Discussion of

"Thai Inflation Dynamics in a Globalized Economy"

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Summary of the paper (Motivation part)

- Key characteristics of Thai inflation since 2000
  - Low (mean) and stable (low volatility)
  - Less persistent (low autoregressive coefficient)
  - Low exchange rate pass-through
- Improvement in monetary policy? Partly, yes, via anchoring long-run IE. But not the whole story, esp. on the short-run movements
- (1) Significant increase in the degree of inflation co-movements globally. (2) Global linkages, esp. via trade integration.
- Question: is Thai inflation process a global phenomenon?
- The authors seem to suggest: YES.

Summary of the paper (Analysis I)

- Dynamic factor model (statistical analysis) – to study the degree of co-movement
- Data: CPI of Thailand's major trading partners (14 countries) during 1993Q1-2015Q1
- Findings:
  - Domestic and regional components moved closely prior to 2000
  - After 2000, global factor dominated and found structural break in 2001Q1
  - Variance decomposition
    - Pre 2000: equally importance among three components (one-third each)
    - Post 2000: global factor explained as high as 80% while country specific factor reduced to < 20%
  - Drivers of common factor:
    - 'Global output gap', esp. during 2000-2010 (note: using 14 trading partner countries)
    - Commodity prices esp. oil price after GFC

Summary of the paper (Analysis II)

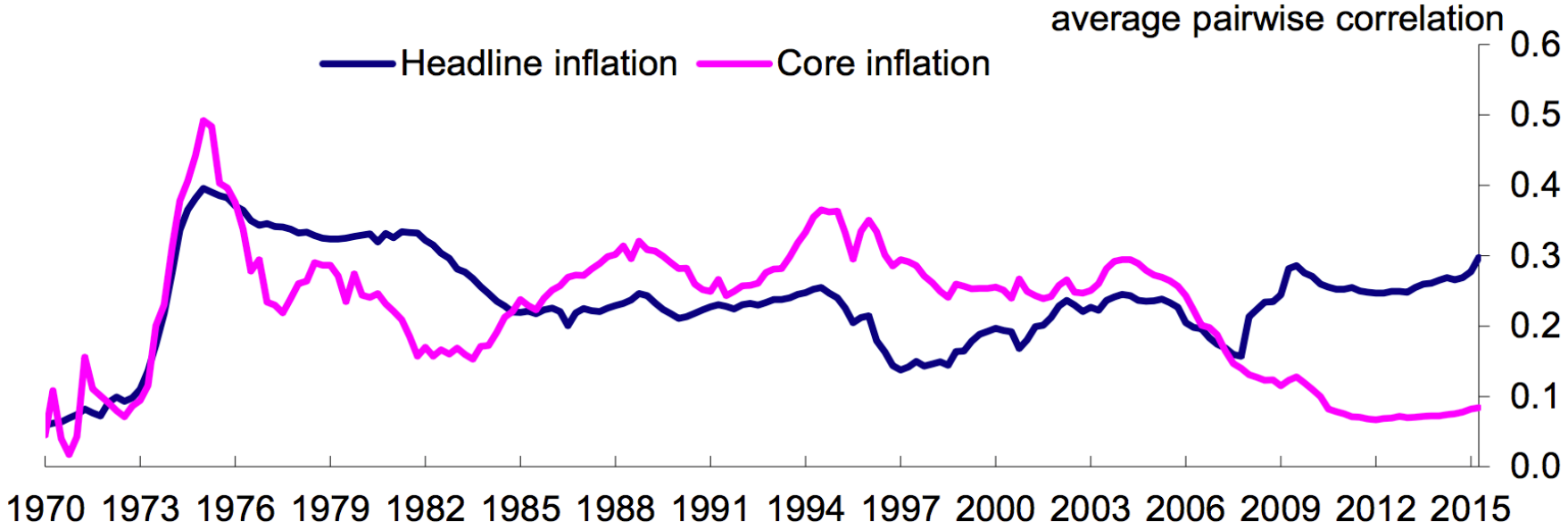
- Open-economy New Keynesian Phillips curve (NKPC) – to analyze economic driving forces
- Findings:
  - Two structural changes in 2001 and 2007
  - LR inflation trend is remarkably stable and low since 2001 (averaging 2.4%)
  - However, sensitivity of inflation to domestic output gap declined (and became insignificant) and sensitivity to foreign output gap increased, esp. during 2001-2007
  - In addition, oil price appears to be the dominant driver since 2007

