

*RIETI/ADBI Symposium, June 29, 2007*

# Ten Years After: Learning from the Asian Financial Crisis

*Discussion for Session II:*

## **The Effect of Exchange Rate Devaluation on the Domestic Price Inflation and the Feasibility of Regional Monetary Arrangements**

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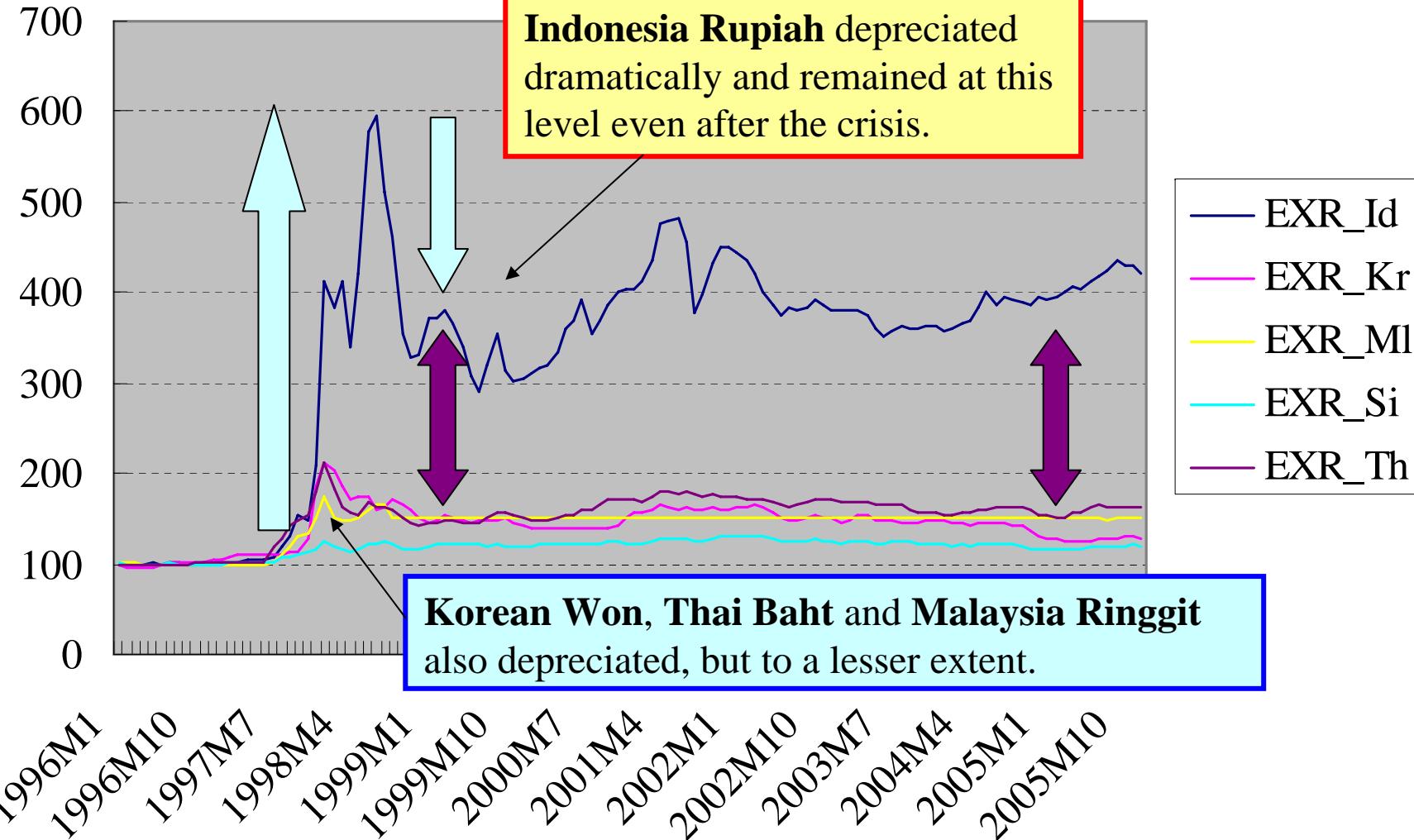
*Yokohama National University*



