

# South Korea, Japan and China: Exchange Rate Regime Change, its Effect and Policy Suggestions

Ni Xiaoning<sup>1</sup> , Chen Chen

*School of International Economics and Trade ,  
Beijing International Studies University ,  
P.R.China*

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## 1. Introduction

The purpose of this paper is to review the exchange rate regime change in Japan, South Korea and China, find the effect of exchange rate regime changing, especially the peg arrangement changing and its effect.

Maybe we should answer two questions at first: Why Japan, Republic of Korea and China? Why focus on exchange rate Regime?

Japan, Korea and China are geographical neighbors located in the eastern Asia and all around East China Sea. The distance from Seoul to Beijing or Tokyo is less than three hours' flight. Besides, they are all belong Confucians Culture in the history, which embedded into the ideas of the political rules. All culture exchange has lasted for thousands years since Southern and Northern Dynasties (AD420-AD589). Thus this kind of culture exchange is inclined to form the similar policy preference and the public

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<sup>1</sup> Corresponding author. Tel.: +86-0-13641351471. Add.: 1 St. DingFuZhuang NanLi, Chaoyang Distinct, Beijing 100024, People's Republic of China. Email: [nixiaoning@bisu.edu.cn](mailto:nixiaoning@bisu.edu.cn)

expectation and reaction.

They are government-oriented market economy in which the government's function is dominant with the market competition. Government-oriented market economy was applied firstly in Japan in the middle of 1950s and successfully combined the government, market and corporations. Korea turned to it at the beginning of 1960s and the function of government was stronger than it in Japan. China followed it after 1978. All succeed without civil resistance. Thanks to the Confucians Culture because its core belief is "unification" and "centralization".

In the government-oriented market economy, the three countries all carried out export-oriented strategy at the beginning of the industrialization period. Japan turned to this strategy in 1950s, Korea in 1960s and China in 1980s. This strategy encouraged the industries with dynamic comparative advantage exporting to stimulate the economy and won high economic growth later. At the same time, the policy paid an important influence on the other policies especially exchange rate policy because they must be assisted to execute export-oriented policy better. Apparently, the exchange rate regime arrangement was the core of the exchange policy and in this period the government would keep the exchange rate as stable as possible. But the currency faced sustaining appreciation pressure with the accumulated high growth rate. How did they solve the contradiction? How to exit the current exchange rate regime became the big problem. Japanese yen changed into floating regime which was blamed as one of main reasons of the bubble and later deflation. Korea won was forced to turn to floating in the currency crisis. Now RMB attracts the world sight because it is in a steep appreciation path to US dollar.

These three countries, with many similar characteristics, have the same policy preference of achieving macroeconomic stabilization and keeping a high economic growth path. In the past decades, they stood in the highlight in the different times one by one. Japan stepped into high growth rate time since 1950s and kept an average growth rate 10% or so until the first fuel crisis in 1970s. Its GDP volume increased 9 times during this time. Korea entered high growth term at 1960s and lasted nearly 30 years with GDP volume going up more than 10 times. As for China, high growth started from 1980s and has lasted over 30 years. However, in the end of the high growth period, Japan and

Korea suffered some serious economy problems. Japan met a long term currency premium and later bubble economy. Korea suffered the cave-in caused by the currency crisis. And now the fast RMB appreciation is challenging the Chinese economy. Consider they are in the different development stages, they are deserved being studied as a whole. Lessons can be drawn and much advice can be given to other countries based on their experience.

Besides, exchange rate regime arrangement, according to the "Impossible Triangle", putting a restriction on the monetary policy is a key component of the economic growth stability. Observing the economies in Japan, Korea and China, we think it is worth studying the specific roles of the exchange rate regime.

These are the reasons for selecting exchange rate regime as the main viewpoint of the international comparison of Japanese, Korean and Chinese economy.

In section 2 we have a quick glance at the main views about exchanging rate regimes and economy. In section 3, after compare some facts about exchange evolution and economy fluctuation, we induce the topic to peg and its exit. In section 4 we establish a modified model based on Flood and Garber's and analysis the different exit from peg to floating and its effect. The last part is a summarize and conclusion.

## **2. Some Views on exchange rate Regime**

According to the latest de facto classification of exchange rate regimes provided by IMF staff, there are eight kinds of arrangements: (1) Exchange arrangements with no separate legal tender; (2) Currency board arrangements; (3) Conventional fixed peg arrangement; (4) Pegged exchange rates within horizontal bands; (5) Crawling pegs; (6) exchange rates within crawling bands; (7) Managed floating with no pre-determined path for the exchange rate and (8) Independently floating. Among them, China executes fixed peg arrangement and Japan and Korea execute independently floating.

Before proceeding to investigate the three countries, it is convenient to have a review on the relating literature about it.

Systemic and comparable research on exchange rate regime has been one of centers of economic debate during the last decades. The focuses transferred from the quarrel between fixed and floating in 1950s to the theory of optimum currency areas (Mundell, 1961) in which Mundell thought it was better to choose the exchange rate regime

according to some economy characteristics.

