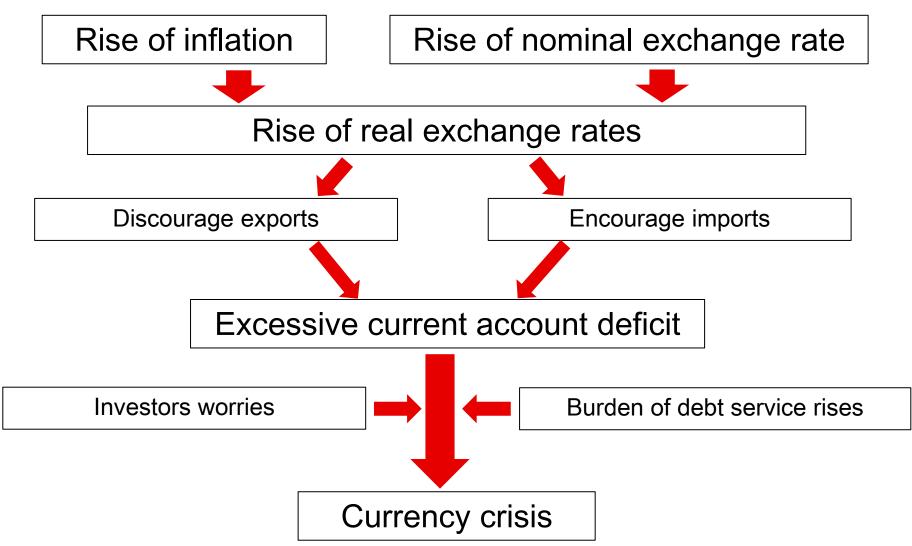
Design and Development of Foreign Exchange Market

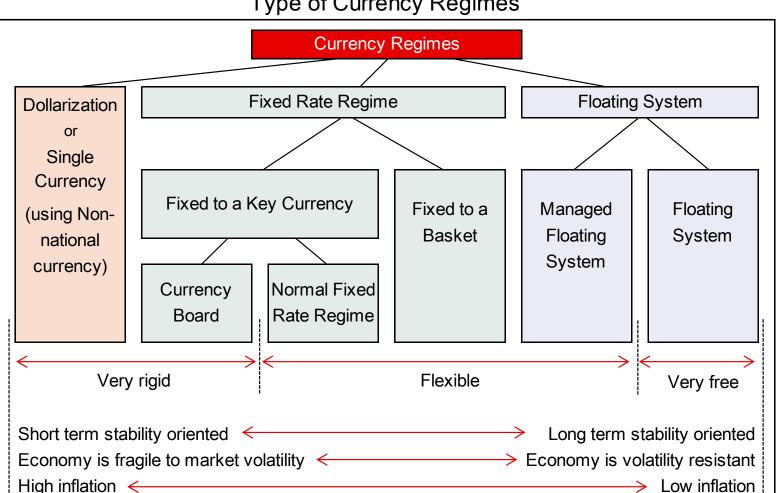
May 2017

Mitsuru Yaguchi Institute for International Monetary Affairs Facts and theories of foreign exchange regimes and markets in the developing countries

(1) Typical mismanagement that could lead you to a currency crisis



(2) Theoretical Categorization of Currency Regimes - (1)



Type of Currency Regimes

(2) Theoretical Categorization of Currency Regimes - 2

How to manage flexibility

How to make flexibility of exchange rate system

(a) What should the value of currency be pegged to (a currency or a basket)

(b) Width of target zone

(narrow or wide)

