



EUROPEAN CENTRAL BANK

EUROSYSTEM

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*Disclaimer: The views expressed
in this presentation are those of the
presenter and do not necessarily
represent those of the ECB.*

Discussion of

“In the quest of measuring the financial cycle”

by Miroslav Plašil, Tomáš Konečný, Jakub
Seidler, and Petr Hlaváč

CNB Research Open Day

Prague

16 May 2016

Summary

- Contribution:
 - Propose two approaches to capture *financial cycle*:
 - *Financial cycle*: recurring swings in financial risk aversion
- Goal:
 - Assess position of Czech economy in financial cycle
 - Inform the use of countercyclical macroprudential policy measures

Summary

The two approaches:

1. Aggregated indicator, combining:

- i. Credit to HHs and NFCs, i.e., new bank loans
- ii. Debt sustainability indicators, i.e. debt to income/surplus
- iii. Credit supply, i.e., credit spreads
- iv. Property prices
- v. Equity prices
- vi. Current account deficit

2. Capture common variation in rating migrations

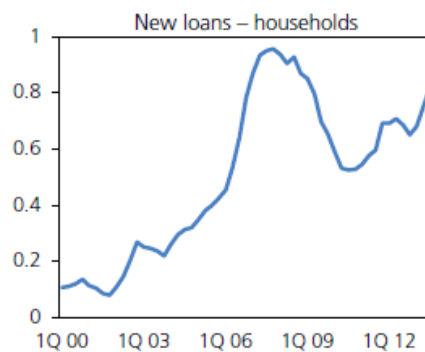
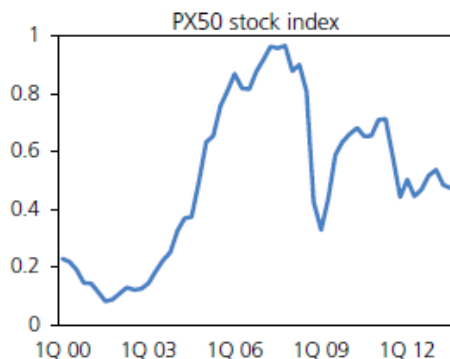
- i. Common to all ratings (standard, watch, etc.)
- ii. Common to each rating class

Ideas to Approach 1

Variables:

- **Standardisation:**
 - Real time properties are important, as otherwise past signals are distorted.
- **Transformation:**
 - y-o-y changes biases turning points
 - trends seem to be still present in variables, e.g., stock price index (moving average), or new bank loans to HH

Idea 1: Estimate standardisation on an expanding sample?



Idea 2: Use methods that preserve turning points and dismiss trends (frequency filters, linear detrending, q-o-q changes, etc.)?

Ideas to Approach 1

Aggregation:

$$(w^\circ i_t)' C_t (w^\circ i_t)$$

- w weights
- i_t indicators
- C_t time-varying correlations matrix
- Weights determined by predictive performance of future credit losses
 - Peak or trough of risk aversion?
- Aggregation scheme biases scale, important for interpretability (0-trough, 1-peak, 0.5-historical median):
 - e.g., in case of 1 indicator: i_t^2
 - if $i_t = 0.5$ (*median*) $\rightarrow i_t^2 = 0.25$
 - i.e., [0-0.25) below median, (0.25-1] above median

Idea 3: Determine weights by prediction of systemic banking crises? Or financial vulnerability periods?

Idea 4: Use non-quadratic weighting scheme?

Ideas to Approach 2

Theoretical background:

- What drives changes in credit ratings?
How does this relate to the concept of financial risk aversion?

Results:

- How important is each factor?
- How strong is the correlation between the specific rating class factors ('G')?
- What explains the movement of the factors?
- How can scales be interpreted?

Idea 5: Elaborate more strongly on the mechanism? What does a credit rating change imply? How can it serve to measure the build up of financial risk?

Idea 6: Can the policy maker base decisions on the factors? That is, how important and unique are they?

Idea 7: What should the policy-maker target? And when?

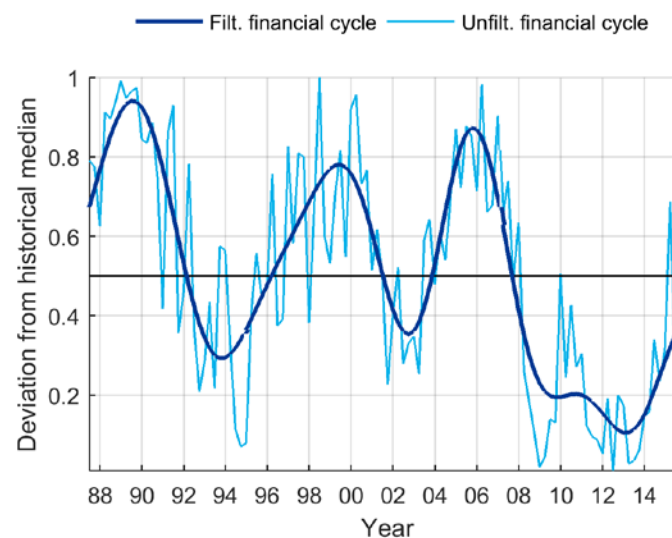
General ideas

Idea 8: Enough material for two research papers?

Idea 9: What do these approaches tell us about position of financial cycle in other economies? Sample period covers only one peak and downswing in the financial cycle, maybe good to capture more cases...

Comparison to own work:*

- Variables:
 - *Use only one measure of credit, i.e., total credit; also include residential property prices and equity prices; include a proxy for bond prices.
 - *Cover 13 EU countries plus EA aggregate
- Two step methodology:
 - *Step 1: Common cyclical frequencies for set of indicators (multivariate, “power cohesion”)
 - *Step 2: Composite financial cycle index with time varying weights, and filter for reference cycles
- Financial cycle has best univariate early warning properties; also in multivariate setting adds at the margin to set of macro-financial indicators.



Source: Schüler et al. (2015)

Notes: Euro area financial cycle. Scale is in standardised units, 0.5 = historic median.

*[Schüler, Hiebert, Peltonen \(2015\): Characterising the financial cycle: a multivariate and time-varying approach, ECB WP No. 1846 & recent presentation](#)



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