

# ANNUAL REPORT 2022

including the Sustainability Report and the Environmental Statement



Security through stability.

2022

# The OeNB's legal mandate

## **Federal Act on the Oesterreichische Nationalbank – selected provisions**

1984 Nationalbank Act, Federal Law Gazette No. 50/1984 as amended by Federal Law Gazette I No. 61/2018

### **Article 2**

(1) The Oesterreichische Nationalbank is a stock corporation; it is the central bank of the Republic of Austria and, as such, an integral part of the European System of Central Banks (ESCB).

(2) The Oesterreichische Nationalbank shall, in accordance with the provisions of the TFEU [i.e. the Treaty on the Functioning of the European Union], the ESCB/ECB Statute [i.e. the Statute of the European System of Central Banks and of the European Central Bank], the directly applicable European Union (EU) legislation adopted thereunder, and this federal act, be obliged to work towards the achievement of the objectives and fulfillment of the tasks of the ESCB. Within the framework of EU law [...], the Oesterreichische Nationalbank shall use all the means at its disposal to maintain the objective of price stability. To the extent that this does not interfere with the objective of price stability, the needs of the national economy with regard to economic growth and employment trends shall be taken into account and the general economic policies in the European Union shall be supported.

(5) In pursuing the objectives and performing the tasks set out [...], the Oesterreichische Nationalbank shall act in accordance with the guidelines and instructions of the ECB [...]; in doing so, neither the Oesterreichische Nationalbank nor any member of its decision-making bodies shall seek or take instructions from EU institutions or bodies, from any government of a Member State of the European Union, or from any other body.

### **Article 44a**

(1) The Oesterreichische Nationalbank shall be in charge of performing payment systems oversight. Payment systems oversight involves monitoring the systemic safety of payment systems.

### **Article 44b**

(1) In the public interest, the Oesterreichische Nationalbank shall monitor all circumstances that may have an impact on safeguarding financial stability in Austria.

### **Article 44c**

(1) Without prejudice to Article 44b, the Oesterreichische Nationalbank contributes to maintaining financial stability and reducing systemic and procyclical risk in Austria [...].

*Apart from the Nationalbank Act and a number of EU legal acts (EU regulations, Statute of the ESCB and of the ECB), the following pieces of national legislation provide the basis for further tasks of the OeNB:*

- Austrian Banking Act (BWG)
- Financial Market Authority Act (FMABG)
- Bank Recovery and Resolution Act (BaSAG)
- Deposit Guarantee Schemes and Investor Compensation Act (ESAEG)
- Alternative Investment Fund Managers Act (AIFMG)
- Sanctions Act (SanktG)
- E-Money Act (E-Geldgesetz 2010)
- Payment Services Act 2018 (ZaDiG 2018)
- Settlement Finality Act (Finalitätsgesetz)
- Insurance Supervision Act (VAG 2016)
- Exchange Control Act 2004 (Devisengesetz 2004)
- European Recovery Program (ERP) Fund Act (ERP-Fonds-Gesetz)

# The OeNB's Mission Statement

**Security through stability. The euro – our currency.**

## Our mission

- The OeNB is the independent central bank of the Republic of Austria.
- Together with the European Central Bank (ECB) and the other euro area central banks, we safeguard the stability of the euro and thus support positive economic development in the euro area.
- In cooperation with the ECB and the Austrian Financial Market Authority, we ensure the stability of banks and financial markets.
- We and our subsidiaries provide secure cash and smoothly functioning payment services and, together with the ECB and the other euro area central banks, we shape the future of payment systems in the euro area.
- We invest and manage monetary and gold reserves professionally in accordance with our stability mandate and furnish Austrian banks with central bank liquidity as needed.
- As a central economic policy-making institution, we seek to provide economic and financial expertise and guide policymakers with high-quality analyses, studies and statistics.
- We actively promote economic and financial literacy in Austria.
- We are aware of our responsibility toward Austria and Europe and pursue effectiveness and efficiency in our work.

## Our values

- We are committed to the European project and actively support the European integration process.
- Our endeavors are founded on technical expertise and social competence, transparency, ethical values and responsible corporate governance.
- We welcome change and embrace forward thinking.
- Our staff and their knowledge, skills and commitment are our biggest asset.
- We are an equal opportunity employer, value diversity and assist our employees in combining a career with family life.
- Our social responsibility is also reflected in our support for science and research, humanitarian concerns, art, culture and environmental protection.

In early 2022, the facade of the head office in Vienna was illuminated by a light installation featuring euro banknote designs and the euro symbol, marking 20 years of euro cash.



# Contents

Foreword by the President	6
Foreword by the Governor	8
Members of the OeNB's General Council	10
The OeNB's ownership structure and decision-making bodies	11
The OeNB's organization	14
The OeNB at a glance	16
Economic indicators for Austria	17

## The OeNB contributes to safeguarding price stability and financial stability

Making a gradual exit from accommodative monetary policies	21
<i>Rising key interest rates drive up the cost of borrowing for businesses and households in Austria</i>	23
<i>Monetary policy affects the OeNB's profit and loss account</i>	27
Austria: fast growth and high inflation in 2022, mild recession at year-end	31
<i>Difficult wage bargaining round given high inflation and pandemic-related disruptions</i>	34
Reserve management in times of multiple crises	41
The OeNB plays an active part in ensuring financial stability	47
<i>Q&amp;As on two macroprudential supervisory measures adopted in 2022: lending standards and macroprudential capital buffers</i>	51
<i>Q&amp;As on the OeNB's contribution to effective banking supervision</i>	52
<i>Bank resolution and crisis management: the case of Sberbank Europe AG</i>	53
Enhanced OeNB statistics meet high demand for top-quality data	59
Secure and efficient payments as a cornerstone of economic activity	63
<i>Our new web application shows ATM accessibility across Austria</i>	64

## Sustainability as a corporate strategy

Brightening the spotlight on sustainability	77
<i>The Austrian Productivity Board takes up its functions</i>	79
<i>Equal pay for equal work amid structural income gaps</i>	83
Fostering knowledge transfer and dialogue with the public	87
<i>The OeNB celebrates 20 years of euro cash with a series of #EUROat20 activities</i>	88
The OeNB promotes science, business development, the arts and culture in Austria	93
Enterprise risk management adapts to dynamic environment	97
The OeNB's Environmental Statement 2022	103
<i>EMAS validation</i>	109

Direct and indirect equity interests	111
--------------------------------------	-----

Financial statements of the Oesterreichische Nationalbank for 2022	113
--	-----

## Notes

Abbreviations and conventions used in tables	162
Periodical publications	163
Addresses	164

Editorial close: February 16, 2023

## Foreword by the President



Harald Mahrer

Dear readers,

2022 presented economic and monetary policymakers with a host of challenges. They had to deal with the repercussions from the coronavirus pandemic, the war in Ukraine and its impact on safeguarding energy and raw materials supply, as well as the pressing need to address energy transition and climate change. In these times of demanding change, the Eurosystem – and the OeNB as its member – proceeded with caution in view of mounting inflation pressures, making a gradual exit from accommodative monetary policies in the course of 2022. The resulting balance sheet dynamics have also impacted the OeNB's annual result.

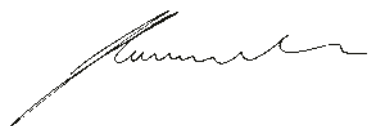
The strong cyclical momentum observed in the first half of the year 2022 helped Austria's economy to grow by 4.9% for the year as a whole, despite the singular underlying conditions. Moreover, the Austrian government adopted a series of extensive fiscal measures to cushion the persistent price increases. These measures were intended to help Austrian businesses stay competitive, considering that they are battling a continued shortage of labor, including skilled labor, and need to transition to greener production processes. Furthermore, risks to financial stability increased significantly in the course of 2022. The stress tests conducted by the OeNB found the Austrian banking sector to be resilient, though.

2022 also marked the 20<sup>th</sup> anniversary of the changeover to euro banknotes and coins. Together with its money-handling subsidiaries, the OeNB commemorated this event with a broad range of activities. To this day, cash remains highly popular in Austria, with people appreciating above all the anonymity of cash payments. In line with its commitment to safeguarding the supply of physical cash alongside further digital payment innovations, the OeNB launched a "euro cash platform" in September 2022, which it uses to reach out to stakeholders and money users. To complement cash, the Eurosystem is investigating whether to introduce a digital euro. The investigation phase, which started in October 2021, is expected to end in October 2023. The Governing Council of the ECB will then decide whether to start the process of actually developing a digital euro.

The corporate strategy of the OeNB is increasingly becoming focused on sustainability. Clearly, the only way forward for both the OeNB and its subsidiaries is to ensure sustainable business operations and help protect the environment.

In closing, let me express my gratitude to the entire staff working at the OeNB and at the OeNB's subsidiaries as well as to the members of the Governing Board and of the General Council of the OeNB for their excellent cooperation in 2022.

Vienna, March 2023

A handwritten signature in black ink, appearing to read 'Mahrer', with a long, sweeping horizontal stroke extending to the right.

Harald Mahrer, President

## Foreword by the Governor



Robert Holzmann

Dear readers,

February 24, 2022, was a watershed moment in politics and for the world economy. Apart from having caused immeasurable suffering since then, Russia's invasion of Ukraine has been reverberating across the globe.

As to economic developments in Austria, we recall the strong economic momentum in the first half of 2022, driven by pent-up demand after the pandemic-related lockdowns. From mid-2022 onward, however, we witnessed a significant slump in economic growth as the world economy slowed down in view of the war in Ukraine and the highly uncertain outlook for future geopolitics and economic development. For 2022 as a whole, at close to 5%, the Austrian economy nonetheless recorded very strong economic growth that even exceeded pre-pandemic GDP levels. For 2023, in contrast, the OeNB expects only very moderate growth.

After all, the war in Ukraine has been driving a further surge in international energy prices, following the initial rise in commodity prices during the post-pandemic recovery. Yet, at the time of writing, both crude oil and gas prices are already past their peak. Thus, the OeNB expects HICP inflation in Austria to keep declining to about 6.5% in 2023, from 8.6% in 2022.

Across the euro area, the average inflation rate rose significantly in 2022, from 5.1% in January to 9.2% in December, reaching a level well beyond the Eurosystem's price stability objective of 2%. The Eurosystem did respond to rampant inflation, but given the high level of uncertainty, the monetary policy response was cautious in the first half of 2022. As an initial step, the Governing Council of the ECB lowered the monthly volume of net purchases under the pandemic emergency purchase programme (PEPP) and then stopped the purchases at the end of March 2022. Starting from July 1, 2022, net purchases under the asset purchase programme (APP) were discontinued as well. In a second step, the Governing Council of the ECB raised each of the three key interest rates for the euro area by a total of 300 basis points until early February 2023, at a pace unseen ever since European monetary union was created in 1999. Further interest rate hikes are likely to follow in 2023. In this process, the Eurosystem balance sheet was shrinking in 2022, and it will continue to shrink further and more strongly in 2023.

Given the turn of events in 2022, the OeNB's operating result – like that of many other central banks – has come under pressure. The reasons are manifold, reflecting the monetary policy measures adopted by the Governing Council of the ECB to combat the crisis in the past few years, its decision to start raising the key ECB interest rates in 2022, as well as the significant negative performance and volatility in global financial markets in 2022. Some of the crisis-fighting monetary policy measures drove up interest expenses to levels that could not be offset by interest income. Still, the OeNB managed to balance its books in 2022 by partially using its risk provision and thanks to prudent business operations. Ultimately, any policy decisions taken by the Governing Council of the ECB are taken with the aim of maintaining price stability over the medium term. Any profit or loss recorded by Eurosystem central banks is thus a corollary to the underlying mandate and the monetary policies adopted to fulfill this mandate.

To conclude, let me express my heartfelt gratitude to all our staff members, the President and Vice President, the General Council as well as the other members of the Governing Board for their excellent cooperation and outstanding commitment in 2022. When we continue to pull together as a team, as we have in the past, we will accomplish our core tasks effectively also in the times ahead.

Vienna, March 2023

A handwritten signature in black ink, appearing to read 'R. Holzmann', with a stylized flourish at the end.

Robert Holzmann, Governor

## Members of the OeNB's General Council

December 31, 2022



**Harald Mahrer**  
*President*

*Term of office:*  
September 1, 2018, to  
August 31, 2023



**Barbara Kolm**  
*Vice President*

*Term of office:*  
September 1, 2018, to  
August 31, 2023



**Bettina Glatz-Kremsner**

*Term of office:*  
March 1, 2018, to  
February 28, 2023



**Erwin Hameseder**  
*Chairman of the Managing Board, Raiffeisen-Holding Niederösterreich-Wien reg. Gen.m.b.H.*

*Term of office:*  
March 6, 2020, to  
March 5, 2025



**Stephan Koren**  
*Chairman, Wüstenrot Wohnungswirtschaft reg. Gen.m.b.H.*

*Term of office:*  
September 8, 2018, to  
September 7, 2023



**Franz Maurer**  
*Partner, LIVIA Group*

*Term of office:*  
May 23, 2018, to  
May 22, 2023



**Susanne Riess-Hahn**  
*Chair of the Managing Board, Bausparkasse Wüstenrot AG*

*Term of office:*  
March 6, 2020, to  
March 5, 2025



**Peter Sidlo**

*Term of office:*  
March 1, 2018, to  
February 28, 2023



**Christoph Traunig**  
*Executive Partner, St. Stephan Capital Partners*

*Term of office:*  
September 1, 2018, to  
August 31, 2023



**Brigitte Unger**

*Term of office:*  
March 6, 2020, to  
March 5, 2025



**State Commissioner Harald Waiglein**  
*Director General, Directorate General Economic Policy and Financial Markets, Federal Ministry of Finance*

*First nominated: 2012*  
*Term of office:*  
July 1, 2022, to  
June 30, 2027



**Deputy State Commissioner Alfred Lejsek**  
*Head, Directorate Financial Markets, Federal Ministry of Finance*

*First nominated: 2006*  
*Term of office:*  
April 1, 2022, to  
March 31, 2027

The following representatives of the Central Staff Council participated in discussions on personnel, social and welfare matters (Article 22 paragraph 5 Nationalbank Act):



**Birgit Sauerzopf**  
*Chair, Central Staff Council*



**Christian Schrödinger**  
*Deputy Chair, Central Staff Council*

# The OeNB's ownership structure and decision-making bodies

## The OeNB's owner

The OeNB is a stock corporation. However, given its particular status as a central bank, it is governed by a number of special provisions laid down in the Federal Act on the Oesterreichische Nationalbank 1984 (Nationalbank Act). Its nominal capital of EUR 12 million has been held in its entirety by the Austrian central government since July 2010.

## The General Council of the OeNB

### Functions

The General Council is charged with supervising all business functions not falling within the remit of the European System of Central Banks (ESCB). The General Council shall advise the Governing Board in the conduct of the OeNB's business and in matters of monetary policy. As a rule, it is convened once a month by the President. Joint meetings of the General Council and the Governing Board must take place at least once every quarter (Article 20 paragraph 2 Nationalbank Act).

General Council approval is required for a number of management decisions, e.g. for starting and discontinuing lines of business, establishing and closing down branch offices, and acquiring and selling equity interests and real property (Article 21 paragraph 1 Nationalbank Act).

Also, the General Council must approve appointments of members of supervisory boards and executive bodies of companies in which the OeNB is a shareholder. Appointments of the second executive tier of the OeNB itself must likewise be approved by the General Council. Moreover, the General Council has the exclusive right of decision on e.g. submitting to the Austrian federal government a short list of three candidates for appointments to the OeNB's Governing Board by the Federal President, defining general operational principles in matters outside the remit of the ESCB, approving the annual accounts (financial statements) for submission to the General Meeting, and approving the cost account and investment plan for the next financial year (Article 21 paragraph 2 Nationalbank Act).

### Composition

The General Council consists of the President, the Vice President and eight other members. Only Austrian citizens may be members of the General Council. General Council members are appointed by the federal government for a term of five years and may be reappointed. Further provisions pertaining to the General Council are set out in Articles 20 through 30 of the Nationalbank Act.

