



EUROPEAN CENTRAL BANK

EUROSYSTEM

PhD traineeship in the field of stress testing and macroprudential policy

Reference 2017-315-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	03 January 2018

Your team

You will be part of the Stress Test and Modelling Division in the Directorate General Macroprudential Policy and Financial Stability. The Directorate General has approximately 100 staff members providing analyses and policy advice on issues relating to macroprudential policies, financial stability, financial regulation and financial stability arrangements. In the Division we conduct model-based analyses for (1) stress tests of the financial sector, and (2) macroprudential policy impact assessments at the national, euro area and European Union levels.

In the area of stress testing, we are currently contributing to the upcoming 2018 EU-wide stress test coordinated by the European Banking Authority, in particular, the top-down, model-based part of the quality assurance process. In relation to the assessment of macroprudential policies, we develop models and background studies that inform ECB macroprudential policy decisions. We also support the activities of the European Systemic Risk Board and contribute to policy discussions at the European and international levels.

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

Your role

As a PhD trainee you will be entrusted with a project in one of the following areas:

- developing stress-testing infrastructure and modelling macro-financial linkages by contributing to the further development of the analytical toolkit for assessing systemic risk, solvency and maturity mismatches in various parts of the financial system. This includes exploring time series (such as macro-feedback effects) and cross-sectional (such as financial sector

interconnectedness and contagion) dimensions;

- developing models for macroprudential policy assessment and calibration by contributing to the development of tools for activating and calibrating macroprudential instruments such as countercyclical capital buffers or lending standard restrictions. This includes also tools allowing the assessment of cross-country spillover effects of macroprudential measures.

These assignments may involve the application of one or more of the following techniques: time series analysis, panel analysis, semi-structural and structural modelling, micro-econometrics, network analysis, agent-based modelling and methods of linking the balance sheet items of individual financial institutions to developments in sectors, countries or financial markets.

The position offers you excellent opportunities to use the latest macroeconomic and microeconomic modelling tools in the areas of stress testing and the assessment of macroprudential policies. You will be able to develop your potential and gain an overview of all the tasks performed by the Division, and may occasionally contribute to its regular work. You will be assigned your own supervisor, but you will be expected to use your own initiative and work in a largely autonomous way to complete your projects. You will be part of a multicultural team that strives for continuous innovation to make a positive impact on the lives of European citizens.

Qualifications, experience and skills

Essential:

- a PhD-level qualification, or you will be close to completing a PhD, in economics, finance, statistics, business administration (with a focus on accounting), mathematics, physics, engineering, computer science or a related discipline;
- a sound knowledge of a number of advanced statistical and economic methods, such as macroeconometrics, panel econometrics, microeconometrics, dynamic stochastic general equilibrium models, financial economics, industrial organisation with a focus on banking, computational economics and/or an advanced knowledge of numerical techniques;
- an advanced knowledge of programming languages and econometric software (e.g. MATLAB, R, Stata, C++, Python, VBA and Dynare);
- an advanced command of English and an intermediate command of at least one other EU official language.

Desired:

- experience of using stress-testing models, network analysis or agent-based models;
- experience of working with banking and other financial data, alongside experience of using bank-level datasets (such as Bankscope, FINREP and COREP) or services such as Bloomberg, Datastream, SNL Financial and Thomson Reuters, and/or knowledge of corporate or bank accounting;

- experience of working with official financial sector statistics (e.g. from the ECB, Eurostat and the Bank for International Settlements) and macroeconomic datasets.

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 a remote written exercise at the pre-screening stage and – if you are invited to participate further in the selection procedure – a telephone interview or a Skype interview.

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>.