

# Exchange Rates During the Crisis

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# Policy Choice: Measures Taken

- ▶ Emphasis on not repeating past policy mistakes
- ▶ Authorities have taken far reaching steps:
  - ▶ Enormous fiscal expansion via incr. spending and tax rebates
  - ▶ Subsidies to stipulate private spending
  - ▶ Drastic cuts in interest rates
  - ▶ Quantitative and Credit Easing
  - ▶ Extended emergency loan programs and bail outs
- ▶ Individual and Coordinated Measures

## Policy Choice: What can still be done?

- ▶ Output gap has stopped widening but has not closed
- ▶ Unemployment (unrest?) comes with a lag
- ▶ No more room for interest rate cuts
- ▶ Will easing deliver?
- ▶ Public debt levels are high
- ▶ Countries started already resorting to foreign exchange related measures

# Several countries did adjust exchange rates

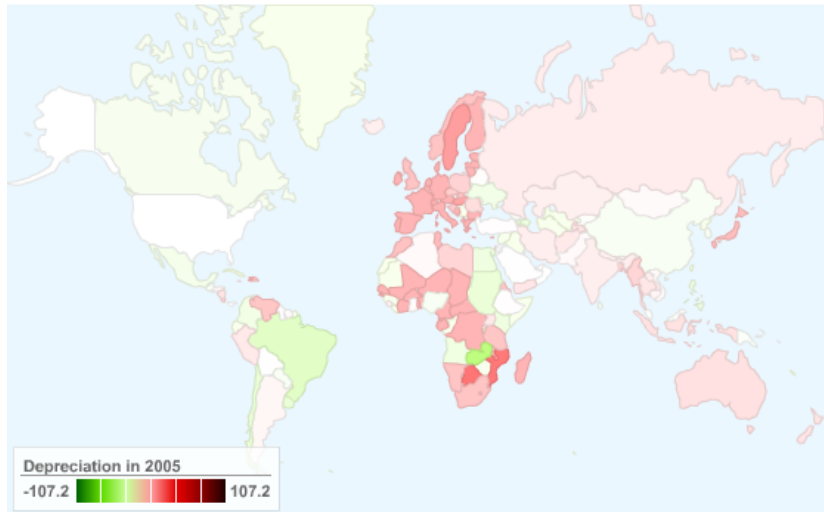
## Measures Taken Since End 2008 (Indicative, non exhaustive list)

Exchange Rate		
Date	Country	Measure
Oct. 2008	Iceland	Failed attempt to introduce currency peg as capital flight lead to heavy depreciation
Oct. 2008	Angola	Devaluation (10%)
Dec. 2008	Ukraine	Devaluation (30%)
Jan. 2009	Belarus	Devaluation (20%)
Feb. 2009	Argentina	"Managed (gradual)" Depreciation
Feb. 2009	Russia	"Managed (gradual)" Depreciation
Feb. 2009	Kazakhstan	Devaluation (18%)
Mar. 2009	Armenia	Devaluation (30%)
Mar. 2009	Switzerland	Devaluation (5%)
Mar. 2009	Vietnam	Widening of Exchange Rate Band
Apr. 2009	Singapore	Lowering of the trading band (<2%)
Apr. 2009	Fiji	Devaluation (20%)

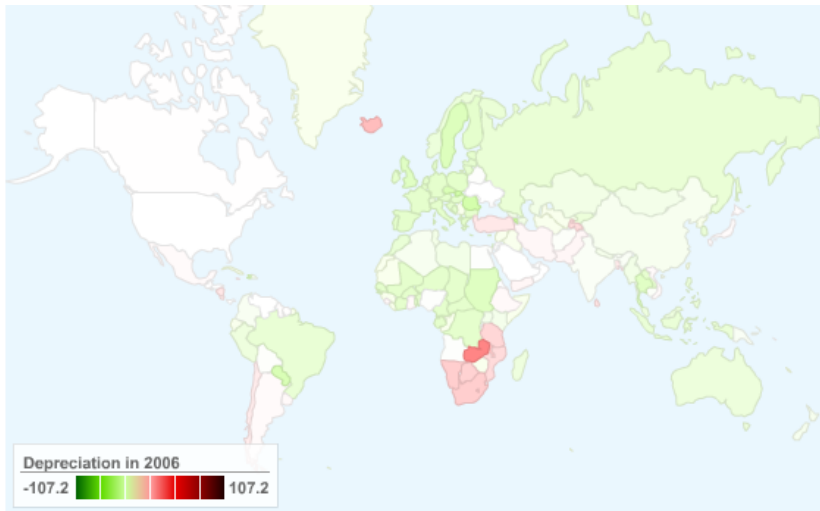
# Policy Choice: Why care about the exchange rate?

