

Asian financial market interactions with the US and  
China: A structural-VAR approach  
by  
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Discussion by  
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## Thought provoking paper on US, China and Asian financial markets

- Enjoyable presentation with many interesting empirical results
- Important Question: Does the US or China have a greater impact on Asian financial markets?
- If we go back far enough in time it was certainly the US
- The paper finds that in the period before the crisis China and the US have equal impacts on Asian stock markets
- During the crisis the US is more important.
- Before addressing these results lets look at the broader changes that motivate this paper

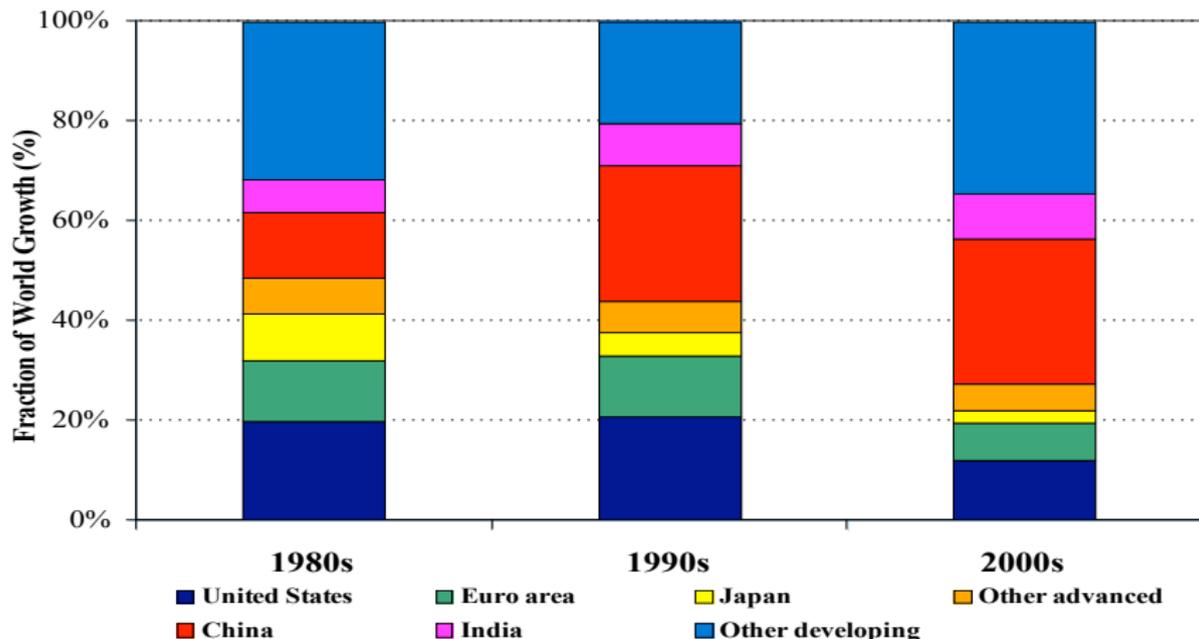
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Diminished role for US, Expanded role for China

## Contributions to World Growth

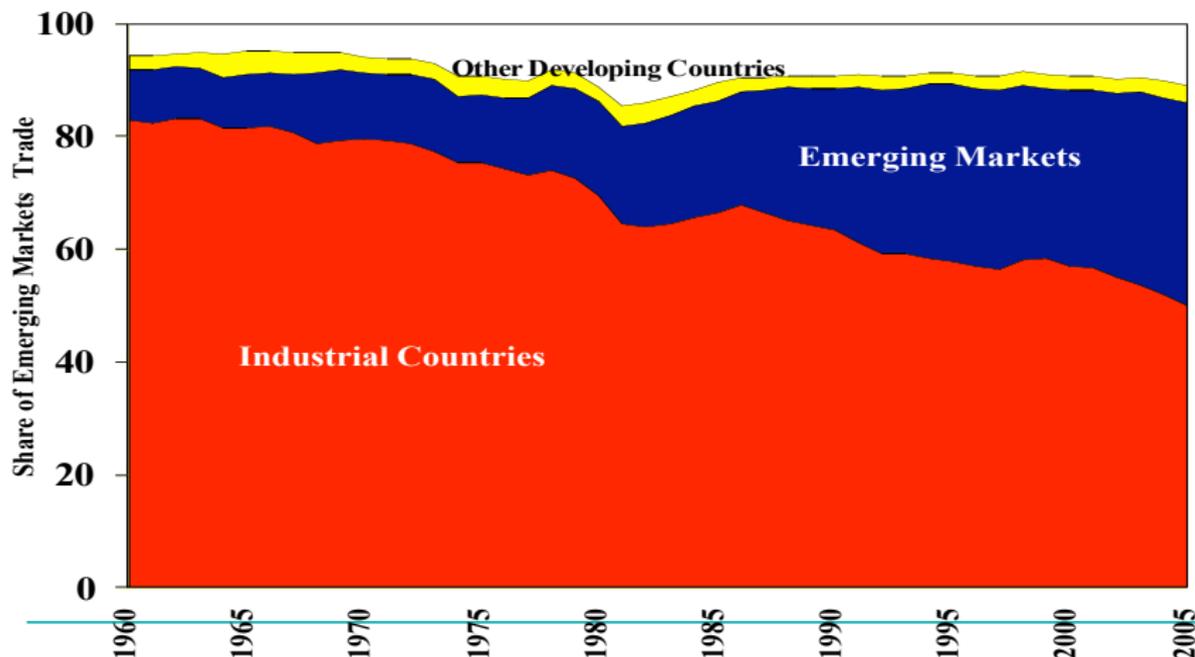
*Developing Countries' Share Increasing (based on PPP)*