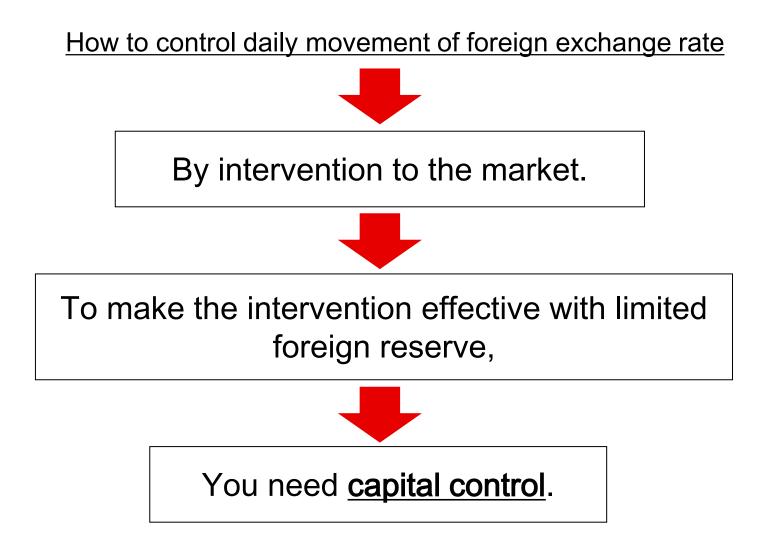
(c) Frequency of target change

(daily, monthly, quarterly, ...)

(d) Reference of target change

(monthly inflation data, market rates of previous day, ...)





(2) Theoretical Categorization of Currency Regimes - 4

Capital control

Before Asian currency crisis

• Liberalization is almost unconditionally believed to make growth and prosperity. ("Washington consensus")



After Asian currency crisis

 Liberalization should be proceeded under an appropriate order. (Sequence matters.)
Liberalization without consideration of sequence is more harm than good!

(2) Theoretical Categorization of Currency Regimes - (5)

History of foreign exchange rate regime in each country

Chronological Change of Foreign Exchange Arrangement of Each Country in Asia and Pacific

	1993	2000	2012		
Dollarization / Use of other ccy		Cambodia	Cambodia		
Currency Board	HKD	HKD	HKD		
Fixed to US dollar	CNY, INR	CNY, MYR			
Crawling Peg	IDR, KRW	VND	CNY, VND		
Basket Peg	THB, PGK, MYR, PKR, SGD	SGD	SGD		
Managed Float	JPY, LKR, PHP, TWD, VND	IDR, INR, JPY, KRW, LKR, PGK, PHP, PKR, THB, TWD	IDR, INR, JPY, KRW, LKR, MYR, PGK, PHP, PKR, THB, TWD		
Pure Float					

CNY-China, HKD-Hong Kong, INR-India, IDR-Indonesia, JPY-Japan, KRW-Korea, MYR-Malaysia, PGK-Papua New Guinea,

PKR-Pakistan, PHP-Philippines, SGD-Singapore, LKR-Sri Lanka, THB-Thailand, TWD-Taiwan, VND-Vietnam

(Source) Compiled by IIMA based on the IMF data

(3) Categorization by Regulation and Market Practice - 1

• Four dimensions in categorizing types

- if you require an <u>evidence of underlying demand</u> when a resident conduct a foreign exchange, (and if you require the evidence on <u>invoice basis (firm-</u> <u>committed</u>) or <u>forecast basis</u>)
- ② how far you admit <u>non-residents'</u> transaction of your local currency <u>with</u> <u>overseas located banks</u>
- ③ if you admit <u>Off-shore market</u>
- ④ how you should handle with <u>NDF (Non-Deliverable Forward)</u>