- ▶ If we are concerned about tariff increases..
- ▶ ..we should be even more concerned about exchange rate moves
- ▶ Simplified: A devaluation/depreciation of 20% is equivalent to an increase in ALL import tariffs by 20%
- ▶ Tend to reduce imports more than it boosts exports
- ▶ Difficulty: Some exchange rate movements are balancing while others are not

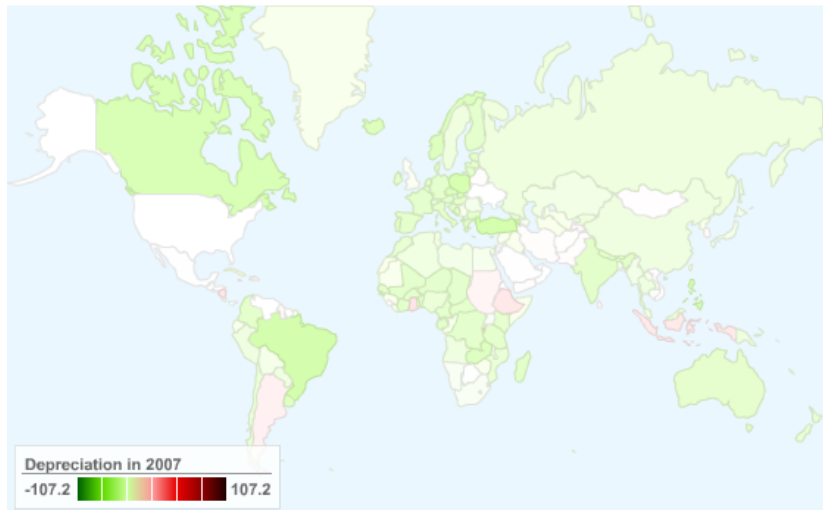
## Depreciation against US dollar in 2005



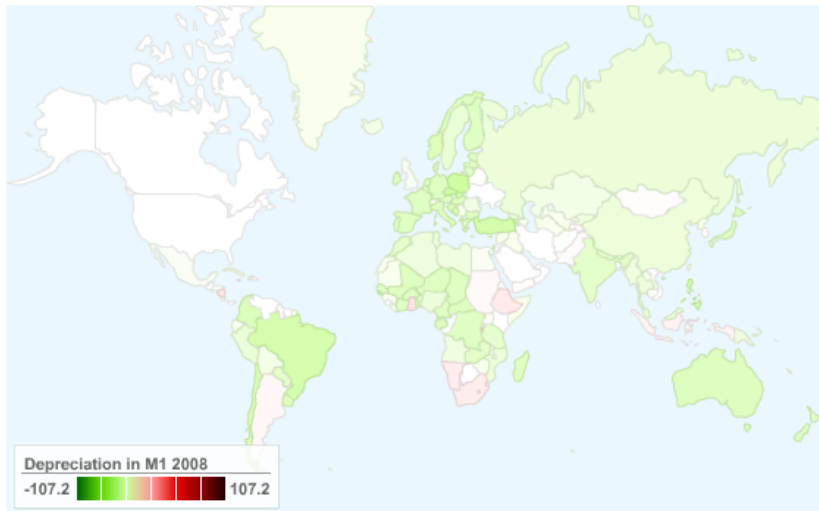
## Depreciation against US dollar in 2006



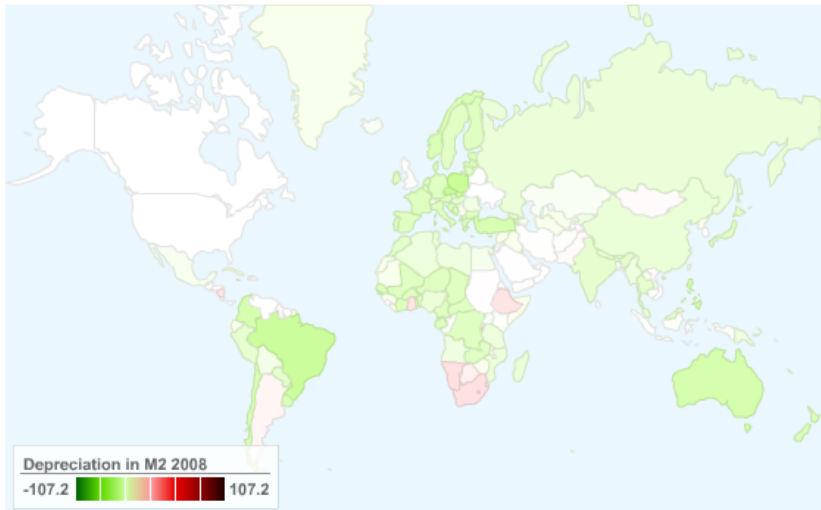
## Depreciation against US dollar in 2007



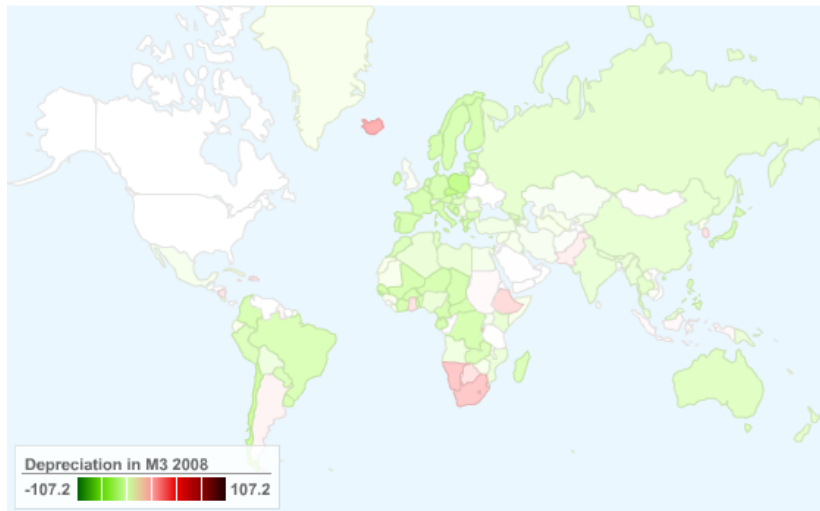
## Depreciation against US dollar in the Crisis (M1 2008)



