



EUROPEAN CENTRAL BANK

EUROSYSTEM

PhD Traineeships in Directorate General Economic Developments

Reference 2017-319-TRA

Type of contract	Traineeship of between 3 and 12 months in total.
Who can apply	EU nationals who are eligible according to our traineeship programme (https://www.ecb.europa.eu/careers/what-we-offer/traineeship/html/index.en.html)
Salary	The trainee grant is €1,050 per month plus an accommodation allowance.
Working time	Full-time
Place of work	Frankfurt am Main, Germany
Closing date for applications	04 January 2018

Your team

You will be part of the Directorate General Economic Developments. Our Directorate monitors and analyses the euro area as a whole, the individual euro area countries and the non-euro area EU countries. Our output includes articles and studies in publications such as the Economic Bulletin, Annual Report, Occasional Paper Series and Working Paper Series. As a successful applicant you will be offered a traineeship in one of the following teams:

In the Business Cycle Analysis Division (BCA) we analyse and forecast aggregate and sectoral real macroeconomic developments in the euro area and its largest countries (Germany, France, Italy, Spain and the Netherlands). 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. Currently we are working on new projects aimed at deepening our analyses of the euro area business cycle.

In the Supply Side, Labour and Surveillance Division (SSL) we assess potential output and the output gap for the euro area and euro area countries. Our Division produces analyses and projections for the real side of the labour market, non-accelerating inflation rate of unemployment (NAIRU) and productivity developments. We also assess the structural economic policies of euro area countries and conduct country and cross-country studies on macroeconomic, sectoral and structural issues in the euro area countries relevant to country surveillance and analyses of intra-euro area adjustment processes. Currently we are working on new projects aimed at deepening our analysis of labour market and supply-side issues relating to long-term growth.

In the Euro Area External Sector and Euro Adoption Division we analyse, forecast and conduct studies on trade, the balance of payments, the international investment position and the price and non-price competitiveness of the euro area and of EU countries. Our Division monitors, analyses and forecasts macroeconomic developments in the non-euro area EU countries as well as the euro area countries in Central and Eastern Europe, and develops tools for these purposes. Currently we are working on the trade and competitiveness of the euro area, topical issues on non-euro area EU countries and the current and financial account of the euro area.

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;
- access public and commercial databases;
- process, consolidate and transform datasets, maintain and develop databases in order to monitor nominal and real economic developments as well as financial markets, possibly including the use of micro and intraday data;
- 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, for instance by preparing tables and charts for reports, in collaboration with other business areas within the ECB.

The position offers you excellent opportunities to work closely with the Division's economists and research analysts, contributing to short-term tasks as well as longer-term projects. You will be assigned a supervisor but will be expected to complete tasks using your own initiative and work largely autonomously. You will have access to the ECB's library, as well as to computing and statistical resources. 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 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;
- sound knowledge of applied modelling and econometric techniques, especially panel data and/or time series analysis;
- 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), co-integration analysis;
- understanding of factor models and state space/unobserved component models;
- knowledge of macroeconomic models, e.g. dynamic stochastic general equilibrium (DSGE), overlapping generation models, using Dynare or coding own procedures;
- understanding of microeconometrics (including experience in working with large-scale micro datasets at the firm or sectoral level);
- knowledge of network models or agent-based models;
- experience with the analysis of labour market flows, skills and the labour market impact of structural reforms and the quality of institutions;
- experience with the analysis of longer-term drivers of economic growth, particularly the impact of digitalisation of the labour market on productivity, demographics and the macroeconomic impact of decarbonisation;
- experience with methods for working with big data (machine learning, web scraping, text mining).

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 phone 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>.