**Members of the OeNB's Governing Board**  
**December 31, 2022**



From left to right: Vice Governor Gottfried Haber, Governor Robert Holzmann,  
Executive Director Eduard Schock, Executive Director Thomas Steiner

## **The Governing Board of the OeNB**

The Governing Board is responsible for the overall running of the OeNB and for conducting the business of the OeNB. In pursuing the objectives and tasks of the ESCB, the Governing Board acts in accordance with the guidelines and instructions of the ECB. The Governing Board conducts the OeNB's business in such a manner that the OeNB fulfills the tasks allocated to it under the terms of the Treaty on the Functioning of the European Union (TFEU), the Statute of the ESCB and of the ECB, the directly applicable EU legislation adopted thereunder, and federal law.

The Governing Board is composed of the Governor, the Vice Governor and two other members, all of whom are appointed by the

Federal President acting on a proposal from the federal government. Each appointment is made for a term of six years. Persons holding office may be reappointed. The Governor of the OeNB is a member of the Governing Council of the ECB and of the General Council of the ECB. In performing these functions, the Governor and his deputy are not bound either by the decisions of the OeNB's Governing Board or by those of the OeNB's General Council, nor are they subject to any other instructions.

Further provisions pertaining to the Governing Board are set out in Articles 32 through 36 of the Nationalbank Act. See [www.oenb.at](http://www.oenb.at) for additional information about the Governing Board of the OeNB.

# The OeNB's organization

**President**  
Harald Mahrer

**Vice President**  
Barbara Kolm

## Governing Board

### Central Bank Policy

Robert Holzmann, Governor

Office of the Governor  
Markus Arpa, Head

### International Affairs, Protocol and Media Relations Department

Markus Arpa, Director

Agenda Office – Governing Board, General Council and General Meeting  
Gabriele Stöffler, Head

Communication Division  
Christian Gutleiderer, Head

EU and International Affairs Division  
Thomas Gruber, Head

Brussels Representative Office  
Doris Rijnbeek, Chief Representative

### Economic Analysis and Research Department

Birgit Niessner, Director

Monetary Policy Section  
Maria Teresa Valderrama, Head

Business Cycle Analysis Section  
Gerhard Fenz, Head

Central, Eastern and Southeastern Europe Section  
Julia Wörz, Head

International Economics Section  
Kirstin Hubrich, Head

Research Section  
Martin Summer, Head

Office of the Fiscal Advisory Council and Productivity Board  
Bernhard Grossmann, Head

### Financial Stability, Banking Supervision and Statistics

Gottfried Haber, Vice Governor

Compliance Office  
Eva Graf, Head

Internal Audit Division  
Axel Aspetsberger, Head

### Department for the Supervision of Significant Institutions

Karin Turner-Hrdlicka, Director

Off-Site Supervision Division – Significant Institutions  
Gabriela de Raaij, Head

On-Site Supervision Division – Significant Institutions  
Martin Hammer, Head

Supervision Policy, Regulation and Strategy Division  
Josef Meichenitsch, Head

### Department for Financial Stability and the Supervision of Less Significant Institutions

Markus Schwaiger, Director

Off-Site Supervision Division – Less Significant Institutions  
Matthias Hahold, Head

On-Site Supervision Division – Less Significant Institutions  
Roman Buchelt, Head

Financial Stability and Macroprudential Supervision Division  
Michael Würz, Head

### Statistics Department

Johannes Turner, Director

Statistics – Data Governance, Master Data and Bank Resolution  
Alexander Benkwitz, Head

Statistics – Integrated Reporting Development and Data Management  
Ralf Peter Dobringer, Head

External Statistics, Financial Accounts and Monetary and Financial Statistics Division  
Gunther Swoboda, Head

Supervisory Statistics, Models and Credit Quality Assessment Division  
Gerhard Winkler, Head

## **Payment Systems, Financial Literacy, IT and Infrastructure**

Eduard Schock, Executive Director

### **Payments, Risk Monitoring and Financial Literacy Department**

Petia Niederländer, Director

**Payment Systems Division<sup>1</sup>**  
Katharina Selzer-Haas, Head

**Payment Systems Strategy Office**  
Wolfgang Haunold, Head

**Risk Monitoring Division**  
N.N.

**Financial Literacy Division**  
Maximilian Hiermann, Head

**OeNB – Western Austria**  
Armin Schneider, Head

### **Cash Management, Equity Interests and Internal Services Department**

Matthias Schroth, Director

**Cashier's Division**  
Stefan Varga, Head

**Equity Interest Management and Cash Strategy Division**  
Thomas Grafl, Head

**Facilities and Security Management Division<sup>2</sup>**  
Florian Friedrich, Head

**Procurement and Sales Division**  
Christa Mölzer-Hellsberg, Head

### **IT and Customer Services Department**

Christoph Martinek, Director

**IT Strategy and Information Security<sup>3,4</sup>**  
Martin Durst, Head

**IT Operations**  
Jürgen Schwalbe, Head

**IT Development**  
N.N.

**Information Management and Services Division**  
Bernhard Urban, Head

## **Treasury, Human Resources and Accounting**

Thomas Steiner, Executive Director

**Human Resources Division**  
Susanna Konrad-El Ghazi, Head

**Legal Division**  
Stephan Klinger, Head

### **Treasury Department**

Franz Partsch, Director

**Treasury – Markets, Investment Strategy and Monetary Policy Operations**  
Daniel Nageler, Head

**Treasury – Back Office**  
Reinhard Beck, Head

### **Accounting and Financial Steering Department**

Rudolf Butta, Director

**Financial Statements and Tax Matters Division**  
Lenka Krsnakova, Head

**Controlling and Organization Division**  
Anna Cordt, Head

**Middle Office Division**  
Robert Reinwald, Head

**Accounting Division**  
Markus Kaltenbrunner, Head

<sup>1</sup> OeNB Chief Equalities Officer Katja Stöckl

<sup>2</sup> Environmental Officer Martin Much

<sup>3</sup> Chief Information Security Officer Martin Durst

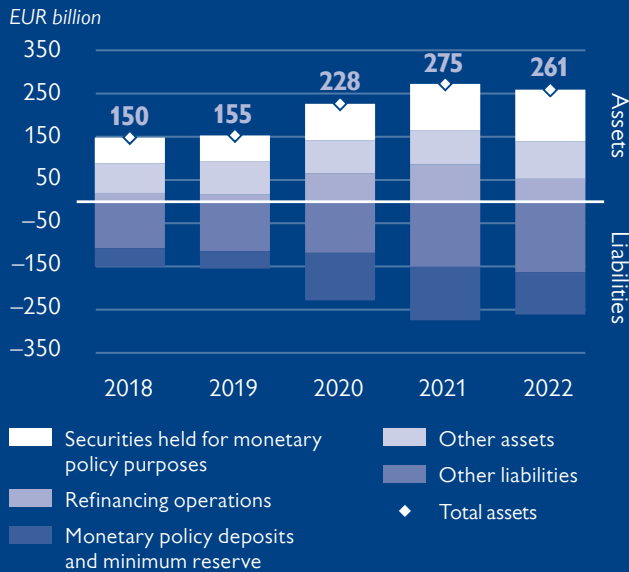
<sup>4</sup> Data Protection Officer Bernhard Horn

As on February 1, 2023

# The OeNB at a glance

## Assets and liabilities

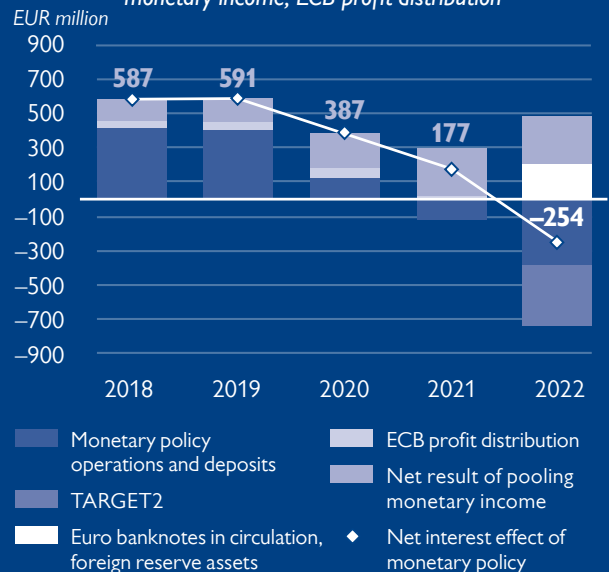
Related to monetary policy operations



Source: OeNB.

## Net interest effect of monetary policy operations

Net interest income related to monetary policy operations, net monetary income, ECB profit distribution



## Risk provisions

Use of risk provisions in 2022 to cover realized losses and write-downs



Source: OeNB.

## Staff profile in 2022

Number of staff (full-time equivalents)

1,129

Share of women in total staff

40%

Share of women in management positions

29%

Share of women in expert career track positions

35%

## Austria as a financial location

Selected indicators for the Austrian banking system

500 Credit institutions in Austria

5.5 EUR billion Period result

5.2 % Annual growth of loans to nonbanks

1,251 EUR billion Total assets

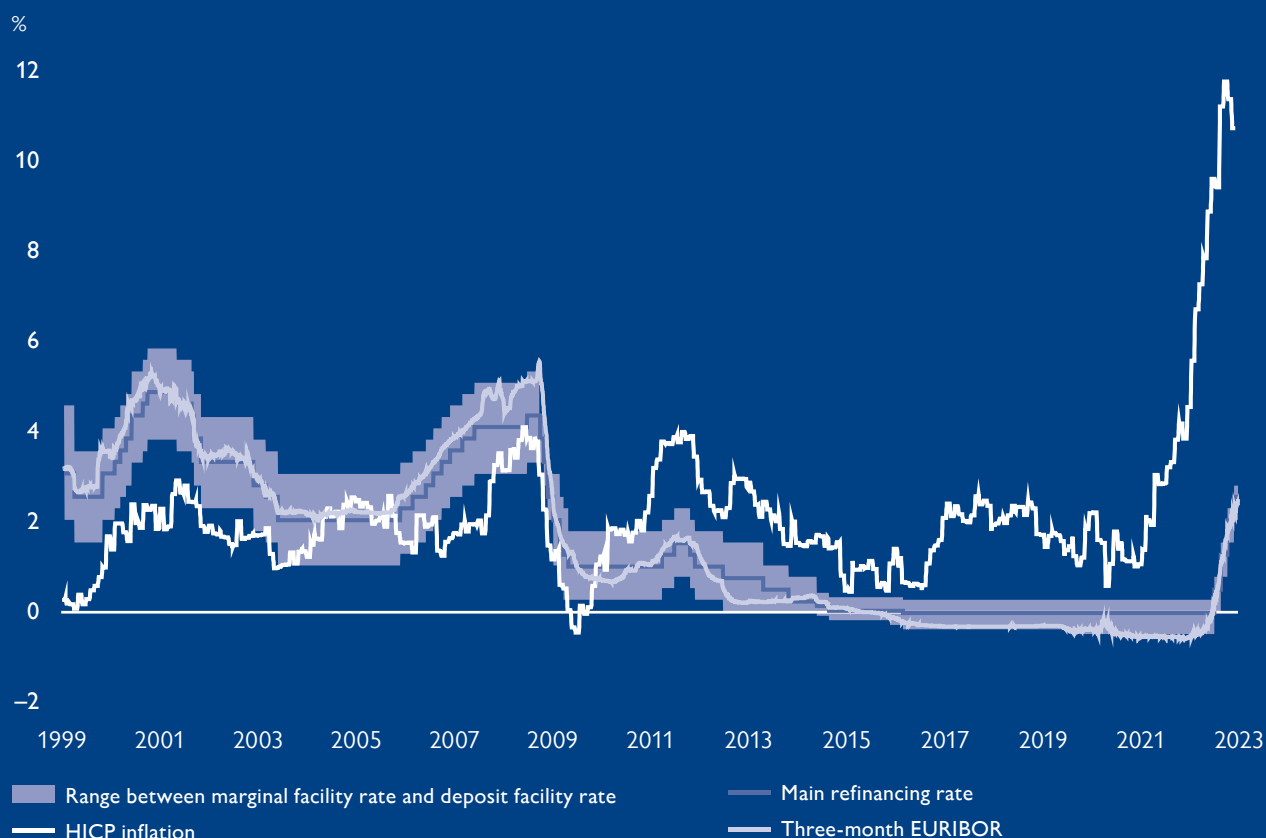
15.8 % Common equity tier 1 (CET1) ratio

1.6 % Nonperforming loan (NPL) ratio

Consolidated data; Q3 2022 or December 2022.

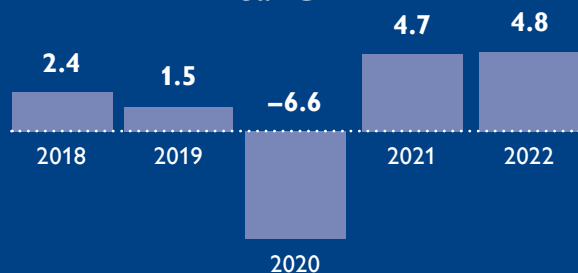
# Economic indicators for Austria

## HICP inflation in Austria, ECB and money market interest rates



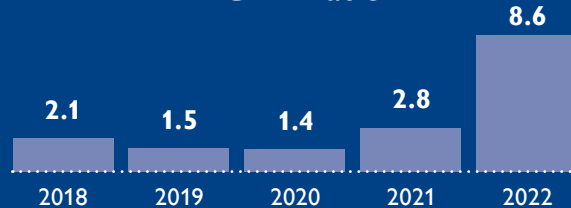
Source: ECB, Macrobond, Statistics Austria.

### Real GDP



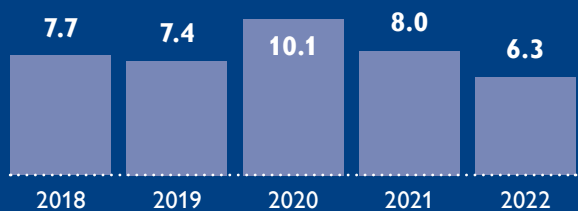
Annual change in %  
Source: Statistics Austria; 2021: WIFO.

### HICP inflation



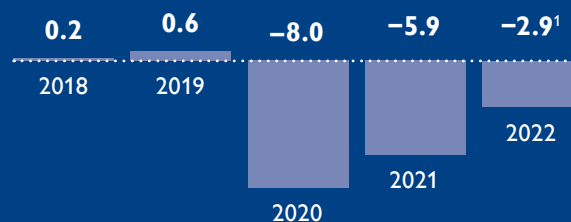
Annual change in %  
Source: Statistics Austria.

### Unemployment rate (national definition)



%  
Source: Statistics Austria.

### General government budget balance



% of GDP  
<sup>1</sup> OeNB economic outlook (December 2022).  
Source: OeNB, Statistics Austria.



The OeNB contributes to safeguarding  
price stability and financial stability



In 2022, the Oesterreichische Nationalbank hosted seven "Let's talk about the euro" town halls across Austria – Governor Robert Holzmann on tour in Graz, Styria.



## Making a gradual exit from accommodative monetary policies

### Monetary policymaking in 2022 driven by inflation

Euro area inflation accelerated markedly in 2021, following many years during which the inflation level had remained well below the Eurosystem's price stability target of 2%.<sup>1</sup> In 2022, inflation continued to climb at a notable pace, with euro area averages rising from 5.1% in January to as much as 10.6% in October. Initially, the mounting price pressures were fueled by the reopening of the economy, i.e. the unwinding of the restrictions imposed to combat the COVID-19 pandemic. The restrictions had caused global output and hence supply to shrink. When the economy was brought back to life, pent-up savings and demand met with limited supply in the aftermath of the pandemic, and prices started to rise. As the year 2022 progressed, historical energy price shocks emerged as the major driver of inflation, with the price shocks being exacerbated by the war in Ukraine. The war also pushed up global food prices and compounded existing supply chain problems, adding to the supply bottlenecks due to China's tight pandemic response and further driving up prices.