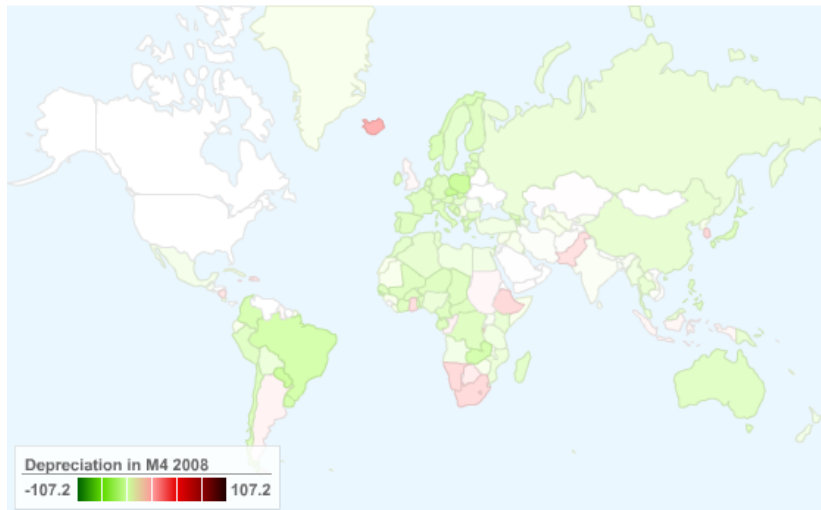
## Depreciation against US dollar in the Crisis (M2 2008)



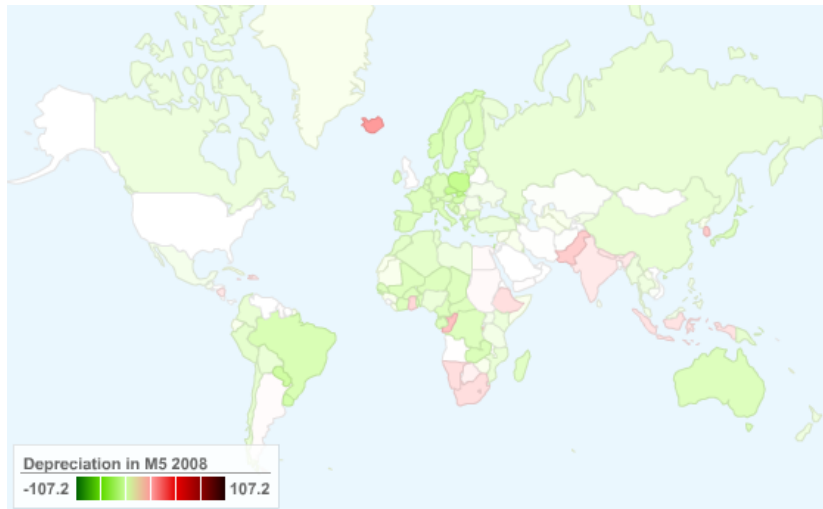
## Depreciation against US dollar in the Crisis (M3 2008)



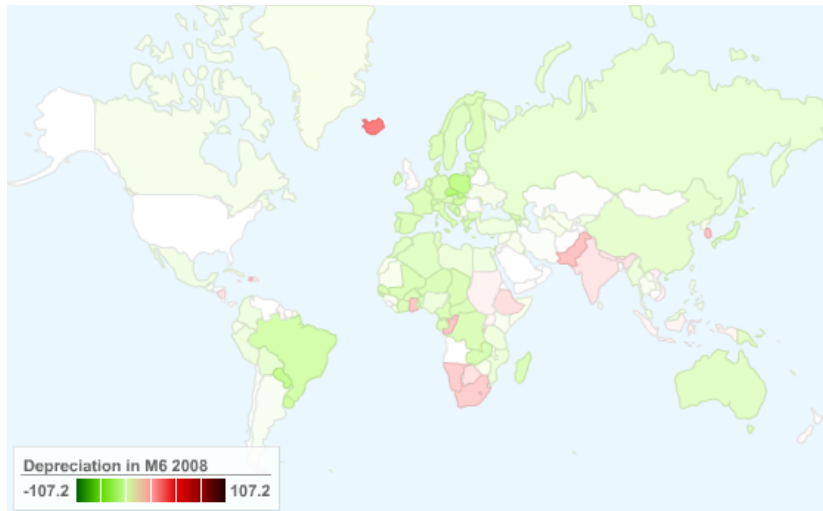
## Depreciation against US dollar in the Crisis (M4 2008)