Later, especially after the collapse of Bretton Woods system, many economies have displayed a wide spectrum of exchange rate regimes, ranging from a rigidly controlled fixed exchange rate regime to a freely floating one, especially in the developing countries in which the arrangements were more complicated and changeful than in the developed countries, for example the currency board system, the fixed peg regime, the regime with adjustable peg and band, the pre-announced crawling system and the independent floating rate regime. This diversity pushed more scholars to care about the exchange arrangement in the developing countries and thus the theory of exchange regime developed in 1970s.. Apparently, purely floating and fixed systems are only two extremes among many possible exchange rate regimes a country can choose. Heller thought this diversity arrangement depended on the difference of economic characteristics such as a country's size, its openness, the degree of international financial integration, inflation and the foreign trade pattern (Heller, 1978). Frenkel argued that no exchange rate regime was omnipotence and the optimum arrangement depended on the specific country's situation and time (Frenkel, 1999).

Krugman gave out first currency crisis model and established the link between the currency crisis and exchange rate regime (Krugman, 1979). Then the mainstream of research on the exchange rate arrangement and choice turned to be the arrangement sustainability and crisis prevention. The discussions of the intermediate regime became hot since that time.

During the same period, the relationship between the exchange rate regime and the economic performance was researched, especially those relating to the inflation and the economic growth and later produced the researches on the classification of the real exchange rate regime.

In this paper, we agree the views that optimum exchange rate regime relies on the specific economy and time such as foreign currency reserves, development of inflation, macro economic imbalance, amount of monetary overhang. We care about the time and the opportunity to exit or change exchange rate regime from one to another.

### **3. Facts of Exchange Arrangement Evolution and Economy**

#### **3.1 A glance at exchange rate arrangement and indexes fluctuation**

Over the past decades, these three economies and other countries in Eastern Asia have displayed a wide spectrum of exchange rate regimes, ranging from the rigidly controlled fixed exchange rate regime to the freely floating one. Among them, intermediate arrangements have been dominant de facto exchange rate for decades.(Table 1) The evolution of exchange rate regime seems from fixed to pegged, then to managed floating and last independently floating in many Eastern Asian countries. (Table 2)

We suppose that the choice depends on the different development stages and the specific country's situation. In order to observe it, we pick up Japan, Korea and China as the examples. Figure1 shows the process of arrangement changing in three countries. And figure 2-7 show their fluctuation of some economy indexes from 1950 to 2007. Apparently, the characteristic of arrangements have the relationship with the economy stages. Both chose peg during the developing period. The real exchange rates were depreciated during the peg time and started to appreciate as soon as Japan and Korea turned to freely floating. It seems the fluctuation of exchange rate did not destroy their way to growth, especially to Korea. The financial crisis in 1997 had limited influence on its recent ten years growth.

As for their reserves, both have been rocketing since 1980s. Japan turned to floating actively and did not meet international payment crisis though the reserves looked so low compared with its in today. Its reserves increased sharply after the floating arrangement. Korea was forced to give up peg and turned to the floating passively because of the reserves exhausting and peg arrangement can't be kept any more. In the later ten years, its reserves went up largely. Now the most highlight is China which owns the largest reserves and whose amount nearly equal to the sum of the other two countries. It is mainly due to its huge export, regulations on the capital account and the successful peg arrangement in the recent tens years. Though there may no international payment problem in China, it still treats its exchange rate and capital regulations with cautious in order to keep high growth.

**Table 1 : De facto exchange rate regime in some Asian countries**

Exchange Rate Regime	Country Name
Currency board arrangements	Brunei , Hong Kong SAR
Peg	China* , Vietnam
Managed floating with no pre-determined path for the exchange rate	Cambodia* , Thailand** Malaysia*** , Myanmar*** , Singapore***
Independently floating	Indonesia* , Korea** , Philippines** , Japan***

**Source:** IMF: “De Facto Classification of Exchange Rate Regimes and Monetary Policy Framework”.

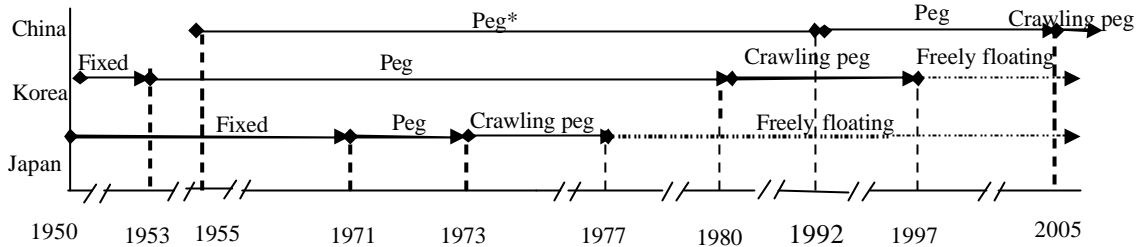
**Notes:** These are identified by IMF and we made a little modification. IMF divided the peg exchange rate regime into 4 types: Conventional fixed peg arrangement, Pegged exchange rates within horizontal bands, Crawling pegs and Exchange rates within crawling bands. In this table we used the “ Peg ” to make a simplification. The number of asterisks (\*) indicates the monetary policy the country choose, (\*) means Monetary aggregate target; (\*\*) means Inflation targeting framework; (\*\*\*) means others Including countries that have no explicitly stated nominal anchor, but rather monitor various indicators in conducting monetary policy.

