Comments: Burstein, Kurz, and Tesar

Trade, production sharing, and the international transmission of business cycles

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Federal Reserve Board
Very enjoyable paper

- General topic: changing business cycle
Very enjoyable paper

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- Old wisdom: we had great ratios; all cycles alike
Very enjoyable paper

- General topic: changing business cycle
- Old wisdom: we had great ratios; all cycles alike
- New Q: What caused dramatic change in cycle?
General topic: changing business cycle

Old wisdom: we had great ratios; all cycles alike

New Q: What caused dramatic change in cycle?

Prime suspect: globalization of fi. & trade
Nice paper.

- Documents changing nature of trade
Nice paper... 

- Documents changing nature of trade
- Ambitious goal: match rise in core-periphery correl. & fall in core-core correl.
Documents changing nature of trade

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Constraint: use only productivity shocks.
Documents changing nature of trade

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Constraint: use only productivity shocks.

We have building blocks (Kei-Mu, etc.)
Very successful

- Papers show
Very successful

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  - Can move correlations in desired direction.
Very successful

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  - Magnitudes hard to match.
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- Clear and honest exploration
Very successful

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- Very successful? 2 reasons.
  - Clear and honest exploration
  - I’ll give more positive spin.
Focus on 2 questions
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- What stylized facts should we match?
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  - Large trade change/small correl. change
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- Is “core-periphery” story rich enough?
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- Is “core-periphery” story rich enough?
  Provocative tidbits about main allegory
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  Large trade change/small correl. change

- Is “core-periphery” story rich enough?
  Provocative tidbits about main allegory

- Rely heavily on my work with Brian Doyle and Jaime Marquez.
In the beginning, Kydland and Prescott created 3 facts: volatility of $Y$, $C$, and $I$.
Stylized History of Facts

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- Easily measured: undergrad. statistics attains industry standard
Stylized History of Facts

- In the beginning, Kydland and Prescott created 3 facts: volatility of $Y$, $C$, and $I$

- Easily measured: undergrad. statistics attains industry standard

- List of facts has grown with success of program
Recent papers are matching
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Impulse responses from identified VARs
Stylized history of facts, cont.

- Recent papers are matching
  - Impulse responses from identified VARs
  - Changes in correlations
Stylized history of facts, cont.

- Recent papers are matching
  - Impulse responses from identified VARs
  - Changes in correlations
- Very hard to reliably measure
Stylized history of facts, cont.

- Recent papers are matching
  - Impulse responses from identified VARs
  - Changes in correlations
- Very hard to reliably measure
- Must confront econometric PPP
Potential Pitfalls Plentiful

Measuring co-movement changes

\[
\text{cor}(x, y) = \frac{\text{cov}(x, y)}{\text{std}(x) \text{std}(y)}
\]
Measuring co-movement changes

\[ \text{cor}(x, y) = \frac{\text{cov}(x, y)}{\text{std}(x)\text{std}(y)} \]

Two ways to raise corr.
Potential Pitfalls Plentiful

- Measuring co-movement changes

\[ \text{cor}(x, y) = \frac{\text{cov}(x, y)}{\text{std}(x)\text{std}(y)} \]

- Two ways to raise corr.
  - std. down or cov. up
Potential Pitfalls Plentiful

- Measuring co-movement changes

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- Two ways to raise corr.
  - std. down or cov. up
  - Theories differ on which happens
Measuring co-movement changes

\[ \text{cor}(x, y) = \frac{\text{cov}(x, y)}{\text{std}(x)\text{std}(y)} \]

Two ways to raise corr.
- std. down or cov. up
- Theories differ on which happens
- In practice, core std. has fallen
Did cov. or cor. change?
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- At best, cov. and cor. changes much harder to detect than std. changes
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(Faust-Doyle, forthcoming Restat)
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- Standard methods fail.
Did cov. or cor. change?

- At best, cov. and cor. changes much harder to detect than std. changes. Even asymptotically, same power requires 5x more observations (Faust-Doyle, forthcoming REStat).

- Standard methods fail. e.g., standard bootstraps fail "spectacularly" (Hall).
Correlation change facts!?

- Our work: No clear evidence of change
Correlation change facts!?

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  - U.S.-Canada or U.S.-Europe
Our work: No clear evidence of change
- U.S.-Canada or U.S.-Europe
- Based on solid technique with MC support
Correlation change facts!?  

- **Our work**: No clear evidence of change  
  - U.S.-Canada or U.S.-Europe  
  - Based on solid technique with MC support  
- A U.S.-Canada picture tells story
Canadian Trade Share with G-7 and Growth Correlation with U.S.
A positive spin

- Seen dramatic change in globalization
A positive spin

- Seen dramatic change in globalization
- No dramatic change in bus. cyc. transmission
A positive spin

- Seen dramatic change in globalization
- No dramatic change in bus. cyc. transmission
- This paper provides an answer
General lesson

- Facts = data + measurement
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- Monte Carlo: generate model data, apply same measurement
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- See how often model measure similar to data measure (≠ compare pop. moments)
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- Monte Carlo: generate model data, apply same measurement

- See how often model measure similar to data measure (≠ compare pop. moments)

- Examples: Guerrieri et al. Kehoe et al.
Tidbits on allegory

Two pairs:
Tidbits on allegory

- Two pairs:
  - U.S. → Canada-Mexico
Tidbits on allegory

Two pairs:
- U.S. → Canada-Mexico
- EC → Eastern Europe
Tidbits on allegory

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- EC zone is core/NAFTA zone is not
**Tidbits on allegory**

- Two pairs:
  - U.S. → Canada-Mexico
  - EC → Eastern Europe

- EC zone is core/NAFTA zone is not

- Is Canada more like Sweden or Mexico?
Canada ≈ Sweden
Canada ≈ Sweden

- Both within spitting distance of North Pole
Canada ≈ Sweden

- Both within spitting distance of North Pole
- Both English speaking
Canada $\approx$ Sweden

- Both within spitting distance of North Pole

- Both English speaking, at least Sweden is
Canada ≈ Sweden

- Both within spitting distance of North Pole

- Both English speaking, at least Sweden is

- Both have indigenous jet airplane production
What about Asia?

<table>
<thead>
<tr>
<th></th>
<th>CA + MX</th>
<th>Asia</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. non-oil Merchandise Import Shares</td>
<td>28</td>
<td>38</td>
<td>23</td>
</tr>
</tbody>
</table>
What about Asia?

- U.S. non-oil Merchandise Import Shares (current)

CA+MX   Asia   Europe
28   38   23

- Surely important to Bus. Cycle dynamics
More on Asia

- Simple core-periphery story difficult with Asia
More on Asia

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- Is China core or periphery?
More on Asia

- Simple core-periphery story difficult with Asia
- Is China core or periphery?
- Japan bus. cycle correl.
More on Asia

- Simple core-periphery story difficult with Asia
- Is China core or periphery?
- Japan bus. cycle correl.
- Nature of trade
U.S. Auto Part Import Shares, NAFTA zone & Asia (dashes)
The End

- Broader Context: Borders and business cycles (Clark & van Wincoop)
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Distinction disappearing?
The End

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  - Distinction disappearing?
  - Not very quickly, model may suggest why
Broader Context: Borders and business cycles (Clark & van Wincoop)

Distinction disappearing?

Not very quickly, model may suggest why

May just be too soon to tell