

The slide features five light purple circles of varying sizes and positions. Three circles are arranged horizontally across the top, and two are arranged horizontally across the bottom. The title text is centered between the top row of circles, and the authors' names are centered between the bottom row of circles.

The Ties That Bind Asia, Europe, and the United States

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Motivations

- “Decoupling” thesis shattered by the 2008/09 global crisis.
- Integrating East Asia, yet structurally linked to global demand conditions—what can we find in Asia’s trade structures?
- China’s role in changing regional and global trade patterns—what are the implications?
- Can Asia’s business cycle become independent, driven by autonomous demand? And will it provide a balance in the world economy?



Key messages

- East Asian economy remain heavily influenced by global business cycles despite the progress in regional integration.
- Intra-Asian trade driven by vertical specialization and regional production network ties regional production to global demand.
- Changes in trade patterns point to increasingly globalized production network.
 - “Recoupling” rather than “decoupling” of East Asia
 - East Asia as an increasingly important trade partner and balancing power in the world economy

Emerging East Asia's trade patterns: a rise in intraregional trade and diversification

Exports of East Asia to

	1990	1995	2000	2005	2008
East Asia	31.1	37.4	37.0	41.0	39.0
United States	22.5	19.6	21.3	17.1	14.2
Japan	14.4	12.7	12.2	9.5	8.0
European Union 27	16.0	14.4	15.3	15.4	15.6
Rest of the World	16.0	15.9	14.3	17.0	23.2
Total	100.0	100.0	100.0	100.0	100.0

Imports of East Asia from

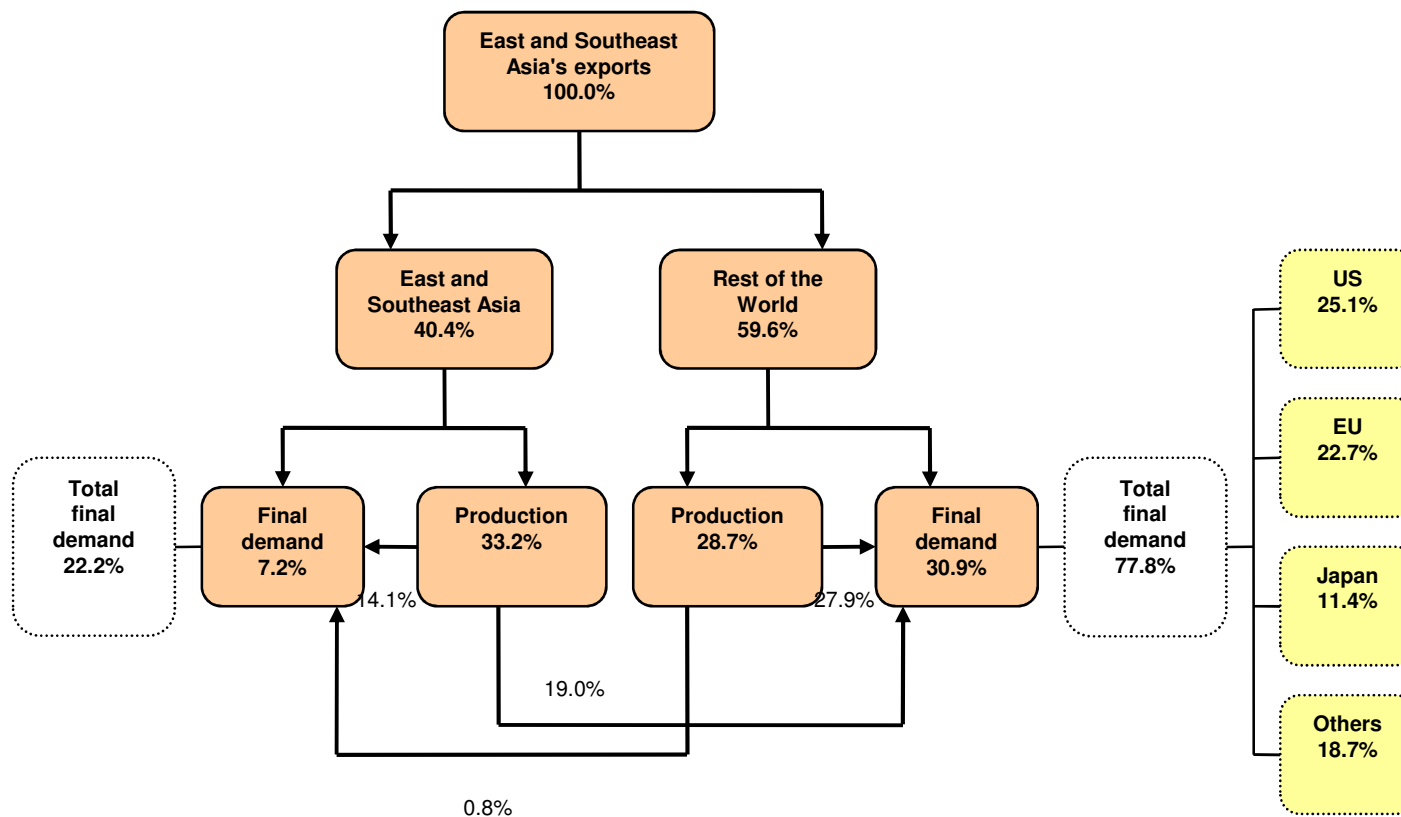
	1990	1995	2000	2005	2008
East Asia	29.0	32.5	39.2	40.7	40.0
United States	15.6	14.4	13.4	9.2	7.8
Japan	21.9	22.4	19.3	15.9	12.8
European Union 27	14.3	14.1	11.4	10.3	9.8
Rest of the World	19.2	16.6	16.7	24.0	29.5
Total	100.0	100.0	100.0	100.0	100.0