## Greater within group trade

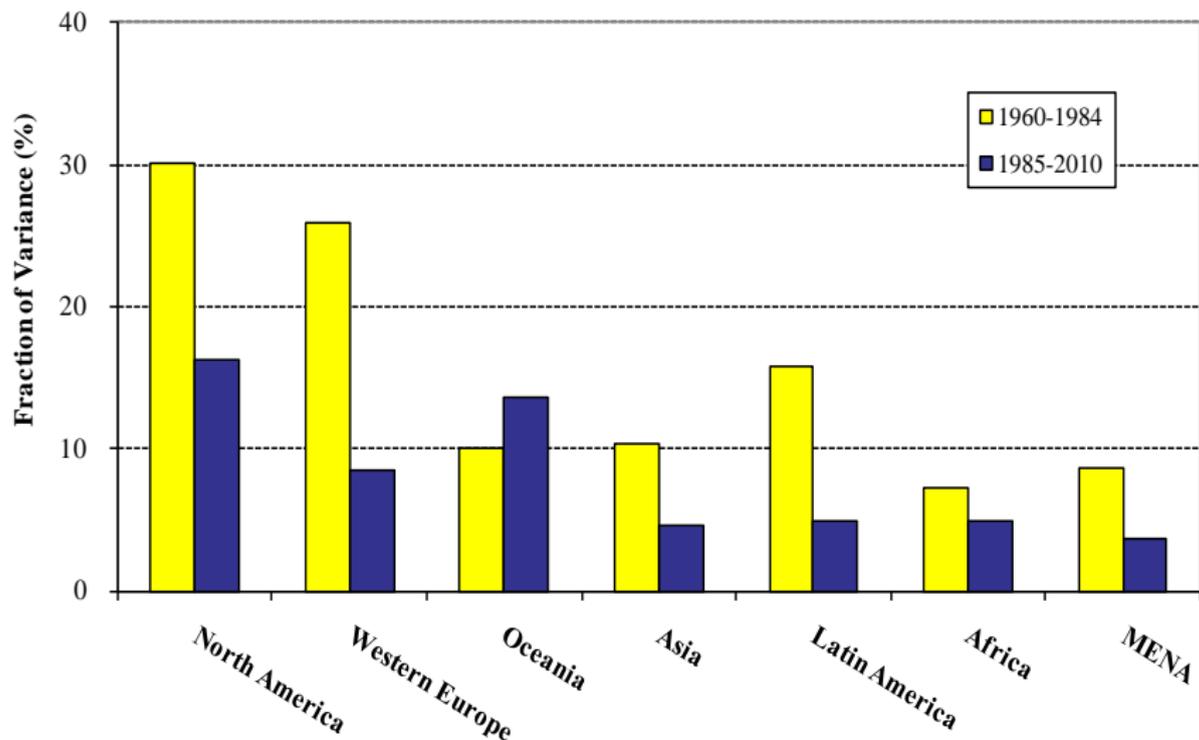
## Emerging Markets' Trade with Other Groups