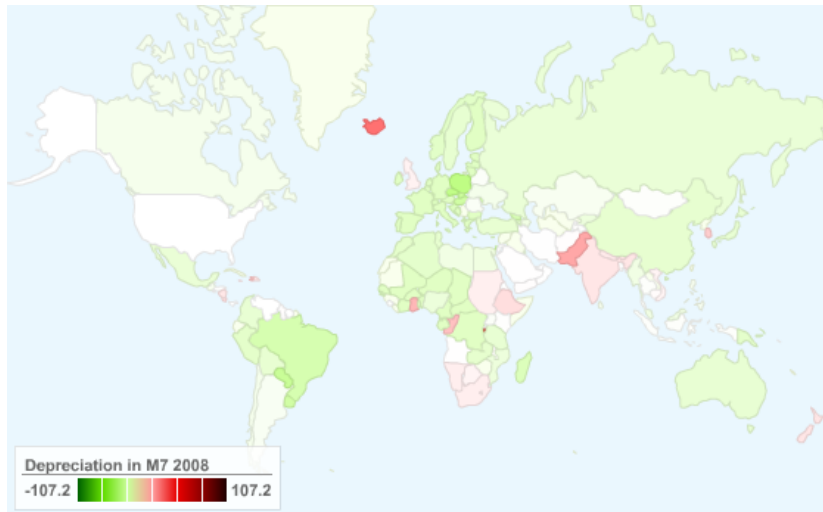
## Depreciation against US dollar in the Crisis (M5 2008)



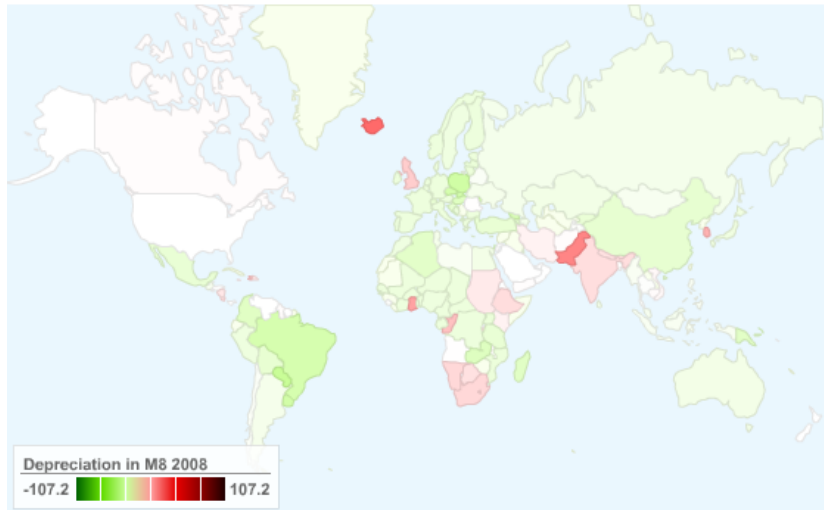
## Depreciation against US dollar in the Crisis (M6 2008)



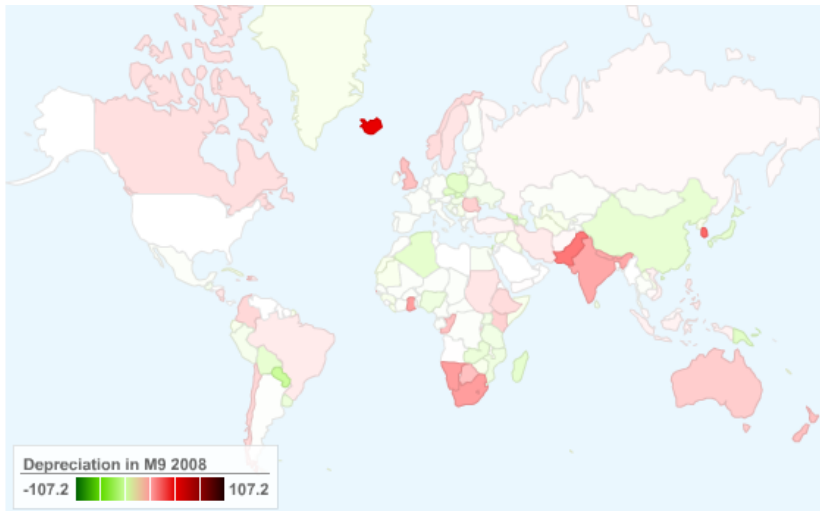
## Depreciation against US dollar in the Crisis (M7 2008)



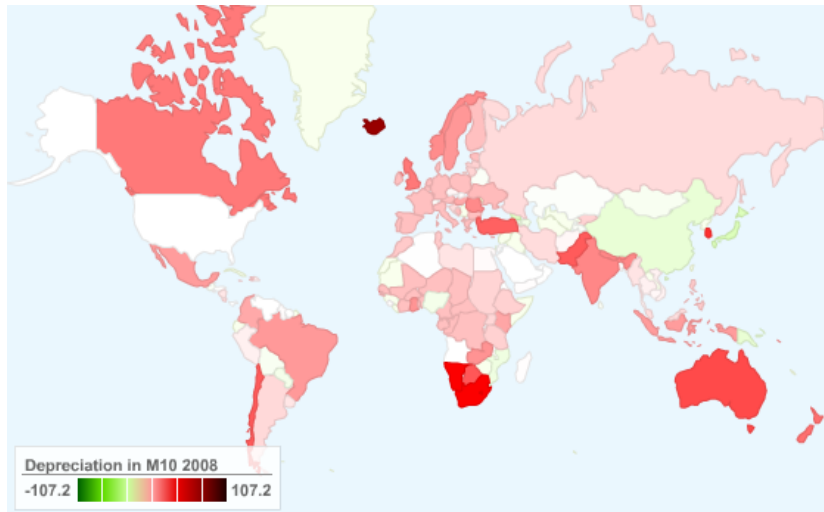
## Depreciation against US dollar in the Crisis (M8 2008)



