

# The Non-Bank Credit Cycle

Esti Kemp, Rene van Stralen, Alexandros Vardoulakis, Peter Wierds

Discussion by Esther Segalla<sup>1</sup>

Oesterreichische Nationalbank

BIS-CGFS December 2019

---

<sup>1</sup> Additional to the usual disclaimer, the opinions expressed in this paper solely represent those of the author and do not necessarily reflect the official viewpoint of the Oesterreichische Nationalbank or of the Eurosystem.

# Summary

paper presents:

- measurement of non-bank credit cycles
- **private non-financial sector borrowing** as a residual measure
- for a variety of countries
- data from countries' financial accounts to BIS
- analysis of the cyclical properties of non-bank credit relative to bank credit

# Data and analysis

credit to non-financial sector for 38 countries

long-run credit data, [publicly available](#)

see (Dembiermont et al., 2013)

crises database 1971 - 2011 see (Laeven and Valencia, 2012)

filter analysis

(Christiano and Fitzgerald, 2013)

turning point analysis using dating algorithm

[by Bry and Boschan (1971)]

frequency-based growth cycles for each country

(Drehmann et al., 2012)

rolling window Spearman rank correlation coefficients

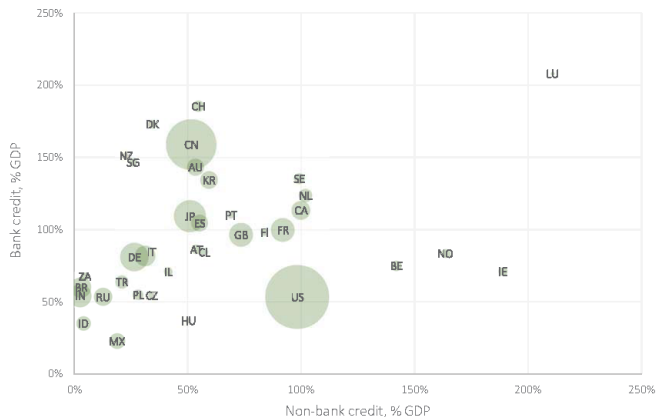
logit-panel regression with country-level FE on crises events

# Findings

relative to bank credit cycles:

- non-bank credit cycle **duration similar**
- non-bank credit cycle **amplitude higher**
- non-bank credit cycles are correlated in **some** countries  
and in other countries **not**
- non-bank credit cycles are **less synchronized across** countries
- non-bank credit good predictor **currency crises**
- global cycles difficult to estimate
- correlation of the two cycles at **global level has decreased overtime**

Data as of 2017q3. Size of the bubbles denotes the country's GDP



Note: country codes are AT=Austria, AU=Australia, BE= Belgium, BR=Brazil, CA=Canada, CH=Switzerland, CL= Chile, CN=China, CZ= Czech Republic, DE= Germany, DK=Denmark, ES=Spain, FI=Finland, FR=France, GB=Great Britain, HU=Hungary, ID=Indonesia, IE=Ireland, IL=Israel, IN=India, IT=Italy, JP=Japan, KR=South Korea, LU=Luxembourg, MX=Mexico, NL=The Netherlands, NO=Norway, NZ=New Zealand, PL=Poland, PT=Portugal, RU=Russia, SE=Sweden, SG=Singapore, TR=Turkey, US=The United States of America, ZA=South Africa.

# My comments are about ...

- interesting data - **cross-country** dimension  
→ data descriptiveness
- focus of the research question  
→ hence analysis & tools
- non-bank credit is important for financial stability

## Lender structure in AT ...

a thought experiment ...

| 2018                                             | Bill. Euros |      |
|--------------------------------------------------|-------------|------|
| total credit to the private non-financial sector | 504,565     |      |
| lender: AT banks                                 | 325,231     | 64 % |
| lender: corporate enterprises                    | 77,842      | 15 % |
| lender: non-AT (includes banks)                  | 63,302      | 13 % |
| lender: government                               | 29,173      | 6 %  |
| lender: other financial sector incl. insurance   | 9,016       | 2 %  |

## Data more concrete ...

- value-adding look at very public data
- a bit more on the data **descriptiveness** would be helpful to the reader.
- non-domestic credit does not seem to be separately accountable to banks and non-banks - how did you do it?
- **lender and borrower structure** something to be more exploit
  - hh vs. non-financial corporate debt, government, funds
  - synchronization mis-match overtime related to lender structure
  - lender: corporate positions depend on **direct investment** that hinge on timing of business projects
  - currently countries grouped: EME, AE, EU and Non-EU
  - group by **similar structure** of lender/borrower characteristics?
  - type of credit**: bond, loan (subsidized home loans, corporate affiliate investment), portfolio, funds, etc

## Research question more concrete ...

- unsure about the direction/focus of the paper  
non-credit cycle description and predictor for **currency crises**
- non-credit cycle determinants and **cross-country heterogeneity**  
looking more into dis-entangling country heterogeneity?  
**dis-aggregating** data more and determinants of non-bank credit  
use data to uncover vulnerabilities - the role of private debt as a shock amplifier?
- what about the dimension of **policy changes** on financial stability?  
tightened supervision shifts risk to non-bank sector  
can we use this data to learn something about this?  
capital regulations bank vs. non-bank sector (Becker et al., 2019)  
deposit insurance heterogeneity across countries (Demirguc-Kunt et al., 2015)

# References

- Becker, B., Opp, M., and Saidi, F. (2019). The effect of capital regulation on asset allocation in the insurance industry. *Working Paper*.
- Christiano, L. and Fitzgerald, T. (2013). The band-pass filter. *International Economic Review*, 44(2):435–465.
- Dembiermont, C., Drehmann, M., and Muksakunratana, S. (2013). How much does the private sector really borrow? an new database for total credit to the private non-financial sector. *BIS Quarterly Review*, (March).
- Demirguc-Kunt, A., Kane, E., and Laeven, L. (2015). Deposit insurance around the world: A comprehensive analysis and database. *Journal of Financial Stability*, 20(1):155–183.
- Drehmann, M., Borio, C., and Tsatsaronis, K. (2012). Characterising the financial cycle: don't lose sight of the medium term. *BIS Working Papers*, 380.
- Laeven, L. and Valencia, F. (2012). Systemic banking crisis database: an update. *IMF Working Papers*, 12(162).