*(Fraction of the Total Trade of Emerging Markets, in percent)*



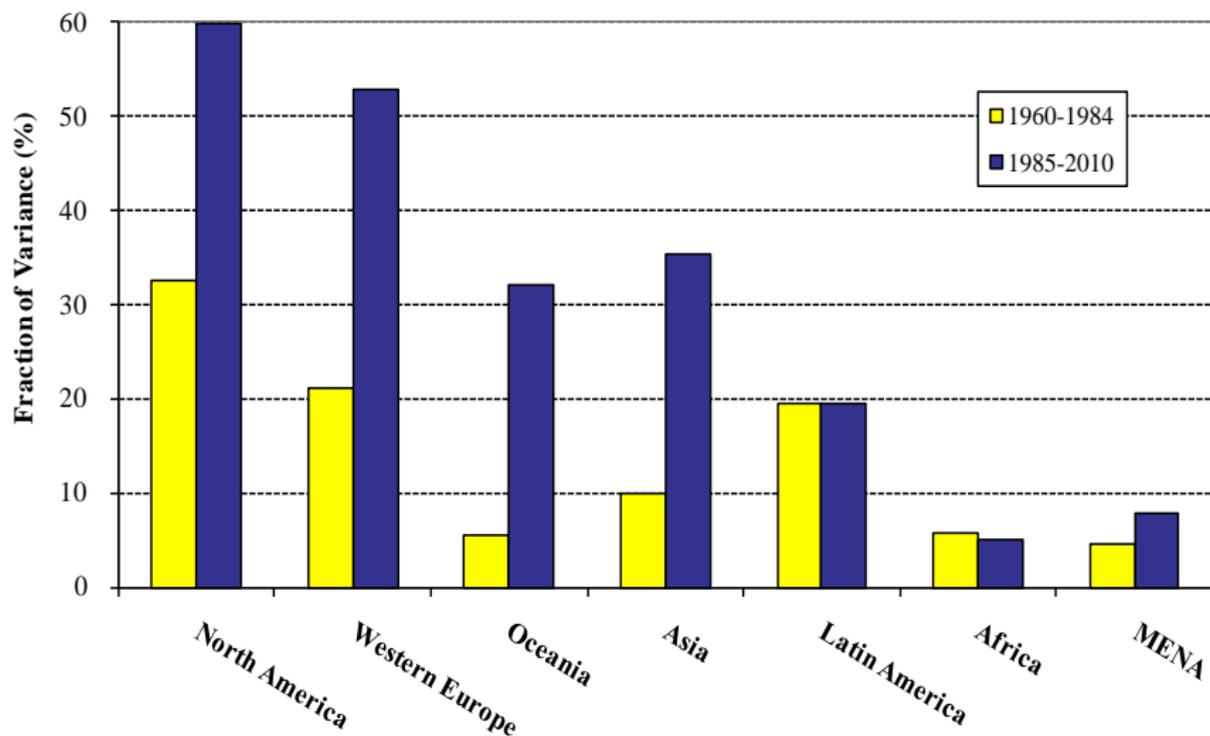
## Hirata, Kose, Otrok: Regionalization vs Globalization

Average Variance Explained by Global Factor (Output)



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## Real, Trade and Financial linkages

- Economic background for this paper
  - ▶ Diminished role for US in driving world growth, greater role for China
  - ▶ Diminished role for global (US) shocks for real variables
  - ▶ Within Asia: Lower share of trade with the US, more with China
  - ▶ Result: Rise of regionalization and fall of globalization
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## SVAR with Sign Restrictions

- Identification: Restrict response to shocks originating in each country/market
- Many shocks (bond, stock, US, China) identified, if done in one VAR then shocks are orthogonal
- It appears each shock is identified using a separate VAR
- Issue: there is a large common component in stock returns
  - ▶ Helbling, Huidrom, Kose, Otrok, NBER ISOM 2012
  - ▶ Average stock correlation 0.64 (OECD)
  - ▶ Common factor explain 66 percent of volatility on average (OECD)
- What is the commonality in China, US and Asian stock prices?
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## Some Diagnostics

- Provide a table of correlations among variables (pre, post crisis)
- Backout the time series for the structural shocks from each VAR
  - ▶ Are the US and China stock price shocks correlated?
  - ▶ Are the bond and stock shocks correlated?
- Simple fix
  - ▶ Take principal component of stock prices
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## Identifying shocks: Within block (country)

- Identifying assumption: Bond and Stock markets are negatively correlated
- Is this assumption consistent with the data?
- In the US the correlation varies over time
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  - ▶ US bond yields have positive impact on Asian bond yields
  - ▶ US stock prices have positive impact on Chinese and Asian stock prices
- IRFs are imposed on the SVAR, they are also the conclusion
- Sign restrictions: restrict some impulse response functions from theory, see how unrestricted variables respond
  - ▶ Add additional variables to identify the country financial shocks
  - ▶ Leave asian markets unrestricted
- Assumption: Chinese stock prices have positive impact on US and Asian stock prices
  - ▶ Theoretical Justification: business cycle synchronization
  - ▶ The relationship between financial integration and business cycle synchronization is ambiguous
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## Conclusion

- This paper contributes stylized facts on financial spillovers for US, Asia, China
- Conclusion: US and China of equal importance pre-crisis, US more during crisis
- An interpretation of the crisis result
  - ▶ There has been a movement towards Asian markets being affected more by China than the US
  - ▶ The US caused a massive financial crisis, which temporarily overshadowed the trend towards greater exposure to China
  - ▶ Its difficult to disentangle trend changes in the global economy from outliers
- Future work: What are the financial shocks?
  - ▶ It would be useful to look for deeper structural explanations for the financial shocks
  - ▶ Real, Credit, Uncertainty, Policy

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