Outline of my comments

1. Increased synchronization of global inflation?
   - Yes for headline but not true for core inflation
   - Indicating that domestic economic condition still matters?
2. Estimation using reduced-form NK Phillips curve
   - Agree that the adoption of IT since 2000 is able to anchor LR inflation expectation.
   - Agree that global factors have become important in determining inflation process
   - But, not so sure about whether global conditions are the *main* driver of Thai inflation dynamics since 2001
     - Inflation dynamics are endogenous and due to central bank actions
     - Need robustness check on various specifications, esp. inflation measures and 'global output gap'
3. Understanding the influence of globalization on inflation dynamics
   - Channels through which globalization may impact on the inflation process. More research needed.

1. International synchronization of inflation

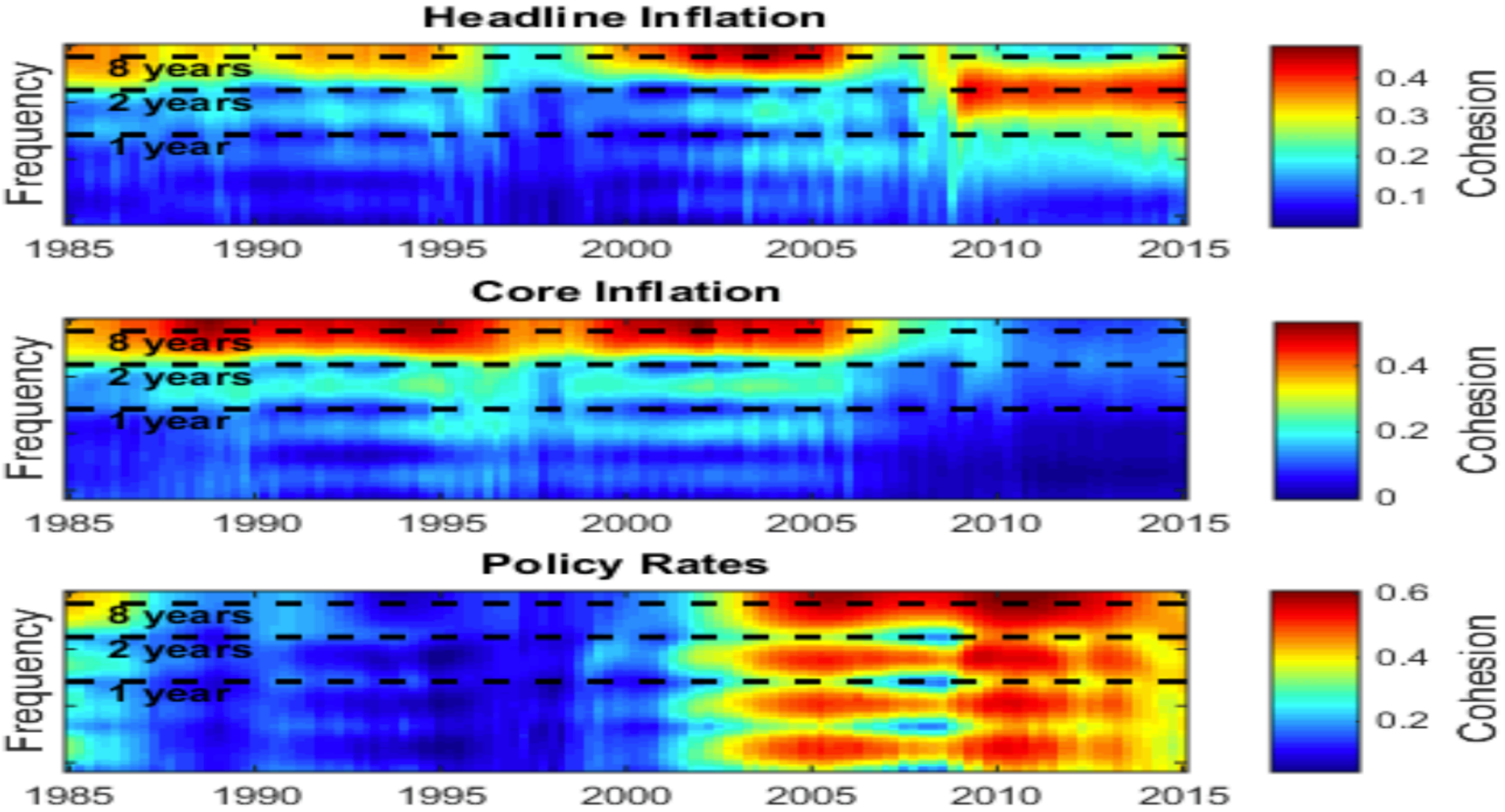
- Governor Mark Carney's remarks at Jackson Hole (Aug 2015) on '*Inflation in a globalised world*': "**Core inflation** rates exhibit much **less co-movement** but rather vary with increasingly divergent underlying economic conditions."



