

Centre for International Central Bank Dialogue
**International Central Banking
Courses 2023**



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*JVI: Joint Vienna Institute

*OeNB: Oesterreichische Nationalbank (central bank of the Republic of Austria)

*BaFin: Bundesanstalt für Finanzdienstleistungsaufsicht

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Foreword



Photo: Nils Thies

Joachim Nagel

Dr Joachim Nagel
President
Deutsche Bundesbank

None of us would have thought possible that central banks would find themselves having to confront the kind of intense challenges presented to them simultaneously over the last few years. The climate crisis, the COVID-19 pandemic and Russia's war against Ukraine have required far greater adjustments in numerous areas than in previous times, and will continue to do so. In terms of international central bank dialogue, the good news here is that by using technological opportunities to deal flexibly with the fundamental change in circumstances, we were largely able to maintain virtual contact with our partner central banks.

Experience shows that this allowed us to

1. stay in touch with central banks with which, owing to the pandemic, we would have had to terminate relationships otherwise.
2. actually extend the scope of central bank dialogue to institutions with which no contact had yet been established for a number of reasons.
3. satisfactorily meet our climate policy responsibilities, particularly by cutting back on air travel.

Despite all the obvious advantages, virtual con-

tact has one crucial disadvantage: the human interaction needed to achieve a successful dialogue through informal, face-to-face conversations is largely lost.

We have therefore decided to go back to holding in-person events in Frankfurt whenever external influences allow and whenever it makes sense in terms of content, and to find a new balance between online and on-site events over time.

With that in mind, in 2023, we are planning to hold 25 face-to-face courses in Frankfurt (unless otherwise indicated) and 21 online courses. As usual, our programme will focus on all the core business areas of the Bundesbank - cash management, financial and monetary systems, monetary policy, banking supervision and payment systems. Current issues such as environmental protection, diversity, the crisis-induced strengthening of institutional resilience or the appropriate use of social media are integrated into the individual seminar programmes alongside topical content in the narrower sense.

We hope that you will find events that are of interest to you and look forward to seeing you online or, even better, in person in Frankfurt.



Burkhard Balz
Member of the Executive Board
Deutsche Bundesbank

Introduction

The Deutsche Bundesbank has been working with central banks worldwide since its foundation in 1957. The aim of central bank cooperation is to promote the creation and development of central banking systems appropriate to a market economy, to foster the process of monetary reform, and to enhance economic and financial stability in our partner countries. Training programmes and advisory assistance for executives and other members of staff of foreign central banks serve as a vehicle for exchanging knowledge and experience. The topics featured cover the entire range of economic, operational and legal instruments used in modern central banking.

The Bundesbank adopts a variety of approaches to enhance this cooperation, including:

- sending experts or project support to the countries concerned;
- arranging study visits to the Bundesbank to discuss specific issues with in-house experts;
- running course programmes in Germany and abroad
- offering online consultancies and courses.

All these activities, which draw on the entire resources of the Bundesbank, are organised and coordinated by the Centre for International Central Bank Dialogue at the Central Office in Frankfurt.

All international central banking courses are held in English. Each of these courses is open to individuals at different stages of their professional career, depending on the topic and type of event. Central bank staff from all our partner countries are cordially invited to register as participants.

The Bundesbank provides accommodation to all participants for the duration of the in-person courses except from participants from ESCB countries which bear their own accommodation costs. Meals taken with other course members and social events help to create an international atmosphere based on mutual trust which, in turn, fosters an open exchange of ideas.

Details of the courses planned for 2023 can be found on the following pages.

Finally, we encourage you to visit the Deutsche Bundesbank's website where you can watch our video on International Central Bank Dialogue:

<https://www.bundesbank.de/en/bundesbank/international-central-bank-dialogue>

Our range of international central banking courses

Course level I

Content

Level I courses cover core aspects of central banking with the aim of offering a general overview and transmitting basic knowledge in major central banking topics. They also provide a platform for discussion and give participants an opportunity to exchange views and ideas with central bankers from around the world.

The various lectures, which are held by Bundesbank experts and external specialists, are supplemented by workshops or exercises and open discussions.

Target group

The courses are primarily targeted at young professionals with work experience of up to two years in the designated central banking field or a central bank area that is related to the topic of the course.

Course level II

Content

Courses focus on specific subjects related to central bank tasks. These topics will be treated at an advanced level and facilitate an in-depth analysis. They are also designed to enable participants to exchange their views and to deepen and broaden knowledge or to generate new opinions and ideas.

Courses involve lectures, group work, case studies or discussions. The courses require active contributions from participants. The lectures will be held by Bundesbank specialists and external experts.

Target group

The courses are primarily directed at experienced employees with more than two years of work experience in the respective central banking field. Participants are expected to have basic expertise and to be familiar with general aspects in the working area which will be the focus of the course.

Expert panels

Content

Expert panels are designed to provide central bank employees with a discussion platform to share their experience and knowledge about very specific central banking topics.

Participants are expected to actively contribute to the discussion. Experts are requested to submit a paper or a presentation in advance to be presented during the panel. Expert panels require a considerable amount of active participation, high proficiency in English and a true interest in engaging in discussions with central bankers from around the world.

Target group

Expert panels are aimed exclusively at experienced employees, ideally with work experience of more than five years. Participants should have extensive and detailed knowledge of the respective subject area. While the individual topics have already been set, the needs of specific groups of participants can also be taken into consideration.

Ad hoc expert panels

In addition, the Deutsche Bundesbank's Centre for International Central Bank Dialogue will organise ad hoc expert panels on topics of special interest that arise during the course of the year. These ad hoc expert panels will be announced on our website and organised in the same way as our regular expert panels.


If you have a suggestion for a possible ad hoc expert panel, please send us your proposal by email:

internationalcourses@bundesbank.de

	Content		Target group
Course level I	Core aspects of central bank tasks	Lectures, exercises, discussions or workshops	Young professionals with work experience of up to two years
Course level II	Specific aspects of central bank tasks at an advanced level	Lectures, exercises, discussions, workshops, group work, case studies	Experienced professionals with work experience of more than two years
Expert panel	Specific aspects of central bank tasks at an advanced level	Expert discussions, case studies/country experience presented by panel participants, hands-on exercises	Experienced professionals in a specific field of central banking, ideally with work experience of more than 5 years

Course level I

Macroeconomic analysis and forecasting

 06.02.2023 – 08.02.2023

 Frankfurt am Main

 **Deadline for application** 23.12.2022

Objective

Monetary policy decisions in many regions are largely based on the economic outlook. This three-day course provides an overview of the modelling and forecasting work performed by Bundesbank experts in the context of the monetary policy formulation process in the euro area. The focus is on practical aspects of macroeconomic analysis and forecasting. Bundesbank experts will present elements of their regular work of analysing and forecasting macroeconomic developments. The course gives an overview of the models and forecasting tools used by Bundesbank experts, distinguishing between short-term and medium-term analysis. In addition, the course will illustrate specific analytical approaches used by Bundesbank staff to assess developments in selected segments of the economy, such as the labour market.

Contents

- The current macroeconomic outlook for the German economy
- Analysis and forecasting of the international environment
- Short-term GDP forecasting at the Bundesbank
- Inflation analysis and forecasting
- The Bundesbank's macroeconomic model and its applications
- Potential output and medium-term projections

- Analysis and projections of labour market and wage developments
- Research projects related to macroeconomic forecasting

Target group

Mid-level central bank officials working in the area of macroeconomic analysis or projections. Applicants should have a sound grasp of macroeconomic theory, and are expected to have a good understanding of basic econometrics and experience in the use of commonly used modelling techniques.

Please note:


This course does not cover topics related to the deeper analysis of monetary and financial developments, which are addressed in a separate course (Analytical tools for monetary policy). Nor does the course provide an introduction to econometrics or specific modelling techniques.

A nominating person is mandatory for the participation in our in-person courses.

Course level I

Monetary policy implementation

In cooperation with the Oesterreichische Nationalbank (OeNB) and the Joint Vienna Institute (JVI)

 27.02.2023 – 03.03.2023

 Vienna

 Deadline for application 11.12.2022

Application at JVI www.jvi.org

Objective

The implementation of monetary policy requires both well-defined goals and a consistent set of policy instruments to achieve them. This one-week course will place central banks' monetary policy operations in the context of the broader monetary policy strategy. It will emphasise the link between policy formulation and implementation, discuss monetary policy objectives and instruments, and explain the functioning of the monetary policy transmission mechanisms. The course will then focus on the operational details of implementing monetary policy, including the interest rate steering approach and the role of a central bank's balance sheet. The course will also cover specific aspects of monetary policy implementation: liquidity analysis, the operational design of conventional and unconventional monetary policy instruments, the role of foreign exchange interventions, and the consistency of operational frameworks. Finally, the course will address current challenges in monetary policy implementation, including the environmental, social and governance (ESG) aspects.

Contents

Upon completion of this course, participants should be able to do the following.


- Formulate principles for monetary policy and the implications for monetary operations
- Describe monetary policy implementation using an interest rate steering approach, as well as the role of the central bank's balance sheet
- Conduct liquidity analyses
- Understand the operational design of monetary policy instruments
- Analyse foreign exchange interventions
- Assess the consistency of operational frameworks
- Understand monetary policy implementation in the Eurosystem
- Understand ESG-related challenges

Target group

Junior to mid-level central bank officials working in monetary policy operations and officials from central banks or ministries of finance or economics whose responsibilities require, or who have a strong interest in acquiring, a thorough understanding of monetary policy implementation.