Against this backdrop, Eurosystem monetary policymakers, like their peers in other major currency areas, were up against the major challenge of having to adequately gauge the persistence of the inflationary shocks. Before the war in Ukraine broke out, most observers expected price pressures to be only of a temporary nature. The war added a new layer of uncertainty. It was difficult to ascertain how big an impact the war was going to have on price developments in the euro area, and how inflation pressures on individual components of the Harmonised Index of Consumer Prices (HICP) would spill over to other goods and services prices contained in the HICP basket. Given the high level of uncertainty, the Eurosystem's

monetary policy response remained cautious in the first half of 2022. At the time, inflation pressures were expected to weaken even without significant monetary policy intervention. Indeed, as a result of the surge in energy prices and negative confidence effects amid the war, domestic demand in the euro area was expected to decelerate strongly in the short term, which would have cooled inflation pressures.

Later in the year, there was mounting evidence that the inflation momentum was much more pronounced and persistent and that domestic demand had not dwindled as much as expected. Therefore, the inflation outlook for the euro area was gradually revised upward, to reflect increasing signs that HICP inflation would remain above 2% also in the coming years. The incoming data thus implied that, to control inflation pressures, decisive monetary policy action was called for.

The chief policy goal was to keep medium- to long-term inflation expectations anchored in the price stability objective. The underlying concern was that wage settlements might trigger a wage-price spiral if monetary policy were to lose its credibility, which is the case when businesses and consumers start expecting high inflation rates in the medium to long term. To help calm the economy, monetary policymakers would then have to repeatedly raise interest rates to reverse and normalize inflation expectations.

In order to prevent this from happening and to rapidly realign the high inflation rates with the 2% price stability objective, normalizing monetary policy took priority in 2022 after years of unprecedented monetary policy accommodation. To this effect, the Governing Council of the ECB first decided to reduce and ultimately to discontinue net purchases under the asset purchase programmes. Second, it started raising the ECB's key interest rates. Third, it

<sup>1</sup> Between 2009 and 2020, euro area HICP inflation averaged 1.2%.

took action to gradually reduce, from fall 2022 onward, the size of the Eurosystem's balance sheet. Overall, it was important to move cautiously; an excessively rapid exit from accommodative monetary policies may trigger financial market turbulence that would put a burden on the economy, thus complicating the exit.

### Asset purchase programmes discontinued

The normalization of the Eurosystem's monetary policy started in September 2021, when the Governing Council of the ECB agreed to lower the amount of asset purchases under the pandemic emergency purchase programme (PEPP) in the fourth quarter of 2021. The PEPP had been created in March 2020 to counter the serious risks posed to the euro area economy by the outbreak of the coronavirus pandemic. The uncertainty triggered by the pandemic had caused risk premiums in financial

#### Pandemic emergency purchase programme (PEPP)

The PEPP was the crisis tool with which the Eurosystem helped the euro area economy absorb the impact of the COVID-19 pandemic. The underlying goal was to systematically buy assets, between March 2020 and March 2022, with a view to maintaining favorable financing conditions and supporting the smooth transmission of monetary policy.

#### Asset purchase programme (APP)

Under its expanded asset purchase programme, the Eurosystem, between October 2014 and June 2022, bought different types of securities based on four underlying programmes: (1) the covered bond purchase programme (CBPP3), (2) the asset-backed securities purchase programme (ABSPP), (3) the public sector purchase programme (PSPP) and (4) the corporate sector purchase programme (CSPP). At just under 80% of the volume, the PSPP accounts for the largest share of the euro area-wide APP portfolio.

markets to rise in the spring of 2020, thus pushing up funding costs in general. Central banks can address such developments by buying assets. Without monetary policy intervention, financial markets would have significantly amplified the adverse pandemic impact on the economy.<sup>2</sup>

After more than one year in crisis mode, market conditions improved over the summer of 2021 and the Governing Council of the ECB decided to reduce the volume of PEPP purchases in the fourth quarter of 2021. Finally, following a further

reduction in purchases in the first quarter of 2022, the Governing Council ended net purchases under the PEPP at the end of March 2022. The progress made toward anchoring the economic recovery and achieving the ECB's inflation target over the medium term was considered sufficiently advanced.

The pandemic has left lasting vulnerabilities in the euro area economy that may contribute to an uneven transmission of the single monetary policy to national funding costs. To preserve the functioning of the transmission mechanism, the Governing Council provided for flexibility in reinvesting redemptions of maturing securities held under the PEPP. In other words, those redemptions can, as appropriate, be invested in euro area jurisdictions where orderly transmission is at risk. The reinvestments will continue until the end of 2024 or beyond, with the flexibility being used only if there are signs of pandemic-related distortions in financial markets.

To prevent the March 2022 end of net PEPP purchases from creating new distortions, the existing [asset purchase programme](#) (APP) was expanded for a short period. Specifically, higher volumes of APP assets were purchased in April and May 2022. On July 1, 2022, net APP purchases across the euro area were likewise discontinued, however. Maturing securities continued to be reinvested in full.

Through its reinvestment policy, the Eurosystem aims to gradually decarbonize its corporate bond holdings in line with the objectives of the climate change-related Paris Agreement. This is only one of many measures adopted by the Governing Council of the ECB in July 2022 to better reflect climate-related financial risks in the Eurosystem balance sheet and to support the green transition of the economy in line with the EU's climate neutrality objectives (see section Beyond profit: in pursuit of sustainability in investing).

<sup>2</sup> The PEPP is only one of many measures taken by the Eurosystem to combat the economic fallout of the COVID-19 pandemic. In addition, fiscal policymakers in Austria adopted [a range of support measures](#), including loan guarantees and hardship funding.

## Key ECB interest rates raised

July 27, 2022, marked the first **increase in the ECB's key interest rates** for the euro area, following the discontinuation of net purchases under the APP. Thereafter, these rates were increased four more times in the second half of 2022 and in early 2023. From mid-2022, the three key ECB interest rates were raised by 300 basis points, at a pace unseen ever since European monetary union was created in 1999.

As of February 8, 2023, the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility stood at 3.00%, 3.25% and 2.50%, respectively.

### Key ECB interest rates

The Governing Council of the ECB sets three key interest rates: (1) the interest rate on the marginal lending facility; (2) the interest rate on the main refinancing operations; and (3) the interest rate on the deposit facility. Money market rates will follow one of these three rates, depending on the amount of central bank liquidity provided to market participants. Lately, market rates have been moving in line with the deposit facility rate, given the prevailing levels of excess liquidity that is in the market.

Box 1

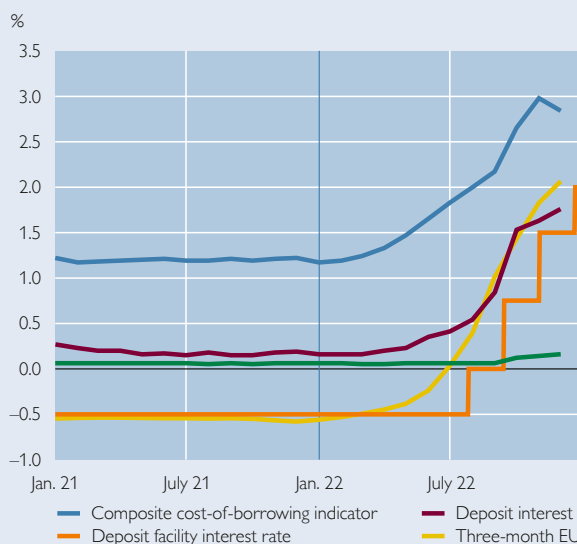
## Rising key interest rates drive up the cost of borrowing for businesses and households in Austria

*For inflation to stabilize at 2% over the medium term, the increases in the key ECB interest rates need to feed through to the real economy and, consequently, to consumer price levels. Higher interest rates elevate banks' funding costs, which they pass on to businesses and households. Apart from making borrowing more expensive, higher bank interest rates also make saving more attractive. Higher interest rates for loans and deposits are an incentive to consume and invest less. As a result, demand for goods and services will go down, which will cause output to be adjusted and ultimately cool inflation pressures.*

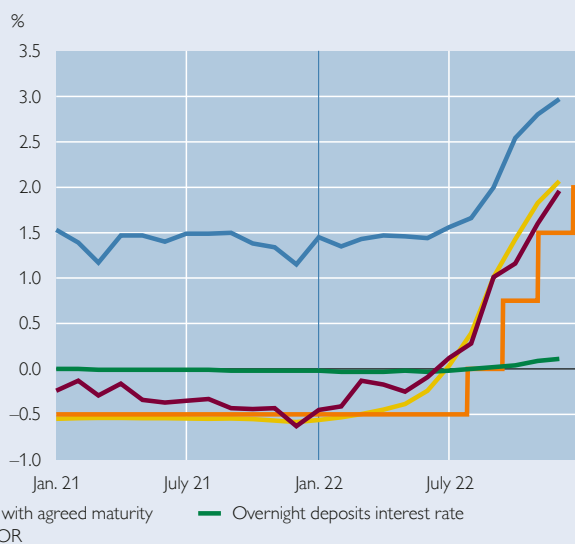
Chart 1

### Higher policy rates affect bank lending and deposit rates

#### Households



#### Businesses



Source: ECB.

Note: The composite cost-of-borrowing indicator for loans to households includes only loans for house purchase. To calculate the cost-of-borrowing indicators for new corporate and house purchase loans, the ECB applies a weighting scheme based on the 24-month moving averages of new business volumes in order to filter out excessive monthly volatility.

*Money market rates in the euro area, or more specifically the three-month EURIBOR (chart 1), which we use as an indicator for banks' funding costs, in fact started to rise in spring 2022 in anticipation of policy rate hikes, causing domestic lending and deposit rates to rise as well.*

*In Austria, the composite cost-of-borrowing indicator, which combines interest rates on new loans to households for house purchase (chart 1, left-hand panel), started to increase in February 2022 and reached 2.84% in December 2022. A similar picture emerges for the composite cost-of-borrowing indicator for new loans to corporations (chart 1, right-hand panel), which amounted to 2.97% in December. In the variable rate segment, higher EURIBOR<sup>3</sup> rates also have a direct impact on interest rates for existing loans, while in the fixed rate segment, interest rates go up only for new loans. The pattern of borrowing costs in Austria broadly mirrors euro area averages (December 2022: 2.94% for household loans and 3.41% for corporate loans). Based on December 2022 figures, the cost of borrowing was somewhat higher in Germany than in Austria.*

*The higher key interest rates also impacted deposit rates (chart 1, overnight deposits and deposits with agreed maturity) and made saving more attractive again, especially fixed rate deposits with longer maturities. Following years of negative composite interest rates for corporate deposits with agreed maturity, these rates clearly moved into positive territory (1.96% in December 2022) in line with money market rates (three-month EURIBOR). Likewise, banks started to offer significantly higher interest rates for household deposits with agreed maturity (1.76% in December 2022).*

*For overnight deposits, by contrast, the composite interest rates had responded only slightly to the policy rates, running to 0.16% for households and to 0.11% for businesses in December 2022. With banks offering significantly higher interest rates for deposits with agreed maturity than in recent years, such deposits have become more attractive again for both households and businesses. The deposit pricing strategy pursued by Austrian banks may reflect efforts to expand their stable funding base and provide incentives for clients to shift overnight funds, which were much in demand in recent years, back into deposits with agreed maturity.*

The first two policy rate hikes in July and September 2022, which brought the deposit facility rate back above zero, eliminated the need for the two-tier system for remunerating excess reserves, which had exempted some excess reserves from negative remuneration. Accordingly, the Governing Council of the ECB decided to end the two-tier system of remuneration. Since September 14, 2022, excess reserves have been subject to a single interest rate again, namely the deposit facility rate. In addition, the reserve remuneration regime was changed as well. Previously remunerated with the interest rate on the main refinancing operations, starting from December 21, 2022, minimum reserves have been remunerated with the deposit facility rate. As money market rates used to move in line with the deposit facility rate, the new regime means that holding minimum reserves no longer offers an interest rate advantage.

### **Anti-fragmentation instrument added to monetary toolkit**

After a prolonged period of negative interest rates, increasing the ECB's key interest rates

rapidly and strongly harbors some risks. In particular, there is a risk that long-term interest rates may react differently across euro area countries, which could cause funding conditions to tighten more in some countries than in others. In other words, there is a risk of fragmentation that runs counter to the singleness of the ECB's monetary policy. In this context, PEPP reinvestment flexibility (see above) will continue to be the first line of defense to counter risks to the transmission mechanism related to the pandemic and its legacy. For those instances where reinvestment volumes are insufficient, or where unwarranted, disorderly market dynamics emerge for reasons other than the pandemic, the Governing Council of the ECB has created a new tool, namely the [Transmission Protection Instrument](#) (TPI). The TPI allows for unlimited purchases of securities issued in jurisdictions experiencing a deterioration in financing conditions not warranted by country-specific fundamentals.<sup>4</sup> The scale of TPI purchases would depend on the severity of the market disruptions. The aim is to ensure a smooth transmission of the monetary

<sup>3</sup> In the case of variable rate loans, lending rates are often linked to money market rates, such as the EURIBOR.

<sup>4</sup> When assessing the reasons for the deterioration in financing conditions, a cumulative list of [criteria](#) is used to determine whether the jurisdictions in which the Eurosystem may conduct purchases under the TPI pursue sound and sustainable fiscal and macroeconomic policies.

policy stance across all euro area countries and to support an effective interest rate pass-through. Safeguarding the transmission mechanism will allow the Eurosystem to deliver on its price stability mandate. The TPI has been available since July 2022 and can be activated at any time, complementing the monetary policy toolkit that the Governing Council of the ECB can use at its discretion. The new tool was not used in 2022.

### Outstanding amounts of monetary policy operations in the OeNB's balance sheet going down

As outlined above, the Governing Council of the ECB first discontinued net purchases under its APP and PEPP asset purchase programmes in the course of 2022. In the closing balance sheet for 2022, the OeNB's PEPP portfolio amounted to EUR 37.9 billion, and the significantly larger APP portfolio came to EUR 75.4 billion (chart 2). Furthermore, the ECB started raising its key interest rates. The logical next step in normalizing monetary policy is moderately reducing the size of the central bank balance sheet. Accordingly, the outstanding amounts of monetary policy operations recorded in the OeNB's balance sheet (chart 2, in particular longer-term refinancing operations) began to contract in the final quarter of 2022.

The OeNB provides Austrian banks with central bank credit at different terms and maturities. Basically, it offers main refinancing operations with a maturity of one week as well as longer-term refinancing operations with a maturity of three months. The latter are also subject to the interest rate on the main refinancing operations. In response to the COVID-19 pandemic, the ECB's operating framework was moreover expanded to include emergency instruments that provide central bank liquidity at more favorable conditions or for longer maturities, namely the third generation of [targeted longer-term refinancing operations \(TLTROs III\)](#)<sup>5</sup> and [pandemic emergency longer-term refinancing operations \(PELTROs\)](#).

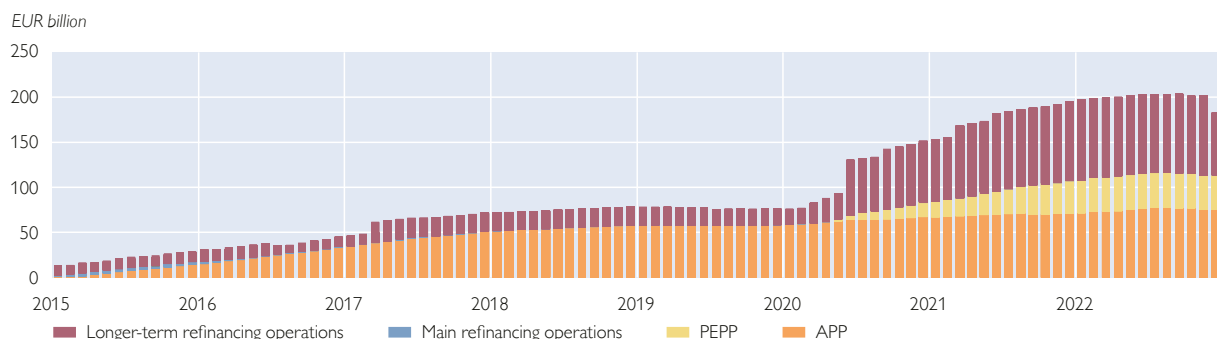
In 2022, no new TLTRO III and PELTRO loans were made available to banks, but loans extended earlier remained on the OeNB's balance sheet. In 2022, the amount of PELTRO funding provided to Austrian banks shrank from EUR 245 million (opening balance sheet) to EUR 130 million (closing balance sheet) as three operations matured during the year. The last outstanding PELTRO matured in January

#### Transmission Protection Instrument (TPI)

When the Governing Council of the ECB started to normalize monetary policy in the euro area, it saw the need to establish a dedicated instrument for ensuring a smooth transmission of the monetary policy stance across all euro area countries. Through asset purchases, the TPI can be activated at any time to counter unwarranted, disorderly market dynamics.