**Table 2: Evolution of exchange rate regime in some Asian countries**

Country name	Processes of the regime change
Philippines	1950-1965 fixed to US dollar; 1965-2007 managed floating
Indonesia	-1978 fixed to US dollar; 1978-1983 pegged to a basket of currencies ; 1983-1997 managed floating; 1997-2006 independently floating
Cambodia	1953-1970 peg/fixed; 1990-2007 managed floating
Thailand	1963-1973 fixed to US dollar; 1973-1978 pegged to US dollar; 1978-1984 managed floating; 1984-1997 pegged to a basket of currencies ; 1997-2006 managed floating
Malaysia	1967-1973 fixed to US dollar; 1973-1975 managed floating; 1975-1998 pegged to a basket of currencies; 1998-2005 Fixed to US dollar
Singapore	1963-1973 fixed to a single currency; 1973-1985 pegged to a basket of ; 1985-2006 managed floating

**Source:** [http://intl.econ.cuhk.edu.hk/exchange\\_rate\\_regime/](http://intl.econ.cuhk.edu.hk/exchange_rate_regime/), “Historical Exchange Rate Regime of Asian Countries” and <http://www.imf.org/external/np/mfd/er/index.asp> “Classification of Exchange

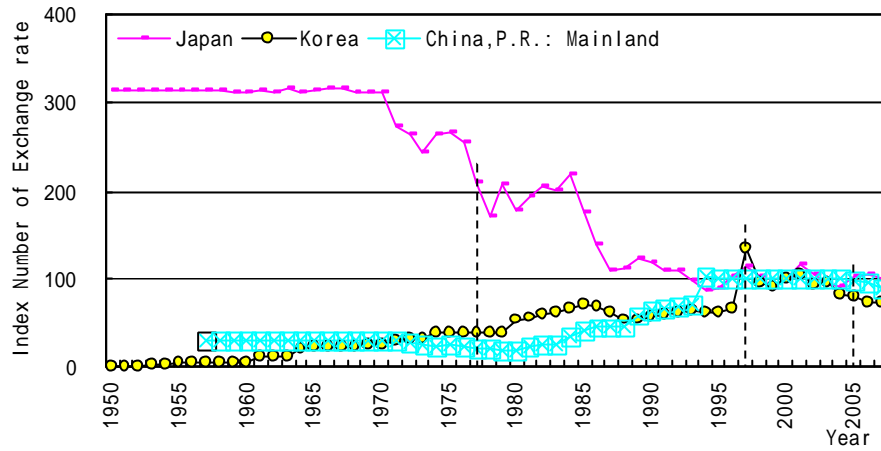
Rate Arrangements and Monetary Frameworks”.



**Figure 1 Process of arrangement changing in three countries\*\***

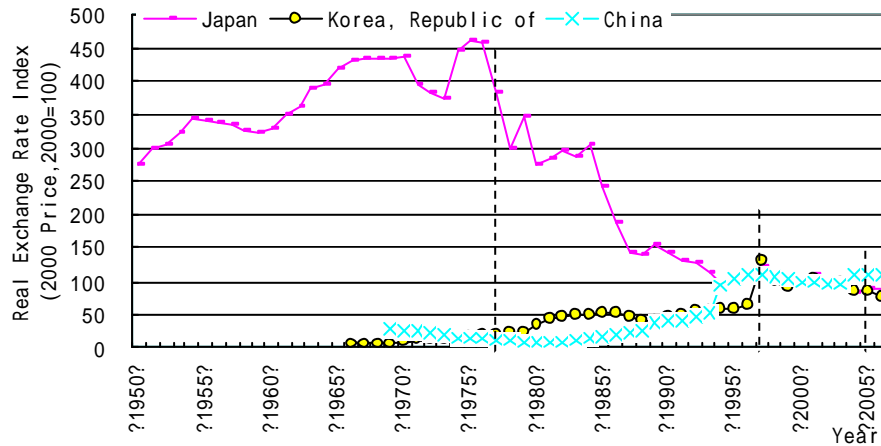
**Source:** Drawing mainly according to the following source (1) Carmen M. Reinhart, Kenneth S. Rogoff. *The Modern History of Exchange Rate Arrangements: A Reinterpretation*. NBER Working Paper No. 8963, May 2002; (2) [http://intl.econ.cuhk.edu.hk/exchange\\_rate\\_regime](http://intl.econ.cuhk.edu.hk/exchange_rate_regime), “Historical Exchange Rate Regime of Asian Countries”.

**Notes:** \*: Peg to US dollar during 1955-1974 and peg to the trade-weight basket of 15 countries during 1974-1992. \*\*: To compare with convenience, we drew this figure with simplification and only classified the diversity arrangements into fixed, peg, crawling peg and freely floating arrangements.



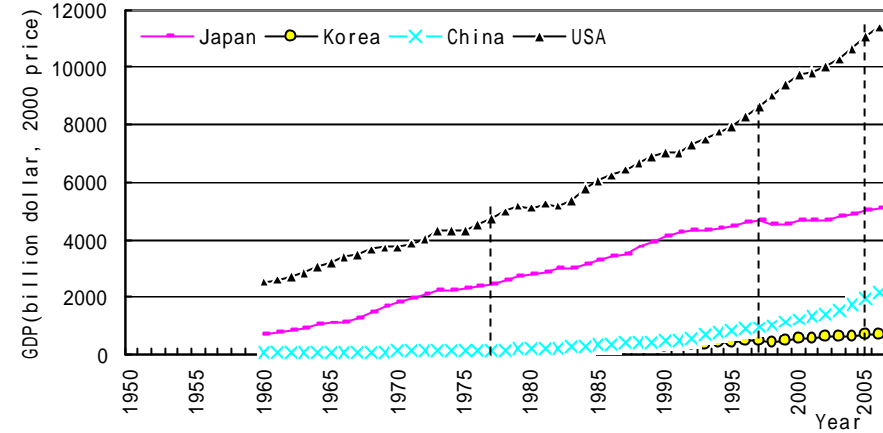
**Figure 2: Nominal exchange rate index**

**Source:** Index Numbers (Year 2000=100) were calculated and drawn according to data from IMF Database IFS. Japanese and Korean data are Market Rate in the end of period and Chinese data are Principal Rate in the end of period.