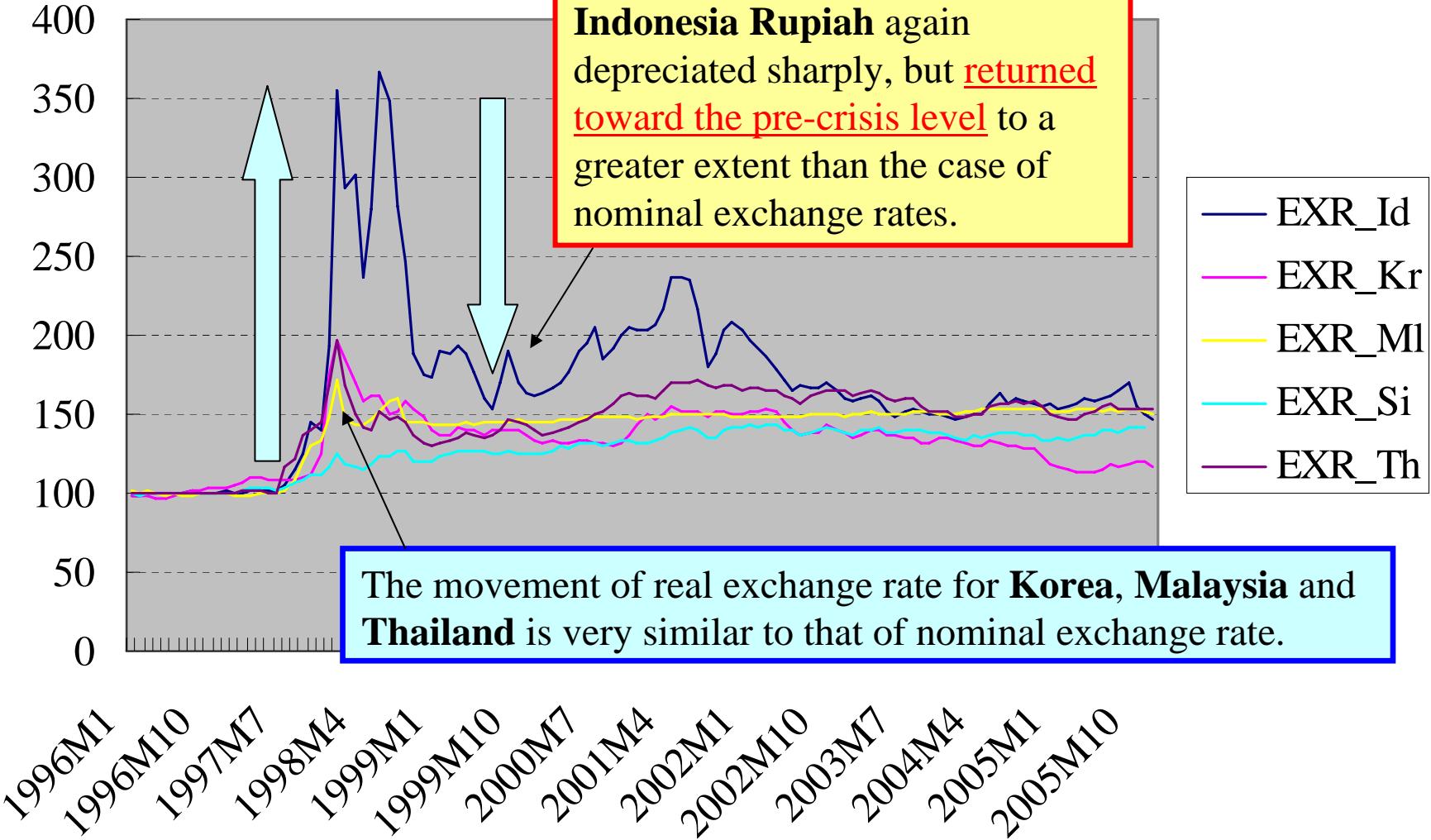
# Exchange Rate Movements in the Crisis Period

- How different the fluctuation of the exchange rate in **nominal** and **real** terms?
- How different **across countries**?