Chart 2

### OeNB balance sheet shrinks as monetary policy is tightened



Source: OeNB.

Note: Longer-term refinancing operations comprise all central bank loans with maturities of more than one week, including TLTRO III and PELTRO funding. The amount of liquidity provided under the marginal lending facility is so low (EUR 0–0.25 billion) that it is not visible from the chart.

<sup>5</sup> Euro area banks already had access to TLTRO III funding in September 2019, i.e. before the emergence of COVID-19. However, following the outbreak of the coronavirus pandemic, the terms were changed and TLTROs III became a tool for providing emergency liquidity.

2023, which means that this position is no longer on the OeNB's balance sheet at the time of writing.

The decline in TLTROs III was more pronounced: In October 2022, as part of monetary policy normalization, the Governing Council of the ECB decided to no longer apply the prevailing TLTRO III interest rate conditions with effect from November 22, 2022. As a result, the cost of TLTRO III funding increased on the following day, which created incentives for early repayment. Therefore, three additional repayment dates were offered to accommodate the plans of banks opting for early redemptions.

**Targeted longer-term refinancing operations (TLTROs III)**

Targeted longer-term refinancing operations (TLTROs) are collateralized credit operations with a maximum maturity of three years that banks were able to enter into with the Eurosystem between September 2019 and December 2021. The applicable interest rate depends on the amount of onward lending by banks.

Several Austrian banks used the repayment options in November and December 2022. A total of EUR 30.8 billion was returned and, together with regular early repayments and redemptions, the TLTRO III portfolio on the OeNB's

balance sheet declined to EUR 53.5 billion in the closing balance sheet for 2022 (chart 2).

In addition to the (early) repayments of amounts borrowed under the longer-term refinancing operations, the Governing Council of the ECB plans to keep reducing the Eurosystem balance sheet by [decreasing at a measured pace the portfolios of securities bought under the ECB's asset purchase programmes](#). As PEPP reinvestments will remain flexible, APP holdings are set to be reduced in a first step starting in March 2023. In fact, redemptions of maturing APP securities will be reinvested only partially between March and June 2023. As a result, the euro area-wide APP portfolio will, on average, decline by EUR 15 billion per month. The subsequent pace of reduction will be determined at a later stage.

## Expectations of more key interest rate hikes

Even though inflation rates persisted at high levels at the turn of 2022/23, the [Eurosystem staff macroeconomic projections](#) compiled in December 2022 point to a cooling of inflation in the euro area in 2023. These projections reflect emerging signs of declining wholesale prices for electricity and gas, weakening demand, easing supply bottlenecks and government measures to contain energy inflation. Changes in futures contract prices also point to an upcoming decline in energy and food commodity prices. Ultimately, the aforementioned normalization of monetary policy will help contain overall inflationary pressures. It will, however, take some time for the weakening momentum to pass through to core inflation (HICP excluding energy and food) for a number of reasons, including the higher wage settlements agreed for 2023.

According to the Eurosystem staff projections calculated in December 2022, HICP inflation is expected to fall from an average of 8.4% in 2022 to 6.3% in 2023. Thereafter, inflation is expected to decrease further, to annual averages of 3.4% in 2024 and 2.3% in 2025. By contrast, core inflation is expected to keep going up to 4.2% in 2023 (from 3.9% in 2022), before declining to 2.4% by 2025. At the same time, the projections showed that the assumed interest rate path – with the three-month EURIBOR rising to an average of 2.9% in 2023 – would not suffice to reach the 2% inflation target by 2025. Consequently, the Governing Council of the ECB announced in February 2023 that it intends to raise interest rates by another 50 basis points at its next monetary policy meeting in March 2023. After that, it will evaluate the subsequent path of its monetary policy. In any event, the Governing Council's policy rate decisions will continue to be data dependent and follow a meeting-by-meeting

approach. Keeping interest rates at restrictive levels will over time reduce inflation by dampening

demand and will also guard against the risk of a persistent upward shift in inflation expectations.

Box 2

### Monetary policy affects the OeNB's profit and loss account

The OeNB's balance sheet essentially includes gold and foreign reserve holdings and monetary policy operations (asset side) as well as banknotes in circulation and the reserves created through monetary policy operations (liabilities side) (figure 1). Monetary policy operations are recorded on the asset side of the balance sheet because the refinancing operations central banks conduct with commercial banks constitute claims against these banks and because the securities portfolios central banks build up are assets by definition. The volume of monetary policy operations (figure 1, dark blue field) in the euro area is set by the Governing Council of the ECB at its own discretion, with a view to achieving price stability. Until very recently, it was generally taken for granted that monetary policy would generate interest income, at times even large amounts of it. However, current monetary policy conditions, which are assessed in more detail here, show that this need not necessarily be the case.

Assuming, in simple terms, that all balance sheet items other than monetary policy operations (figure 1, light blue fields) are subject to exogenous factors and thus beyond the control of monetary policy, the amount of excess reserves commercial banks hold with their central bank would be the linchpin that aligns the balances on the asset side with those on the liabilities side. In other words, the amount of reserves (figure 1, white field) held, or to be held, in a currency area by commercial banks or other financial institutions is determined by the volume of monetary policy operations on the asset side. Note that this observation applies to the Eurosystem as a whole, but not necessarily to each individual Eurosystem central bank, because commercial banks' reserves can move freely among countries.

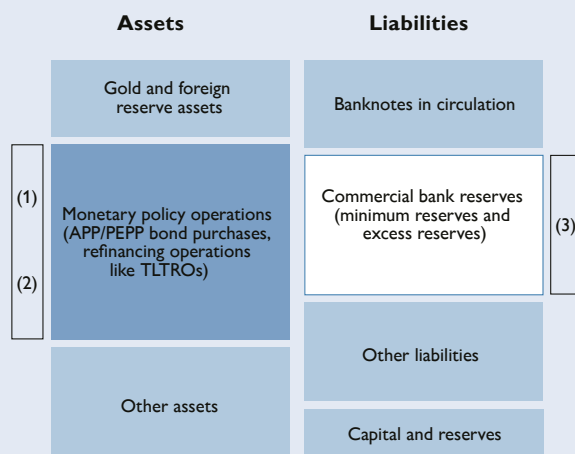
Both monetary policy operations on the asset side and commercial banks' reserves on the liabilities side of central banks' balance sheets bear interest. Depending on the level of policy interest rates, central banks may, on both sides or on either side of the balance sheet, incur interest expenditures or earn interest income.

2022 is a good example as the pattern reversed during the year. The first half of 2022 was characterized by (1) monetary policy securities holdings (related to APP and PEPP purchases), which had grown in times of low interest rates and thus generated low interest income for the OeNB; (2) outstanding amounts of three-year monetary policy lending operations (TLTROs III), which carried a negative interest rate for most commercial banks (special interest rate period),<sup>6</sup> as a result of which the OeNB incurred interest expenses; and (3) excess reserves attributable to the nonstandard monetary policies of recent years, which came with a negative interest rate, thus generating interest income for the OeNB.<sup>7</sup> In the first half of 2022, the OeNB's balance sheet therefore recorded high interest expenses on the asset side and interest income on the liabilities side, with interest expenses being the higher of the two.

By the time the second half of the year ended, in contrast, net interest income continued to be characterized by (1) a low-yielding (APP and PEPP) securities portfolio. However, for longer-term operations (2) and excess reserves (3) the momentum had reversed given rising key ECB interest rates. The end of the special interest rate

Figure 1

### Diagram of the OeNB's balance sheet



Source: OeNB.

<sup>6</sup> Between June 24, 2020, and June 23, 2022, TLTRO III lending rates could be as low as 50 basis points below the average interest rate on the deposit facility prevailing over the same period. This translated into an interest rate of  $-1\%$  for banks that met all lending conditions.

<sup>7</sup> At the beginning of 2022, the interest rate on the euro area deposit facility stood at  $-0.5\%$  (and it remained at that level until July 26, 2022).

period on June 23, 2022, and the adjustment of interest rate conditions from November 23, 2022, as part of the normalization of monetary policy meant that (2) TLTROs III were now remunerated at positive rates, thus generating interest income for the OeNB. At the same time, (3) existing excess reserves resulted in high interest expenses for the OeNB owing to the gradual increase in the interest rate on the deposit facility to 2%. To highlight the current asset liability mismatch, let us suppose that the OeNB has built up a monetary policy-related portfolio of securities worth about EUR 100 billion that remains unchanged during the year. Subject to an average interest rate of 0.2%, this portfolio would yield EUR 200 million in interest income. Let us further assume that commercial banks' deposits with the OeNB sum up to EUR 100 million and are remunerated at an interest rate of 2% at year-end. On the assumption that the level of deposits also stays unchanged throughout the year, the OeNB's related interest expenses amount to EUR 2,000 million. As the interest expenses in this simple example exceed the interest income, the OeNB would face a loss of EUR 1,800 million. The high interest expenses incurred on monetary policy operations had major negative repercussions for the OeNB's 2022 profit and loss account. In a nutshell, these expenses can be explained, first, by the crisis-fighting measures undertaken in the past few years and, second, by the key interest rate increases adopted by the Governing Council of the ECB in 2022. As the asset liability mismatch driving interest rate income and expenses is unlikely to change anytime soon, it will continue to affect the OeNB's profit and loss account – and that of other central banks – in the years ahead. Note, however, that any policy decisions taken by the Governing Council of the ECB are taken with the aim of maintaining price stability over the medium term. Any profit or loss recorded by Eurosystem central banks is thus a corollary to the underlying mandate and the monetary policies adopted to fulfill this mandate. Central banks may also operate well with negative equity, as this will affect neither their capacity to act nor the effectiveness of their monetary policy.



Seconded by his predecessors (Ewald Nowotny, left, and Klaus Liebscher, right) OeNB Governor Robert Holzmann formally launched the OeNB's euro cash platform in September 2022.



## Austria: fast growth and high inflation in 2022, mild recession at year-end

### Divergence in economic growth in the first and second half of 2022

In Austria, 2021 ended with a return to comprehensive lockdown measures, given resurging COVID-19 infections and rapidly refilling hospitals and intensive care units. Although the economic impact of the lockdown measures was not nearly as strong as in the early days of the pandemic, economic output did fall in the fourth quarter of 2021 as a result. As the coronavirus continued to mutate in 2022 and Omicron replaced Delta as the COVID-19 variant of concern, infections spread more easily but more people were experiencing milder symptoms – not least because of higher prevalence and vaccination rates. This alleviated the pressure on the healthcare system and obviated the need for further lockdowns in 2022, even though infection rates kept rising. Meanwhile, the economy was driven by pent-up demand in the first half of 2022 (chart 3): (1) Private consumption surged after having been pushed back by the lockdown restrictions in the fourth quarter of 2021. (2) Businesses stepped up their investments as the global economy recovered. (3) The tourism sector, especially winter tourism, was spared another round of shutdowns

and recorded exceptionally high year-on-year growth rates. (4) Industrial manufacturing benefited from full order books, which were gradually being processed as supply shortages eased.

Then came February 24, 2022, and the start of Russia's war of aggression against Ukraine. Hence, the European Union, the United Kingdom, the United States and their allies imposed extensive sanctions on Russia. In Austria, the subsequent global economic slowdown and the high level of uncertainty about future political and global economic developments led to a significant slump in economic momentum from mid-year onward. The sharp rise in inflation as a result of the increase in energy prices reduced real household disposable income and thus household consumption expenditure. Firms invested less in an environment of high uncertainty and rising financing costs. In a year-on-year comparison, real economic growth in Austria slowed from +1.9% in the second quarter to +0.2% in the third quarter to –0.7% in the fourth quarter of 2022. The economic outlook for late 2022 and early 2023 was for a technical recession, i.e. negative growth in two consecutive quarters. Nevertheless, due

Chart 3

### Austrian GDP growth remains strong in 2022

Quarterly change in %; growth contributions in percentage points



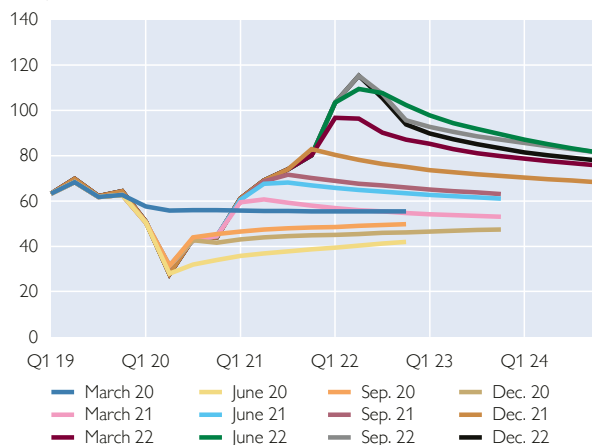
Source: Eurostat (euro area), Statistics Austria (Austria, until Q3 2022), WIFO (Austria, Q4 2022).

Note: The contributions of the individual demand components have been adjusted for imports.

Chart 4

### Oil price assumptions revised upward repeatedly in 2022

USD per barrel Brent

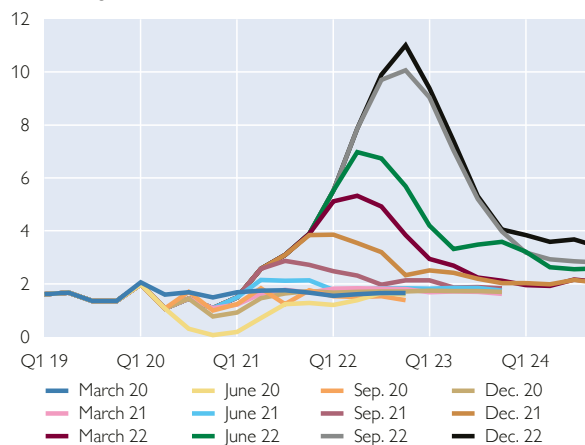


Source: Eurosystem, ECB.

Chart 5

### HICP inflation forecasts for Austria revised continually in 2022

Annual change in %



Source: OeNB.

to the strong cyclical momentum in the first half of the year, in 2022 – for the second year in a row – the Austrian economy ultimately recorded very strong economic growth for the year as a whole (2021: +4.7%, 2022: +4.9%), thus well exceeding pre-pandemic levels.