Course level II

Analytical tools for monetary policy

 20.03.2023 – 23.03.2023

 Frankfurt am Main

 **Deadline for application** 03.02.2023

Objective

Monetary policy decision-making calls for thorough analysis of economic, monetary and financial developments. Central banks assess these developments using a variety of analytical tools. The outcome of their analysis provides key input for well-informed monetary policy decisions which allow the central bank to fulfill its monetary policy mandate.

This four-day course provides an overview of different analytical tools which the staff of the Bundesbank use in the context of the monetary policy decision-making process in the monetary union. The focus of the course is on the analysis of monetary and financial developments, which represents an important part of the analytical approach adopted by the Eurosystem under the prevailing monetary policy strategy. Bundesbank experts will present key aspects of their regular analytical work. In particular, the course will illustrate specific analytical approaches in order to monitor and assess developments in the area of money and credit, in capital markets, in exchange rates and price competitiveness as well as in relation to the monetary transmission process.

Contents

- Monetary policy transmission and the effects of financial shocks
- Analysis of financial accounts
- Capital markets analysis
- Exchange rates and price competitiveness analysis
- Role of banks in monetary policy transmission
- Current research projects related to monetary policy analysis

Target group

Mid-level central bank officials working in the area of monetary analysis and/or financial market analysis. Potential applicants should have a sound understanding of macroeconomic theory and are expected to have a comprehensive knowledge of basic econometrics as well as experience in the use of commonly used modeling techniques.

Please note


The course does not cover topics related to broader macroeconomic analysis and forecasting. Moreover, the course does not provide an introduction to econometrics or specific modeling techniques.

A nominating person is mandatory for the participation in our in-person courses.

Course level I

Monetary policy communication

In cooperation with the Joint Vienna Institute (JVI)

 24.07.2023 - 28.07.2023

 **Vienna**

 **Deadline for application** 24.04.2023

Application at JVI: www.jvi.org

Objective

There is a broad consensus that transparency and communication are crucial for the credibility of a central bank and the effectiveness of monetary policy. In order to foster credibility, central banks need to strengthen transparency and should adopt a strategic communication approach with clear communication objectives, messages tailored to different target audiences and appropriate communication channels. This course will begin by reviewing the meaning and role of strategic communication and transparency for central banks, clarifying its importance for monetary policy. Building on this general discussion, the course will focus on the practicalities of central bank communication in general and monetary policy communication in particular by taking a closer look at the target audiences of central banks, the channels used and the specific content of monetary policy communication. Special issues, such as external and internal communication in a forward-looking environment, will also be addressed. The course will be highly interactive, offering a mix of presentations, country-specific practices, workshops and group discussions.

Contents


- Central bank transparency – meaning and measurement
- Strategic communication for central banks – meaning, rationale and key elements
- Stakeholder and target audience analysis for monetary policy communication
- Communication instruments and channels for target-audience oriented monetary policy communication
- Content of monetary policy communication
- Monetary policy communication in a forward-looking environment
- Financial literacy


Target group

Junior to mid-level central bank officials working in the area of central bank communication or monetary policy, especially in central banks under or moving towards an inflation targeting regime, and officials from central banks whose responsibilities require, or who have a strong interest in acquiring, a thorough understanding of central bank communication.

Online Expert panel

Monetary policy – greening the financial system

 18.09.2023 - 20.09.2023

 **Online platform**

 **Deadline for application** 18.08.2023

Objective

Developments in the financial system, regulatory changes, refinements in broader monetary policy frameworks or other major events such as the COVID-19 pandemic all create new issues and challenges and a need for monetary policy implementation to adjust. Given the effects of climate change on countries and societies worldwide, a new topic has recently been added to the agenda. Against this background, the Eurosystem is discussing how – within its mandate – monetary policy can support green finance and contribute to environmentally-friendly developments in the financial system. The expert panel serves as a platform to provide insights into this debate. It aims to bring together central bank experts to exchange views and share ideas on possible operational measures that are currently under discussion. Participants will be expected to contribute actively to the panel by presenting the work and/or viewpoint of their central bank on this topic.

Contents

- Climate change and monetary policy implementation – fundamental considerations
- Introduction and current developments in the Network for Greening the Financial System
- Monitoring of green or sustainable financial markets
- Management of monetary policy portfolios
- Greenness in the collateral framework
- Climate-related financial risks and the central bank balance sheet

Target group


The expert panel is targeted at central bankers who are directly involved in monetary policy implementation, with many years of experience working in this field. Applicants should have extensive knowledge and a sound understanding of monetary policy implementation and operational frameworks and should be familiar with the debate on green finance. Participants will be expected to contribute actively to the panel by presenting the work and/or viewpoint of their central bank on this topic.

Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Course level I

Monetary policy instruments and implementation

 06.11.2023 – 10.11.2023

 Frankfurt am Main

 Deadline for application 22.09.2023

Objective

The implementation of monetary policy requires both well-defined goals and a consistent set of policy instruments to achieve them. This course will begin by placing the central bank's monetary policy operations within the context of broader monetary policy strategy, emphasising the link between policy formulation and implementation, as well as touching upon monetary policy objectives and instruments and the functioning of the monetary policy transmission mechanism. The course will then focus on the practicalities of implementing monetary policy, including collateral framework principles and challenges, credit assessment of non-marketable assets, monetary policy refinancing operations and monetary policy purchase programmes as well as an introduction to market intelligence at the Deutsche Bundesbank.

Contents

- Recent issues in monetary policy implementation
- Collateral framework – principle and challenges
- Credit assessment of non-marketable assets
- Monetary policy refinancing operations
- Monitoring of monetary policy counterparties and Eurosystem's ELA framework
- Monetary policy purchase programmes
- FX interventions in the Eurosystem

Target group


Junior to mid-level central bank officials working in monetary policy operations and officials from central banks or ministries of finance or economics whose responsibilities require a thorough understanding of monetary policy implementation, or where there is a strong interest in acquiring such knowledge.

Please note

A nominating person is mandatory for the participation in our in-person courses.

Online course

Mathematical models for banking supervisors

 28.02.2023 – 02.03.2023

 **Online platform**

 **Deadline for application** 10.02.2023

Objective

Banks use models to determine minimum capital requirements, e.g. for credit and market risk. These models often include complex mathematical methods, such as stochastic calculus. Supervisors need to have dedicated mathematical and statistical backgrounds to be able to discuss these models with their supervised institutions at an appropriate level.

This course aims to explain mathematical methods and the underlying assumptions used in banks' regulatory and internal models for minimum capital requirements. Participants should be prepared to contribute actively to the seminar by answering questions and performing calculations, e.g. in Excel. The number of participants for this course will be strictly limited to allow for maximum effectiveness and optimal interaction between participants and speakers.

Contents

- Introduction to mathematics in risk control
- Time series and estimation
- Random variables, density functions and quantiles
- Independence and correlation
- Reading and understanding complex regulatory formulas: the Basel formula for risk weights
- Economic and mathematical background of the Basel formula
- Application of the Basel formula for different types of credit portfolios
- Practical examples and calculations
- Model types and estimation methods in risk control, especially for market risk
- Historical simulation vs. Monte Carlo simulation
- Types of correlation risk

Target group


On-site and off-site banking supervisors from central banks with a good knowledge of regulatory capital requirements and at least basic knowledge of mathematics and statistics. The course is aimed specifically at non-mathematicians who are interested in quantitative topics.


Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Online course

Introduction to the Basel framework

 27.03.2023 – 31.03.2023

 **Online platform**

 **Deadline for application** 10.03.2023

The course will focus particularly on background knowledge, but it will also reflect on practical aspects wherever possible.

Objective

Basel III is a comprehensive set of reform measures developed by the Basel Committee on Banking Supervision to improve the regulation and supervision of the banking sector. Finalised in December 2017, the full Basel III package addresses the lessons learnt from the financial crisis. In specific terms, Basel III focuses on strengthening the qualitative and quantitative standards within the regulatory capital framework, introduces a global liquidity framework, deploys measures to reduce cyclicity, implementing a leverage ratio and provides a basic approach for regulating systemically important banks.

The course aims to provide an overview of the Basel framework and Basel III reforms. The Basel framework is also a major component of the regulatory harmonisation process within the European Union; it was transposed into law via the Capital Requirements Directive IV package and implemented in 2014. A revised package adopted in 2019 mainly concerned the remaining elements of the Basel III reform. This course will therefore also impart comprehensive expert knowledge on major issues relating to the implementation of the Basel III framework in the EU and Germany.

Contents

- Overview of the institutional set-up of banking supervision in Germany and Europe
- General overview of the Basel framework, the motivation behind its revisions and the finalisation of Basel III
- Capital – quality, quantity and transparency
- Capital conservation buffer, countercyclical capital buffer, systemically important banks, systemic risk buffer
- Leverage ratio
- Liquidity – quantitative standards, monitoring tools, management principles
- Pillar 1 requirements – credit risk, operational risk, market risk
- Pillar 2 – introduction to the supervisory review and evaluation process (SREP)
- ICAAP and ILAAP – German and European implementation
- Internal governance aspects
- Current regulatory developments

Target group

This course is aimed at bank examiners and employees working in the banking supervision unit of their central bank or supervisory authority. A basic knowledge of the new regulations under Basel II and III is essential for productive participation. Participants should also be familiar with the supervisory policies and practices applied at their institution and be prepared to actively contribute to discussions.


