INTERNATIONAL EVIDENCE ON BUSINESS CYCLES ASYMMETRIES USING THE OECD COMPOSITE LEADING INDICATORS

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Outline

I. Motivation
II. Theoretical background
III. Initial findings
IV. Open issues
V. Conclusions & further research
MOTIVATION
Improve our ability to early detect turning points in economic activity
THEORETICAL BACKGROUND
Theoretical background

1. Deepness/highness
2. Steepness
3. Sharpness
4. Duration dependence
Deepness/Highness
Deepness/Highness

a) Deepness

b) Negative Skew

c) Highness

d) Positive Skew
Steepness
Sharpness
Duration dependence

The chart shows the duration of expansions in months for various years from 1961 to 2009. The x-axis represents the duration in months, ranging from 0 to 70, and the y-axis represents the years of USA Trough appearance. The chart indicates that the duration of expansions has generally increased over time.
INITIAL FINDINGS
¾ of CLIs are deep

- Symmetry: GDP 40%, CLI 16%
- Highness: GDP 12%, CLI 52%
- Deepness: GDP 8%, CLI 72%
Large majority of GDPs are *contractionary steep*.

- **Symmetry**: 16%
- **Contractionary Steep**: 84%
- **Expansionary Steep**: 4%
Asymmetry in GDP
An international overview

<table>
<thead>
<tr>
<th>Symmetry</th>
<th>Asymmetry</th>
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<tbody>
<tr>
<td>OECD- EU countries</td>
<td>OECD South-East Asia</td>
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<td>OECD Middle and North America</td>
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<td>BRIICS</td>
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Flags for countries:
- Denmark (DK)
- Sweden (SE)
- Turkey (TR)
- Germany (DE)
- France (FR)
- Italy (IT)
- Belgium (BE)
- Switzerland (CH)
- United Kingdom (GB)
- Australia (AU)
- South Korea (KR)
- Japan (JP)
- South Africa (ZA)
- Canada (CA)
- Mexico (MX)
- United States (US)
Symmetric sharpness in most of GDPs and CLIs

Markov Chain

Growth Rate
GDP expansion phases depend on duration for most countries.
OPEN ISSUES
Caution in interpreting the results

- No benchmark for CLIs
- GDP: little consensus in the literature
- Tests may have low power
  - Data, filters and parameters used may affect results considerably
CONCLUSIONS

&

FURTHER RESEARCH
Conclusions

- Evidence of cyclical asymmetry in several instances
  - no consistent international path

- Contraction faster and shorter
  - in GDP
  - majority of OECD countries

- Duration dependent
  - more than half shows dependency at cycle level

- Further research...
Further research

• More tests

• More asymmetries
  – time-reversibility, volatility, international synchronisation of business cycles and the transmission of shocks across countries

• Filtering out false signals

• Volatility of business cycle over time

• Close monitoring of CLIs components
Thanks for your attention!

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