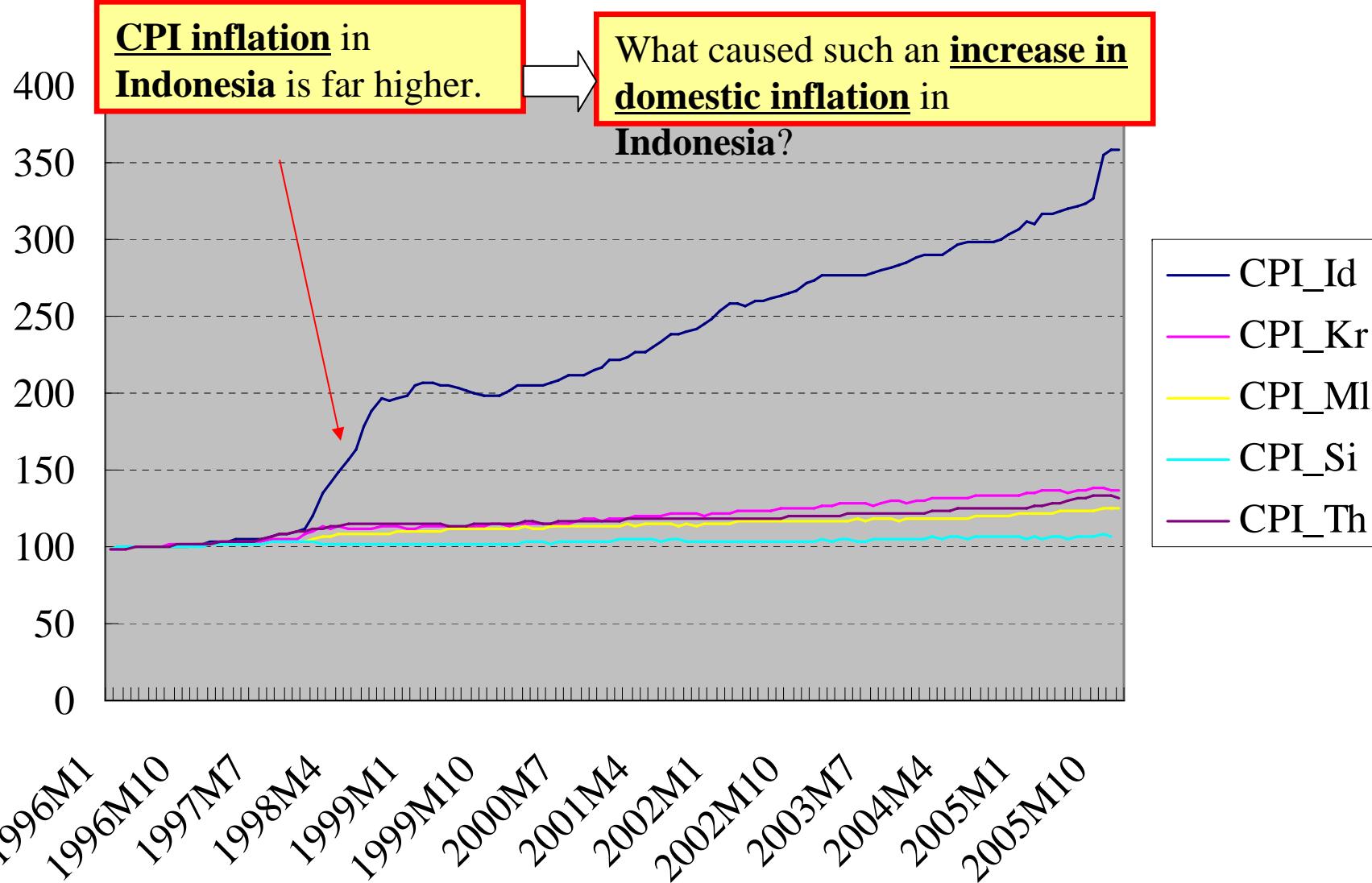
## Nominal Exchange Rate vis-à-vis the US Dollar (1996=100)