Technical requirements


Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Course levels I and II

Banking supervision within the Basel framework

In cooperation with the Joint Vienna Institute (JVI) and the Oesterreichische Nationalbank (OeNB)

 17.04.2023 – 21.04.2023

 JVI (Vienna)

 **Deadline for application** 17.01.2023

Objective

Basel III is a comprehensive set of reform measures developed by the Basel Committee on Banking Supervision to improve the regulation and supervision of risk management in the banking sector. In specific terms, Basel III focuses on strengthening the qualitative and quantitative standards within the regulatory capital framework, introduces a global liquidity framework, deploys measures to reduce cyclicality, implements a leverage ratio and provides a basic approach for regulating systemically important banks. This one-week course seeks to impart comprehensive expert knowledge on major issues relating to the implementation of the Basel framework, focusing on countries in the EU, European emerging market economies, and the Caucasus.

The course aims to give an overview of the Basel framework and the Basel III reforms. It will focus on both theoretical and practical aspects, with special attention being given to introducing the internal capital adequacy assessment process (ICAAP) and the supervisory review and evaluation process (SREP). Furthermore, the examination of credit business and specific topics such as the interest rate risk in the banking book, stress testing and NPL management and resolution will be covered. Participants will be invited to share their experiences by giving short

presentations on specific aspects of banking supervision in their home countries.

Contents


- The Single Supervisory Mechanism in Europe
- Overview of Basel III and latest developments with regard to the Basel framework
- Banking supervision aspects of the COVID-19 pandemic
- Pillar 2 – internal capital adequacy assessment process (ICAAP), supervisory review and evaluation process (SREP) – business model analysis
- Examination of credit business
- Interest rate risk in the banking book
- Stress testing and its use in supervision
- Recovery and resolution – an overview
- Non-performing loans – management and resolution
- National experiences of off-site and on-site supervision

Target group

This course is aimed at mid-level to senior banking supervisors from central banks and supervisory authorities. Basic knowledge of the Basel framework is essential. Participants should also be familiar with the supervisory policies at their own institutions and be prepared to actively contribute to discussions.

Course level II

Regulation and supervision of non-financial risks

 08.05.2023 – 11.05.2023

 Frankfurt am Main

 **Deadline for application** 24.03.2023

Objective

While financial risks such as credit risk and market risk have dominated the supervisory landscape for decades, the regulation and supervision of non-financial risks in banks has begun to attract more attention in the last years. From the implementation of operational risk in the Basel II framework in 2004 to more recent initiatives such as environmental, social and governance risks (ESG risks), the regulatory landscape is starting to shift towards risks that warrant stronger management rather than hard capital requirements.

This course aims to inform participants about regulatory standards for non-financial risks and the treatment of these risks in banks. The presenters will include both practitioners and rule-makers in order to give participants a holistic view of the concept of non-financial risks.

Participants should be prepared to discuss initiatives in their countries and also be able to shed light on non-financial risks that are uncommon in the euro area.

Contents

- Overview of non-financial risks
- Operational risk, conduct risk and compliance risk
- Reputational risk
- Information and communication technology (ICT) risk
- Outsourcing risk
- Business continuity management
- Environmental, social and governance (ESG) risk
- The three lines of defence concept
- Business and strategic risk
- Pillar II requirements for non-financial risks in the ICAAP

Target group


The level II course is aimed at experts from central banks and supervisory authorities involved in the implementation of Basel III and the supervision of non-financial risks, both from an on-site and off-site perspective. Participants should be familiar with the supervision policies and practices of their financial system and be prepared to actively contribute to the discussions.


Please note

A nominating person is mandatory for the participation in our in-person courses.

Online course

IT supervision at banks

 22.05.2023 – 24.05.2023

 **Online platform**

 **Deadline for application** 05.05.2023

Objective

Against the backdrop of digital transformation, information technology is becoming more and more important to the functioning of banks. At the same time, however, these technologies bear great potential for abuse and may be a source of negligence and threats, both internal and external. Supervisors therefore need to focus their attention on the risks associated with the use of information technology.

This course gives an overview of current practices with regard to IT supervision at banks from both a regulatory and practical perspective. The course will describe the general framework in the EU and its transposition into German law and regulatory practice. The sessions will also discuss typical issues faced by banks with respect to IT, shed light on the evaluation techniques used by supervisors in their review and evaluation process (SREP) and highlight specific IT issues depending on participants' specific interests.

Active participation is expected in this course, and participants should be prepared to discuss typical issues and problems faced in the IT usage of banks under their supervision.

Contents

- Introduction to the course, tour de table of participants' backgrounds and interests
- Overview of the European and German banking systems and supervision systems
- Introduction to IT security
- Overview of the European and German laws and regulations for IT supervision
- Minimum requirements for risk management with a focus on IT and outsourcing requirements
- Introduction to IT supervision
- Setting up an on-site inspection for IT
- Deep dive on selected topics (e.g. user access rights, application development, outsourcing management)
- Gathering off-site information for the supervisory review and evaluation process for IT (IT SREP)
- Typical findings from on-site inspections in Germany
- Group work: Understanding and evaluating an on-site inspection report for IT

Target group


Policymakers in banking supervision, on-site and off-site inspectors, IT auditors. Participants should have at least an intermediate understanding of banking supervision and information technology.


Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Online course

Accounting for banking supervisors

 05.06.2023 – 07.06.2023

 **Online platform**

 **Deadline for application** 19.05.2023

Objective

Accounting issues are not usually in the focus of banking supervisors, who – in general – do not have an educational background as accountants. Nevertheless, the financial crisis exposed a particular weakness in banking supervision in this area. This course covers, in particular, the general and basic aspects of accounting and their implications for banking supervisors. Participants will gain specific insights into the most important international accounting standards (IAS and IFRS). Banking supervisors also need to understand the substance and, most importantly, the hidden information contained in annual reports prepared by commercial banks and enterprises. International accounting standards are constantly evolving and recently have become more similar to the requirements of Basel II and III. The extent of these similarities is another topic covered by this course.

Contents

- Meaning of accounting, basic techniques, and developments in national and international accounting standards
- Typical structure and substance of financial statements prepared by banks and non-banks (IAS 1)
- The main standards within IAS/IFRS, such as tangible and intangible assets (IAS 16, IAS 38 and IAS 40)
- Accounting for subsidiaries (IAS 24, IAS 28 and IAS 31)
- Discontinued operations (IFRS 5)
- Consolidated and separate financial statements (IAS 27)
- Impairment of assets (IAS 36)
- Fair value measurement (IFRS 13)
- Financial instruments (IAS 32 and IFRS 9)
- Supervisory aspects of financial reporting

Target group


Junior to mid-level banking supervisors from central banks and supervisory authorities.

Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Course level II

Implementing the Basel framework

 04.09.2023 – 08.09.2023

 Frankfurt am Main

 Deadline for application 21.07.2023

Objective

Basel III is a comprehensive set of reform measures developed by the Basel Committee on Banking Supervision to improve the regulation and supervision of the banking sector. Finalised in December 2017, the full Basel III package addresses the lessons learnt from the financial crisis. In specific terms, Basel III focuses on strengthening the qualitative and quantitative standards within the regulatory capital framework, introduces a global liquidity framework, deploys measures to reduce cyclicity, implements a leverage ratio and provides a basic approach for regulating systemically important banks.

The course aims to provide an overview of the Basel framework and Basel III reforms. The Basel framework is also a major component of the regulatory harmonisation process within the European Union; it was transposed into law via the Capital Requirements Directive IV package and implemented in 2014. A revised package adopted in 2019 mainly concerned the remaining elements of the Basel III reform. This course will therefore also impart comprehensive expert knowledge on major issues relating to the im-

plementation of the Basel III framework in the EU and Germany.

The course will focus on both theoretical and practical components. This is an advanced course that will also address Pillar 2 and implementation issues. In particular, it will introduce and illustrate the European supervisory review process.

Contents

- Brief overview and recap of the Basel framework, the motivation behind its revisions and the finalisation of Basel III
- Definition of capital, leverage ratio and capital buffers
- Liquidity – quantitative standards, monitoring tools, management principles (including a case study)
- Risk coverage – credit risk (particularly internal models), securitisation risk, operational risk, market risk (key elements of the FRTB, deep dive into new standardised approach, portfolio exercise)
- ICAAP (Pillar 2) – approaches and principles (overview and case study)
- German and European implementation: supervisory review and evaluation process (SREP) for significant and less significant institutions
- Current regulatory developments

Target group


This course is aimed at experts from central banks and supervisory authorities involved in the implementation of Basel III. A good knowledge of the revised framework is essential for participation. Participants should also be familiar with the supervision policies and practices of their home countries' financial systems and be prepared to actively contribute to discussions.

Please note

A nominating person is mandatory for the participation in our in-person courses.