### Energy price surge leads to broad-based rise in inflation in 2022/23

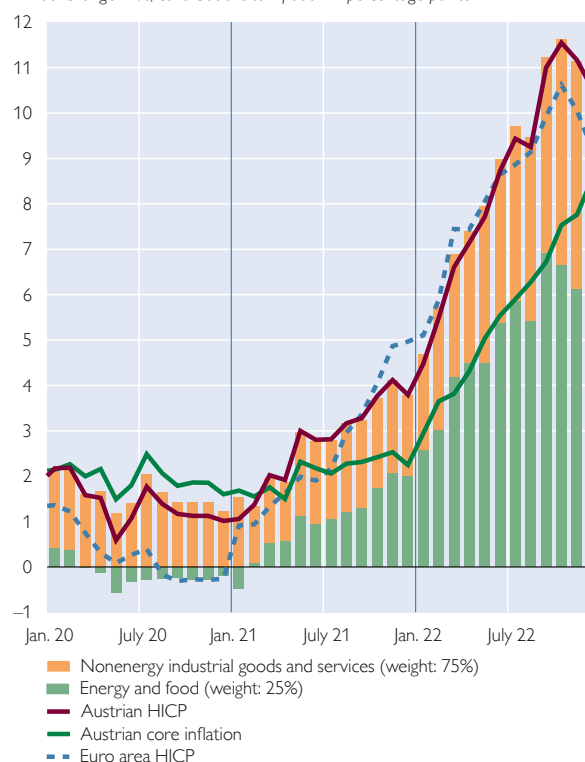
On top of the rise in commodity prices during the economic recovery from the pandemic, the war in Ukraine further fueled inflation in international energy markets. This is clearly reflected in the crude oil price assumptions underlying economic forecasts (chart 4). Gas prices recorded even sharper price increases, as did electricity prices with some lag. The OeNB's HICP inflation outlook for Austria was adjusted upward repeatedly in view of increased energy price assumptions (chart 5), and even more sharply after the start of Russia's war against Ukraine.

The OeNB's September 2022 outlook was built on the assumption of declining commodity prices, reflecting the first downward revision of such prices in 2½ years. This assumption was subsequently confirmed in December, so that the

Chart 6

### Sharp rise in HICP inflation in Austria in late 2022

Annual change in %; contributions to inflation in percentage points



Source: Eurostat, Statistics Austria.

HICP outlook published in December remained broadly unchanged compared with September.

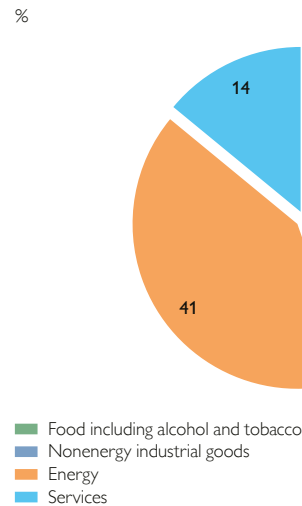
By now, all major HICP subcategories have become affected by high inflation rates. Energy and food were, however, the main price drivers in 2022 (chart 6). Based on year-on-year changes, the share of energy price increases in the overall rise in HICP inflation in 2022 comes to 41%. Food accounted for another 24% of the increase, nonenergy industrial goods for 21% and services, for the time being, for just 14% (chart 7).

Both crude oil and gas prices have been declining from their inflation highs, and forward prices point toward further declines. As a result, energy prices are going to contribute less to inflation in 2023 than they did in 2022, while services prices will rise somewhat more strongly in line with higher wage settlements. Overall, the OeNB expects HICP inflation in Austria to decline from 8.6% in 2022 to 6.5% in 2023 and 3.9% in 2024. In 2025, HICP inflation is expected to return to just below 3% but to remain above its long-term average. Core inflation (excluding energy and food) reached 5.0% in 2022 and, in contrast to HICP inflation, is expected to rise further to 5.6% in 2023, reflecting strong wage cost increases and indirect effects from energy prices. Core inflation will not fall until 2024 (to 3.5%) and 2025 (to 3.1%), which means that it will also remain well above its long-term average.

### Labor market robust despite economic slowdown

In an increasingly tight economy, labor market conditions were very stable in Austria in 2022. Employment growth, although moderating over time, remained at long-term averages in the second half of the year. In 2022 as a whole, employment is expected to have risen by 2.9%, i.e. to a level well above the long-term average

Chart 7  
**Inflation growth in Austria in 2022 mainly driven by energy prices**



Source: Statistics Austria.

of just over 1%. The number of unemployed continued to decline in the first two quarters of 2022 and remained at first-quarter levels in the second half of 2022. Reported vacancies declined from their historical peaks in the first half of the year, but continued to visibly exceed the long-term averages in the second half of the year. The seasonally adjusted unemployment rate published by the Public Employment Service Austria (AMS) was stable throughout the year at less than 6.5%. Unemployment as defined by Eurostat averaged 4.6% and will remain below 5% in the years ahead.<sup>8</sup> According to the OeNB's December 2022 outlook for the Austrian economy, collectively agreed wages are expected to rise by 7.2% in 2023 and 5.9% in 2024. This notwithstanding, we do not see any risk of a wage-price spiral for the time being (see box 3).

#### Wage-price spiral

High inflation can lead to high wage settlements to compensate for consumers' loss of purchasing power. The wage-price spiral is defined as a multiyear episode of several rounds of price increases driven by wage increases and vice versa.

<sup>8</sup> The *unemployment* rate as defined by the AMS is higher than the unemployment rate as defined by Eurostat because the latter is based on a different definition of economic activity and different job-seeking avenues.

### Difficult wage bargaining round given high inflation and pandemic-related disruptions

Wages are an important macroeconomic variable. They represent the main source of income for households and generally the highest cost component for firms. Annual wage negotiations therefore play a crucial role in the economy. These negotiation rounds serve to find a balance between the demands of employers and employees: Employees are looking for compensation for inflation-induced losses of purchasing power and seek to capture a fair share of aggregate productivity growth. Yet, their interests also need to be offset against the interests of employers.

For the benefit of the overall economy, wage-setting policies in Austria have for decades been guided by the so-called Benya rule according to which wage settlements must give equal consideration to two aspects:<sup>9</sup> (1) the increase in aggregate labor productivity (real GDP per employee) over the medium term, and (2) the amount of consumer price inflation over the preceding 12 months. If the consumer price index (CPI) tracking the price level of a broad basket of consumer products is closely aligned with the GDP deflator, which is a broad index of inflation in the economy,<sup>10</sup> all other things being equal, we arrive at a constant wage share (compensation of employees divided by nominal GDP). Striking such a balance is an implicit objective of the wage bargaining process and implies a distribution-neutral outcome of wage negotiations.

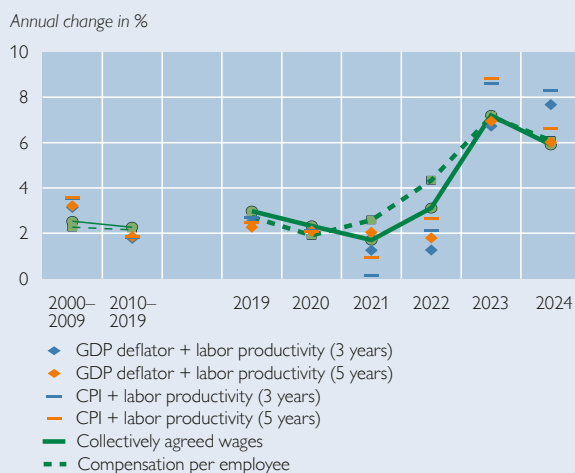
This approach usually leads to rapid settlements in times of low inflation and productivity gains. Balancing the interests of employers and employees has, however, been somewhat of a challenge more recently, given high and rapidly rising inflation driven by energy prices and the economic upheaval caused by the coronavirus pandemic. Against this background, the various wage-setting indicators have been sending divergent signals: The consumer price index, which also includes imported energy goods, has seen significantly stronger growth rates than the GDP deflator. Thus, the challenge for negotiators has been to work out which parts of the energy price shock are to be borne by employees, and which by employers. Another difficulty is the fact that the pandemic distorted labor productivity for a while: Labor productivity dropped in 2020 when we witnessed a sharp decline in GDP while a corresponding drop in employment was broadly cushioned by short-time work. Subsequently, labor productivity recovered in 2021 and 2022. All this explains the increased challenge of balancing interests

in the 2023 wage settlement rounds and the reemergence of strikes as a wage negotiation tactic (as used by e.g. railroad workers) after many years without any strikes.

For ease of understanding, chart 8 plots the determinants of wage setting and wage paths (collectively agreed wages and compensation per employee). As outlined above, we use two indices, the CPI and the GDP deflator, to chart the underlying price dynamics in previous years, and the labor productivity averages for the previous three and five years to reflect the medium-term productivity momentum. The left-hand side of the chart shows the averages for the past two decades. During this period, the price indices and medium-term productivity broadly mirrored the collectively agreed wage increases. This is also the case for 2020, when wages were negotiated on the basis of pre-pandemic figures. In 2021, we see the emergence of a substantial gap, with collectively agreed wages lying in the upper range of the indicators assessed. In addition, the wage drift turned positive.<sup>11</sup> The wage settlements for 2022 were somewhat above the indicator range.

Chart 8

#### Wage forecast for Austria for 2023 aligned with GDP deflator



Source: OeNB, Statistics Austria.

Note: Labor productivity = GDP per employee.

<sup>9</sup> Mesch, M. 2015. *Benya-Formel gleich produktivitätsorientierte Lohnpolitik*. In: *Wirtschaft und Gesellschaft* 41(4). 593–599. Note: Anton Benya was a long-time head of the Austrian Trade Union Federation and as such actively involved in wage negotiations.

<sup>10</sup> The GDP deflator is the price index of value added generated by firms.

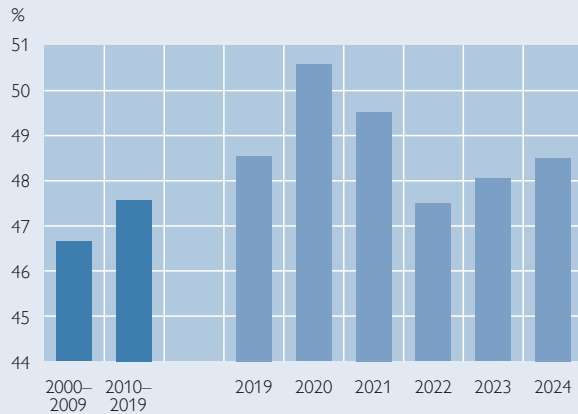
<sup>11</sup> The wage drift is defined as the difference between actual wages per employee and growth in negotiated wages.

At the same time, employees suffered a historically high real wage loss of 3.7% in 2022, given the inherent lag in wage compensation for inflation and the sharp rise in inflation. When we consider the respective increases in aggregate labor productivity and consumer price inflation as outlined above, the 7.2% wage increase agreed for 2023<sup>12</sup> is somewhat above the range calculated based on the GDP deflator (6.7% to 6.9%) but well below the corresponding CPI-based range (8.6% to 8.8%). For 2024, we also expect wage settlements to be closer to the lower end of the range. The lower wage settlements will, however, be offset by real wage gains of 0.7% in 2023 and 2.2% in 2024 given the projected decline in inflation.

When we move on to analyze the wage share (chart 9), we see pandemic-related outliers in 2020 and 2021, an inflation-driven decline in 2022 and a broad realignment with pre-2019 levels in 2023 and 2024. In other words: This outcome reflects distribution-neutral wage settlements, as driven by the backward-looking approach of the “Benya rule.” OeNB simulations have, moreover, yielded a relationship of 1:0.3 for the pass-through of wage increases to inflation after about three years. That is to say, for any 10% that nominal wages rise, inflation increases by (just) 3%. Yet, on balance, Austria’s wage settlement processes have continued to deliver even in today’s challenging times and have thus, for the time being, prevented a wage-price spiral from emerging.

Chart 9

### Austrian wage share of GDP on the rise from 2023



Source: Statistics Austria.

### Budget deficit drops below 3% of GDP despite numerous fiscal support measures

In 2022, the budget balance is expected to have improved by around 3 percentage points to –2.9% of GDP, dropping back below the 3% benchmark (Maastricht definition) after two years. This outcome has been mainly driven by the cyclical recovery and unexpectedly high tax revenues (especially from personal and corporate income taxes). The size of discretionary fiscal measures adopted in 2022 is even somewhat higher than the size of the measures implemented in the two preceding pandemic years, 2020 and 2021. While the eco-social tax reform, which entails a gradual reduction of personal income tax rates, had a relatively small impact on Austria’s budget balance in 2022, the impact of expenditure on the energy relief packages is clearly visible. The single biggest offsetting factors for (energy) inflation in 2022 were higher one-off payments (climate and anti-inflation

bonus) and the costs of building up the strategic gas reserve. At the same time, the government spent significantly less on pandemic-related fiscal support measures (in particular on income support such as short-time work, fixed cost subsidy, default bonus and hardship funding).

The strong decline in the debt ratio by more than 5 percentage points, to 77.2% of GDP, in 2022 is attributable to high nominal GDP growth. When seen in isolation, the government debt ratio was actually pushed up by the relatively high primary deficit and the positive stock flow adjustments.

On November 9, 2022, the European Commission published a [communication on orientations for a reform of the EU economic governance framework](#). Overall, the communication confirmed the existing fiscal reference values (a budget deficit of 3% of GDP and a debt ratio of 60% of GDP). What is new is that compliance with these values is to be achieved through credible country-specific budget paths to ensure

<sup>12</sup> Figures from the fourth quarter of 2022 as forecast in the OeNB’s December 2022 outlook for the Austrian economy.

sustainable economic growth. The European Commission plans to present corresponding legislative proposals once the discussion process has been completed. It will also re-issue fiscal policy guidance in the first quarter of 2023.

### **CESEE: war in Ukraine and generally heightened uncertainty depress economic activity and continue to fuel inflation**

The war in Ukraine was definitely the key determinant of economic activity in Central, Eastern and Southeastern Europe (CESEE)<sup>13</sup> in 2022. Average economic growth in the CESEE EU member states is expected to have declined from 6.2% in 2021 to 4.1% in 2022 (chart 10). Even so, economic activity proved to be surprisingly robust to the initial effects of the war in the first half of the year. In this period, GDP growth was mainly supported by consumer demand. Solid consumer demand can be attributed to the boost savings received earlier as people were spending less during the lockdowns, and to favorable labor market conditions. At 3.9% in October 2022, the average unemployment rate in the CESEE area was only marginally above its trough at the end of 2019. In the middle of the year, both employment and labor participation rates rose to historic highs or even beyond, which translated into dynamic nominal wage increases. Investment also provided a stable contribution to growth, reflecting high capacity utilization, high corporate financial surpluses

and, in some cases, increased inventory accumulation following the restoration of key supply chains.

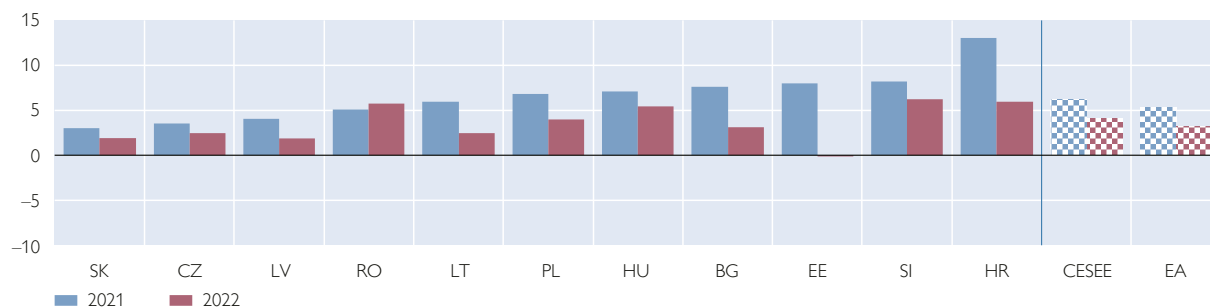
Over the course of the year, however, the economy became a lot less resilient to the effects of the war in Ukraine. Confidence indicators were deteriorating significantly from early summer 2022 onward, with the consumer confidence indicator falling to a deeper level than at the peak of the COVID-19 pandemic. From fall 2022 onward, activity indicators were weakening as well. In the industrial sector, almost all sectors were affected by the downturn, in particular export-oriented industries, which are dependent on raw materials and imported components. In the retail sector, sales of daily necessities increased, while sales of durable goods and also fuels weakened. The loss of purchasing power in the wake of strong inflation became increasingly apparent as well. As a result, quarter-on-quarter GDP growth turned negative in more than half of CESEE countries in the third quarter of 2022, with the Baltic countries already meeting the criteria for a technical recession.