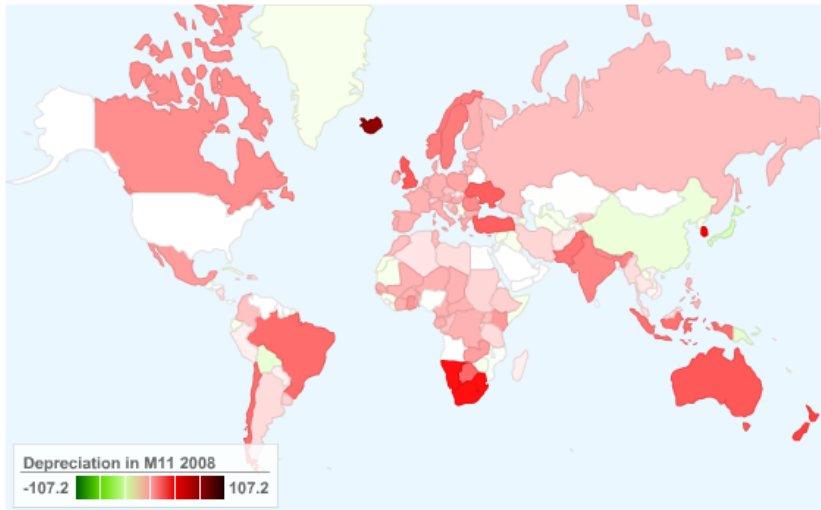
## Depreciation against US dollar in the Crisis (M9 2008)



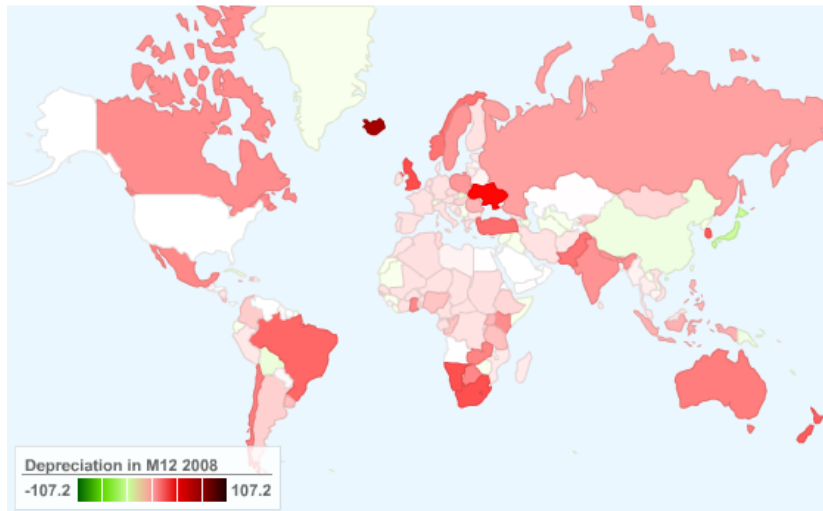
## Depreciation against US dollar in the Crisis (M10 2008)



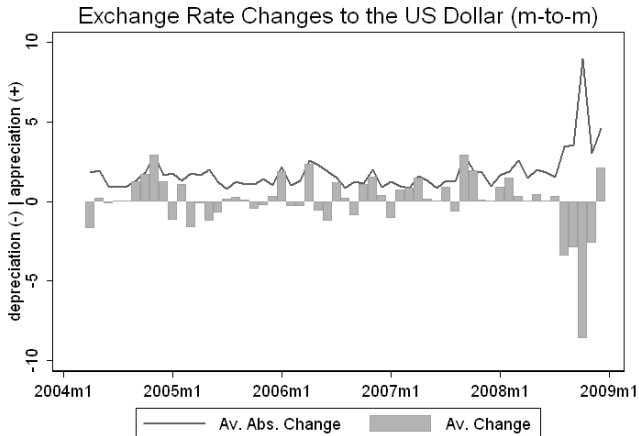
## Depreciation against US dollar in the Crisis (M11 2008)



## Depreciation against US dollar in the Crisis (M12 2008)



Exchange rates have been moving a lot during the crisis



# The Remainder of the Talk

- ▶ Assess to which extent major export nations face incentive to manipulate their exchange rate
  - ▶ Economic Incentives
  - ▶ Constraints on other Policy Dimensions
  - ▶ Willingness
- ▶ How third market effects can give rise to a bottom up contagion of exchange rate drops
- ▶ What can be done?