East Asia includes: People's Rep. of China; Hong Kong, China, Indonesia, Rep. of Korea; Malaysia; Philippines; Singapore; Taipei,China; and Thailand.

Source: Direction of Trade Statistics, International Monetary Fund and CEIC database

Regional Production Network that Serves Global Demand

Breakdown of East Asia's Exports



Source: Data sourced from Global Trade Analysis Project (GTAP) version 7.

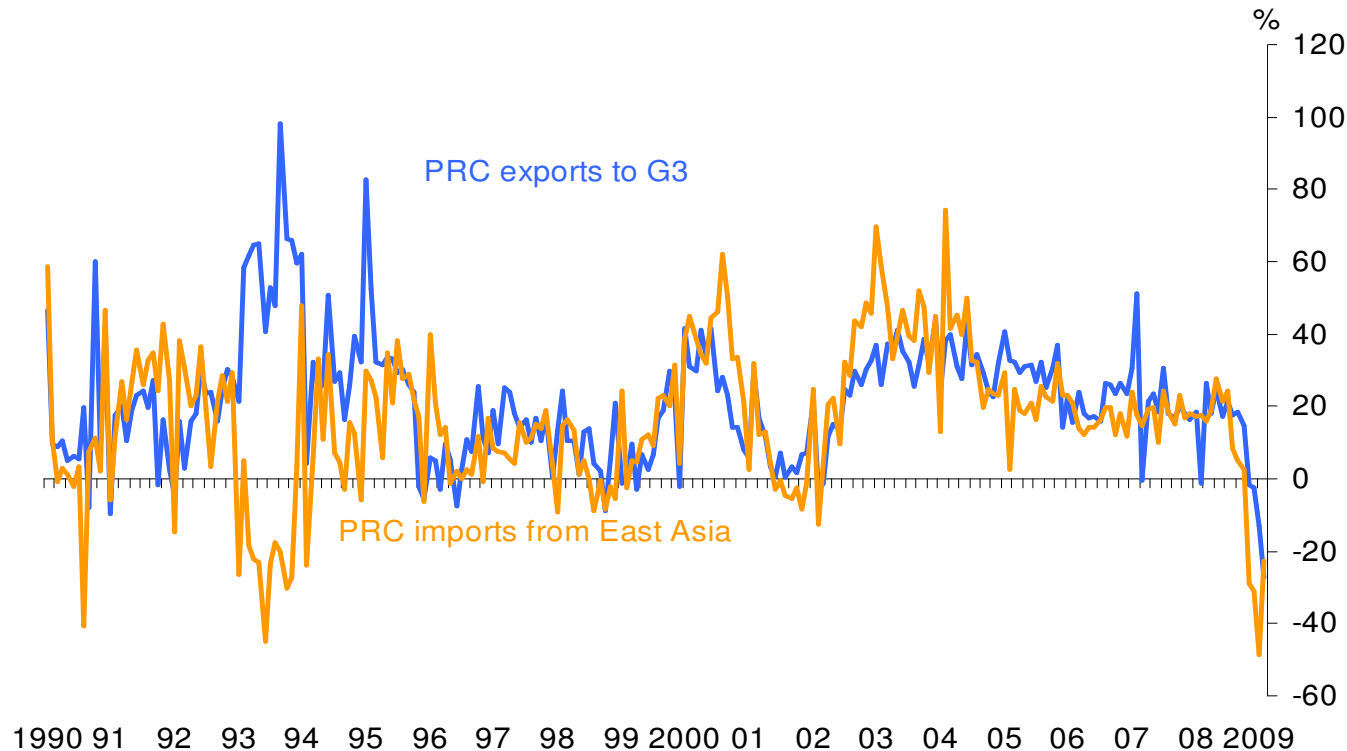


Summary

- Intra-regional trade of East Asian countries increases over time but trade with US, Japan, and EU decreases over time. This may serve as an argument for decoupling of East Asia.
- However, a large fraction of intra-regional trade of East Asian countries is trade in intermediate goods, implying production sharing network in East Asia.
- As a result, East Asian countries heavily depend on global demand, despite of their huge portion of intra-regional trade. Therefore, East Asia is not likely to be decoupled from industrial countries.