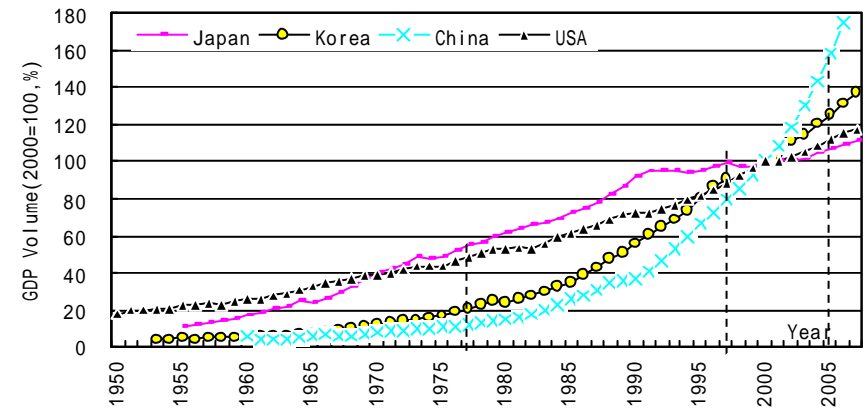
**Figure 3: Real exchange rate index**

**Source:** Calculated and drawn by data from UNSD and IMF Database IFS.



**Figure 4: GDP**

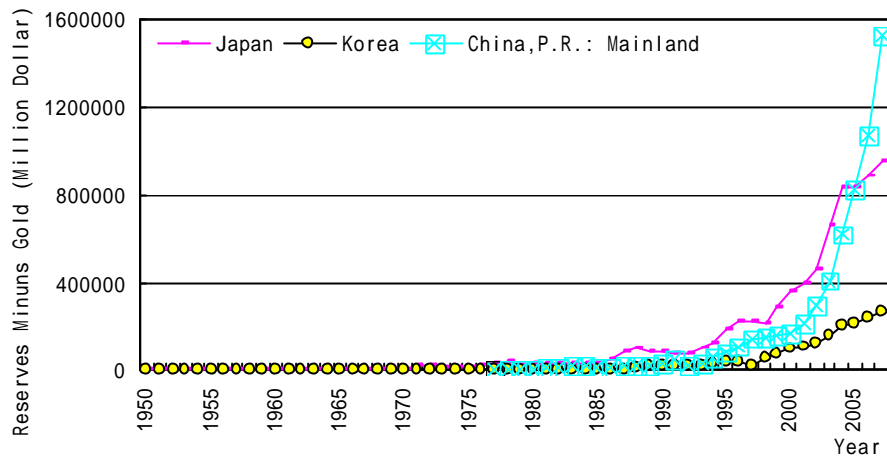
**Source:** Data from UNSD.



**Figure 5: GDP Volume**

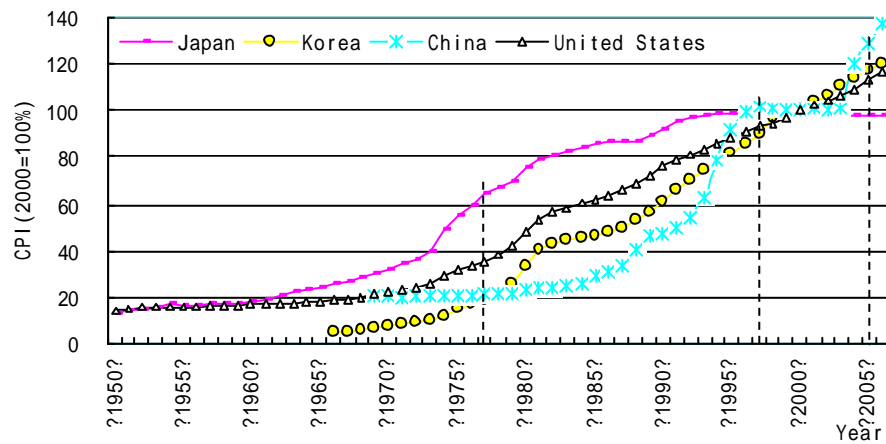
**Source:** GDP Volume (2000=100) data of Japan and Korea were from IMF Database IFS. Chinese curve were calculated and drew by data from UNSD.





**Figure 6: Reserves minus gold**

Source: Data from IMF Database IFS.



**Figure 7: CPI**

Source: Data from UNSD.

### 3.2 Peg and Exit

In most situations, the exchange rate influences the economy each other, especially in an opening economy.

In fact, exchange rate is part of market price system and adjusts economy with price, for example, its function in the Balassa-Samuelson effect. The Balassa-Samuelson effect states that an increase in the relative productivity of tradables versus nontradables of one country versus foreign countries raises its relative wage, thus increasing its relative price of non-tradables and its relative average price, and inducing an appreciation of the real exchange rate ( Balassa ,1964 and Samuelson,1964).

Nilsson, K. and Nilsson, L. ( 2000 ) analyzed two reasons that explained the international trade in the developing countries were easily influenced by the fluctuation of exchange rate and the absence of market controlling power urged them to choose the peg arrangement. Calvo and Reinhart (2000) proved that the fluctuation of exchange rate paid more influence on emerging countries than on developed ones. Hernandez and Montie (2003) researched the exchange rate regime in Asian countries after the financial crisis found that some countries recovered peg though the elasticity of exchange rate was enlarged and Korea was among them at least during 1999-2000.