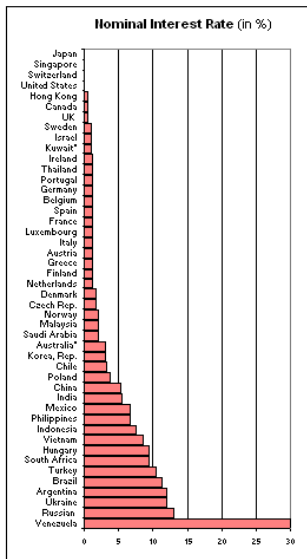
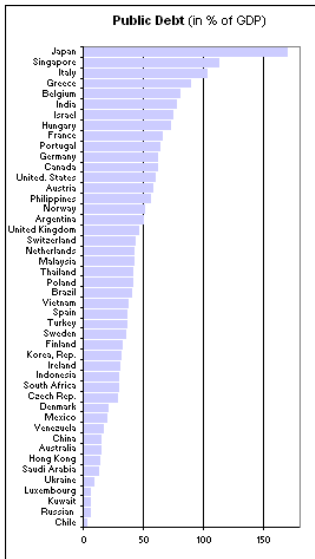
## Exchange Rate Considerations

The incentive to manipulate the exchange rate is a pos. function of:

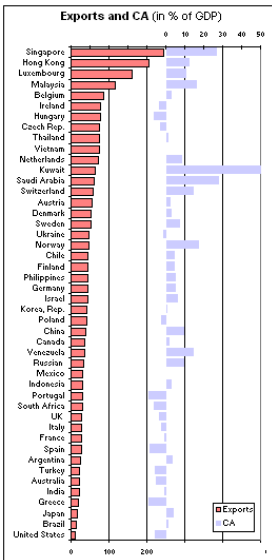
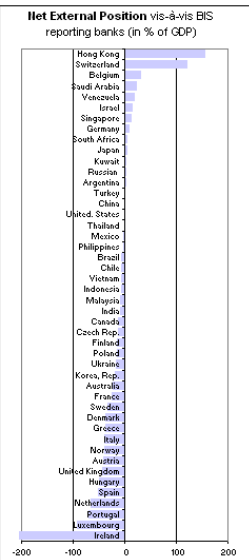
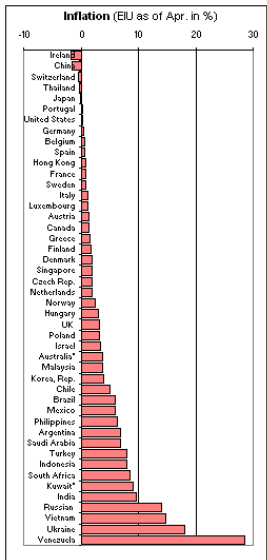
$$\Pr(\text{Devaluation}) = F(\text{Exp. Benefits, Constraints, Willingness})$$

1. Benefits =  $f(\text{Size of Exports}^+, \text{Inflation}^-, \text{Foreign Debt}^-, \dots)$
2. Policy Constraints =  $g(\text{Interest rate}^-, \text{Public Debt}^+, \dots)$
3. Willingness =  $h(\text{Contraction}^+, \text{Competitive}^-, \text{Prev. Underval.}^+, \dots)$

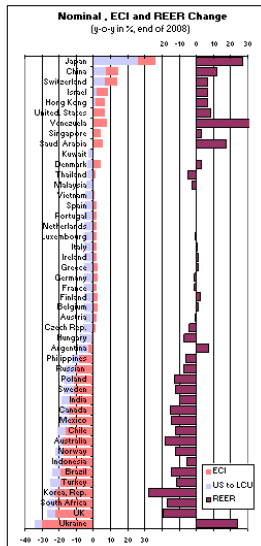
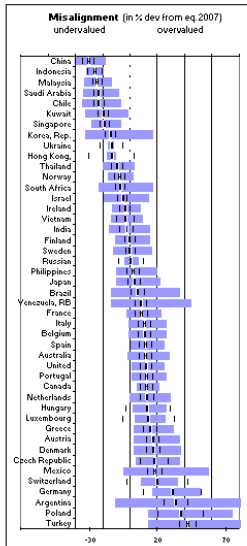
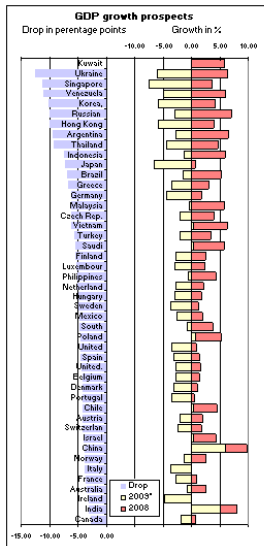
## Constraints