China plays a role as Asia's main assembly and production center

Relationship between PRC's exports to G3 and imports from East Asia

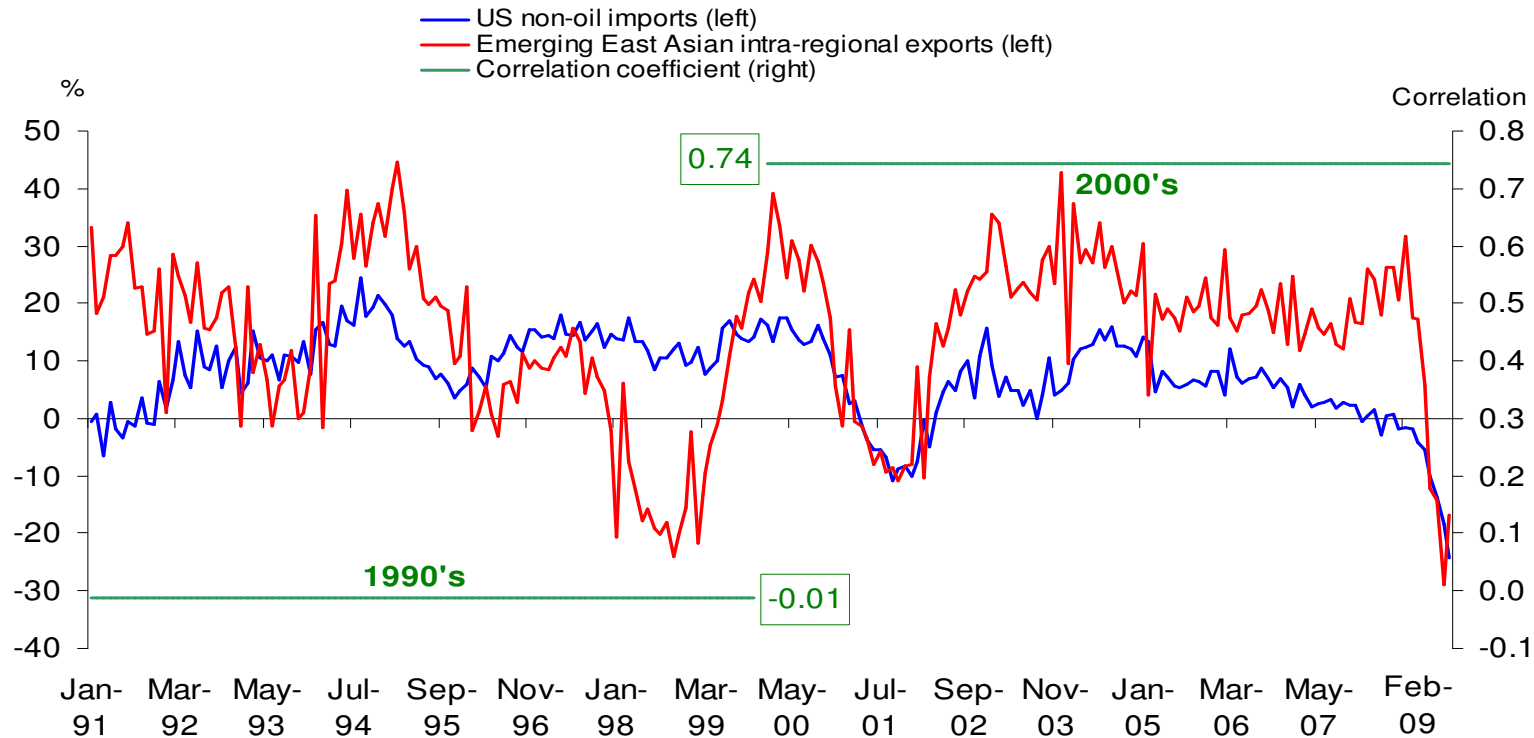


Note: East Asia comprises Hong Kong, China, Indonesia, Republic of Korea; Malaysia; Philippines; Singapore; and Thailand.

Source: International Monetary Fund, *Direction of Trade Statistics* CD, July 2009.

East Asia remains heavily influenced by global demand.

Correlation between Growth in East Asia's Intra-regional Exports and US Non-oil Imports

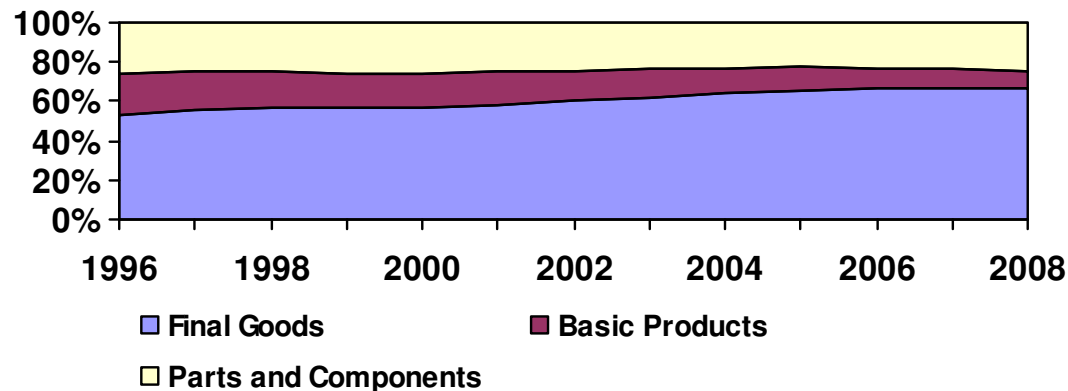


Note: East Asia comprises China; Hong Kong SAR, China; Indonesia; Korea; Malaysia; Philippines; Singapore; and Thailand.