(3) Categorization by Regulation and Market Practice - 2

Categorizatoin by practical issues

						p:						
Principle of underlyin demand ★ × : firm-commited transaction only ∆ : forecast transac occasionally accepta			Off-shore transactions									
		residents' transaction: Principle of underlying	Restriction on non-residents' transaction with overseas located banks (2) \times : no admit, Δ : admit with conditions, O : admit				Off-shore market		(4) NDF			
		transaction only	Current account Capital account				× : no exist O : exist Model	NDF market	Domestic banks access to NDF markets			
		occasionally acceptable O : forecast transaction	Spot	value	Forward value	Spot	value	Forward value	3			× : no admit ∆ : admit with
			Buy local currency	Sell local currency	Buy and sell	Buy local currency	Sell local currency	Buy and sell	3			conditions O:admit
Taiwan	TWD	×	×	×	×	×	×	×	×		0	Δ
Vietnam	VND	×	×	×	×	×	×	×	×	a	× (vanished)	no NDF market
Korea	KRW	0	Δ	×	×	Δ	×	×	×	b	0	0
Philippines	PHP	×	0	×	×	×	×	×	×		0	×
Pakistan	PKR	Δ	0	×	×	0	×	×	×		no NDF market	no NDF market
SriLanka	LKR	×	0	×	×	0	×	×	×		no NDF market	no NDF market
Papua New Guinea	PGK	×	0	×	×	0	×	×	×		no NDF market	no NDF market
India	INR	Δ	0	×	×	0	×	×	×		0	×
China(CNY)	CNY	0	Δ		Δ	Δ	Δ		×	С	0	×
Indonesia	IDR	0	Δ		Δ	Δ	Δ		×		0	×
Malaysia	MYR	0	Δ	Δ	Δ	Δ	Δ	Δ	×		0	×
Thailand	THB	0	0	0	0	0	0	0	0	d	(no need)	(no need)
China(CNH)	CNH	Ø	0	0	0	0	0	0	0	е	(no need)	(no need)
Hong Kong	HKD	Ø	0	0	0	0	0	0	0	f	(no need)	(no need)
Singapore	SGD	Ø	0	0	0	0	0	0	0		(no need)	(no need)

* Actual categorization of retrictions on residents' transactions is more complex according to duration of contract, difference of buy-sell side, etc.

(Source) Compiled by Bank of Tokyo-Mitsubishi UFJ and Institute for International Monetary Affairs, November 2015

(4) Three factors which enhance the development of foreign exchange market - 1

① Payment and Settlement System

Reliable and quick settlement system is indispensable for banks to deal with each other and to establish confidence in banking system.

② Brokers

Brokers should aggregate market information for efficient and transparent price-making (market-making).

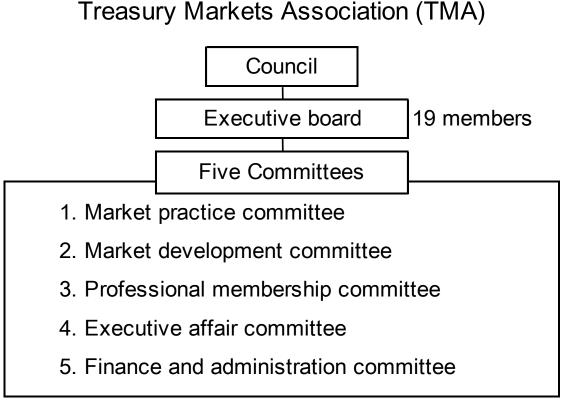
③ Market committees

Market committee make market rules and become a communication partner for regulators in making regulations.

"Those who use market know the market best, and should make market rules."

(4) Three factors which enhance the development of foreign exchange market - 2

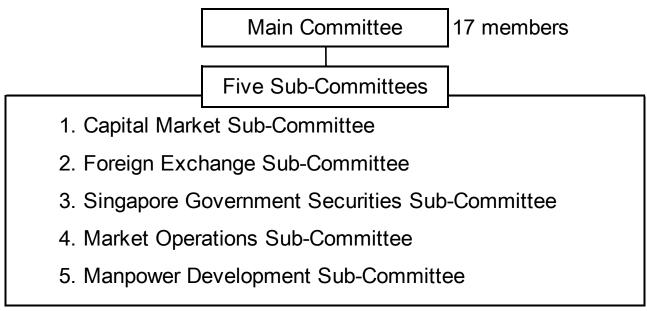
Market committee in Hong Kong



(4) Three factors which enhance the development of foreign exchange market - \Im

Market committee in Singapore

Singapore Foreign Exchange Market Committee (SFEMC)



(Source) http://www.sfemc.org

Recommendation for the development of foreign exchange markets

Our recommendation

(1) Establish a market committee

(2) Foster brokers

(3) Enhance a market making function

(4) Build up trustworthy commercial banks



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