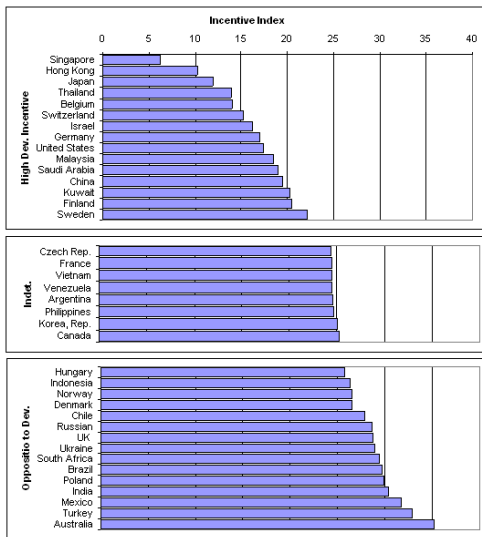
## Benefits



# Willingness



## Bringing it all together





# Contagion

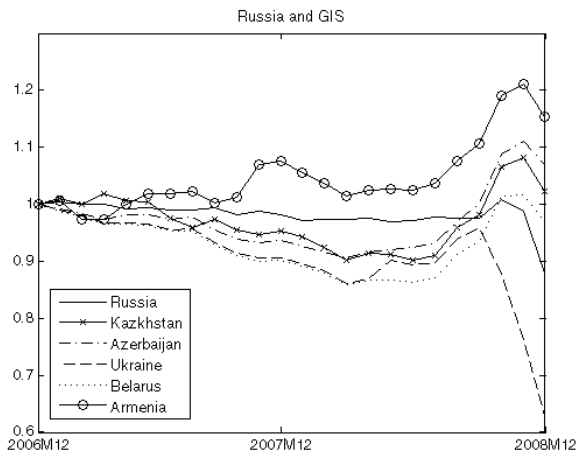
Tit - for - Tat Logic:

- ▶ Country A devalues making its goods more competitive in country C
- ▶ Country B loses market share in country C
- ▶ Country B decides to 'restore equal terms' and devalues
- ▶ But now country D has lost ground against A and B and devalues
- ▶ Country C's trade balance starts deteriorating, so it devalues
- ▶ The whole region gained competitiveness outpricing region E which produces similar products
- ▶ Hence, region E.....

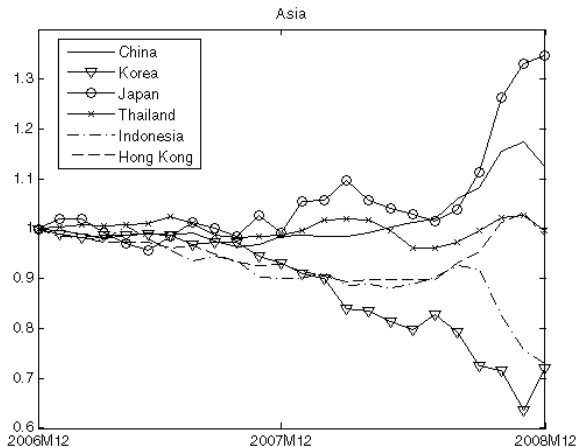
- ▶ No simple agreed upon measure for contagion
- ▶ Approximate by the described third market competition
- ▶ Compare the nominal exchange rate competitiveness of own exports rel. to all competitors' exports in the third market and weight each competitor by his market share in the third market:
- ▶ Final Index is the sum of changes in competitiveness in all third markets, weighted by the importance of each market for the home country:

The exact formulas are given by  $\Delta MCI_t^{i,k} = \Delta E_t^{i,k} - \frac{1}{1-\mu_{i,k}} \sum_{j \neq i} \mu_{j,k} \Delta E_t^{j,k}$  and  $\Delta ECI_t^i = \sum_{k \neq i} \omega_{i,k} \Delta MCI_t^{i,k}$  where  $\omega_{i,k}$  is the share country i's exports to country k relative to country i's total exports (market importance) and  $\mu_{i,k}$  is the share country i's exports to country k relative to all countries exports to country k (market share)

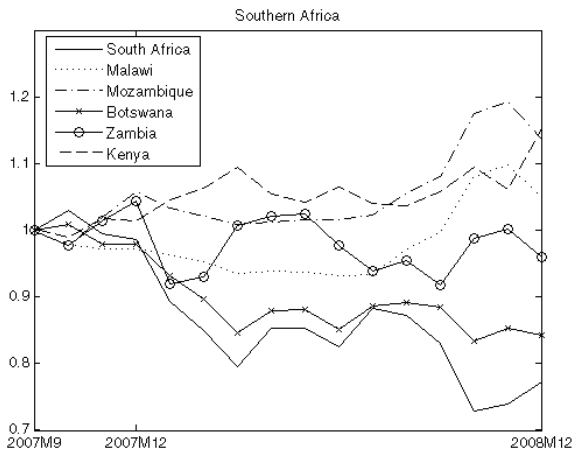
## Ukraine's and Russia's depreciation triggered responses



## Increased pressure on Japan and China



## Divergence in Southern Africa may trigger adjustments



## Conclusion I

- ▶ Coordination to allocate desirable exchange rate changes impossible
- ▶ Potential trade-off between exchange rate changes required to alleviate the crisis and those that move in the direction of resolving the global imbalances
- ▶ Lack of activism among the fixers could be seen as reassuring
- ▶ If fiscal policy remains main instrument, stabilizing exchange rates is desirable since it enhances fiscal policy effectiveness

## Conclusion II

- ▶ Limits of policy measures are near
- ▶ and recent exchange rate shifts have altered competitiveness
- ▶ To avoid use and spread of exchange rate devaluations need:
  1. Further coordination on monetary policy: when does easing become beggar-thy neighbor?
  2. Make cost of outside options low by providing easy funding (via IMF)
  3. Capital controls need to be monitored to avoid measures which interfere with trade and may backfire

Thank you.

