after the crisis. Hence the ratio of s-t to l-t external debt declined dramatically.

Policy Mix and Sequencing

- **Sterilization V.S. Currency Appreciation**
- **Sterilization V.S. Fiscal Policy**
- **Monetary Policy and Exchange Rate Policy**
- **Sterilization V.S. Non-sterilization**
- **Standard Policy package & Supplementary measures**

Summary

- **Sterilization tools remain to be the *short run strategies* to stabilize exchange rate and to slow down the expansion of money supply, nevertheless, *the effectiveness would only be short-term***
- **Rooms for *sterilization and fiscal tightening* tools would become very limited in near future.**
- **The composition of capital inflows will be crucial determinants on the direction of REER**
- **Large and volatile S-T capital inflows may result in an undue appreciation (overshooting) of REER if not coordinated by appropriate policy response**