Aizenman and Hausmann (2000) thought the countries more suitable peg arrangement were those with larger degree of segmentation between civil capital market and global financial market. Wolf (2001) pointed the characteristic of those countries choosing peg, that is, small economy size, large opening degree, low inflation, big inflation temptation, stability in politics and so on.

Though the intermediate arrangement is still popular in the reality, it is often denied in the theory by the “trilemma”(Summers, 1999) especially after many financial crisis. However, another reality is, in the IMF report “De facto classification of exchange rate regimes and monetary policy framework” in 2006, there were 51 countries choosing managed floating with no predetermined path for the exchange rate and 25 countries choosing independently floating compared with 63 countries choosing all pegs, 7 currency board and 41 exchange arrangements with no separate legal tender. And most developed countries chose floating.

Some scholars thought the success peg in China due to its big economy size, regulation on capital account and owing influence on world economy. But recently RMB is appreciating quickly and Chinese suffers the inflation. The disputes on the exchange rate regime never stop.

The exit, changing of regimes, is a complicate problem. Because the most currency crises

happened in the countries with peg or fixed arrangement, we set a new model based on the Flood and Garber's (1984) to discuss the durative and exit condition in a country which puts regulation on its capital account and later lifts it in the next section.

#### 4. Analysis based on Modified Model of Flood and Garber's

This model is based on the linear model by Flood and Garber (1984). We accept its assumptions except the existence of uncovered interest rate parity because we suppose the country in the model puts some limit on the capital account and this partly prevents the capital to flow.

We build the model around six equations. According to the money market equilibrium condition, we get

$$M_t / P_t = a_0 - a_1 i_t \quad a_1 > 0 \quad (1)$$

Then

$$M_t = R_t + D_t \quad (2)$$

$$\dot{D}_t = m \quad (3)$$

$$\dot{R}_t = I \quad (4)$$

According to the purchasing price parity

$$P_t = P_t^* E_t \quad (5)$$

The uncovered interest parity can't exist because the expected returns between the domestic assets and foreign assets are different. Suppose the spread of expected return is  $d_t$ , we get the following equation:

$$i_t = i_t^* + \dot{E}_t / E_t + d_t \quad (6)$$

Where  $M_t$ ,  $P_t$  and  $i_t$  are the domestic money stock, price level and interest rate respectively.  $R_t$  and  $D_t$  are the domestic government book value of foreign money holdings and domestic credit.  $E_t$  is the spot exchange rate in the direct price. An asterisk (\*) attached to a variable indicates "foreign" and a dot over a variable (·) indicates the time derivative.

Because it is a small country, let  $i_t^* = i_f$  and  $P_t^* = P_f$  and (5) and (6) become:

$$P_t = P_f E_t \quad (7)$$

$$i_t = i_f + \dot{E}_t / E_t + d_t \quad (8)$$

$$\text{Or, } \mathbf{d}_t = (i_t - i_f) - \dot{E}_t / E_t \quad (8')$$

### Case 1: Limits on capital account

According to (1), (7) and (8) we get:

$$M_t = \mathbf{b}_t E_t - \mathbf{a} \dot{E}_t \quad (9)$$

$$\text{Where } \mathbf{b}_t = a_0 P_f - a_1 i_f P_f - a_1 \mathbf{d}_t P_f \quad (10)$$

$$\text{and } \mathbf{a} = a_1 P_f$$

Suppose it is fixed exchange regime and let  $E_t = \bar{E}$ , then (9) and (8') becomes:

$$M_t = \mathbf{b}_t \bar{E} \quad (11)$$

$$\mathbf{d}_t = i_t - i_f \quad (12)$$

According to (10) and (2):

$$R_t + D_t = \mathbf{b}_t \bar{E} \quad (13)$$

$$\text{And } \dot{R}_t = -\mathbf{m} - a_1 P_f \bar{E} \dot{i}_t \quad (14)$$

Equation (14) reveals that the fluctuation of reserve depends on the fluctuation of domestic credit and domestic interest rate. The collapse condition of exhausting reserve disappears here because of the capital regulation. The fixed or peg exchange rate regime here can exist long time and collapse is not the destiny.

### Case 2: Lift the limits on capital account

With the opening of the capital account,  $\mathbf{d}_t$  is changing with the free capital flow and inclined to 0, that is the existence of the uncovered interest parity.

The lifting effect may cause one of two directions changing. According to the equation (10) and (9), when  $\mathbf{d}_t$  declines and inclines to 0, it causes the increase of  $\mathbf{b}_t$ . Suppose the time lifting the

restriction is  $z$  and let the money supply  $M_{z+} = M_o$ . We get  $M_o < \mathbf{b}_{z+} E_{z+} - \mathbf{a} \dot{E}_{z+}$  which means

unbalance in the currency market. If  $\mathbf{d}_t$  goes up and inclines to 0, it causes the decrease of  $\mathbf{b}_t$ . We

know that the money supply is bigger than the demand and the money market is unbalance too.