Sources: IMF Direction of Trade Statistics and Datastream.

But Trade Patterns Start to Change

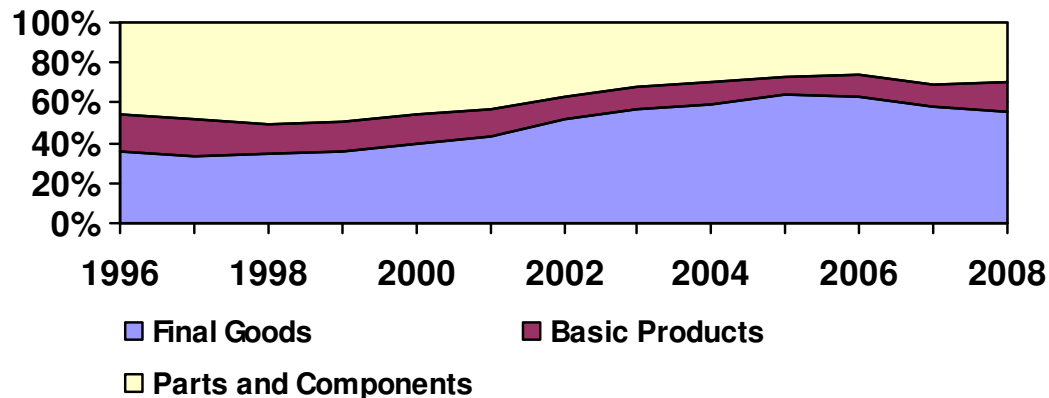
Figure 8: PRC exports to East and Southeast Asia by commodity classification



The rising share of final goods in China's trade with East Asia—

Intra-Asian trade in final goods trade has been growing strong

Figure 9: PRC imports from East and Southeast Asia by commodity classification



Trade in parts and components in East Asia gradually decline, although the share in total remains quite substantial

East Asia (China) becomes a Part of Global Production Networks

China trades less and less final goods and more and more intermediate goods with US and EU.