Course level II

Accounting for banking supervisors

 04.10.2023 – 06.10.2023

 Frankfurt am Main

 **Deadline for application** 18.08.2023

Objective

The treatment of financial instruments within the accounting framework of IAS/IFRS is of particular interest for banking supervisors, who – in general – do not have an educational background as accountants. Nevertheless, the financial crisis revealed a particular weakness in banking supervision in this area. The course will cover both the old and new standards and their implications for banking supervisors. Participants in this course will gain insight into the general construction of the most common financial instruments, with particular emphasis on how they are combined to create more advanced forms of financial investments. Another focus of this seminar will be the risk structure of financial instruments and its impact on the accounting treatment. The latest IFRS developments align the accounting regulations with the requirements of Basel II and III; the course will also examine how this alignment is achieved in practice.

Contents

- Forms and risk structure of financial instruments as currently traded throughout the world
- Accounting treatment according to IAS 32 and 39 (the “old world”)
- Accounting treatment according to IFRS 9 (the “new world”)
- Hedge accounting according to IAS 39 and IFRS 9
- Impairment under IFRS 9 and the Basel Framework

Target group


Mid to senior-level banking supervisors from central banks and supervisory authorities.


Please note

A nominating person is mandatory for the participation in our in-person courses.

Online course

On-site banking supervision

 16.10.2023 – 19.10.2023

 **Online platform**

 **Deadline for application** 29.09.2023

Objective

The course is designed to provide on-site examiners from central banks and supervisory authorities with an understanding of how on-site inspections are carried out at the Deutsche Bundesbank. The course will focus on risk-based examinations as well as on common analytical and supervisory topics and techniques. In particular, supervisory experts from the Bundesbank will provide background policy information and share hands-on experience about how Pillar 2 of the Basel framework is implemented via on-site inspections (e.g. for credit, market or operational risk). The course will include interactive sessions in which participants will be invited to give short presentations about specific aspects of on-site supervisory processes in their home country and share their experiences.

Contents

- The Single Supervisory Mechanism (SSM) as part of the European banking union
- Banking supervision in Germany
- Introduction to on-site inspections
- Inspection approach
- Types of inspections
- Inspection planning and organisation
- On-site inspection process
- Documentation and wrap-up
- Introduction to the German qualitative regulations as laid out in the Minimum Requirements for Risk Management

- Qualitative and quantitative supervisory regulations and review thereof
- General risk management requirements
- Risk management and risk-taking capacity
- Credit business and credit risk
- Trading business and market risk
- Liquidity risk
- Operational risk
- Information technology security, IT risk, and business continuity management
- National experience with regard to on-site inspections

Target group


This course is aimed at bank examiners and senior employees working in the banking supervision department of their central bank or supervisory authority. Basic knowledge of the new regulations under the Basel framework is essential for productive participation. Participants should be familiar with the supervisory policies and practices applied in their home country. Moreover, they will be invited to take an active part in the discussions and to make contributions regarding the on-site inspection processes in their jurisdictions.

Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Expert panel

Sustainable and green finance

 04.12.2023 – 06.12.2023

 Frankfurt am Main

 Deadline for application 20.10.2023

Objective

The signing of the Paris Agreement on climate change on 12 December 2015 marked a milestone for the world and the global economy. Achieving the goals of the Paris Agreement will require a transformation of the financial system, its culture, and its incentives. In this context, sustainability means making economic prosperity long-lasting, socially inclusive and less dependent on the exploitation of finite resources. Since the adoption of the Paris Agreement, several initiatives have been launched. The European Commission appointed the High-Level Expert Group on Sustainable Finance at the end of 2016. Furthermore, the Central Banks and Supervisors Network for Greening the Financial System (NGFS) began its activities in January 2018. The network members agreed on an agenda which includes sharing experiences and identifying best practices with regard to the supervisory and macrofinancial dimensions of climate-related and environmental risks as well as on options to scale up green financing. The growth in the NGFS' membership in 2018-19 underscored the importance of this topic. The network's first comprehensive report, entitled "A call for action", proposed first recommendations aimed at facilitating the role of the financial sector in achieving the objectives of the 2015 Paris Agreement. The latest publication from the BIS in 2020, titled "The green swan",

discussed the role of central banks in green and sustainable finance over more than 100 pages.

March 2018 saw the European Commission unveil its strategy for a financial system that supports the EU's climate and sustainable development agenda. In April 2019, the European Parliament endorsed legislation including the regulation on disclosures relating to sustainable investments and sustainability risks. In addition, it adopted conditions and a framework for a unified classification system ("taxonomy") regarding sustainable economic activities. In view of recent developments, this expert panel aims to provide an overview of current regulatory activities in the field of sustainable finance. It will discuss the possible effects of these developments on the financial system as well as the challenges and opportunities they present. Moreover, the panel will offer a platform to discuss what role supervisory authorities and central banks should take, or – in other words – "How green do supervision and regulation need to be?"

Contents

- Overview of current regulatory developments and initiatives
- Discussion of the effects on financial systems: challenges and future potential
- Discussion of the role of supervisory authorities and central banks
- Market perspective: green and sustainable bond issuance and market standards

Target group

The course is aimed at experts in banking supervision, financial stability or monetary policy from central banks. They should have a thorough understanding of interdependencies within financial systems, knowledge of banking supervision and regulation or monetary policy frameworks. They should also have a grasp of current regulatory developments with respect to sustainable and green finance worldwide. Active participation in the form of a short presentation on green finance initiatives is mandatory.


Please note

A nominating person is mandatory for the participation in our in-person courses.

Expert panel

Recovery and resolution with a focus on credit institutions

In cooperation with the Federal Financial Supervisory Authority (BaFin)

 30.01.2023 – 01.02.2023

 Frankfurt am Main

 **Deadline for application** 16.12.2022

Objective

One of the main takeaways from the financial crisis of 2007-08 was that the existing legal framework was insufficient and that a set of adequate tools was required to deal effectively with unsound or failing credit institutions. To fill this gap, the FSB published “Key Attributes of Effective Resolution Regimes for Financial Institutions” in 2011. This has been incorporated into national law in many countries, and applies to banks in particular.

The expert panel provides an overview of the recovery and resolution regime at the global, European and national levels, with a particular focus on the transposition of the recovery and resolution regime in the banking union.

In addition, the seminar offers a platform for participants to discuss recovery and resolution regimes, as well as related initiatives for improved crisis management in their home jurisdictions, and to share experiences in this field.

Participants are expected to make an active contribution to the discussions and will be invited to present and discuss current challenges related to recovery and resolution in their own jurisdiction. Participants are welcome to present their own analyses related to the topic of the course.

Contents

- Implementation of recovery plans: elements and assessment of recovery plans
- Lessons and current challenges in recovery planning from the point of view of supervisory authorities and banks
- Resolution objectives, strategies and tools
- Experience in resolution planning
- Total loss absorbing capacity (TLAC) and minimum requirement for own funds and eligible liabilities (MREL)
- Experiences with failing banks

Target group


This panel is aimed at experts from the supervisory, resolution or financial stability areas of their respective central bank or supervisory authority. Participants should be familiar with the current international debate on resolution policies and frameworks, or with the legislation adopted or under consideration in their own jurisdiction. Active participation is an essential part of the course.


Please note

A nominating person is mandatory for the participation in our in-person courses.

Online course

Introduction to financial stability, systemic risk and macroprudential policy

 13.03.2023 – 17.03.2023

 **Online platform**

 **Deadline for application** 24.02.2023

Objective

In its capacity as Germany's central bank, the Deutsche Bundesbank has a legal mandate and an inherent interest in ensuring that the financial and monetary system is stable, and remains so. The aim here is to provide a solid foundation for sustainable future economic growth as a precondition for the effective implementation of monetary policy. Furthermore, the Bundesbank's duty to contribute to the safeguarding of financial stability is explicitly enshrined in the Financial Stability Act.

As part of its macroprudential mandate, the Bundesbank regularly conducts analyses to identify any potential risks to the stability of the financial system. To this end, it monitors financial intermediaries, financial markets and market infrastructures as well as any interconnections between them, using system-wide data. These analyses are geared to identifying systemic risks, i.e. structural and cyclical vulnerabilities, which constitute a threat to the stability of the financial system.

In order to gain macroprudential insights, it is essential to take into account spillovers within and across different sectors of the financial system, as well as any feedback effects arising in the financial system due to macroeconomic developments. In addition, the Bundesbank investigates the (potential) effects of macroprudential

instruments so as to calibrate these ex ante and evaluate the effectiveness of enacted macroprudential policy steps ex post.

The course aims to shed light on the Deutsche Bundesbank's role in the macroprudential policy cycle and its approach to financial stability analysis. Participants will gain a thorough understanding of financial stability, systemic risk and macroprudential policy. Where possible, the course will include both theoretical and practical components.

Contents

- Financial stability – tasks and objectives
- Institutional setup and coordination of macroprudential policy in Germany and the EU
- Macroprudential oversight of non-banks/the insurance sector
- Risk analyses and current risks in Germany
- Financial market infrastructure and financial stability
- Introduction to stress testing
- Developments in the real estate sector and financial stability
- Macroprudential instruments

Target group

This course is aimed at central bank officials working in the area of financial stability. Participants should have a basic understanding of the surveillance and analysis of systemic risk and macroprudential policy. Input from participants on current developments in their home countries is appreciated. The course may also be of


interest to staff working in other central bank areas related to financial stability, such as banking supervision, monetary policy or payment systems.

Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Expert panel

Macroprudential surveillance

 15.05.2023 – 17.05.2023

 Frankfurt am Main

 **Deadline for application** 31.03.2023

Objective

The global financial crisis of 2007-08 showed that monitoring risks, vulnerabilities and the resilience of individual financial firms is not sufficient to safeguard the stability of the financial system as a whole. During the decade since the global financial crisis, central banks and other macroprudential authorities have developed macroprudential surveillance frameworks to monitor potential risks and vulnerabilities in the financial system. These frameworks typically define general concepts and include a set of analytical tools to identify and monitor potential financial stability risks. In order to gain macroprudential insights, it is essential to take into account spillovers within and across different sectors of the financial system and the feedback effects arising in the financial system due to macroeconomic developments.

The expert panel will give an overview of the general concepts and the analytical toolkit for financial stability analysis and macroprudential surveillance at the Deutsche Bundesbank. A platform will be provided to present and discuss approaches for obtaining an overall assessment of the stability of the financial system. To conclude the workshop, we will discuss how we communicate our financial stability assessment to the general public and specific stakeholders.

Participants are expected to make an active contribution to the discussions and will be invited to present and discuss current challenges related to macroprudential surveillance in their own jurisdiction. Participants are welcome to present their own analyses related to the topic of the course.

Contents

- Financial stability analysis and macroprudential surveillance in normal times
- Monitoring of financial sector developments during times of crisis
- The system-wide perspective: analytical approaches and institutional experiences to obtain an overall assessment of financial stability
- External communication of financial stability issues: approaches and communication channels

Target group

This course is aimed at central bank officials working in the area of financial stability. Participants should have a sound understanding of the surveillance and analysis of systemic risk and macroprudential policy.


The expert panel is designed to provide central bankers with a platform to share their experience and knowledge. Active participation is an essential part of the course.

Please note

A nominating person is mandatory for the participation in our in-person courses.

Course level II

Financial stability – systemic risk, macroprudential policy and stability analysis

 19.06.2023 – 23.06.2023

 Frankfurt am Main

 **Deadline for application** 05.05.2023

Objective

In its capacity as Germany's central bank, the Deutsche Bundesbank has a legal mandate and an inherent interest in ensuring that the financial and monetary system is stable, and remains so. The aim here is to provide a solid foundation for sustainable future economic growth as a precondition for the effective implementation of monetary policy. Furthermore, the Bundesbank's duty to contribute to the safeguarding of financial stability is explicitly enshrined in the Financial Stability Act.

As part of its macroprudential mandate, the Bundesbank regularly conducts analyses to identify any potential risks to the stability of the financial system. To this end, it monitors financial intermediaries, financial markets and market infrastructures, as well as any interconnections between them, using system-wide data. These analyses are geared to identifying systemic risks, i.e. structural and cyclical vulnerabilities, which constitute a threat to the stability of the financial system.

In order to gain macroprudential insights, it is essential to take into account spillovers within and across different sectors of the financial sys-

tem as well as any feedback effects arising in the financial system due to macroeconomic developments. In addition, the Bundesbank investigates the (potential) effects of macroprudential instruments so as to calibrate these ex ante and evaluate the effectiveness of enacted macroprudential policy steps ex post.

The course aims to shed light on the Deutsche Bundesbank's role in the macroprudential policy cycle and its approach to financial stability analysis. Participants will gain a thorough understanding of financial stability, systemic risk and macroprudential policy. Where possible, the course will include both theoretical and practical components.

Contents

- Risk analyses and current risks in Germany
- Macroprudential stress testing of investment funds
- Macroprudential surveillance of systemically important institutions
- Early warning models and macroprudential surveillance of cyclical systemic risk
- Climate change and its financial stability implications
- Financial stability risks from real estate (mortgage and commercial real estate)
- Evaluation of macroprudential measures

Target group


This course is aimed at central bank officials working in the area of financial stability. Participants should have a good understanding of the surveillance and analysis of systemic risk and macroprudential policy. Input from participants on current developments in their home countries is appreciated. The course may also be of interest to staff working in other central bank areas related to financial stability, such as banking supervision, monetary policy or payment systems.


Please note

A nominating person is mandatory for the participation in our in-person courses.

Online course

Issuance of banknotes and coins – policy and operations (with regard to the euro area)

 31.01.2023

 **Online platform**

 **Deadline for application** 13.01.2023

Objective

Participants in this online course will gain a broad overview of all aspects of cash management specific to banknotes and coins. The online course will also serve as a convenient forum for an initial exchange of expert views from central bankers worldwide.

Contents

- Issuance of euro cash and responsibilities for banknotes and coins in Europe and in Germany
- Banknotes and coins used in the cash cycle
- Euro banknotes and coins in circulation – current situation
- Forecasting demand
- Banknote printing
- Innovative new coin products
- Cash recycling/common rules
- Cash processing machines in use
- Ergonomical and efficient approaches for operating
- Challenges for the future

Target group


This online course is aimed at those new to roles in central bank cash departments who would like to start by gaining an overview of the field through to more experienced participants wishing to expand their knowledge and learn about the approach taken in Europe, including a close look at the example of the Bundesbank.


Technical requirements

Computer with microphone, camera, speakers or headphones; a current internet browser.

Online course

The use of IT solutions in cash management

 22.02.2023 – 23.02.2023

 **Online platform**

 **Deadline for application** 03.02.2023

Objective

Participants will gain an overview of cash-related IT solutions and issues surrounding project management, as well as considering questions concerning the use of standard software. The focus will be on the benefits and costs of serial number reading as an example of a project. The seminar will provide also a convenient forum for an initial exchange of expert views from central bankers worldwide.

Contents

- Overview of the Bundesbank's IT solutions for cash management
- Reasons for implementation
- How to set up a project
- Different options for implementing IT solutions
- Determining requirements for IT solutions
- Standardisation or use of Business standard software
- General conditions/framework for IT development/tender
- Serial number reading
- International cooperation

Target group


This course is aimed at those new to roles in a central bank's cash or IT departments who would like to start by gaining an overview of the field, through to more experienced participants and project managers wishing to expand their knowledge and learn about the Bundesbank's approach.


Technical requirements

Computer with microphone, camera, speakers or headphones; a current internet browser.

Online course

Cash requirement planning

 08.03.2023 – 09.03.2023

 **Online platform**

 **Deadline for application** 17.02.2023

Objective

Participants in this online course will have the opportunity to gain a broad overview of the Bundesbank's cash requirement planning processes, focusing on banknotes.

Contents

- Issue of banknotes and coins
- Banknote circulation in Germany and within the Eurosystem
- Process of forecasting the banknote demand in detail
- Managing banknote stocks

Target group


This online course is aimed at those new to roles in central bank cash departments who would like an introduction to how to plan future demand and how to monitor the cash stock, through to more experienced participants wishing to expand their knowledge or those who are required to supervise such cash processes.


Technical requirements

Computer with microphone, camera, speakers or headphones; a current internet browser.

Online course

Cash centre project – key elements for success

 28.03.2023 – 29.03.2023

 **Online platform**

 **Deadline for application** 10.03.2023

Objective

Participants in this online course will have the opportunity to gain an overview of all planning and decision-making aspects related to the construction of a modern bank branch with a focus on cash processing or building a new cash centre. The online course will also serve as a convenient forum for an initial exchange of expert views from central bankers worldwide.

If a participant's central bank is planning a new cash centre, is involved in the project or already has experience in this area, they are requested to prepare a short presentation of 5-10 minutes.

Contents

- Cash cycle analysis
- Setting up a cash strategy
- Review of cash services
- Determining the figures
- Reasons for building a new cash centre
- Cash centre strategy and layout
- Project team
- Methodology: key elements for success
- Lessons learned

Target group

This online course is aimed at experts or executives from central banks' cash departments wishing to expand their knowledge. There will be the opportunity to learn more about building a project team for a revamping programme,

particularly a cash centre, with emphasis on planning and decision-making.


The online course will be of particular interest to central banks planning to revamp their cash processing procedures or buy new equipment, or those considering setting up a cash centre.


Technical requirements

Computer with microphone, camera, speakers or headphones; a current internet browser.

Online course

Involvement of the central bank in the cash cycle – external cash recycling

 04.04.2023

 **Online platform**

 **Deadline for application** 17.03.2023

Objective

Participants in this online course will be introduced to the monitoring of cash processing by private institutions under the European framework and particularly in Germany, with a focus on the CIT industry.

Contents

- Legal aspects of cash recycling (banknotes/coins)
- Monitoring activities (on-site-inspection; off-site-control)
- Process of machine certification
- Reporting requirements
- Cash cycle and external or private recirculation models
- Current challenges

Target group


This online course is aimed at those central bank employees who are interested in the national cash cycle in their country of origin or who would like to get an insight into how the Bundesbank organises its monitoring activities. The online course will also be of particular interest for cash analysis experts or their superiors.


Technical requirements

Computer with microphone, camera, speakers or headphones; a current internet browser.

Online expert panel

Automation, digitalisation and sustainability concerning cash management

 02.05.2023 – 03.05.2023

 **Online platform**

 **Deadline for application** 14.04.2023

Objective

Participants in this online course will gain a broad overview of the development stages of cash processing at central banks in a constantly changing environment, as well as an overview of the solutions that leading central banks worldwide have found. Additionally, they will learn about emerging trends. Aspects that concern a central bank in the cash area and pose a challenge as a result of digitalisation will be discussed. As this is an expert panel, active participation is expected, and it is hoped that several participants will also be willing to give presentations (please indicate whether you wish to give a presentation when registering).