The war in Ukraine exacerbated supply-demand imbalances in some areas, pushed up energy and food prices and significantly weakened, at least temporarily, the external value of some CESEE currencies. This drove up the pandemic-related price pressures at the earlier stages of the pricing chain even further, thus

Chart 10

### **Economic growth in CESEE affected by war in Ukraine**

Real GDP, annual change in %



Source: Eurostat, European Commission autumn forecast (November 2022).

<sup>13</sup> CESEE: Bulgaria, Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.

pushing up inflation to as much as 16.4% on average in November 2022 – a level last seen in the mid-1990s. In contrast to 2021, almost all areas of the basket of goods were affected by inflationary pressures in 2022, causing core inflation to go up heavily as well. At the end of the year, however, inflation rates stabilized somewhat after lower world market prices for crude oil and country-specific household energy relief packages had caused energy inflation to slow down.

Rising inflation and the associated risks of second-round effects, as well as the risk of a deanchoring of inflation expectations, had led central banks in the CESEE region to tighten monetary policy from mid-2021 onward. These interest rate measures not only continued in 2022, but even picked up speed in most countries, also in response to pressures emanating from foreign exchange markets. Ultimately, key interest rates were at a multiyear high at the end of 2022. However, the underlying conditions for monetary policy became increasingly challenging as the year progressed, as any further interest rate moves had to be weighed against the expected economic slowdown in the coming quarters. The Polish and Czech central banks have therefore refrained from any further interest rate hikes in recent months.

On December 15, 2022, the ECB announced that the existing temporary euro liquidity lines (swap and repo lines) with non-euro area central banks would be extended for another year, until January 15, 2024. Repo lines are in place with Albania, Andorra, North Macedonia, Romania, San Marino and Hungary, and there is a swap line with Poland. The size and operational parameters of the individual agreements remain unchanged. Against the backdrop of continued uncertainty, the repo lines are designed to prevent spillovers to euro area financial markets and economies and to safeguard the smooth transmission of the ECB's monetary policy.

### **European integration deepens and widens: Croatia becomes the 20<sup>th</sup> member of the euro area in 2023, three countries are recognized as candidates for EU membership**

On June 1, 2022, the ECB and the European Commission published their respective 2022 Convergence Reports, recording the progress made by non-euro area EU countries toward adopting the euro. Seven member states were covered: Bulgaria, Croatia, Czechia, Hungary, Poland, Romania and Sweden. The European Commission and the ECB both concluded that Croatia fulfills the economic and legal convergence criteria. The final decision on Croatia's accession to the euro area was taken by the Economic and Financial Affairs Council (Ecofin) on July 12, 2022. The conversion rate of the Croatian kuna (HRK) was fixed at HRK 7.53450 per euro.

On January 1, 2023, the Governor of Croatia's central bank became a voting member of the Governing Council of the ECB. Thus, the Governing Council now comprises the six members of the Executive Board of the ECB and the 20 governors of the national central banks of the euro area countries. The rotation system of voting rights introduced in 2015 for Governing Council meetings remains broadly unchanged following the accession of Croatia. Under the rotation regime, the euro area countries are divided into two groups according to the size of their economies and their financial sectors. The governors from the five largest countries (Germany, France, Italy, Spain and the Netherlands) share four voting rights. All others (15 since Croatia joined on January 1, 2023, including Austria and thus the OeNB's governor) share 11 voting rights. In both groups, the governors take turns using their voting rights based on a monthly rotation scheme.<sup>14</sup> In 2023, for instance, the OeNB's governor will not exercise his right to vote in May and June.

<sup>14</sup> For more information, see the [rotation calendar](#) on the ECB's website.

**Special Drawing Rights (SDRs)**

Special Drawing Rights are the accounting unit created in 1969 by the IMF for its reserve asset transactions. The value of the SDR is calculated from a weighted basket of five currencies, namely the US dollar, the euro, the Chinese renminbi-yuan, the Japanese yen and the pound sterling. The SDR is an international reserve asset. SDR balances represent potential claims on the freely usable currencies of other IMF member countries. SDRs may be used for payment transactions among IMF member countries and with the IMF itself. However, SDRs are not legal tender, as they are not accepted for payment outside the IMF's SDR system.

In 2022, the European Council decided to grant EU candidate status to Ukraine and Moldova (as agreed on June 23) and to Bosnia and Herzegovina (as agreed on December 15). It thus followed the recommendations of the European Commission, which had already positively assessed the three countries in light of the

so-called Copenhagen criteria. These criteria reflect political and economic considerations as well as the countries' ability to assume the obligations of EU membership.

**IMF and EU financing for Ukraine**

Since Russia's invasion of Ukraine, Ukraine has been receiving financial support from both the EU and the IMF. The total amount of EU macro-financial assistance (MFA) disbursed to Ukraine by the EU reached EUR 7.2 billion in 2022. The money has been extended in the form of loans subject to highly beneficial conditions with longer maturities than for regular MFA loans. In addition, any interest payable on these exceptional MFA loans is covered from the EU budget, at least for the current multi-annual financial framework.

On November 9, 2022, the European Commission adopted a proposal to provide up to EUR 18 billion of support in the form of loans to Ukraine for 2023 through a new MFA+ instrument. The package provides for a highly concessional loan to help support reforms, primarily with regard to anchoring the rule of law and combating corruption. The EU thus seeks to provide regular financial support to Ukraine, helping the country to cover a significant part of its short-term financing needs in 2023. The first installment of EUR 3 billion was disbursed

on January 17, 2023. From March onward, Ukraine stands to receive EUR 1.5 billion per month, provided it fulfills the attached conditionality.

In spring 2022, the IMF Executive Board approved emergency funding to Ukraine under the Rapid Financing Instrument (RFI) of SDR 1.0059 billion, which corresponds to around EUR 1.26 billion (at the exchange rate of December 31, 2022). In addition, the IMF established an administered account for bilateral financing agreements with donor countries. Under the Food Shock Window, the IMF approved on October 7, 2022, a disbursement of another SDR 1.0059 billion to Ukraine, as an IMF member country facing increased costs of food imports and food insecurity. On December 19, 2022, the IMF Executive Board approved the launch of Program Monitoring with Board Involvement (PMB) – which has been made available under a recent policy change – for Ukraine. The four-month PMB is designed to help Ukraine maintain stability and catalyze donor financing. Moreover, it might pave the way for a more comprehensive IMF program.

**New IMF constituency agreement**

On October 31, 2022, the IMF constituency agreement which had governed representation at the IMF for the group of countries ("constituency") including Austria expired after ten years. A new constituency agreement entered into force on November 1, 2022, again for a ten-year period. The constituency comprises the following IMF members: Turkey, Austria, Czechia, Hungary, Slovakia, Slovenia and Kosovo (countries listed according to IMF quota). The agreement also governs the rotation system agreed. Accordingly, Austria will appoint an Executive Director and an Advisor to the IMF for the period from 2026 to 2028, and a First Alternate Executive Director for the entire ten years, except for the period from 2026 to 2028.





In 2022, the Oesterreichische Nationalbank hosted seven "Let's talk about the euro" town halls across Austria – OeNB Executive Director Thomas Steiner on tour in Linz, Upper Austria.



## Reserve management in times of multiple crises

### OeNB reserve management focuses on core markets

Our medium- to long-term investment strategy boils down to investing in the major and stable global reserve currencies which together compose the basket of currencies from which the value of the IMF's Special Drawing Rights is calculated. Subject to our risk framework, we also seek to generate adequate income with our investments to cover operating costs. By fine-tuning our strategic asset allocation with short-term tactical asset allocation, we were able to respond to financial market conditions in 2022. This included risk-reducing measures, such as shifting government bond portfolios toward shorter maturities and diversifying non-euro assets more strongly.

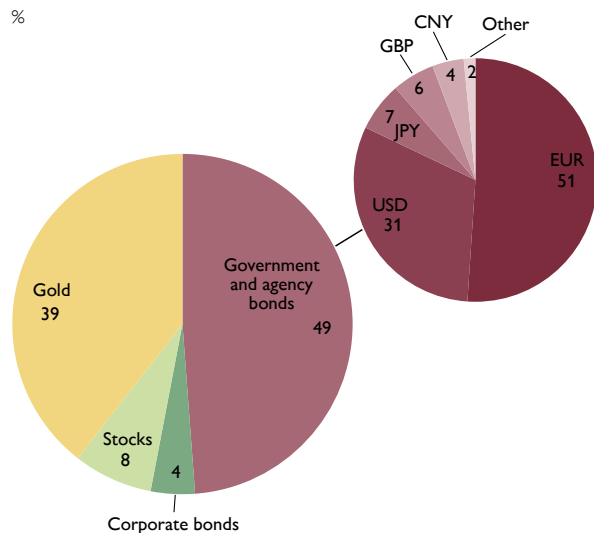
When it comes to investing the OeNB's reserve assets, pursuing a balanced allocation strategy is key, as has been highlighted most recently by the enormous pandemic-related challenges, escalating energy prices and surging inflation. In 2022, major diversification benefits continued to come above all from non-euro assets. Weighed down by tight monetary policy, both our sovereign bond and equity portfolios recorded a negative performance, but our US dollar-denominated holdings benefited from the dollar's strong appreciation.

### The OeNB's investment portfolio is well diversified

The investment of OeNB assets is subject to comprehensive risk management procedures and controls. Our primary investment goal is to maintain a high degree of liquidity and security to ensure the ready availability of funds for coordinated intervention in financial markets whenever action should be required. Another key criterion guiding investment decisions is a broad range of diversification (chart 11). Apart from gold, which accounts for about 40% of the OeNB's reserves, the OeNB invests above all in bonds (more than 50%) and in stocks (close to 8%). The predominant currencies are convertible currencies of countries with excel-

Chart 11

### The OeNB's reserve portfolio is well diversified



Source: OeNB.

Note: At the end of 2022, the OeNB's reserve assets added up to about EUR 39 billion.

lent credit ratings. The predominant bonds are bonds issued by governments, agencies and supranational institutions, as well as covered bonds. Other assets such as corporate bonds and stocks have been included with a view to improving the risk-return ratio. This strategy has been a cornerstone of the OeNB's stability and continues to underpin its activities within the European System of Central Banks (ESCB).

#### Strategic asset allocation

Strategic asset allocation is a portfolio strategy where investors set long-term targets for asset classes and currencies. The target allocations hinge on predefined investment objectives, time horizon, risk-bearing capacity as well as risk tolerance.

### Financial markets are weighed down by inflation and monetary policy tightening

In 2022, financial markets suffered disruptions from a series of crises. Not only was financial market sentiment clouded by Russia's war on Ukraine and the ensuing significant economic disturbances, but it was also overshadowed by the ongoing coronavirus pandemic, which led to repeated lockdowns in China in particular.

The combination of continued supply chain bottlenecks and the sharp rise in energy prices

given the war situation eventually caused inflation to take off and central banks to significantly tighten monetary policies. Ultimately, the US Federal Reserve (Fed) increased its key policy rates by 4.25 percentage points in the course of 2022, whereas the ECB raised its rates by 2.50 percentage points over the same period. Major central banks around the globe also started to unwind asset purchases made to provide additional stimulus to the economy during the pandemic. The Fed and the Bank of England were the first ones to reduce their bond holdings. The ECB likewise reduced its balance sheet by adopting measures that prompted banks to repay outstanding targeted longer-term refinancing operations (TLTROs) ahead of time.

The scale and pace of monetary policy normalization led to sharply rising bond yields, as a result of which the prices of government bonds, which are generally regarded as safe, declined significantly (chart 12). As a case in point, the yield on ten-year German government bonds rose by 275 basis points to 2.57% and the yield on ten-year US Treasury notes rose by 236 basis points to 3.87%.

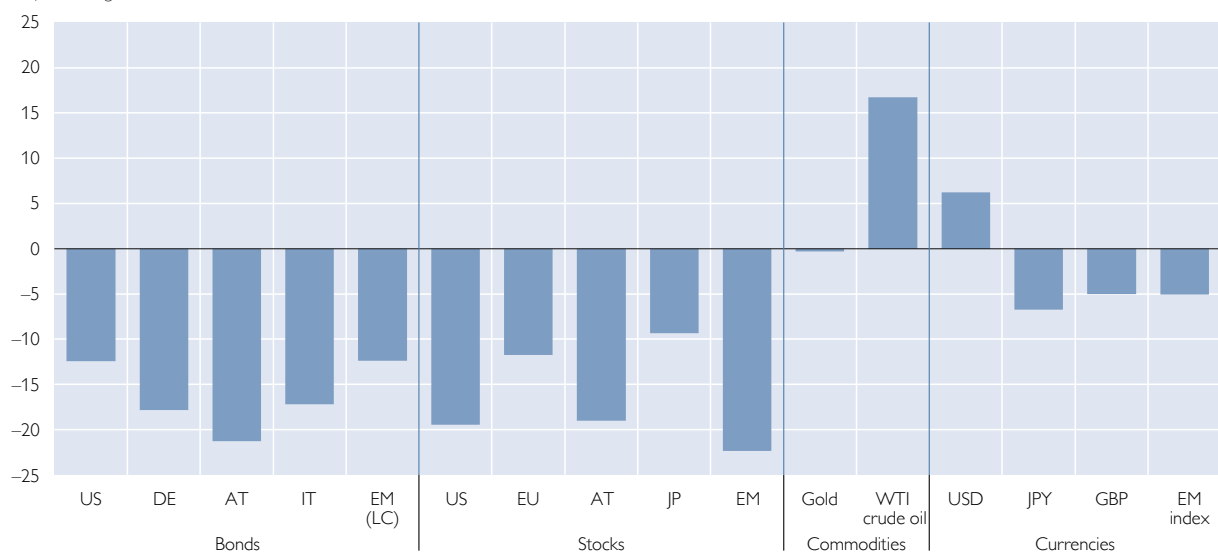
In addition to the fixed income securities markets, which experienced the most severe losses in decades, equity markets also came under considerable pressure. The combination of falling bond and equity prices is an anomaly of the typically negative correlation between the two asset classes, which has not been observed for several decades.

The convergence of all these crises caused consumer confidence to take a plunge and confronted firms with considerably tightening financing conditions. Even though corporate performance rates were very good, the main stock price indices fell significantly in 2022. The US S&P 500 index declined by 19.4% and the euro area stock price index EURO STOXX 50 declined by 7.8%. The Japanese Nikkei225, which lost 9.4%, was somewhat better off. This was due, in particular, to the fact that the Bank of Japan was the only major central bank to retain its ultra-expansionary monetary policy. By contrast, the equity markets of emerging market economies came under particularly strong pressure as investors were generally risk averse, recording a negative performance of –22.4% (in USD).

Chart 12

### Monetary tightening weighs on bond and stock markets in 2022

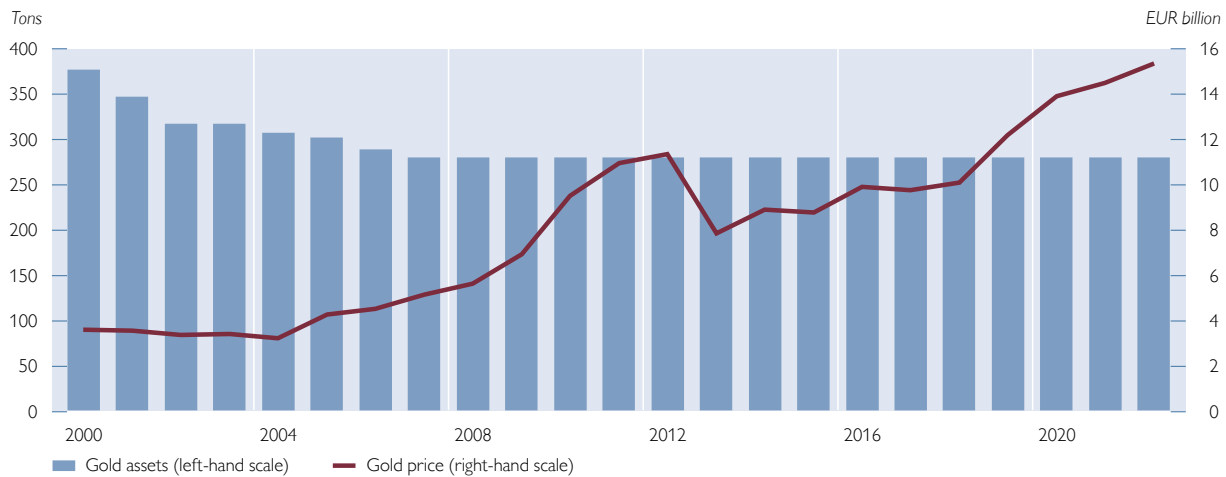
Performance gain or loss in %



Source: Bloomberg.