Figure 12: PRC exports to United States by commodity classification

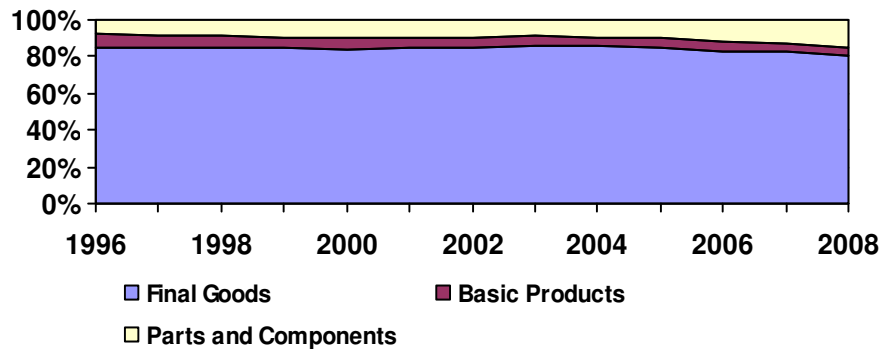


Figure 14: PRC exports to European Union by commodity classification

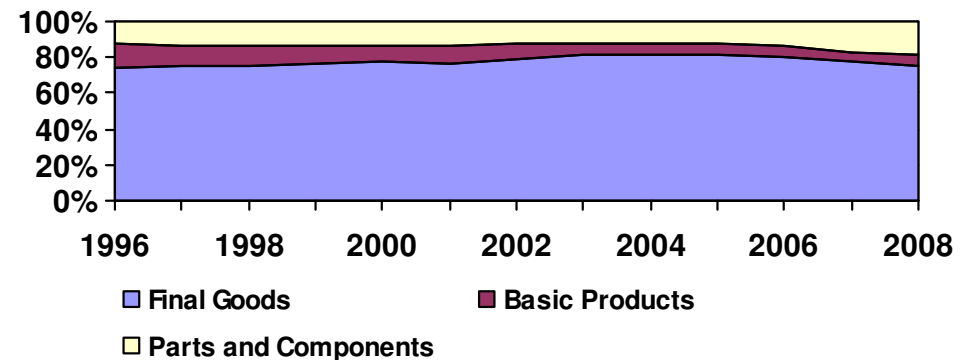


Figure 13: PRC imports from United States by commodity classification

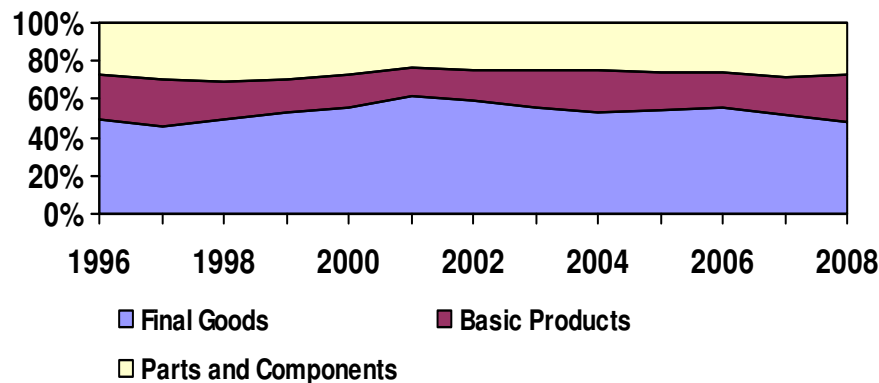
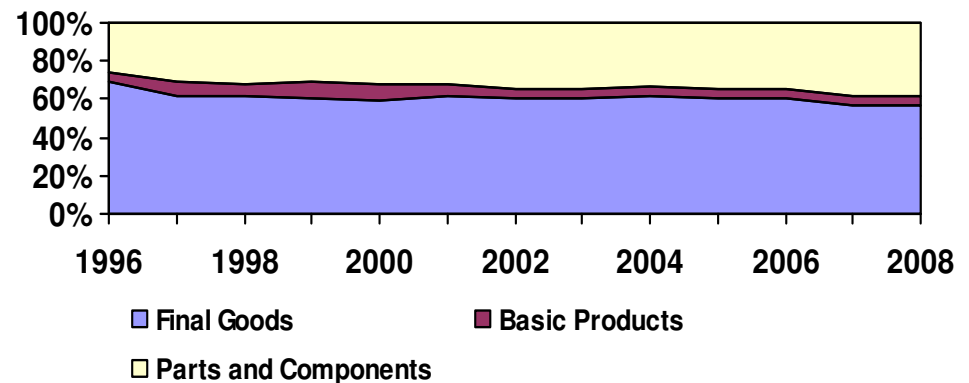


Figure 15: PRC imports from European Union by commodity classification





Summary

- Trade patterns change over time.
- Although production sharing network within East Asia is still firm, there are more and more final goods trade within East Asia, which may eventually make the region a more independent source of demand.