Contents

- Does cash have a future?
- Industrial evolution and development stages in cash management
- What are the driving forces behind the process of change?
- Current challenges worldwide
- Digitalisation – but what will be done exactly, and how?
- Is more automation in cash processing needed?
- Is a new infrastructure/cash centre needed?
- Alternatively, is private cash recycling/NHTO key?
- Our cash products under pressure
- Sustainability and green aspects – do they concern cash management?

Target group


This course is aimed at those who would like to get a perspective of the direction cash management will take in the future through to more experienced participants wishing to expand their knowledge in order to be able to advise senior management or board members, as well as the head of their institution's cash division or Director General Cash Management.

Technical requirements

Computer with microphone, camera, speakers or headphones; a current internet browser.

Course level II

Payment and securities settlement systems

 12.06.2023 – 16.06.2023

 Frankfurt am Main

 Deadline for application 28.04.2023

Objective

Efficient and secure payment systems are the foundation of a stable financial system. The Deutsche Bundesbank secures and monitors cashless payments in Germany as a financial hub, provides settlement and clearing services and plays an active role in the further development of the single European payment system. In this course, participants will be able to deepen their knowledge of payment and securities settlement systems and will be introduced to the current state-of-the-art technology at the Bundesbank and within the EU. The course is designed to help participants enhance and refine the payment and securities settlement systems in their respective country in a targeted manner, as well as gain new insight into the development of this important area of central banking. Participants will be expected to make an active contribution to the discussions.

Contents

- Role of the Bundesbank in payment and settlement systems
- Payment system analysis
- Retail payments: current developments, innovations and secure retail payments
- TARGET2: individual payment services at the Bundesbank
- TARGET2-Securities (T2S)
- Collateral management system
- Oversight of payment systems and instruments
- Workshops on T2S, innovations and oversight

Target group


The course is designed for mid-level and senior employees of central banks. A solid background in payment clearing and settlement issues is essential for constructive and productive participation in the course. Participants should be familiar with the payment system policy and practices applied in their home country. Additionally, they will be invited to take an active part in the discussions and case studies, covering topics like T2S, oversight and innovations.


Please note

A nominating person is mandatory for the participation in our in-person courses.

Online expert panel

Innovations in the field of cashless payments

 04.09.2023 – 06.09.2023

 **Online platform**

 **Deadline for application** 04.08.2023

Objective

Efficient and secure payment systems are the foundation of a stable financial system and need to be adapted from time to time as technological progress advances. During the panel, payment experts from the Bundesbank and panel participants will discuss the latest developments and innovations in the area of cashless payments. The panel will serve as a platform for exchanging experiences and sharing information. Participants will be expected to make an active contribution to the discussions.

Contents

- Real-time/instant payments – Europe and worldwide
- Crypto-tokens and central bank digital currencies
- Blockchain technology in payments
- Mobile payments in Europe and around the globe
- Payment behaviour and the adoption of innovations in payments
- Regulatory issues (Payment Services Directive 2, General Data Protection Regulation, etc.)

Target group

Managers and experts from central banks in the field of innovations in cashless payments.


In order to share international knowledge and to enrich the expert discussions, each participant is encouraged to prepare a 15-minute presentation on cashless innovations from a national perspective.

Technical requirements

Computer with microphone, camera, speakers or headphones; a current internet browser.

Expert panel

Cash management – strategy, branch operations and combating counterfeit money

 11.09.2023 – 15.09.2023

 Frankfurt am Main

 **Deadline for application** 28.07.2023

Objective

Participants will learn about modern central bank cash management methods. The whole scope of tasks of a modern central bank in the field of cash management will be presented and discussed – from an international standpoint to a close-up look at how the Bundesbank conducts its business. Participants will be expected to take an active part in discussions and to exchange their opinions and views during the course, as well as giving a short presentation about their own tasks or a specific topic relating to cash management.

Contents

- The role of the Bundesbank in the cash cycle
- Issuance policy for banknotes and coins, cash requirement planning
- IT applications for cash management in use at the Bundesbank
- Outstanding IT solutions
- Automation of cash processing
- The new branch of the Bundesbank
- Modern cash centre design: architectural and controlling aspects
- External cash recycling
- The NAC: combating counterfeit money and damaged money
- Visit to the Bundesbank's Frankfurt am Main branch or information on practical issues due to current pandemic situation

Target group


The course is designed for mid-level and senior central bank employees involved in issuing and processing banknotes and coins or in dealing with counterfeit money as well as for executives or managers heading groups, sections or divisions in the cash department. Participants should have a sound background in cash management and be willing to talk about their area of responsibility.

Please note

A nominating person is mandatory for the participation in our in-person courses.

Expert panel

Combating counterfeit money by the National Analysis Centre

 25.09.2023 – 28.09.2023

 Mainz

 **Deadline for application** 11.08.2023

Objective

Participants in the panel will have the opportunity to gain an inside view of how the Bundesbank has organised its activities to combat counterfeiting. The panel will serve as a platform for discussions with experts from the Bundesbank, for sharing experience as well as for highlighting new trends and current challenges.

Contents

- Organisation of the National Analysis Centre
- Practical issues: getting a feel for the day-to-day work of the experts
- Discussion forum on new trends and current challenges
- Sharing experience: technical central bank cooperation as key to the realisation of specific projects
- Group work on specific topics and hands-on exercises with technical equipment
- Presentation of national perspectives in the fight against counterfeiting of money

Target group

The expert panel is aimed at experienced experts from the anti-counterfeiting units of central banks who need a detailed understanding of techniques in order to successfully eradicate forged money. Participants will be expected to make an active contribution to the discussions and will be invited to present and discuss their own topics or case studies.

Participants should prepare a 15-minute presentation outlining the counterfeiting situation in their country, focusing on the following aspects:


- Organisation of activities to combat counterfeiting
- Current situation regarding counterfeiting in their own country
- Significant challenges
- Vision for the future


Please note

A nominating person is mandatory for the participation in our in-person courses.

Online Course

Payment and securities settlement systems

 16.10.2023 – 18.10.2023

 **Online platform**

 **Deadline for application** 29.09.2023

Objective

Efficient and secure payment systems are the foundation of a stable financial system. The Deutsche Bundesbank secures and monitors cashless payments in Germany as a financial hub, provides settlement and clearing services and plays an active role in the further development of the single European payment system. In this course, participants will be able to deepen their knowledge of payment and securities settlement systems and will be introduced to the current state-of-the-art technology at the Bundesbank and within the EU. The course is designed to help participants enhance and refine the payment and securities settlement systems in their respective country in a targeted manner, as well as gain new insight into the development of this important area of central banking. Participants will be expected to make an active contribution to the discussions.

Contents

- Role of the Bundesbank in payment and settlement systems
- Payment system analysis
- Retail payments: current developments, innovations and secure retail payments
- TARGET2: individual payment services at the Bundesbank
- TARGET2-Securities (T2S)
- Collateral management system
- Oversight of payment systems and instruments
- Workshops on T2S, innovations and oversight

Target group


The course is designed for mid-level and senior employees of central banks. A solid background in payment clearing and settlement issues is essential for constructive and productive participation in the course. Participants should be familiar with the payment system policy and practices applied in their home country. Additionally, they will be invited to take an active part in the discussions and case studies, covering topics like T2S, oversight and innovations.


Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Online expert panel

Economic education – the role of central banks

 13.02.2023 – 15.02.2023

 **Online platform**

 **Deadline for application** 13.01.2023

Objective

In the past few years, particularly in the wake of the financial crisis, many educational initiatives have been launched across the globe to improve the general public's financial competence and knowledge of economics. Government bodies, central banks, membership organisations (e.g. consumer protection organisations) and other institutions have made considerable efforts to enhance the public's understanding of macroeconomics and make them more aware of money and financial issues.

Central banks around the world have devoted significant resources to fostering economic education. For example, the Deutsche Bundesbank's range of educational services available to the public is designed to impart basic knowledge in the areas of money, currency and central banking as part of its general economic activities. The aim of these services is to give both young people and the public at large an opportunity to understand and appreciate the importance of a stable currency and the Bundesbank's long-term commitment to stability.

This expert panel is geared towards sharing experience and providing a forum for central bankers from around the world to present their strategies in the area of economic education.

Contents

- Economic education: concepts, goals and target groups
- Why do central banks support economic education?
- Economic educational activities offered by the Bundesbank
- Economic education programmes that work – experiences from different providers

Target group

The expert panel is aimed at central bankers as well as regulators and supervisors with expertise in the area of economic education. Applicants should be well versed in their own institution's approach to economic education, and will be expected to make an active contribution to discussions. Participants will be invited to give a presentation relating to their field of expertise or their institution's experience in this area.


In this context, it would also aid the discussion if participants could address whether or not a central bank should focus its efforts on promoting financial literacy and, if so, on what legal basis.

Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Expert panel

Digital document management at central banks

 14.02.2023 – 16.02.2023

 Frankfurt am Main

 **Deadline for application** 30.12.2022

Objective

A digital document management system (DMS) is a crucial element of good governance at a central bank as far as efficient and effective management is concerned. During the expert panel meeting, the document management framework, its methodology and the system in place at the Bundesbank will be presented and discussed. The panel will also serve as a platform for exchanging experiences and sharing information within this and other disciplines.

Contents

- Objectives, basic principles and the life cycle of documents from an organisational perspective
- Implementation of filing plans, handling of documents, searches, workflows and meta-data in a DMS at the Bundesbank
- IT basis for a DMS based on an existing operational system
- Secretariat for European Affairs: exchange of documents with the ECB Secretariat and internal distribution and archiving of documents in EURAS (DMS expert system) to ensure the participation of the Bundesbank President in decision-making processes at the ECB Governing Council level

Target group

This panel is aimed at central bank managers and experts in administration, controlling and other support functions.


The expert panel will serve as a platform for the exchange of experiences and knowledge. Participants will be asked to actively contribute to the panel, e.g. in the form of a presentation.

Please note

A nominating person is mandatory for the participation in our in-person courses.

Course levels I and II

Central bank communication

 06.03.2023 – 09.03.2023

 Frankfurt am Main

 **Deadline for application** 20.01.2023

Objective

Transparency and communication are crucial for a central bank's credibility and the effectiveness of its policies. In order to foster credibility, central banks need to increase their transparency. They can achieve this by engaging in clear communication, producing focused messages aimed at different target audiences using appropriate communication channels.

This course provides an overview of the external communication work of the Deutsche Bundesbank within the Eurosystem. It sheds light on the concepts, channels and substance of our central bank communications. Participants will learn how the Bundesbank communicates with the press and the general public whilst also touching upon the educational services we offer for schools. In addition, the course will give participants an opportunity to share their experiences and discuss best practices in the field of central bank communication.

Contents

- Media relations and media evaluation
- Bundesbank communication approach: strategic aims and channels
- The Bundesbank's website and communication via social media
- Political communication
- Economic education

Target group


The course is aimed at central bank staff working in the area of central bank communication (public relations, press office, etc.) or actively dealing with communication issues in other areas of their institutions. Applicants should be willing to share their experiences and actively contribute to discussions during the course.


Please note

A nominating person is mandatory for the participation in our in-person courses.

Online expert panel

Environmental and energy management at the Deutsche Bundesbank

 03.05.2023 – 05.05.2023

 **Online platform**

 **Deadline for application** 31.03.2023

Objective

Environmental and climate protection ranks among the most pressing global challenges of our time and has become an increasingly important concern for society as a whole. This means that public institutions, including most central banks, need to take this aspect into account when performing their tasks. At the Deutsche Bundesbank, improving our environmental impact by minimising our ecological footprint is integral to our strategy.

Contents

- Environmental objectives: environmental guidelines, environmental strategy, environmental programme
- Organisation: environmental and energy management system (structure and processes); EMAS, reporting
- Main areas of activity:
 - Resources

The Bank is striving to reduce its use of resources and close its material cycles. To this end, it considers sustainability criteria in its construction and procurement processes.
 - Energy

The Bank is aiming to reduce its energy consumption, increase energy efficiency and use renewable energy.

- Mobility

The Bank is seeking to reduce the environmental impact of its business trips and cut back on the fleet consumption of its vehicles. It helps employees commute in the most environmental-ly friendly manner possible.

- Management and communication

The Bank has established an energy and environmental management system based on recognised standards. It regularly reports on its implementation and achievement of set goals.

Target group

The expert panel is aimed at central bank staff from developing countries or emerging markets with managerial involvement in operationalising or planning environmental or energy management at their institution.


The expert panel will serve as a platform for the exchange of experiences and knowledge. Participants will be asked to actively contribute to the panel, e.g. in the form of a presentation.

Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Expert panel

Strategic planning

 31.05.2023 – 02.06.2023

 Frankfurt am Main

 **Deadline for application** 14.04.2023

Objective

Strategic planning is a crucial element of good governance at a central bank. During the expert panel, the frameworks for strategic planning at the participating central banks will be presented. The panel will also serve as a platform for exchanging experiences within this field. In addition, recent developments such as digitalisation will be taken into account.

Contents

- Strategic framework
- Strategy development
- Strategy implementation
- Strategy monitoring
- Strategic instruments

Target group

The expert panel aims to give managers and experts from participating central banks the opportunity to exchange views and ideas with their counterparts from other central banks through discussions and presentations about their specialist areas.


The expert panel will serve as a platform for the exchange of experiences and knowledge. Participants will be asked to actively contribute to the panel, e.g. in the form of a presentation.

Please note

A nominating person is mandatory for the participation in our in-person courses.

Expert panel

Digital transformation and innovation at central banks

 03.07.2023 – 05.07.2023

 Frankfurt am Main

 **Deadline for application** 19.05.2023

Objective

Digitalisation is no longer merely a recent trend, having grown to become the game changer of the decade. Central banks are also increasingly turning their attention to understanding developments and expanding their capabilities in this area.

This expert panel will touch upon the most important aspects of digitalisation, giving participants the chance to discuss their own experiences.

Contents

(1) Digital transformation at central banks

- How to foster successful transformation in times of extraordinary change
- The need for an ecosystem approach
- Digital transformation at the Deutsche Bundesbank: goals, roadmap and organisational setup

(2) Fostering innovation through international collaboration

- Bundesbank's innovation networks BISIN and Innov8: how and why we collaborate
- Setting up the BIS Innovation Hub Eurosystem Centre

- Trending topics: insights into current innovation activities
- Interaction: creating value for central banks through collaboration

(3) Innovation management at the Bundesbank's InnoWerk centre

- The work of the InnoWerk innovation centre (e.g. objectives, functions and services) and how the InnoWerk fits into the Bundesbank's innovation network as a service unit
- Exemplary innovation activities are presented and how we use our outreach in the fintech scene or research community for this purpose
- Collaboration with external partners and the ecosystem (start-ups)
- Spatial concept of the InnoWerk, which supports collaboration within the Bundesbank in particular through its hybrid setting

(4) Fostering artificial intelligence and process digitalisation through cross-functional teams

(5) Centre of Competence for Process Digitalisation (CPro)

- Introduction of the centre and its operating model
- Selected projects: Robotic Process Automation (RPA) and Business Process Management Software (BPMS)
- Presentation of first use cases in RPA

(6) Service Community for Artificial Intelligence (SCAI)

- Introduction of the centre and its operating model
- What do we mean by artificial intelligence?
- Focus topic: NLP (Natural Language Processing)
- Presentation of use cases and where is there potential to use these technologies

Target group

This expert panel is aimed at central bank managers and experts in IT, strategic offices, innovation and digitalisation departments, as well as fintech observers and anyone interested and involved in this field.


The expert panel will serve as a platform for the exchange of experiences and knowledge. Participants will be asked to actively contribute to the panel, e.g. in the form of a presentation.


Please note

A nominating person is mandatory for the participation in our in-person courses.

Online expert panel

Operational risk management, continuity management and crisis management

 17.07.2023 – 21.07.2023

 **Online platform**

 **Deadline for application** 16.06.2023

Objective

Operational risk management (ORM), business continuity planning (BCP) and crisis management (CM) are crucial elements of good governance at a central bank. During the expert panel, the Bundesbank's framework and its methodology for ORM, BCP and CM will be presented and discussed. The panel will also serve as a platform for exchanging experiences and sharing information within and across these disciplines.

Contents

- Operational risk management at the Deutsche Bundesbank
- Approach to business continuity planning for core business areas of the Bundesbank
- Concept of crisis management
- IT service continuity management
- T2/T2S operational risk management

Target group

Central bank managers and experts in ORM, BCP and CM. Participants will be expected to make an active contribution to the discussions, drawing on their own experiences.


The expert panel will serve as a platform for the exchange of experiences and knowledge. Participants will be asked to actively contribute to the panel, e.g. in the form of a presentation.


Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Online course

Human resources management

 12.09.2023 – 14.09.2023

 **Online platform**

 **Deadline for application** 25.08.2023

Objective

Given that employees are the most important asset of any organisation, managing human resources (HR) properly is critical to providing an employee-oriented and productive work environment. This course addresses a broad range of HR management aspects at the Bundesbank and aims to provide a platform for peer-to-peer exchange.

Contents

- HR strategy, resource planning and corporate culture
- Organisation and the role of the Directorate General Human Resources
- HR instruments such as recruitment, training, staff development, career planning, the appraisal system, employee feedback, performance assessment, bonuses, promotion and job evaluation
- Compensation and benefits
- Health management
- Pension systems
- HR information systems

Target group


Staff from HR units of central banks. Participants should have good knowledge of the systems and procedures used in their respective institution to manage HR issues and are expected to take an active part in discussions, drawing on their own experience.


Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Online course

Internal communication at the Bundesbank

 02.11.2023 – 03.11.2023

 **Online platform**

 **Deadline for application** 13.10.2023

Objective

Internal communication involves communication between top management, middle management and employees. An open and transparent channel of communication is essential to make sure that all employees understand the central bank's mission and to ensure that everyone is aligned with its values. Furthermore, good internal communication is a key driving force behind employee engagement.