If recovering the balance in the money market, there are two policy choices:

**The first one** is let amount of money supply  $M_t$  as the policy choice. If central bank regulates

M to  $\bar{M}$ , it is necessary to increase the elasticity to adapt this policy change, that is, the exchange rate regime become nearer from the floating. At this time the solution of the equation (9) can be solved out: ( initial condition is  $E_t = \bar{E}$  when  $t=0$  )

$$E_t = \bar{E}e^{\frac{b}{a}t} + (1 - e^{\frac{b}{a}t})\frac{\bar{M}}{b} \quad (15)$$

$$\text{According to (15): } \dot{E}_t = \frac{b}{a}(\bar{E} - \frac{\bar{M}}{b})e^{\frac{b}{a}t} \quad (16)$$

Let  $\bar{M} = M_o + \Delta$ , then  $\bar{M} = b\bar{E} + \Delta$  and we get:

$$\dot{E}_t = -\frac{\Delta}{a}e^{\frac{b}{a}t} \quad (17)$$

According to (17), money supply M may increase when  $\Delta > 0$  and exchange rate appreciates accordingly. Money supply M may decrease when  $\Delta < 0$  and exchange rate depreciation accordingly. In order to maintain the growth speed, the aggressive monetary policy require the increase of M, that is  $\Delta > 0$ , when the currency has to choose appreciate actively. Because of  $P_t = P_f E_t$ , the existence PPP may cause the decrease of the domestic price  $P_t$  and the domestic deflation. Japan is an example of this situation. Japan lifted the restriction on the capital flow and chose the monetary aggregate target in the 1970s.

**The second one** is let price as the policy choice. This means to keep the fixed arrangement. According to (2) and (9), we get  $R_t + D_t = b\bar{E}$ , this condition has the same shape with the model of Flood and Garber's. Now the policy has to face the dilemma. If applying the aggressive monetary policy to sure the economic growth, that is, increasing D, it is possible exhausting the reserves in order to fix or peg exchange rate at last. If trying fixed R or increase R, it may induce the deflation when D decreases. The example here is Korea. It chose price as the target to control the inflation in long run but did not adjust its exchange rate regime according to the deregulation on the capital account. It incurred international payment crisis and was forced to floating.

## 5. Concluding Remarks

The exchange rate regime issues studied in this paper bear directly on the analysis of its changing or evolution and relating problem. In fact, there are no definitely good or bad exchange rate regimes. All should be corresponded with the economy situation and macroeconomic policy.

In our modified model original from Flood and Garber, the fixed exchange regime can be remained when restrictions put on the capital flow and the uncovered interest rate parity does not exist any more.

The deeper analysis by the new model shows that, the active choice on changing is easily produce domestic currency appreciation or the domestic deflation such as Japan; the passive choice on the exchange regime generally accompanied with exchange rate regime collapse, such as Korea. Combining these two situations, the model reveals that the exchange rate must be more elasticity after the deregulation on the capital account.

The modified model in this research is worthwhile to apply it to research the same issues in the other countries.

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## Appendix:

**Table 1: Exchange rate (National currency per US dollar, end of period. Source from IFS)**

Country Name	Japan	Korea	China
1950	361.10	2.50	
1951	361.10	6.00	
1952	361.10	6.00	
1953	360.80	18.00	
1954	360.80	18.00	
1955	360.80	50.00	
1956	360.80	50.00	
1957	359.66	50.00	2.462
1958	359.70	50.00	2.462
1959	359.20	50.00	2.462
1960	358.22	65.00	2.462
1961	361.77	130.00	2.462
1962	358.20	130	2.462
1963	361.95	130.00	2.462
1964	358.30	255.77	2.462
1965	360.90	271.78	2.462
1966	362.47	271.18	2.462
1967	361.91	274.60	2.462
1968	357.70	281.50	2.462
1969	357.80	304.45	2.462
1970	357.65	316.65	2.462
1971	314.80	373.30	2.462
1972	302.00	398.90	2.240
1973	280.00	397.50	2.020
1974	300.95	484.00	1.840
1975	305.15	484.00	1.966
1976	292.80	484.00	1.880

1977	240.00	484.00	1.730
1978	194.60	484.00	1.577
1979	239.70	484.00	1.496
1980	203.00	659.90	1.530
1981	219.90	700.50	1.746
1982	235.00	748.80	1.923
1983	232.20	795.50	1.981
1984	251.10	827.40	2.796
1985	200.50	890.20	3.202
1986	159.10	861.40	3.722
1987	123.50	792.30	3.722
1988	125.85	684.10	3.722
1989	143.45	679.60	4.722
1990	134.40	716.40	5.222
1991	125.20	760.80	5.434
1992	124.75	788.40	5.752
1993	111.85	808.10	5.800
1994	99.74	788.70	8.446
1995	102.83	774.70	8.317
1996	116.00	844.20	8.298
1997	129.95	1695.00	8.280
1998	115.60	1204.00	8.279
1999	102.20	1138.00	8.280
2000	114.90	1264.50	8.277
2001	131.80	1313.50	8.277
2002	119.90	1186.20	8.277
2003	107.10	1192.60	8.277
2004	104.12	1035.10	8.277
2005	117.97	1011.60	8.070
2006	118.95	929.80	7.809
2007	114.00	936.10	7.305