- East Asia (China) trades more and more intermediate goods with US and Europe, which may imply that East Asia becomes a part of global production network.

Empirical Analysis: Main Issues

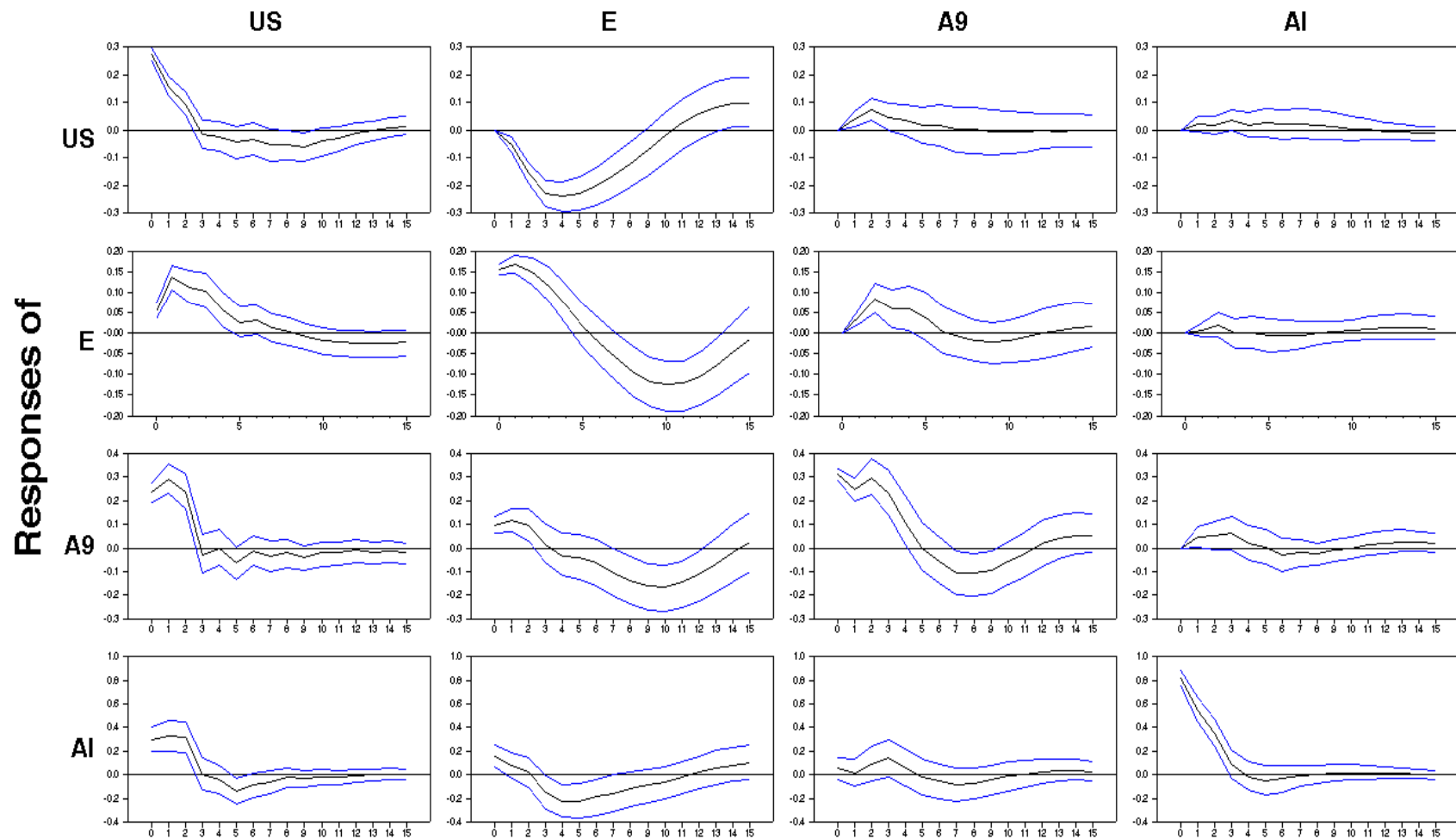
- How emerging East Asian business cycle is related with US and Europe.
 - Effects of US and European shocks on emerging East Asian economies
 - Effects of aggregate East Asian shocks on US and European economies
- How emerging East Asian countries' intra-regional business cycle is synchronized.
- We try to explain these business cycle features based on trade patterns of East Asia: Many studies suggested that trade integration, especially through production sharing network and vertical specialization, increase the business cycle comovement.



