



EUROPEAN CENTRAL BANK

EUROSYSTEM

PhD Traineeships in the Business Cycle Analysis Division

Reference 2018-063-TRA

Type of contract	PhD Traineeship of between 3 and 12 months in total.
Who can apply	EU nationals that are eligible according to our traineeship programme: https://www.ecb.europa.eu/careers/what-we-offer/traineeship/html/index.en.html
Salary	The PhD trainee grant is €1,900 per month plus an accommodation allowance.
Working time	Full-time
Place of work	Frankfurt am Main, Germany
Closing date for applications	22 March 2018

Your team

You will be part of the Business Cycle Analysis Division in the Directorate General Economic Developments. In the Division we analyse and forecast aggregate and sectoral real macroeconomic developments in the euro area and its largest countries. This includes business cycle monitoring, short-term forecasting, the analysis of the main domestic demand components, risk analyses and the assessment of uncertainties surrounding the economic outlook. The Division also assesses the euro area accounts and prepares external communications on business cycle developments. Our output includes articles and studies in publications such as the Economic Bulletin, Annual Report, Occasional Paper Series and Working Paper Series.

Currently we are working on new projects, models and tools aimed at deepening our analyses of the euro area business cycle and the effect of policies. Participants in the programme will have the opportunity to cooperate closely with the economists in the Division and will be involved in all stages of research projects, the findings of which are then typically used for policy advice and can be published in international academic journals. Participants will also have the chance to support economists in preparing policy-related notes and reports.

The opportunity to work closely with the economists in the Division will allow students to develop analytical skills and gain insight into the research activities and policy-making processes of the ECB, thereby enabling them to acquire new ideas and stimuli for their future graduate studies.

To further enhance the diversity of our team, we particularly encourage applications from female candidates.

Your role

As a PhD trainee you will:

- contribute to the enhancement of analytical, econometric and forecasting tools;
- be involved in analytical projects, in cooperation with economists of the Division, aimed at the enhancement of the policy capabilities of the Division and potentially with a view to publication;
- conduct empirical analyses using databases, Excel and econometric software;
- support projects by identifying and designing the most suitable technical solutions to meet functional requirements, taking into account architecture principles, reference architecture patterns and tactical and strategic enterprise architecture goals and directions;
- contribute to the Economic Bulletin and other regular internal and external publications of the Directorate General Economics, in collaboration with other business areas within the ECB.

Qualifications, experience and skills

Essential:

- a PhD in economics, finance, statistics, engineering or a related field, or at least two calendar years of PhD studies in economics, finance, statistics, engineering or a related field as at the closing date for applications;
- a sound knowledge of applied modelling and econometric techniques, especially panel data and/or time series analysis;
- a working knowledge, with proven experience, of statistical and econometric packages such as Stata, R, MATLAB or EViews, or advanced expert knowledge of other programming languages.

Desired:

- experience with structural vector autoregressions (VARs), panel VARs, global VARs, Bayesian VARs, non-linear VARs (time-varying parameters, Markov switching) and co-integration analysis;
- an understanding of factor models and state space/unobserved component models;
- a knowledge of macroeconomic models, e.g. dynamic stochastic general equilibrium (DSGE), overlapping generation models, using Dynare or coding own procedures;
- an understanding of microeconometrics (including experience in working with large-scale micro datasets at firm or sectoral level);

- a knowledge of network models or agent-based models;
- experience with the analysis of the household sector consumer and investment behaviour, investment and business cycle dynamics;
- experience with methods for working with big data (machine learning, web scraping, text mining).

Behavioural competencies:

You are curious and eager to learn, and want to further develop your ability to analyse complex information. You are keen to collaborate with others, pursue team goals and learn from other people's diverse perspectives. You strive to know and anticipate stakeholder needs, and will signal any need for change and propose alternative solutions.

Further Information

The recruitment process for this position may include telephone or Skype interviews.

Application and selection process

Find more information under "How you can join us":

<http://www.ecb.europa.eu/careers/before-you-apply/html/index.en.html>.