## Real Exchange Rate vis-à-vis the US Dollar (1996=100)



## CPI (1996=0): East Asian Countries





# Why domestic price increased so high in Indonesia?

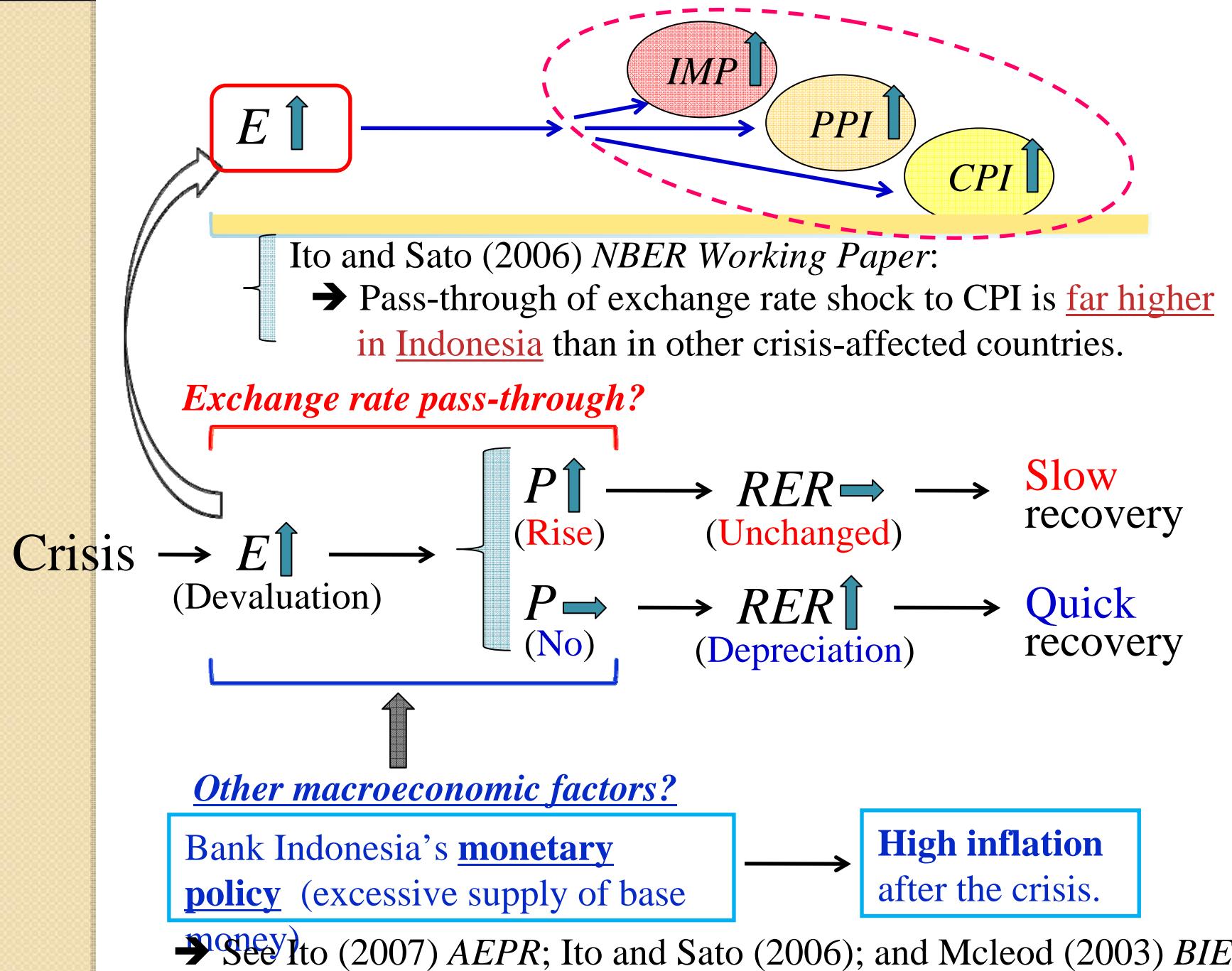
Currency devaluation



Increase in domestic price



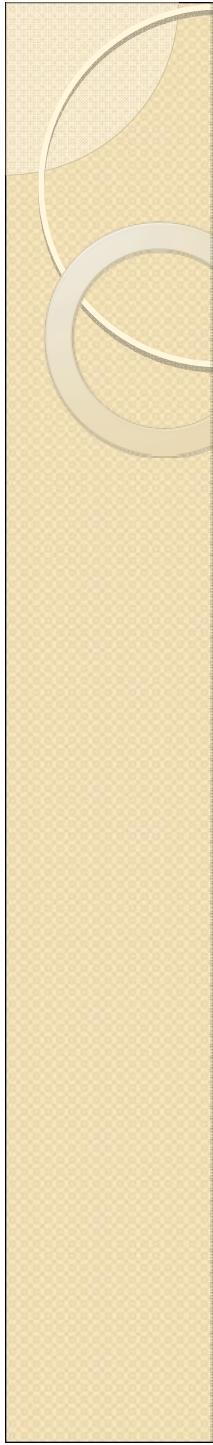
Significant impact on  
the post-crisis recovery process.





# Lessons from the Crisis

- Appropriate monetary policy is important.
  - Indonesia expanded the supply of base money excessively.  
→ This likely caused a very high inflation in Indonesia.
- Important to keep the inflation rate lower.
  - Domestic price ↑  
→ RER appreciation  
→ Lose the export price competitiveness



# Regional Monetary Arrangement?

- US dollar peg system:
  - Not appropriate for East Asian countries.
- Regional monetary union or regional monetary unit?
  - Promising idea.
  - → **Question:** Does East Asia now meet the preconditions for a monetary union?