*...Having spent a fortune bailing out their banks, Western governments will have to pay a price in terms of higher taxes to meet the interest on that debt. [...] higher taxes will be needed to meet the claims of foreign creditors. Given the political implications of such austerity, the temptation will be to default by stealth, by letting their currencies depreciate. (Economist, 15.05.2009)*

*...a key conclusion from the IMF's new World Economic Outlook is that recessions caused by financial crisis typically end with export booms [...] I find this a disturbing result: we are now suffering from a global financial crisis, which means that the usual driver of recovery will only be available if we can find another planet to export to. (Krugman, 27.04.2009)*

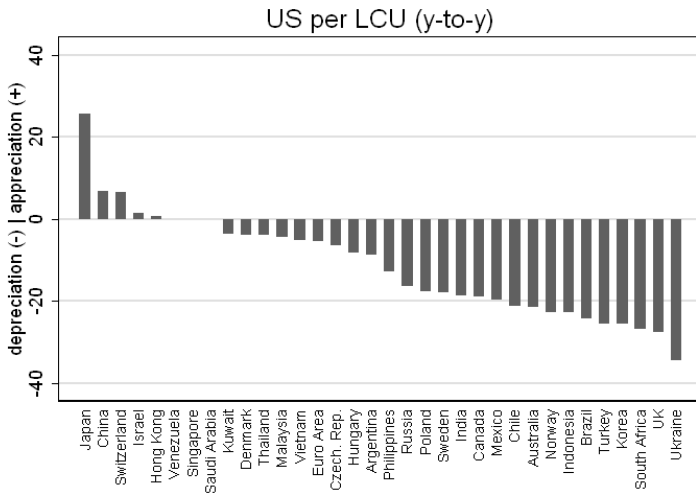
# Capital controls

## Measures Taken Since End 2008 (Indicative, non exhaustive list)

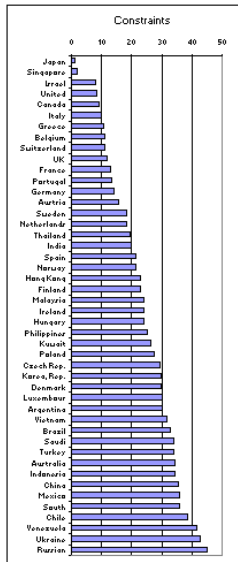
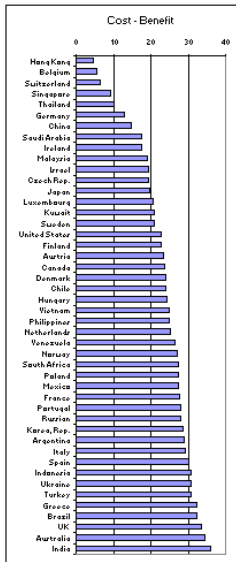
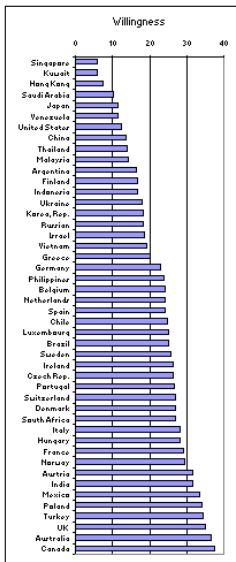
### Capital Account and Forex

Date	Country	Measure
Oct. 2008	Iceland	Various controls restricting capital movements
Dec. 2008	Ukraine	Restriction on Forex Sales and Purchase.
Feb. 2009	Nigeria	Prevent foreign exchange dealing between banks
Feb. 2009	Venezuela	Limits on purchase of "Travel" Dollars
Feb. 2009	Angola	Tightening of Forex Controls
Mar. 2009	Zambia	Ban on foreign borrowing in local currency and use of US dollar in domestic transaction.
Mar. 2009	Vietnam	"Punishment" for trading outside the ex-rate band
Mar. 2009	Uzbekistan	Use of foreign currency within 7 days after purchase, otherwise obligation to sell back to banks.
Mar. 2009	Argentina	<i>Lift of former capital controls from 2005</i>
Apr. 2009	Bolivia	Ban for banks to buy or sell U.S. dollars for much more or less than the official exchange rate.
Apr. 2009	Kazakhstan	Limitation on forex trading at exchange offices.

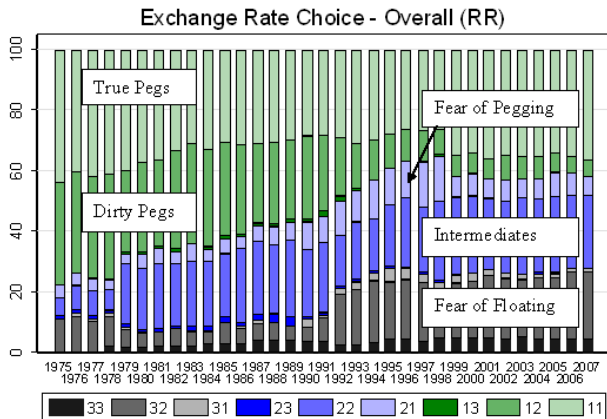
## Exchange Rate Movements Throughout the Crisis



# Major Export Nations (Bottom up) Contagion Conclusion



## Exchange Rates since 1974: Words and Actions



## Latin America gives no clear picture

