

## **Business Cycles: Empirics and Theory, Fall Semester 2021**

**Syllabus version:** this document has last been updated on 16 September 2021.

### **Lecturers**

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**IMPORTANT:** Please use the SNB email addresses to get in contact, we cannot guarantee that we regularly check our UZH accounts

### **Time and place:**

- The course takes place on Monday from 4.15 to 6 pm, room XXX
- Two lectures will be held via zoom:
  - 11 October and 25 October.
  - [Meeting-link](#), Meeting-ID: 652 9783 4609, Code: 436196

**Organisation:** each week we start with the weekly indicator review followed by the lecture. Details on both below.

**Slides:** lecture notes will be posted sequentially on OLAT. Set “Modifications” to “ON” in the OLAT materials folder to receive an email notification whenever new files are uploaded. There may be typos or inconsistencies in the slides, please let us know if you see anything.

**Literature:** the lecture draws on a series of academic papers and two books:

- Galí, Jordi (2015), *Monetary Policy, Inflation, and the Business Cycle*, Princeton: Princeton University Press.
- Romer, David (2011), *Advanced Macroeconomics* (4th ed.), McGraw-Hill Education.

We will post the relevant papers and scans of the relevant book chapters on OLAT.

**Prerequisites:** You should know basic microeconomics (profit and utility maximisation) and econometrics (OLS regression). It also helps if you have already encountered the Ramsey model, monopolistic competition, and structural vector autoregressions (SVAR).

**Grading:** There will be an exam on January 17, 2022. The exam will take 60 minutes. To be admitted to the written exam, the weekly indicator review task has to be passed (if the presentation is not satisfying, a second indicator will be assigned). Everything discussed during the lecture is relevant for the exam unless explicitly stated otherwise.

### **Weekly indicator review:**

Tracking incoming data is an essential part of a professional macroeconomist’s job. We will start each lecture with a short student presentation (at most 6 mins) on an important economic indicator or a central bank decision that has been published during the past week. The goal is to get to know the most prominent economic indicators and central banks and to develop a feeling for the current state of the business cycle in Switzerland and important foreign economies (US, euro area, China)

During the first lecture, Christian will give a presentation on the US industrial production release for August (published on 15 September) so that you have an idea what is expected at a minimum.

The indicators to be presented are:

- 20 September: industrial production (USA, 15 September)
- 27 September: flash PMIs (EA, 23 September)
- 4 October: Corona situation (CH, most recent daily update)
- 11 October: employment (USA, 8 October)
- 18 October: CPI (USA, 13 October)
- 25 October: GDP (China, 18 October)
- 1 November: EA ECB meeting (euro area, 28 October)
- 8 November: consumer sentiment (CH, 4 November)
- 15 November: Swissmem survey (CH, 8 November)
- 22 November: housing starts + building permits (USA, 17 November)
- 29 November: GDP (CH, 26 November)
- 6 December: Retail sales (CH, 2 December)
- 13 December: Consensus Forecasts (USA, EA, CH, 9 December)
- 20 December: monetary policy assessment (CH, 16 December)

The presentation comprises of one single slide and should take at most 6 min.

Content: the audience should take away the following elements

- For indicators: What is the indicator supposed to measure and how is it collected? What does the indicator tell us about the recent evolution of the business cycle?
- For central bank decisions: What are the elements of the current policy stance? Was the decision expected or was there a surprise?

The presentation needs to be submitted via the OLAT dropbox by 4 pm of the presentation day.

Please make sure that you know what you are talking about. Other students and the lecturer are free to ask about further details such as the source, frequency, publication lag, history, revisions, seasonality and seasonal adjustment, availability, or how the data is collected and processed.

In my experience, presentation skills are very important in both the professional and the academic environment. A very useful (but sometimes humbling) tool is to record one's own presentation.

*For each indicator there is a limited number of slots available that are allocated on a first come, first served basis. Each student must enrol for one indicator, submit her/his presentation in time, be present at the day they chose, and hold the presentation in case that they are selected. If on the day of the presentation more than one or no student volunteers, we will decide randomly who presents.*

## **Tentative outline of the lecture:**

### 1. Empirics

- Stylised facts
  - Trend vs cycle: detrending, HP filter
  - Recessions vs expansions
  - Comovement, different volatilities, a factor model
- Drivers of the business cycle
  - Structural VAR
  - Narrative approach
- Costs of business cycles

### 2. Theory: why are there business cycles?

- From the IS-LM model to the modern approach
- The basic New Keynesian DSGE model
  - The New Keynesian IS curve
  - The New Keynesian Phillips curve
  - The general equilibrium
- Working with DSGE models
  - Using the basic New Keynesian model: calibration, estimation, identification of historical business cycle drivers, forecasting, assessment of different monetary policy strategies
  - Further examples of DSGE applications: Phillips curve identification (McLeay and Tenreyro, 2019), measuring  $r^*$  (del Negro et al, 2017), optimal containment policy in pandemics (Christiano et al, 2020)

### 3. Guest lectures

- Ronald Indergand, Head Short Term Economic Analyses at State Secretariat for Economic Affairs (SECO), date tbd
- Alica Ida Bonk, euro area economist at Swiss National Bank, date tbd