# Analysis of Shock Symmetry

- Econometric technique (structural VAR):
  - Identify the fundamental shock to the country.
  - Correlation analysis of shocks.
- If shock is closely correlated among the countries...
  - It would be less costly for regional countries to react to the shock by using the common monetary policy.



# Results

- Correlation Analysis for 3 sub-periods:
  - (1) 1981Q1 – 1988Q4
  - (2) 1989Q1 – 1996Q4
  - (3) 1999Q1 – 2006Q4

# Supply Shock Correlation: 1981Q1 – 1988Q4

## 1. Supply Shock Correlation: 1981Q1-1988Q4

	US	JP	KR	TW	HK	SG	MY	ID	TH	PH	CH
United States	1.00										
Japan	0.08	1.00									
Korea	0.00	-0.06	1.00								
Taiwan	-0.27	-0.14	<b>0.44</b>	1.00							
Hong Kong	-0.06	0.15	0.28	<b>0.32</b>	1.00						
Singapore	0.20	-0.13	-0.10	0.15	<b>0.51</b>	1.00					
Malaysia	-0.14	-0.11	0.07	0.20	-0.01	0.26	1.00				
Indonesia	0.26	-0.12	<b>0.32</b>	0.12	0.04	-0.09	<b>0.33</b>	1.00			
Thailand	-0.10	0.09	-0.03	-0.04	-0.03	<b>0.31</b>	0.28	0.03	1.00		
Philippines	-0.02	0.13	0.04	-0.20	-0.15	-0.27	-0.27	-0.05	0.11	1.00	
China	-	-	-	-	-	-	-	-	-	-	-

Note: Bold figures if they are 0.30 or over. Blue colored figures if they are 0.40 or over.

# Supply Shock Correlation: 1989Q1 – 1996Q4

## 2. Supply Shock Correlation: 1989Q1-1996Q4

	US	JP	KR	TW	HK	SG	MY	ID	TH	PH	CH
United States	1.00										
Japan	-0.17	1.00									
Korea	0.11	0.15	1.00								
Taiwan	-0.27	-0.20	0.04	1.00							
Hong Kong	0.25	-0.21	-0.05	-0.44	1.00						
Singapore	0.02	-0.31	0.13	-0.03	-0.17	1.00					
Malaysia	-0.18	-0.05	0.28	0.09	-0.14	0.10	1.00				
Indonesia	0.10	-0.07	-0.17	0.08	-0.23	0.03	-0.18	1.00			
Thailand	-0.22	0.02	-0.06	0.16	-0.09	-0.08	-0.04	0.07	1.00		
Philippines	<b>0.31</b>	0.27	0.07	0.01	-0.20	0.14	0.13	0.12	-0.04	1.00	
China	-0.13	-0.20	-0.27	0.24	-0.11	0.08	-0.11	0.32	0.02	-0.39	1.00

Note: Bold figures if they are 0.30 or over. Blue colored figures if they are 0.40 or over.

# Supply Shock Correlation: 1999Q1 – 2006Q4

## 3. Supply Shock Correlation: 1999Q1-2006Q4

	US	JP	KR	TW	HK	SG	MY	ID	TH	PH	CH
United States	1.00										
Japan	0.08	1.00									
Korea	0.08	<b>0.33</b>	1.00								
Taiwan	0.24	0.17	<b>0.30</b>	1.00							
Hong Kong	0.29	0.21	<b>0.44</b>	<b>0.60</b>	1.00						
Singapore	<b>0.41</b>	-0.02	0.24	<b>0.48</b>	<b>0.65</b>	1.00					
Malaysia	0.22	0.29	<b>0.46</b>	<b>0.46</b>	<b>0.38</b>	0.26	1.00				
Indonesia	-0.05	0.16	0.07	-0.11	0.21	0.18	0.06	1.00			
Thailand	0.26	0.06	0.02	-0.16	0.01	0.27	0.14	0.15	1.00		
Philippines	0.02	0.27	<b>0.32</b>	<b>0.45</b>	<b>0.42</b>	0.18	<b>0.38</b>	0.13	0.03	1.00	
China	-0.04	0.13	-0.19	0.22	0.26	0.26	0.07	0.15	0.25	0.21	1.00

Note: Bold figures if they are 0.30 or over. Blue colored figures if they are 0.40 or over.