Note: EM = emerging markets, LC = local currency, WTI = West Texas Intermediate. Prices for EM bonds and stocks and for commodities in US dollars.

Chart 13

**Market value of OeNB gold holdings reaches another record high in 2022**

Source: OeNB.

The financial market turmoil also spilled over to foreign exchange markets, which developed very heterogeneously. While the US dollar benefited from its role as a global reserve currency and from the sharp interest rate hikes by the Federal Reserve, the Japanese yen, in particular, came under severe pressure. The US dollar appreciated by 6.2% against the euro, while the yen depreciated by 6.7%. The pound sterling also weakened by 5.0% against the euro. Accordingly, J.P. Morgan's Emerging Market Currency index dropped by 5.1% against the US dollar.

The geopolitical escalation caused energy prices to rise rapidly. For example, the price of crude oil rose by 16.7% over the course of 2022. By contrast, the price of gold (−0.3% in USD) responded less to the rise in risk aversion and inflation than would have been expected. After all, the substantial increase in bond yields across the globe following monetary tightening raised the opportunity cost of holding gold markedly given that, unlike government bonds, gold investments do not pay interest.

**Gold proves an anchor of stability in reserve management**

The unusually sharp fall in prices in both bond and equity markets also impacted the OeNB's reserve assets, which generated a negative yield of −8.9% in 2022. This result excludes the contribution from gold holdings, which account for just under 40% of the OeNB's reserves. In the course of the year, the value of the OeNB's gold reserves rose to more than EUR 15 billion, continuing to top previous record results (+6.0% against 2021, chart 13). Thus, gold continued to provide an anchor of stability in a rough economic sea and validated the OeNB's strategy to rely on gold for crisis prevention and management.

**Beyond profit: in pursuit of sustainability in investing**

For many years, explicit sustainability criteria have informed the OeNB's risk management decisions. Since 2011, external asset managers making investments for the OeNB must have signed the UN-supported Principles for

**Environmental, social and governance (ESG)**

More and more financial and nonfinancial firms around the world believe that management decisions and company analyses should give due consideration to environmental, social and governance (ESG) issues. Rating agencies and many investors have come to include such criteria, for instance compliance with the UN-supported Principles for Responsible Investment, into their securities analysis framework.

Beyond that, the OeNB has implemented requirements regarding greenhouse gas emissions for selected asset classes in its externally managed portfolios. The underlying idea is to encourage external asset managers to systematically integrate ESG criteria into their investment processes by applying sustainable and responsible investment (SRI) strategies. The OeNB's internal portfolio managers have likewise been giving increasing preference to assets that meet these quality standards. The application of the SRI criteria for internally and externally

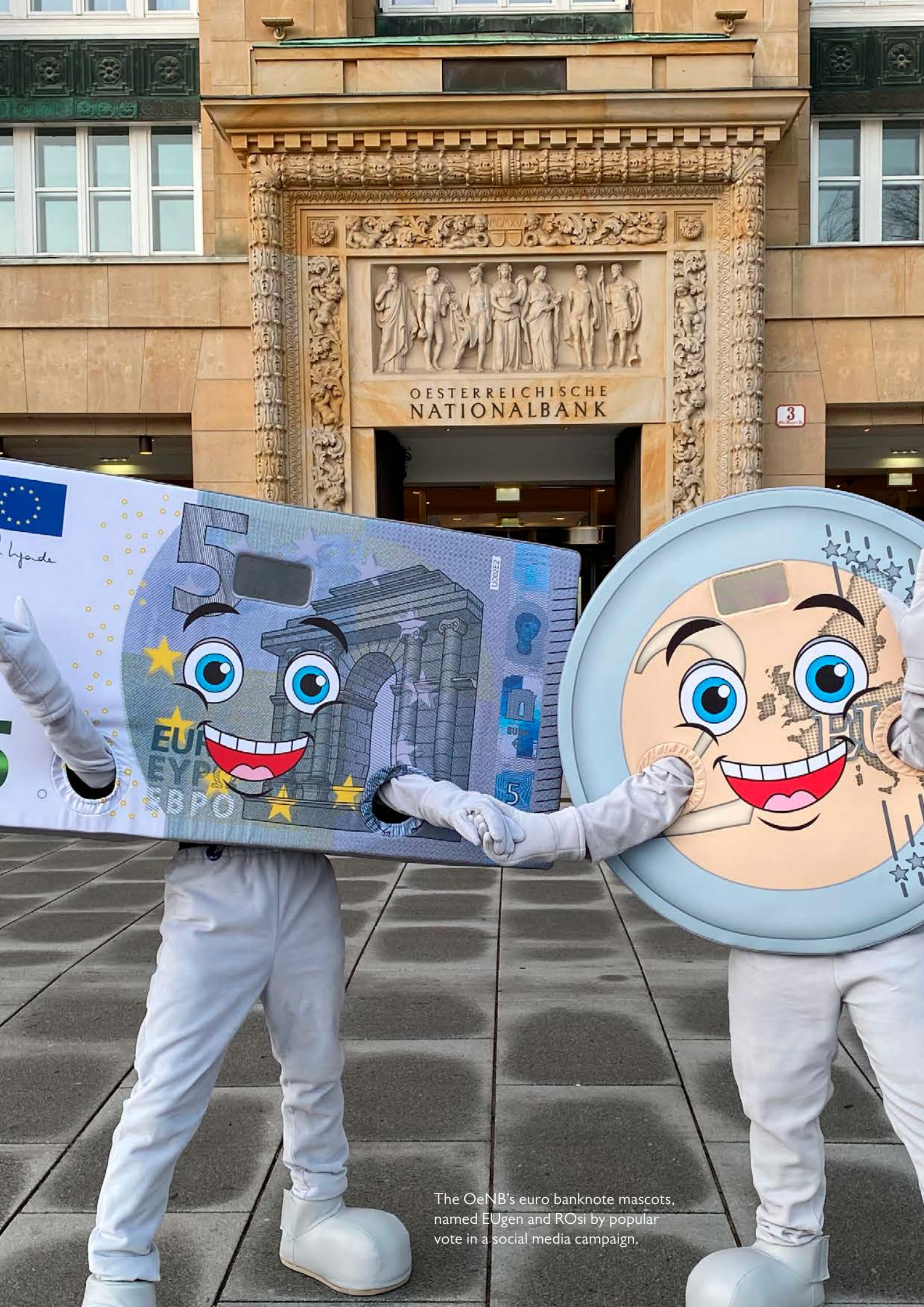
Responsible Investment. These principles address environmental, social and governance (ESG) issues and provide for responsible disclosure practices and proactive ownership policies, for instance through the exercise of voting rights.

managed portfolios will be developed further in the light of experience and in accordance with accepted procedures. In 2023 and beyond, we intend to take sustainable investment to the next level in three major respects:

- building sustainability criteria more firmly into the investment process;
- integrating SRI/ESG criteria more widely into IT systems and reporting;
- investing more heavily in green, sustainable bonds.

Last but not least, the Eurosystem has agreed to rely more heavily on harmonized sustainability criteria in handling nonmonetary policy portfolios from 2023 onward.

This includes the commitment to start publishing climate-related aspects regarding the nonmonetary policy portfolios in 2023. The OeNB published the relevant data in a dedicated report (see [Climate-related financial disclosures by the Oesterreichische Nationalbank 2022](#)).



The OeNB's euro banknote mascots, named EUgen and ROsi by popular vote in a social media campaign.



In 2022, the Oesterreichische Nationalbank hosted seven “Let’s talk about the euro” town halls across Austria – OeNB Executive Director Gottfried Haber on tour in Klagenfurt, Carinthia.

## The OeNB plays an active part in ensuring financial stability

### Austrian banking system resilient in challenging environment

#### Banks need to maintain and further strengthen resilience

Driven by Russia's invasion of Ukraine, risks to financial stability increased significantly in the course of 2022. Austria's financial vulnerability was being heightened by the exposures domestic banks have in Central, Eastern and South-eastern Europe (CESEE).<sup>15</sup> Yet, all the efforts made by Austrian banks in the past and the forward-looking microprudential and macroprudential measures adopted by supervisors have paid off: From a longer-term perspective, Austrian banks have significantly improved their capital ratios and funding structures, thus strengthening financial stability in Austria (see sections Macroprudential supervision contributes to higher capital levels for banks to keep up with international peers; and National and European banking supervisors have been cooperating effectively for years). This is also reflected in S&P's Banking Industry Country Risk Assessment (BICRA) reports, which have been finding the Austrian banking system to be among the ten most stable banking systems in the world. To keep ensuring the resilience of the Austrian banking sector, two key macroprudential measures were taken in 2022: (1) Sustainable lending standards for residential real estate financing were implemented; and (2) the macroprudential capital buffers were redefined (see section Macroprudential supervision contributes to higher capital levels for banks to keep up with international peers).

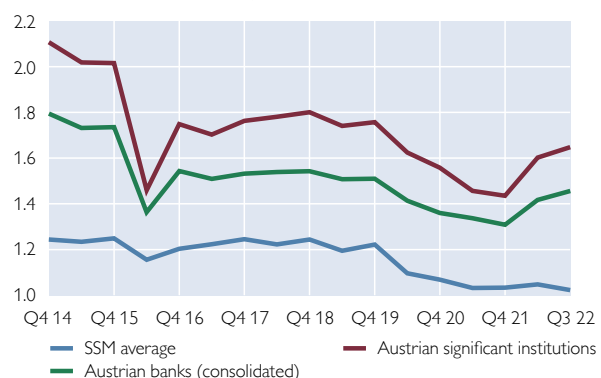
In the first three quarters of 2022, the consolidated net profit of the Austrian banking sector fell from EUR 5.9 billion to EUR 5.5 billion year on year, mainly due to higher risk costs and impaired investments. To some extent,

the fall in profit was cushioned by several one-off effects, including higher extraordinary income and profits from discontinued operations. The cost-to-income ratio reached 68%. From a short-term perspective, monetary tightening after years of monetary easing had a positive impact on profit by pushing up net interest income and interest margins. In part, this is attributable to the fact that Austrian banks have a higher share of variable rate loans on their books than their international peers on average. Given rising interest rates, the net interest margins of Austrian banks and significant institutions<sup>16</sup> improved to around 1.5% and 1.6% year on year, respectively, in the third quarter of 2022 (chart 14) – an effect that also reflects earlier and stronger interest rate increases in CESEE, among other things. Across the Single Supervisory Mechanism (SSM), net interest margins have not yet been improving on average so far. Over the medium term, credit growth and credit quality might be adversely

Chart 14

#### Net interest margin of Austrian banks exceeds SSM peer average

Net interest income to total assets, %



Source: OeNB, ECB.

Note: SSM = Single Supervisory Mechanism; Austrian significant institutions include UniCredit Bank Austria AG.

<sup>15</sup> This section is based on a broad definition of CESEE that also includes Russia, Ukraine and Belarus.

<sup>16</sup> Austrian significant institutions including UniCredit Bank Austria AG.

**Net interest margin**

The net interest margin is defined as the ratio of net interest income to total assets or, alternatively, to interest-bearing assets. It is, thus, considered an important indicator of banks' profitability.

affected by higher monetary interest rates.

In Austria, high loan growth rates have been observed in the residential real estate sector and,

more recently, in the corporate sector in particular. Since the fourth quarter of 2021, loan growth has been mainly driven by businesses' short-term financing needs to cover inventory and working capital costs. Prompted by supply chain problems, businesses have been building up their inventories as a precautionary measure. The annual rate of corporate loan growth amounted to 9.2% at the end of December 2022. Annual growth in real estate loans has remained high in recent years and declined somewhat in 2022 (+5.0% at year-end).

The support measures taken in Austria in the wake of the pandemic (including loan moratoria) helped avoid major credit defaults. As a result and given elevated credit growth, the nonperforming loan (NPL) ratio of Austrian banks remained historically low at 1.6% on a consolidated level. This compares with an NPL ratio of 1.7% for Austrian significant institutions and 1.8% for all SSM-supervised institutions on average. In addition, the share of potential loan defaults declined further in the first three quarters of 2022. Still, the outlook for credit risk is clouded by underlying economic conditions.

CESEE-based operations continue to be a major profit driver for Austrian banks. Their CESEE subsidiaries generated an aggregate net profit (after tax) of EUR 3.6 billion for the first three quarters of 2022 (compared with EUR 2.3 billion a year earlier).<sup>17</sup> Credit quality also remained at a high level. Most of Austrian banks' CESEE exposures are intra-EU exposures: The subsidiaries in Czechia, Croatia, Hungary, Romania and Slovakia account for close to 80% of Austrian banks' aggregate assets in CESEE. However, the risks for Austrian

banks' CESEE subsidiaries have increased significantly in light of the war in Ukraine.

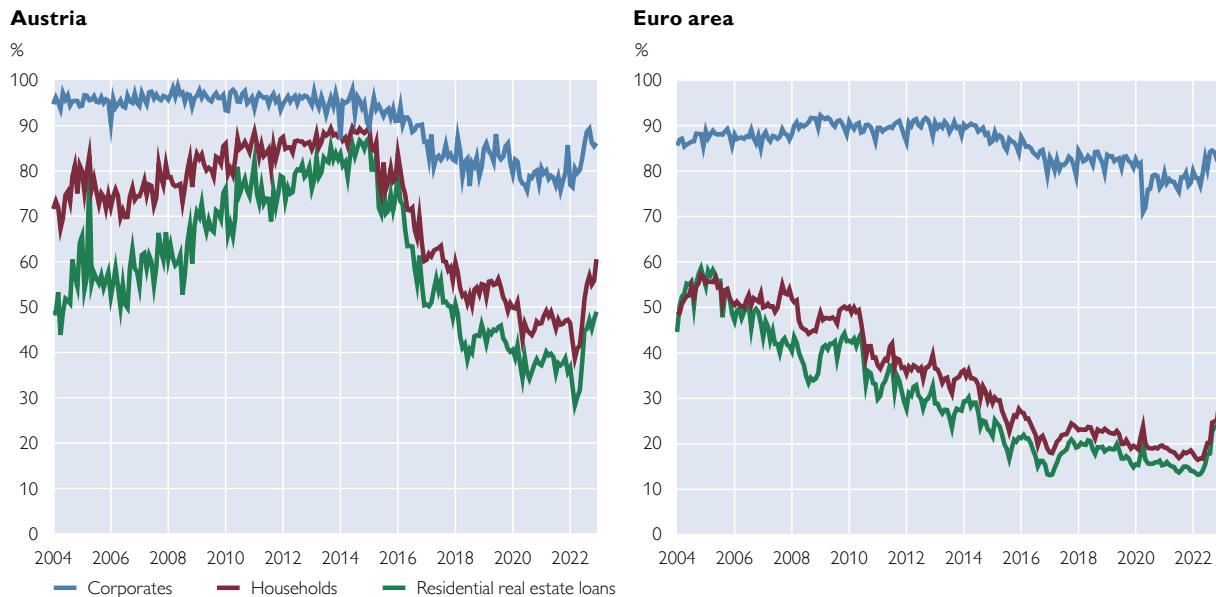
In the first three quarters of 2022, banks' consolidated common equity tier 1 (CET1) ratio declined somewhat, to 15.8%. This reduction is primarily attributable to credit growth and the renewed increase in profit distributions. Given bleak macroeconomic conditions, the OeNB advised banks in its [November 2022 Financial Stability Report](#) to keep strengthening their capital base in a sustainable and forward-looking manner, especially by exercising restraint with regard to profit distributions. After all, Austrian significant institutions are not as well capitalized as their SSM peers on average. A high degree of resilience, building on sustainable lending and business policies and a strengthened capital base, is key in ensuring the intermediation function of the Austrian banking sector, especially the provision of loans and other financial services to the real economy.