Empirical Model

- Panel VAR
- [\log US, \log E, \log A, \log A_i]
- US: US output
- E: aggregate output of EU 27
- A : aggregate output of emerging East Asia, excluding own country's output
- A_i : individual output of emerging East Asian countries
- Recursive Model
- Individual fixed effect
- HP Filtered Data
- Quarterly data, constant and 4 lags
- Estimation Periods: 2000:1-2007:2

Impulse Responses: Basic Model

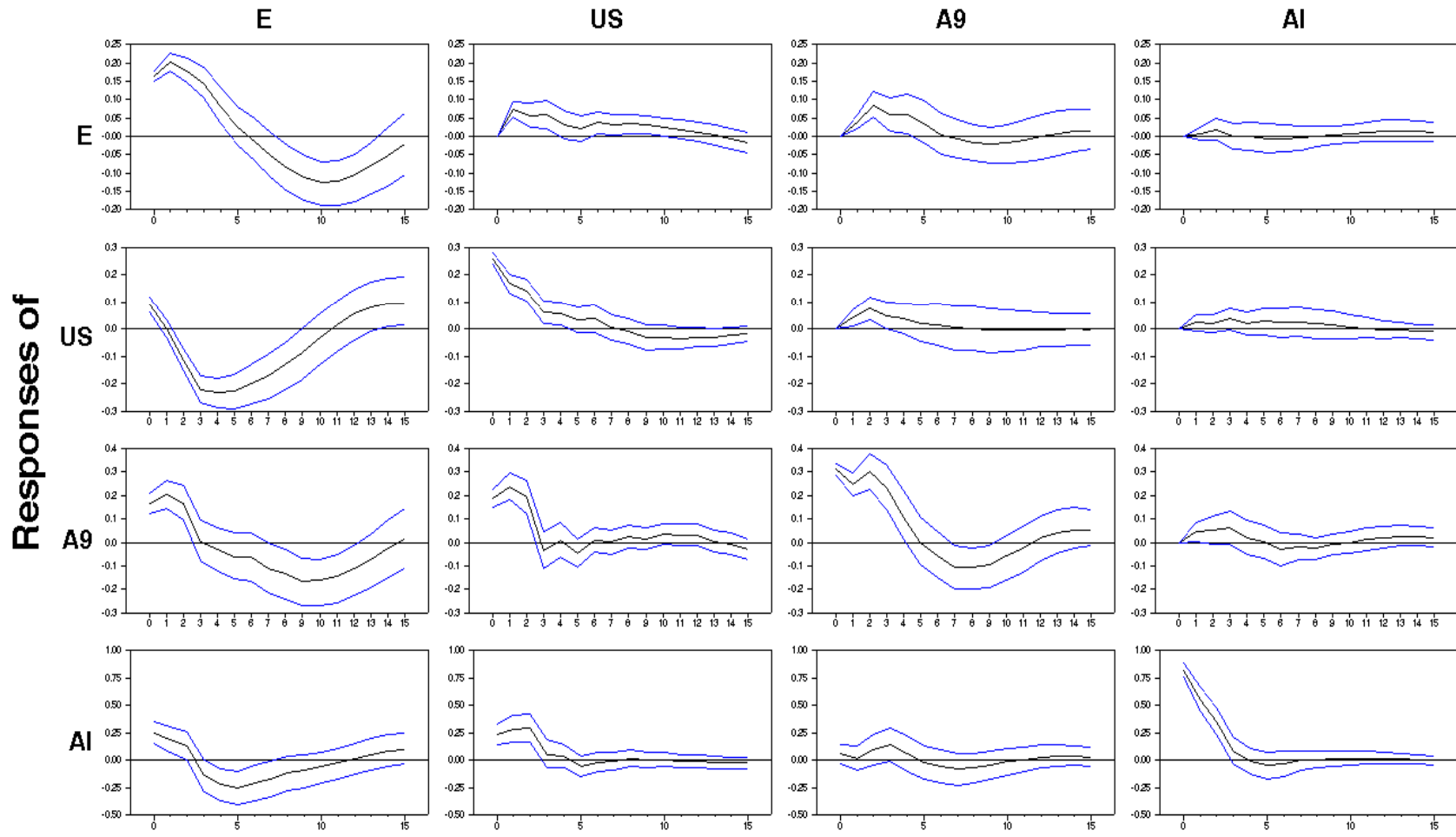




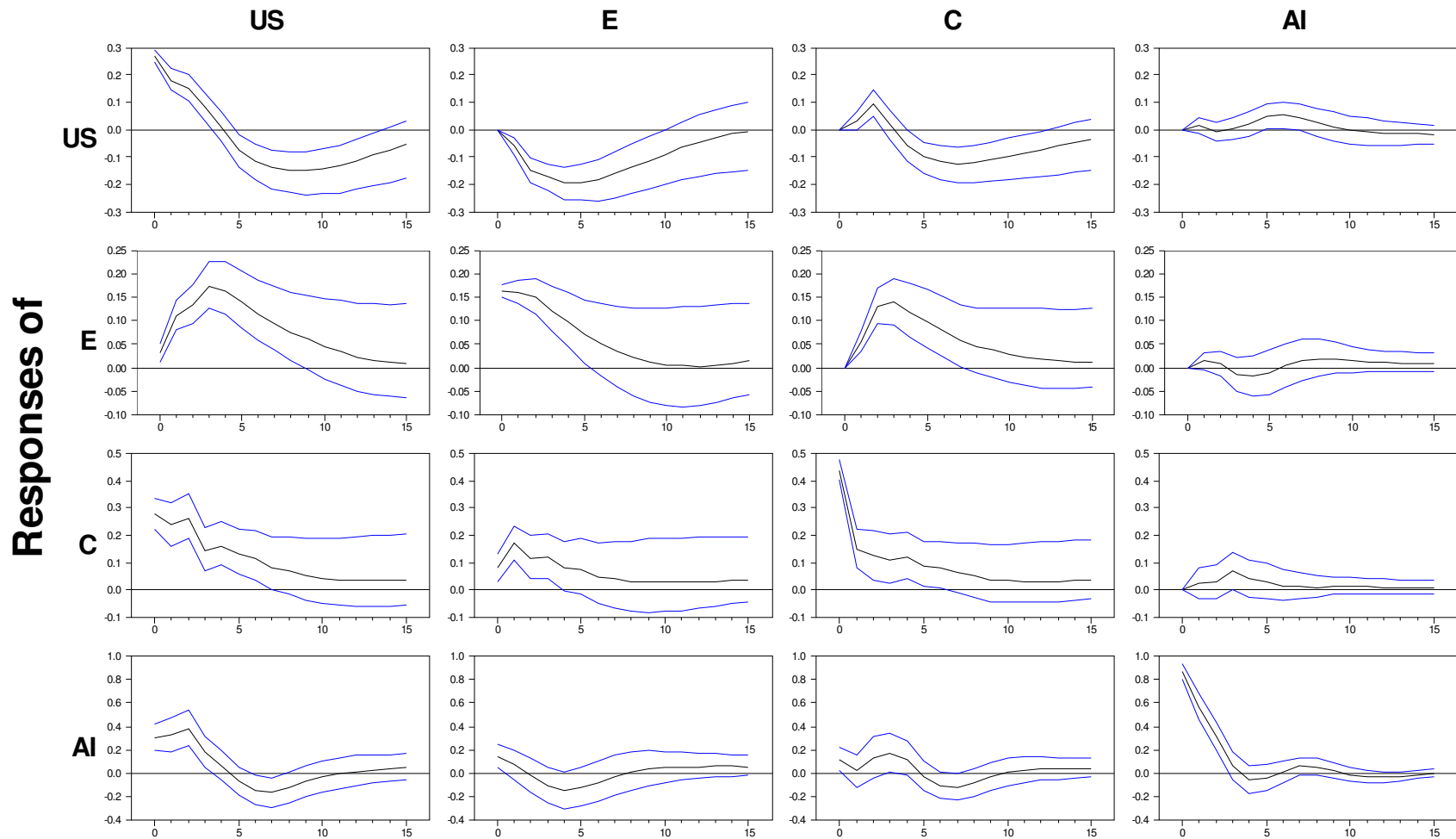
Summary of Results

- East Asian aggregate and individual outputs are mostly positively correlated: Intra-regional trade and production sharing network within East Asia may have generated business cycle synchronization within the region.
- US and European output shocks have positive effects on East Asian economies: Since East Asian intra-regional trade is heavily rooted in production sharing network, Global demand has a strong influence on East Asia.
- East Asian output shocks have positive effects on US and European outputs: East Asia's economic prowess increases over time and East Asia and China gradually becomes a part of the global production network.

