

Seminar: **Financial and business cycle facts (Bachelor)**

Comments

The first meeting of the block seminar is taking place virtually on 24.10.2022 at 9:15 a.m. On this date, an introduction into the topic is given and methods are distributed. Seminar presentations are being held in person on 13.+14.01.2023 in room 01.030.

Deadline for registration is October 19, 2022. The registration form is available on the webpage of the Chair of Empirical Economics. A maximum of 15 students can participate in the seminar.

Description

The Global Financial Crisis of 2008-2009 renewed interest in financial cycles, because its boom periods predate financial crises (see, for example, Reinhart and Rogoff (2009)). In an influential article, Borio (2014, p. 183) defines financial cycles as the *“self-reinforcing interactions between perceptions of value and risk, attitudes towards risk and financing constraints, which translate into booms followed by busts.”* More broadly, financial cycles can be understood as fluctuations in certain financial variables, such as credit and asset prices.

If the properties of financial cycles differ to the properties of regular business cycles, it can be argued that monetary and fiscal policy are imperfect instruments to tame these cycles in financial variables. Studies have reported evidence suggesting that financial cycles differ to business cycles in amplitude, duration, and synchronisation. Therefore, this evidence provides one justification for the use of specific policy instruments that directly target the financial cycle. These are called macroprudential policies (see, for example, Claessens et al. (2012), Drehmann et al. (2012), Aikman et al. (2013), and Borio (2014)).

Within these macroprudential policies, the Basel III credit-to-GDP gap has received prime attention as a proxy for the financial cycle. This is because its expansionary and contractionary phases – which are longer and larger than typical business cycle phases – have become critical for informing about the build-up of imbalances in the financial sector, i.e., the boom periods that likely predate financial crises. Officially, its phases guide the setting of the countercyclical capital buffer, a key macroprudential policy instrument (see, for instance, Basel Committee on Banking Supervision (2010))

In this seminar, students will revisit financial and business cycle facts. Students will learn about various methods, which are used to construct proxies of financial cycles (such as the Basel III credit-to-GDP gap) and regular business cycles. Furthermore, students will relate the properties of financial cycles to business cycles. Based on these insights, the group will compare facts derived from different methods and discuss similarities as well as differences.

Aikman, D., A. Haldane, and B. Nelson (2015). Curbing the credit cycle. *The Economic Journal* 125, 1072–1109.

Basel Committee on Banking Supervision (2010). Guidance for national authorities operating the countercyclical capital buffer. Bank for International Settlements.

Borio, C. (2014). The financial cycle and macroeconomics: What have we learnt? *Journal of Banking and Finance* 45, 182–198.

Claessens, S., M. Kose, and M. Terrones (2012). How do business and financial cycles interact? *Journal of International Economics* 87, 178–190.

Drehmann, M., C. Borio and K. Tsatsaronis (2012). Characterising the financial cycle: Don't lose sight of the medium term! BIS Working Paper 380.

Reinhart, C. M. and K.S. Rogoff (2009). *This time is different*. Princeton University Press. Princeton

Methods

In this seminar, students will get familiar with different methods to analyse financial and business cycle facts. Among others, students can learn about time series filters (such as the filter used to construct the Basel III credit-to-GDP gap, i.e., the Hodrick-Prescott filter), turning point algorithms, and spectral analysis.

Importantly, we will distribute topics over the course of the first meeting. However, if students want to familiarize themselves with the different methods beforehand, they can have a look at the following approaches (see also “further background literature”):

1. Hodrick-Prescott filter
2. Christiano-Fitzgerald filter
3. Baxter-King filter
4. Hamilton filter
5. Modified Hamilton filter
6. Beveridge-Nelson filter
7. Growth rates and auto- and cross-spectra of time series
8. Turning point algorithm
9. Reference cycles using turning points

Other potential topics include:

10. a discussion on methodological concerns about these methods
11. evaluation of indicators for policy use

Further background literature

Burnside, C.: 1998, Detrending and business cycle facts: A comment, *Journal of Monetary Economics* 41, 512–532.

Canova, F.: 1998a, Detrending and business cycle facts, *Journal of Monetary Economics* 41, 475–512.

Canova, F.: 1998b, Detrending and business cycle facts: A user's guide, *Journal of Monetary Economics* 41, 533–540.

Certificates

Your grade is going to be based on the following: seminar paper (60%), seminar presentation (30%) and active participation (10%) in the seminar discussion.

Language

English