**Table 2: GDP Volume (Year 2000=100%) and GDP (2000 price)**  
(Source from IFS and UNSD)

Country Name	GDP Volume (2000=100)			GDP (2000 Price, Billion US Dollar )		
	Japan	Korea	China	Japan	Korea	China
1953		4.1				
1954		4.3				
1955	11.1	4.5				
1956	12.0	4.5				
1957	12.9	4.8				
1958	13.7	5.1				
1959	15.0	5.3				
1960	17.0	5.3	5.9	668.0	27.7	70.3
1961	18.9	5.6	4.3	748.4	29.1	51.3
1962	20.6	5.8	4.0	815.1	29.8	48.2
1963	22.3	6.3	4.4	884.1	32.7	53.1
1964	24.9	6.9	5.1	987.4	35.2	61.5
1965	23.6	7.3	6.0	1044.8	37.0	71.6
1966	26.1	8.2	6.6	1156.0	41.7	79.3
1967	28.8	8.7	6.2	1284.1	44.2	74.8
1968	32.4	9.6	6.0	1449.5	49.4	71.7
1969	36.4	11.0	7.0	1630.4	56.3	83.8
1970	39.8	11.9	8.3	1805.0	61.1	100.1
1971	41.5	12.9	8.9	1889.8	66.1	107.1
1972	44.9	13.5	9.3	2048.8	69.0	111.1
1973	48.5	15.1	10.0	2213.4	77.3	119.9
1974	47.9	16.2	10.2	2186.3	82.9	122.7
1975	49.1	17.2	11.1	2253.9	87.8	133.4
1976	51.5	19.0	10.9	2343.4	97.1	131.2
1977	54.2	20.9	11.8	2446.3	106.8	141.2
1978	57.0	22.8	13.2	2575.3	116.8	157.7
1979	59.9	24.4	14.2	2716.5	124.7	169.7

1980	62.1	24.0	15.3	2793.1	122.8	182.9
1981	64.0	25.5	16.1	2875.0	130.4	192.5
1982	65.7	27.3	17.5	2954.5	139.9	210.0
1983	66.8	30.3	19.4	3002.1	155.0	232.9
1984	68.9	32.8	22.38	3095.7	167.6	268.2
1985	72.3	35.0	25.4	3253.1	179.0	304.5
1986	74.5	38.7	27.6	3349.3	198.0	331.3
1987	77.3	43.0	30.8	3476.4	220.0	369.7
1988	82.6	47.6	34.3	3711.6	243.4	411.5
1989	87.0	50.8	35.7	3908.0	259.8	428.3
1990	91.5	55.4	37.1	4111.3	283.6	444.6
1991	94.6	60.6	40.5	4249.0	310.2	485.5
1992	95.5	64.2	46.3	4290.3	328.4	554.4
1993	95.7	68.1	52.7	4300.9	348.6	632.1
1994	93.4	73.9	59.6	4348.2	378.3	714.9
1995	95.2	80.7	66.1	4430.7	413.0	792.8
1996	97.9	86.4	72.8	4544.7	441.9	872.1
1997	99.4	90.4	79.5	4607.8	462.5	953.2
1998	97.3	84.2	85.7	4526.8	430.8	1027.5
1999	97.2	92.2	92.3	4516.9	471.6	1105.6
2000	100.0	100.0	100.0	4649.6	511.7	1198.5
2001	100.2	103.8	108.3	4667.5	531.3	1298.0
2002	100.4	111.1	118.2	4673.7	568.3	1416.1
2003	101.9	114.5	130.0	4756.8	585.9	1557.7
2004	104.7	119.9	143.1	4866.3	613.6	1715.0
2005	106.7	125.0	157.7	4992.8	639.4	1889.9
2006	109.2	131.2	174.6	5102.7	671.3	2092.2
2007	111.5	137.7				
<b>Source from</b>	IFS	IFS	UNSD	UNSD	UNSD	UNSD

**Table 3: Total Reserves Minus Gold (Millions U.S. dollar. Source from IFS)**

Country Name	Japan	Korea	China
1950	598	25.3	
1951	1034	36.8	
1952	1085	81.4	
1953	874.06	107.3	
1954	909.06	105.5	
1955	1053.5	94.8	
1956	1247.5	97.2	
1957	805.000	114.1	
1958	1008.5	144.9	
1959	1202	145.5	
1960	1702	155.2	
1961	1379	205.2	
1962	1732.01	166.8	
1963	1769.01	129.6	
1964	1715.08	133.6	
1965	1824.29	143.0	
1966	1790.1	241.8	
1967	1691.63	353.2	
1968	2550.04	387.7	
1969	3240.69	549.5	
1970	4307.53	606.3	
1971	14621.9	433.5	
1972	17563.6	523.0	
1973	11354.6	884.8	
1974	12614.3	277.2	
1975	11950.2	781.3	
1976	15746.3	1970.0	
1977	22341.0	2967.1	2345.0
1978	32407.2	2763.9	1557.0

1979	19521.5	2959.2	2154.0
1980	24636.5	2924.9	2545.2
1981	28208.4	2681.7	5058.1
1982	23334.0	2807.3	11348.9
1983	24601.6	2346.7	14986.6
1984	26429.2	2753.6	17366.0
1985	26718.7	2869.3	12728.1
1986	42256.6	3319.6	11453.0
1987	80972.9	3583.7	16304.9
1988	96728.2	12346.7	18541.3
1989	83957.4	15213.6	17959.9
1990	78500.6	14793.0	29586.2
1991	72058.8	13701.1	43674.3
1992	71622.7	17120.6	20620.4
1993	98524.3	20228.2	22386.9
1994	125860.0	25639.3	52914.1
1995	183250.0	32677.7	75376.7
1996	216648.0	34037.1	107039.0
1997	219648.0	20367.9	142762.0
1998	215471.0	51974.5	149188.0
1999	286916.0	73987.3	157728.0
2000	354902.0	96130.5	168278.0
2001	395155.0	102753.0	215605.0
2002	461186.0	121345.0	291128.0
2003	663289.0	155284.0	408151.0
2004	833891.0	198997.0	614500.0
2005	834275.0	210317.0	821514.0
2006	879682.0	238882.0	1068490.0
2007	952784.0	262150.0	1530280.0