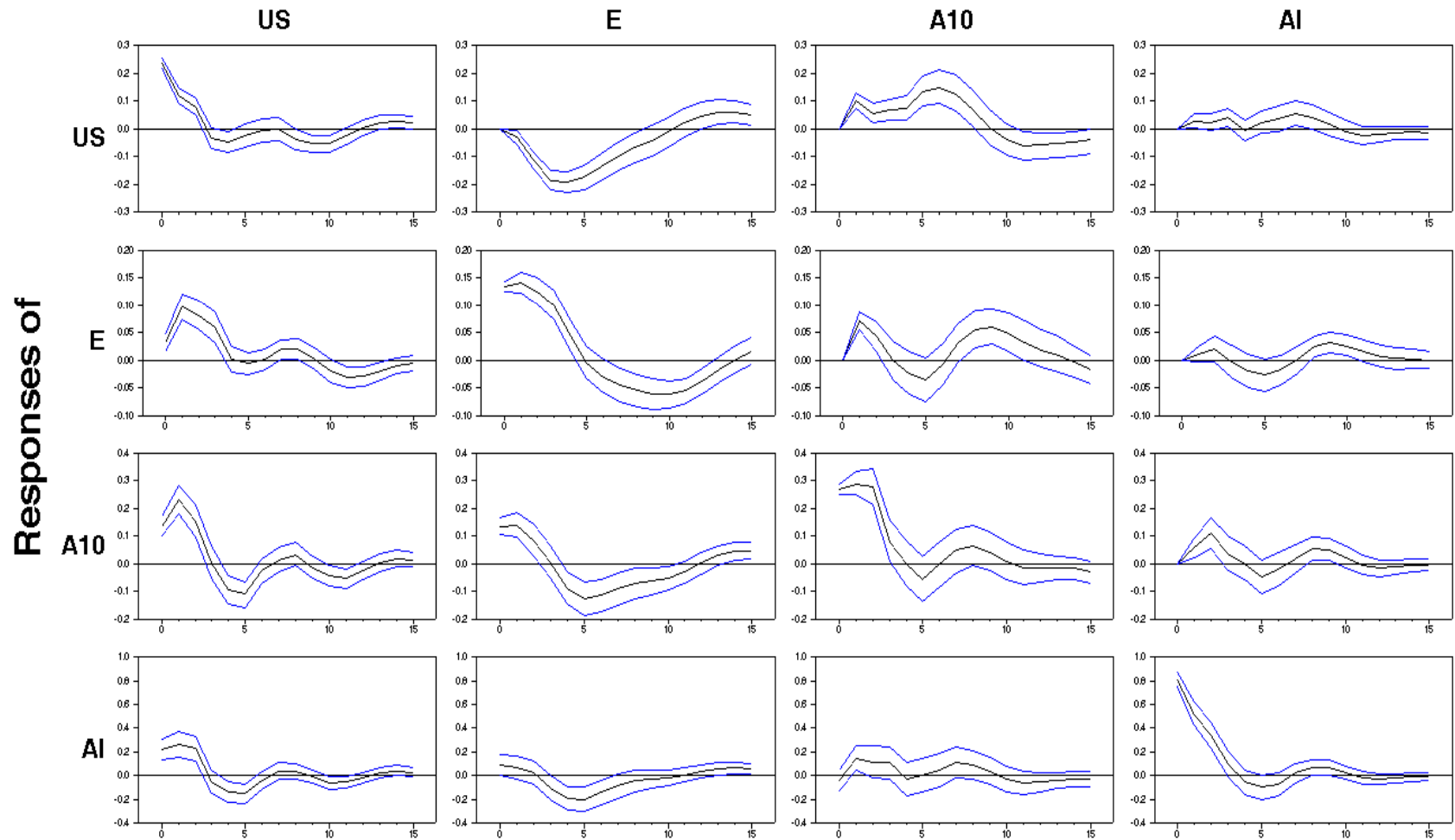
Impulse Responses: Alternative Ordering



Impulse Responses: Chinese Output



Impulse Responses: including Japan





Conclusion

- We document evolution of trade linkage of East Asia with US and Europe and interdependence among these regions.
- It seems that trade linkage affects interdependence.
- Huge intra-regional trade within East Asia may have lead to business cycle synchronization within the region.
- East Asia is heavily influenced by global demand since intra-Asian trade is deeply rooted in the region's production sharing network.
- East Asia has an influence on US and Europe as economic prowess of East Asia increases and East Asia and China gradually become a part of the global business network.
- These changes suggest a future role for East Asia as an increasingly important trade partner and balancing power in the world economy.