



EUROPEAN CENTRAL BANK

EUROSYSTEM

## **Position Details**

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### **PhD Traineeships in the Directorate General Economic**

**Reference** 2016-228-TRA

#### **Function**

The Directorate Economic Developments (DED) of the Directorate General Economics of the European Central Bank (ECB) is seeking recent PhD graduates, or students who are close to completing their PhD studies, for its 2017 Traineeship Programme.

DED's activities cover the euro area as a whole, the individual euro area countries and the non-euro area EU countries. Its output includes articles and studies in publications such as the Economic Bulletin, Annual Report, Occasional Paper Series and Working Paper Series.

The successful candidates will be assigned to one of the three divisions within DED described below, according to preference and business needs.

The Convergence and Competitiveness Division monitors and analyses the balance of payments, international investment position and competitiveness of the euro area and EU countries, as well as analysing the functioning of the Exchange Rate Mechanism (ERM II). It also monitors, analyses and forecasts macroeconomic developments in the non-euro area EU countries and develops tools for this purpose. It prepares external communications on the non-euro area EU countries and assesses the state of convergence and economic policies of these countries.

The Output and Demand Division monitors, analyses and forecasts real macroeconomic developments in the euro area and its countries and sectors, including by assessing labour markets, trade, the current economic position, prospects, risks and uncertainties. The Division assesses long-term growth potential, structural unemployment and long-term sectoral developments across the euro area economy as a whole. It also assesses the euro area accounts and prepares external communications on real macroeconomic developments in the euro area and its long-term performance.

The Prices and Costs Division monitors, analyses and forecasts nominal macroeconomic developments in the euro area and its countries and sectors. It assesses inflationary pressures from the external environment as well as from wage and profit developments and the associated prospects, risks and uncertainties. It prepares the macroeconomic projections for some euro area countries together with external communications on nominal euro area macroeconomic developments.

The successful applicants will carry out analytical projects, either in collaboration with, or under the supervision of, staff members, while gaining experience in the tasks performed by the team to which they have been assigned. Trainees may have the opportunity to submit the resulting papers for publication in the ECB's Working Paper Series and academic journals.

#### **Qualifications and experience**

Applicants must have the following knowledge and competencies:

- 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 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 together with proven experience of statistical and econometric packages such as Stata, R, MATLAB or EViews, or advanced expert knowledge of other programming languages.

Ideally, applicants should also have a deep understanding of, and experience in applying, one or more of the following techniques:

- structural vector autoregressions (VARs), panel VARs, global VARs, Bayesian VARs, nonlinear VARs (time-varying parameters, Markov switching), co-integration analysis;
- factor models and state space/unobserved component models;
- macroeconomic models, e.g. dynamic stochastic general equilibrium (DSGE), backward-looking or agent-based, overlapping generation models, using DYNARE, or coding own procedures;
- microeconometrics (including experience in working with large-scale micro datasets at the firm or sectoral level);
- empirical methods for international macroeconomics and international trade;
- network models for application to trade and international financial transactions;
- methods for working with big data (machine learning, web scraping, text mining);
- an advanced command of English;
- an intermediate command of at least one other official language of the EU;
- a very high level of computer literacy and the ability to use various software applications, including a good working knowledge of MS Office in general and Excel in particular;
- a sound understanding of the institutional framework of the ECB and the Eurosystem.

## **Competencies**

The successful candidate will have the following behavioural competencies:

- can obtain and analyse complex data from a variety of sources;
- can find appropriate solutions to problems, drawing on a solid ability to frame questions within economic theory;
- contributes to the success of the team by putting forward new ideas;
- shares information and supports team members in the achievement of common goals;
- is able to work without close supervision and deliver results within tight time frames;
- shows a high degree of adaptability and commitment;
- pursues projects with energy and drive;
- prioritises tasks and pays attention to detail, even when under time pressure;
- communicates ideas in an effective manner and ensures mutual comprehension.

**Closing Date for Applications:** 12.01.2017

### **Further Information**

PhD traineeship of three or six months, with the possibility of an extension to up to twelve months in total in the same or another business area.

The starting dates will depend on business needs and the successful applicants' availability.

All trainees will be assigned a supervisor but will be expected to complete their tasks using their own initiative and working largely autonomously. They will have access to the ECB's library, as well as to computing and statistical resources.

To further enhance the diversity of its workforce, the ECB particularly encourages applications from female candidates.

### **How to apply**

Applications are to be made in English and submitted using our online application form. An "Applicants' Guide" can be downloaded from our recruitment pages.

The recruitment process may include a pre-screening exercise and a telephone interview.

Before applying, applicants should check that they meet the conditions set out in Article 4 of the rules governing the traineeship programme:

[http://www.ecb.europa.eu/careers/pdf/traineeship\\_programme.pdf](http://www.ecb.europa.eu/careers/pdf/traineeship_programme.pdf).

Further information on the ECB's traineeships can be found at <http://www.ecb.europa.eu/careers/newcomers/trainee/html/index.en.html>.

Applicants are accepted from nationals of the Member States of the European Union.

The requirements laid down in the vacancy notice must be met by the closing date for applications.

This vacancy notice may be used to fill the same position again, or similar positions, within 12 months of the selection decision.