**Table 4: CPI (2000=100%. Source from UNSD)**

Country Name	Japan	Korea	China	United States
1950	12.29			13.97
1951	14.32			15.08
1952	15.03			15.42
1953	16.02			15.53
1954	17.06			15.61
1955	16.89			15.55
1956	16.89			15.78
1957	17.45			16.32
1958	17.37			16.77
1959	17.55			16.93
1960	18.18			17.18
1961	19.17			17.37
1962	20.46			17.56
1963	22.03			17.77
1964	22.88			18.01
1965	24.39			18.31
1966	25.63	4.59		18.85
1967	26.65	5.08		19.38
1968	28.08	5.63		20.21
1969	29.55	6.34	20.3	21.29
1970	31.82	7.36	20.3	22.54
1971	33.81	8.35	20.29	23.51
1972	35.49	9.32	20.32	24.28
1973	39.62	9.62	20.33	25.79
1974	48.81	11.96	20.46	28.64
1975	54.54	14.99	20.55	31.25
1976	59.67	17.29	20.61	33.05
1977	64.53	19.05	21.17	35.19
1978	67.23	21.81	21.32	37.88
1979	69.73	25.78	21.72	42.15

1980	75.17	33.18	23.35	47.85
1981	78.87	40.27	23.94	52.78
1982	81.03	43.16	24.43	56.03
1983	82.56	44.64	24.91	57.83
1984	84.42	45.67	25.59	60.33
1985	86.15	46.79	28.64	62.48
1986	86.68	48.08	30.65	63.64
1987	86.78	49.54	33.34	66.02
1988	87.34	53.09	40.24	68.67
1989	89.34	56.11	46.8	71.98
1990	92.08	60.93	47.4	75.87
1991	95.09	66.59	49.82	79.08
1992	96.72	70.79	53.65	81.48
1993	97.95	74.15	62.8	83.88
1994	98.63	78.79	78.51	86.07
1995	98.51	82.32	91.71	88.49
1996	98.63	86.37	99.33	91.08
1997	100.38	90.22	102.12	93.21
1998	101.05	96.99	101.31	94.66
1999	100.71	97.78	99.89	96.73
2000	100.00	100.00	100	100.00
2001	99.24	104.06	100.7	102.82
2002	98.35	106.94	99.89	104.45
2003	98.11	110.69	101.09	106.82
2004	98.11	114.67	120.5	109.68
2005	97.83	117.82	129.5	113.41
2006	98.06	120.46	137.3	117.06

China's exchange-rate regime reform policies have fluctuated since the early 1990s, experiencing at least six significant policy changes: 1994 unification, 1998 stabilization, 2005 reform, 2008 stagnation, 2010 relaunch and 2015 RMB reform. This policy fluctuation plausibly suggests that China has behaved as a speculative pragmatist without being disciplined by established and consistent values, principles or national interests, particular against the backdrop of the current international power transition. The SVAR evidence suggests that exchange rate stability plays a unique and significant role for price stability in China. View. Show abstract. This article examines the advantages of sourcing from China, Taiwan, South Korea, and Mexico for U.S. apparel imports. The study focuses on China, Japan, South Korea and Taiwan. These countries pursue fixed, floating and intermediate regimes respectively. The hypothesis is that since the countries jointly organize East Asian production networks and conduct vertical intra-industry trade (VIIT), [Show full abstract] the impact of exchange rate flexibility would be negative irrespective of their exchange rate regimes. The results validate the hypothesis. Specifically, we develop an external sector model for Japan and Taiwan, in which the deviation of the exchange-rate from its long-run equilibrium plays an active role as the short-run corrective force in the BOP adjustment process. We shall show that corrective forces of the exchange rate Chinese Foreign Policy Towards North Korea under Xi Jinping. The policy scholars who deal with China and North Korea are roughly divided into two categories. The first type are the Chinese domestic scholars who support a relatively moderate policy of China to the DPRK. [South Korea] Dongjin Jeong dissertation China's policy towards North Korea [D] The nuclear issue of Mater for Naval Postgraduate school in 2012 8 Zbigiew Brzezinski, who has a PhD from Harvard University and was the 10th National Security Advisor in the US, The Grand Chessboard - American Primacy and Its Geostrategic Imperatives -The far eastern anchor: [B] Publisher Basic Books China seems to have modified its exchange rate regime once again. The daily fix no longer needs to reflect the previous day's market close quite as closely. Keith Bradsher of the New York Times If China scales back on its current stimulus too aggressively both by curbing the growth of credit through prudential policies and in effect engaging in fiscal tightening by limiting off balance sheet fiscal stimulus from local governments with a constant exchange rate, China's external surplus could rise.\*\*\* The win-win takes more than exchange rate reform, or, if you prefer, a reversal of exchange reform. Exchange rates and China's processed exports. How would appreciations affect East Asia's surpluses? China's surpluses are concentrated in the processing trade regime. Imports for processing are parts and components that enter China duty free and that can only be used to produce goods for re-export. It would be difficult for Korea, Taiwan, Japan, and other Asian economies if their currencies appreciated. However, appreciations would disrupt trade much less than equivalent tariffs. Benassy-Queret et al. No Asian country wants to let its exchange rate appreciate against the US dollar for fear of losing price competitiveness relative to its Asian neighbours. However, perennial surpluses put pressure on their currencies to appreciate.