This course provides an overview of different approaches used for internal communication at the Bundesbank. It sheds light on the different formats of our internal communication as well as how we evaluate this. Participants will learn how the Bundesbank fosters communication between top management and employees as well as communication within peer groups. In addition, the course will give participants an opportunity to share their experiences and discuss best practices in the field of internal communication.

Contents

- Top-down/bottom-up communication
- Horizontal communication
- Internal media (staff magazine; social intranet; electronic newsletter)
- Board, executive and employee communication
- Employee attitude survey

Target group


The course is designed for central bank staff with a special interest in internal communication. Candidates are expected to have practical work experience in the area of central bank communication, particularly internal communication within their institutions. Participants should be willing to share their experiences and are expected to actively contribute to the discussion.

Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Course level II

Central bank governance

 20.11.2023 – 24.11.2023

 Frankfurt am Main

 **Deadline for application** 06.10.2023

Objective

The integrity and credibility of public institutions have recently become increasingly important issues. Central banks, in particular, are frequently in the public eye on account of their independence. This course is therefore designed to provide an insight into the Bundesbank's tools and rules for good governance.

Contents

- Basics of corporate governance
- Board-related rules, anti-fraud measures, staff behaviour, prevention of corruption
- Code of conduct
- Operational risk management at the Deutsche Bundesbank
- Strategic planning at the Bundesbank

Target group


The course is aimed at central bank staff members who are involved in interdisciplinary tasks and the preparation of strategic decisions.

Please note

A nominating person is mandatory for the participation in our in-person courses.

Course level II

Controlling at central banks

 11.12.2023 – 15.12.2023

 Frankfurt am Main

 **Deadline for application** 27.10.2023

Objective

The main goal of this course is to discuss ways of developing a controlling function at a central bank, starting with an overview of corporate controlling. Participants will discuss the connection between strategic planning and budgeting. Special attention will be paid to personnel controlling and other important instruments.

Contents

- Corporate controlling
- Strategic planning
- Cost accounting
- Budgeting
- Personnel controlling

Target group


The course is designed for high-level employees from non-EU countries who work in controlling at their central bank. Applicants should be familiar with cost accounting and budgeting. Participants will be expected to make an active contribution to the discussions, drawing on their own experiences.

Please note

A nominating person is mandatory for the participation in our in-person courses.

Online course

Introduction to machine learning

 20.03.2023 – 24.03.2023

 **Online platform**

 **Deadline for application** 03.03.2023

Objective

Objective

Machine learning methods currently represent some of the most powerful and dynamic developments in the financial sector. This course introduces the building blocks of machine learning and discusses selected methods, making connections between them and conventional statistical methods. The discussion of each method is followed by a practical session with examples and exercises in R.

This course also addresses the practical challenges associated with the adoption of machine learning. It provides a forum for central bankers, regulators and supervisors to present and discuss strategies to develop and implement machine learning models, thereby enabling an exchange of knowledge among countries on this increasingly important topic.

Contents

- Shrinkage methods
- Decision trees
- Ensemble methods
- Bias-variance trade-off
- Advantages and limitations of machine learning methods
- Discussion of case studies from course participants

Starting on the second day, there will be a Q & A slot before every session, during which participants will have the opportunity to discuss the content of the previous day and the challenges they encountered with the practical exercises, in which they independently carried out programming in R..

Target group

The course is aimed at data-savvy central bankers, regulators and supervisors in areas such as information technology, statistics, or research departments who are interested in implementing machine learning methods.

Fundamental knowledge of data analysis (including linear and logistic regression) and statistical software (including commands in R) is required.


Participants are expected to make an active contribution to the discussions and will be invited to present and discuss current challenges related to the implementation of machine learning in their own jurisdiction. Participants are welcome to present their own analyses related to the topic of the course.

Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Course level I

Elementary seasonal adjustment of economic data with JDemetra+

 09.10.2023 – 13.10.2023

 Frankfurt am Main

 **Deadline for application** 25.08.2023

Objective

The course is designed to enable all participants to understand the basic principles of the X-11 filter-based and ARIMA model-based approaches to seasonal adjustment, to work with the JDemetra+ seasonal adjustment software package, which includes both approaches, and to interpret the results in economic terms.

Contents

- Focusing on the X-11 seasonal adjustment approach, the course primarily covers the following topics.
- Seasonality: definition, aim of seasonal adjustment
- JDemetra+: time series software for official statistics, capabilities
- Data pre-treatment: modelling of outliers and calendar effects, regARIMA models
- X-11 approach: basic principles, automatic routines, user customisation
- Quality control: graphical tools, seasonality tests
- ARIMA model-based approach: basic principles

Target group


The course is aimed at economists and statisticians from central banks who are interested in seasonal adjustment and, in particular, in the application of JDemetra+. Prior knowledge and/or experience of time series analysis in general and seasonal adjustment in particular are welcome but are not a prerequisite for participation.


Please note

A nominating person is mandatory for the participation in our in-person courses.

Online Expert panel

Machine learning, artificial intelligence and big data – the perspective of central banks

 30.10.2023 – 01.11.2023

 **Online platform**

 **Deadline for application** 15.09.2023

Objective

Machine learning, artificial intelligence and big data are currently among the most powerful and dynamic innovative developments in the financial sector. This presents challenges for statistics in general and for central banks in particular, inter alia: for instance, what role do data play in the decision-making process, and why is it crucial to handle them correctly? How do central banks deal with such developments when data volumes are currently growing so fast?

The expert panel aims to address such issues. It will provide a forum for central bankers from across the globe to present the strategies they use to develop their data collection and analysis methods as well as facilitating an exchange of knowledge between countries on this increasingly important topic.

Contents

- Intelligent systems: challenges and limitations
- Collection, analysis and use of big data
- Data governance and management
- Case studies from central bankers, regulators and supervisors as well as other industries
- Data protection and data access issues

Target group


The expert panel is aimed at central bankers as well as regulators and supervisors with an interest in helping develop best practices in big data mining and management. Participants will be expected to make an active contribution to the discussions and will be invited to present and discuss current issues in machine learning, artificial intelligence and big data in their own jurisdiction.

Technical requirements

Computer with microphone, camera, speakers or headphones; an up-to-date internet browser.

Course level II

Advanced topics in seasonal adjustment

 04.12.2023 – 08.12.2023

 Frankfurt am Main

 **Deadline for application** 20.10.2023

Objective

The course is designed to enable all participants to tackle advanced topics which are beyond the scope of the companion level I course “Elementary seasonal adjustment of economic data with JDemetra+”. Working almost exclusively with the seasonal adjustment software package JDemetra+, the course is intended to encourage discussions and an exchange of experiences between participants.

Contents

- X -11 seasonal adjustment: recap of companion level I course
- Outliers: anomaly detection, seasonal breaks
- Calendar effects: creation and customisation of user-defined regression variables
- Composite time series: direct vs. indirect seasonal adjustment
- Revision policies: overview of strategies, controlled current adjustment
- ARIMA model-based seasonal adjustment: model decomposition, quality diagnostics
- JDemetra+: additional tools, access via R
- Daily data: potential issues, overview of seasonal adjustment approaches

Target group

The course is aimed at economists and statisticians from central banks who are interested in studying advanced topics in seasonal adjust-

ment and in the efficient application of JDemetra+. Prior knowledge and/or experience of time series analysis in general and seasonal adjustment in particular are highly recommended.

Please note

A nominating person is mandatory for the participation in our in-person courses.

Administrative information

Thank you for your interest in the courses offered in the Deutsche Bundesbank's central bank cooperation programme. Please read the important information below for participating institutions and prospective attendees.

Costs

Participation in the courses is free of charge for all participants. Participants from ESCB countries bear their own accommodation costs, while the Bundesbank provides accommodation for all others for the duration of the course as well as for the days of arrival and departure. It is generally not possible for participants to extend their stay. Under no circumstances can the Bundesbank provide accommodation for family members or other accompanying persons. Unfortunately, no exceptions can be made.

Participants will be given lunch at the Bundesbank for the duration of their stay. The Bundesbank will also cover all the costs of the social events which are planned as part of the programme. The Bundesbank has purchased health insurance which will cover the costs of any necessary emergency treatment. The Bundesbank does not generally cover the costs of travel to and from the Bundesbank.

Venue and accommodation:

Participants can stay at the guest apartments of the Bundesbank or in a nearby hotel. Participants from ESCB countries are responsible for organising their own accommodation.

(Corresponding website: <https://www.bundesbank.de/en/bundesbank/international-central-bank-dialogue/international-central-banking-courses-/application-procedure/application-procedure-618284>)

Number of participants

The general rule applies that only one person per country may be invited to our in-person courses. In many cases, the number of applications will exceed the availability of places. Therefore, a selection will be made on the basis of the questionnaires completed and returned by the applicants.

Registration procedure

To register a member of your staff for a course, your staff needs to fill in the online application form and questionnaire at the concerned course (<https://www.bundesbank.de/en/bundesbank/international-central-bank-dialogue/international-central-banking-courses->). It is required to register with an official central bank email address. For our in-person courses we need a nominating person (e.g. superior) with email address.

If you have any problems applying online, please contact a member of the International Central Banking Courses Team (international-courses@bundesbank.de). Please note that applications received after the stated deadlines will not be processed. For courses which are held in cooperation with the Joint Vienna Institute and the Oesterreichische Nationalbank, please apply online at <https://www.jvi.org/courses/course-schedule-2023.html>.