Notes: Average pairwise rolling (15 years) correlation of seasonally-adjusted quarterly headline and core inflation. The country-specific average pairwise correlation of a time series x_i in country *i* (pc_i^x) is the average of the contemporaneous correlation between x_i and x_j for all $i \neq j$. The average pairwise correlation (pc^x) is computed as the average of the pc_i^x across all countries and, as such, provides a measure of international synchronization of x. **Source**: OECD, Global Financial Data, DataStream, National sources, and Bank Staff calculation

Source: Chart 2 in Carney (2015), Data: Up to 64 countries for headline and 50 for core.

1. International synchronization of inflation



Notes. Rolling average (15 year window) of the bilateral dynamic correlations of an unbalanced panel of 46 countries. Dynamic correlation is a function of the cross-correlation and autocorrelation functions of two series that breaks down their comovement into different frequencies. 'Cohesion' is the average of bilateral dynamic correlations in the sample. See Croux et al. (2001).[26]

Source: Chart 3 in Carney (2015)

2. Inflation dynamics: A closer look at Phillips Curve

- The empirical finding that the slope of PC has been flattened also *appears* to be a 'global phenomenon'
  - In 'ECB forum on central banking' (May 2015), Olivier Blanchard showed cross-country evidence on the small (and insignificant) slope of the PC and concluded that
    - "…here lies the puzzle and the challenge: Put starkly, what we have observed is an increase confidence in the central bank meeting its inflation target, while at the same time, the ability of the central bank to achieve that target has steadily decreased. Why should people trust the central bank to achieve its target, why should inflation remain anchored? And, if it doesn't, what does imply for monetary policy in the future?"

2. Inflation dynamics: A closer look at Phillips Curve

- Using NKPC, Inflation is estimated as a function of
  - (1) Inflation expectations (2) Domestic output gap (3) Foreign output gap and (4) other potential external factors
- Main problem is that the key determinants (1)-(3) are very much unobservable and subject to measurement errors.
  - In particular, estimate of output gap is highly sensitive to assumption made about trend-cycle decomposition, esp. for emerging market economy (c.f. Aguiar and Gopinath, 2007)
- Debates are still unsettled.

2. Inflation dynamics: A closer look at Phillips Curve

- Suggestion: Need to try various empirical specifications. For example,
  - Inflation measures on the LHS e.g. core inflation, core/headline inflation excluding administered items.
  - Foreign/global output gap. Borio and Filardo (2007) suggest the followings:
    - Trade-weighted (ex+im share) global output gap
    - Trade-weighted (im share) global output gap
    - Exchange rate-weighted global output gap
    - Exchange rate adjusted trade-weighted global output gap
    - GDP-weighted global output gap

2. Inflation dynamics: Theoretical viewpoint

- Inflation dynamics are endogenous to 'monetary policy' actions (or change in CB preference between inflation and output stabilization)
  - To see why, we need three equations: (1) Loss function of the CB; (2) PC; (3) IS.
  - Solving the optimization problem of CB by minimizing (1) subject to (2) and (3) yields 'targeting rule', the auto-regressive coefficient in the resulting 'inflation dynamics' would be a function of the CB preference (weight in the loss fn) and the slope of the Phillips curve.
- So, it's very hard to see from the estimation of reduced form equation whether underlying change in inflation dynamics is due to good policy hypothesis or good luck hypothesis
- Jodi Gali (2010): "What can estimated reduced-form inflation equations teach us regarding the role of global factors as determinants of inflation? Very little, according to modern monetary theory."

3. Quantifying the influence of globalization on inflation dynamics

- It's clear that trade integration would complicate the dynamics of domestic inflation. So, it's important to identify channels through which global linkages may impact on the inflation process
- The paper has very nice section on this (Section 3)
  - Direct channel via price of imported goods
  - Indirect channel via increased competition (affecting pricing power of domestic firms) and improved productivity (reducing cost)
- More research is needed