**Macprudential supervision contributes to higher capital levels for banks to keep up with international peers**

OeNB analyses have shown that systemic risks from residential real estate financing have been rising continually in recent years, even more so since 2020. The OeNB started to step up its communication on the associated risks already in 2016. In 2018, Austria's Financial Market Stability Board (FMSB) first issued concrete recommendations on sustainable housing financing, but recommendation uptake remained limited. While systemic risks in this segment have increased in many euro area countries, developments in Austria do stand out. Variable rate housing loans, while having declined since 2015, still play a significant role in new lending in Austria (49%, December 2022, chart 15, left-hand panel); for details on credit growth, see section Banks need to maintain and further strengthen resilience). In an environment of

<sup>17</sup> After Russia invaded Ukraine, sanctions were imposed on Russia. Russia reciprocated with sanctions of its own and introduced restrictions on the movement of capital. These resulted in restrictions on the transferability of liquidity and capital (including dividends). The results of banks operating in Russia have been affected, in particular, by exchange rate developments and measures taken by the Bank of Russia.

Chart 15

**Share of variable rate loans in Austria above euro area average (new lending per month)**

Source: ECB (data until year-end 2022).

rising interest rates, particular attention has to be paid to the associated risks.

Hence, a number of international institutions (ESRB, IMF, OECD) have advised Austria to adopt borrower-based measures to prevent the buildup of systemic risk from residential real estate financing. The guidance provided to banks by the FMSB was that they should apply upper limits, as indicated, for loan-to-value ratios (90%), debt service-to-income ratios (40%) and loan maturities (35 years) (under Article 23 Austrian Banking Act).<sup>18</sup> A corresponding [regulation for sustainable lending standards for residential real estate financing](#) (known by its German acronym KIM-V) issued by Austria's Financial Market Authority (FMA), entered into force on August 1, 2022. In the second half of 2022, interest rate and inflation hikes visibly dampened the demand for real estate and thus also for real estate loans – not just in Austria alone but in the euro area as a whole, and also in countries with similar eco-

nomic structures, like Germany. In its meeting on February 13, 2023,<sup>19</sup> the FMSB concluded that the KIM-V regulation had been adopted in a timely manner, since the need for sustainable lending has even increased with rising interest and inflation rates. At the same time, based on the experience gained so far with the application of the new regulation, the FMSB advised the FMA to develop the KIM-V further and exclude two types of loans from the scope of application: short-term bridge loans to be redeemed by selling properties owned by borrowers and nonrepayable subsidies granted by regional governments. Moreover, the FMSB recommended adjusting the exemption buckets for smaller credit institutions with low levels of new lending and the exemption amounts for loans to couples. These adjustments provide for additional flexibility in applying the KIM-V regulation in a number of ways and yet continue to ensure sustained real estate loan growth.

<sup>18</sup> Subject to an overall exemption bucket of 20% that gives credit institutions adequate operational flexibility. To take into account the higher risk potential of variable rate housing loans, the FMSB recommended to apply an upper limit of 30% for the debt service-to-income ratio for loans with a term of more than five years if the corresponding lock-in period is less than half of the loan term.

<sup>19</sup> See the corresponding FMSB press release on the outcome of the 35<sup>th</sup> meeting of Austria's Financial Market Stability Board.

The main objective of these measures is to prevent the further buildup of systemic risks. Moreover, the measures protect borrowers from overindebtedness and its consequences. The sustainable lending standards reduce aspects of excess in mortgage lending, such as excessive credit growth rates, inadequate provision of collateral, too high debt servicing burdens and overly long maturities. International experience has shown that financial crises related to real estate crises come with high welfare losses. Austria has not suffered a real estate crisis for decades. The measures taken in 2022 were necessary to mitigate emerging systemic risks to financial stability. The effectiveness of borrower-based measures in lowering systemic risks has been confirmed by empirical studies. Out of the 30 countries that form the European Economic Area, 24 have, in fact, already adopted such measures.

In 2022, the OeNB also continued to deepen its analysis of systemic risks arising from commercial real estate financing. Corporate loans secured by commercial or residential property account for 16% of Austrian banks' exposures, and the segment continued to grow in 2022, following sustained dynamic growth in recent years. Furthermore, more than one-third of these loans serve to finance residential property, thereby exacerbating systemic risks stemming from the financing of private residential property. A large proportion of commercial real estate loans also have high loan-to-value ratios. The OeNB has therefore advised banks to critically review their collateral valua-

tions, risk weights and risk provisions and adapt them to an environment of prolonged elevated inflation, rising interest rates, more supply chain bottlenecks, mounting commodity prices and, as a result, weaker growth prospects.

Shortly after macroprudential supervision was put in place in

Austria in 2014, a systemic risk analysis conducted by the OeNB led to the definition of two structural macroprudential capital buffers: a systemic risk buffer (SyRB) and a buffer for banks identified as other systemically important institutions (O-SII). Since then, the capitalization level of the Austrian banking sector has gone up, becoming more closely aligned with international levels, and lending has accelerated. The improved capitalization of the Austrian banking sector and its enhanced perception contribute to a funding cost advantage that has been benefiting not only the banking sector as such but the real economy as well. The aim of these measures is to ensure that the Austrian banking system remains among the most stable banking systems in the world. The measures have helped the Austrian banking sector catch up with comparable peer systems, with regard to more stringent macroprudential measures and with regard to higher capitalization.

In 2022, the OeNB reassessed the existing regime for macroprudential capital buffers. The outcome was that structural systemic risks continue to be heightened and that Austrian banks have fallen somewhat behind their European peers when it comes to capitalization. In addition, the two structural macroprudential capital buffers became additive in 2022.

Banks that play a systemic role in the Austrian banking market or that are particularly exposed to systemic risk in the event of a crisis have therefore had to maintain increasingly higher capital buffers as of January 1, 2023.

While the SyRB addresses the heightened vulnerability of Austria's banking system to imbalances in the financial system or parts thereof as arising from financial interlinkages, the O-SII buffer addresses risks emerging for the financial system and the real economy from the failure of a systemically important institution. This means that the two buffers need not be fully additive to achieve the objective of improving financial stability. This warranted the quantification of a certain overlap between these two complementary buffers. In addition, due account was given to the emergence of new uncertainties, mainly related to the war in

#### **Additive capital buffers**

In addition to the microprudential minimum own funds requirements, banks are required to maintain certain macroprudential capital buffers. As these buffers complement each other in covering specific risks, they are considered to be additive. The buffers in question are the capital conservation buffer plus, where appropriate, a countercyclical buffer add-on, the systemic risk buffer and the buffer for (global or) other systemically important institutions. This mix of buffers is also referred to as combined buffer requirement.

Ukraine, higher energy prices and high inflation. Therefore, in a step-by-step approach, the additive requirements from the two buffers were defined as an add-on of no more than 0.5 percentage points for the time being. In the case of banks whose buffer requirements have increased, the FMSB recommended phasing in the new regime, in 0.25 percentage point steps per year until the full size of the buffer is reached. This was subsequently laid down by the FMA in a [regulation amending the Capital Buffer Regulation](#) adopted in 2021. Accordingly, the impact of the adjusted buffer requirements will be limited even under conservative assumptions.

The countercyclical capital buffer (CCyB) was retained at 0 percentage points in 2022. The relevant indicator for measuring the credit-to-GDP gap was below the critical threshold of 2 percentage points until the second quarter of 2022, reflecting still high nominal GDP growth. However, additional indicators on the mispricing of risks, the sound-

ness of banks' balance sheets and developments in corporate loans showed heightened cyclical risks. While high inflation, rising interest rates and high construction costs as well as very high house prices reduced demand for mortgage loans, demand for corporate loans even increased in the course of 2022. Owing to the high volatility of GDP growth in 2022 and substantial data revisions, the meaningfulness of the traditional CCyB indicator has become more limited than in previous years. In addition, the downside risks to the economic outlook for 2023 were increasing at the end of 2022. In light of this and with a view to strengthening banks' capital base in a forward-looking manner, the FMSB urged banks to exercise caution in distributing profits in 2023.

#### **Cyclical and structural systemic risks**

Systemic risk in general is the risk that a disruption in the financial system, or parts thereof, can have serious adverse effects on the financial system and the real economy. Cyclical systemic risks increase and decrease markedly over time by definition. Structural systemic risks relate to risks that are inherent in the financial system or that are intrinsically linked to individual financial market participants.

Box 4

### **Q&As on two macroprudential supervisory measures adopted in 2022: lending standards and macroprudential capital buffers**

#### **What developments have increased systemic risks in residential real estate financing?**

When real estate prices rise considerably more than incomes, households have to take on more and more debt to buy property. While the prevailing environment placed further pressure on lending standards, recommendations made by the Financial Market Stability Board (FMSB) have not worked as intended. Over the past ten years, real estate prices and the average amount of mortgage loans in Austria have doubled, while incomes have risen by only one-third. These developments have increased systemic risks. In the past, the materialization of systemic risks has led to real estate crises in many countries, entailing very high social and financial costs.

#### **How have lending standards in retail real estate financing evolved in recent years?**

Real estate lending standards had become increasingly relaxed over time. For example, in 2011, for around 80% of real estate loans, the outstanding volume was below six times the annual net income of the households concerned. By 2022, this share had dropped from 80% to 50%. In other words, households that have to borrow more than six times their annual net household income to be able to buy a property now account for half of the outstanding loan amounts. And there is a fair share of borrowers who need to take out even more than ten times their annual household net income to be able to buy their own home. Higher household indebtedness is not the recipe for affordable housing, though.

#### **Why were borrower-based measures called for?**

Borrower-based measures were necessary to prevent the buildup of systemic risks and thus mitigate losses from lending. Moreover, the measures protect borrowers from overindebtedness and its consequences. Standards for sustainable lending reduce aspects of excess in mortgage lending, such as inadequate provision of collateral, too high debt servicing burdens and overly long maturities.

### **Why are the SyRB and O-SII capital buffers crucial for financial stability?**

The systemic risk buffer (SyRB) is a macroprudential measure designed to address the existing long-term, noncyclical systemic risks in the Austrian banking system and to ensure that market exits of individual banks can be absorbed without the use of taxpayer money. It is also intended to prevent systemic risks from being “imported” into the Austrian banking system through exposures abroad. The buffer for other systemically important institutions (O-SII) addresses the systemic risk associated with the failure of a larger bank, making sure that banks need not be bailed out with public funds and thus preventing domino effects.

### **Why do the structural buffers also apply at the unconsolidated level?**

As structural systemic risks can manifest themselves at both the consolidated and unconsolidated level of a banking group, the SyRB and O-SII buffers have been designed to apply at both levels. Going forward, the four regional and mortgage banks required to maintain SyRB buffers at the consolidated level will therefore also have to hold such buffers at the unconsolidated level.

## **National and European banking supervisors have been cooperating effectively for years**

The Single Supervisory Mechanism (SSM), the system of European banking supervision

### **Close cooperation within the SSM**

While the euro area countries participate in the SSM as a rule, other EU countries may seek to participate in the SSM under close cooperation agreements between the ECB and their national supervisors. Once close cooperation has been established, the national competent authorities of these countries are full-fledged SSM members and may also join the Single Resolution Mechanism (SRM).

created in 2014, has been instrumental in enhancing the stability and resilience of the European banking system. In November 2022, the list of significant institutions established in the euro area plus Croatia and Bulgaria that are directly supervised by the ECB

included 113 institutions, 7 of which were banks established in Austria<sup>20</sup> (Sberbank Europe AG returned its license on December 15, 2022).

Close cooperation within the SSM has been in place with the Croatian and Bulgarian central banks since October 2020. In their Convergence Reports published in early June 2022, the ECB and the European Commission concluded that Croatia fulfilled the economic and legal convergence criteria for joining the euro area. The formal decision approving Croatia's accession to the euro area from January 2023 was taken in July 2022. Close cooperation between Bulgaria and the ECB within the SSM remains in place.

Box 5

## **Q&As on the OeNB's contribution to effective banking supervision**

### **How does the SSM work?**

Banking supervision on a pan-European scale – the Single Supervisory Mechanism (SSM) – became operational in the euro area in 2014 as laid down the [SSM Regulation](#). Since then, the ECB has been directly responsible for supervising significant institutions, whereas the national supervisory authorities continue to be responsible for less significant institutions. However, to ensure consistent and high-quality supervisory practices, the ECB indirectly oversees the supervision of less significant institutions.

### **How does the OeNB participate in the supervision of significant institutions?**

Significant institutions are supervised by joint supervisory teams, composed of staff from the ECB and the national supervisory institutions, i.e. FMA and OeNB staff members in the case of Austria.

<sup>20</sup> As on November 1, 2022: Addiko Bank AG, BAWAG Group AG, Erste Group Bank AG, Raiffeisen Bank International AG, Raiffeisen-bankengruppe OÖ Verbund eGen, Sberbank Europe AG (under resolution) and Volksbank Wien AG. For updates, see the ECB's [list of supervised entities](#).

**What is the OeNB's role in banking supervision?**

In banking supervision, the OeNB is responsible for fact finding. We conduct on-site inspections of significant institutions on behalf of the ECB and of less significant institutions on behalf of the FMA, and produce analyses and expert opinions.

**What tools does the OeNB use in supervising credit institutions?**

The ongoing supervision of banks (off-site analysis) is essentially about monitoring the risk situation of the supervised credit institutions. The OeNB above all gathers information from data and reports submitted by banks under regulatory reporting, conducts regular meetings with banks, produces on-site inspection reports, carries out regulatory stress test calculations and establishes recovery plans. On top of this, we have put in place a supervisory review and evaluation process (SREP), which serves to assess the adequacy of the supervised institutions' business model, risk management and capital and liquidity situation once a year.

**What measures have been adopted to strengthen banking sector resilience?**

In line with the risk-oriented supervisory approach, analyzing the risks in the banking sector is a joint effort by the ECB, the European Banking Authority (EBA) and the national supervisory authorities. Annual assessments are translated into strategic priorities for the coming year. For 2023, the OeNB and the FMA defined the following joint focus areas for banking supervision in Austria: (1) enhance banking sector resilience and financial stability, (2) improve lending standards, (3) urge banks to visibly step up the coverage of climate-related and environmental risks in their risk management, strategy and governance efforts, (4) keep adjusting regulations to continuously adapt supervisory methodologies, processes and tools to new rules and findings, (5) promote digital transformation and address risks arising from information and communications technology and (6) guide the supervised institutions in strengthening their governance structures. These objectives are aligned with the supervisory priorities defined at the SSM level and by the EBA for 2023.

**On-site inspections focus on commercial real estate and corporate financing**

While in previous years on-site inspections of significant institutions had mainly been driven by pandemic-related considerations, in 2022 the focus shifted to the impact of geopolitical changes, the weakening of the economy and rising interest rates on the risks involved in credit exposures. In Austria, the focus of banking supervision was also very much on commercial real estate and corporate and SME

financing. In this respect, it has been noted repeatedly that the recent changes in the economic environment have not been leading to significantly more credit defaults at the supervised banks. Risk provisioning requirements are, however, expected to rise in the years ahead. From a supervisory perspective, the early identification of problematic credit exposures is of particular importance in this context.

Box 6

**Bank resolution and crisis management: the case of Sberbank Europe AG**

*Sberbank Europe AG (SBEU), operating from Vienna, reported a dramatic deterioration of its liquidity situation immediately upon Russia's invasion of Ukraine on February 24, 2022. Consequently, on February 27, 2022, the Supervisory Board of the ECB assessed SBEU as failing or likely to fail. Based on this assessment, the competent resolution authority, the Single Resolution Board (SRB), stepped in to take the necessary decisions on how to proceed. The SRB concluded that public interest did not call for taking resolution action because the statutory resolution objectives (in particular the objective of avoiding adverse effects on financial stability in Austria) were ensured even without the application of these resolution measures. Therefore, the SRB stepped back and the*

*national supervisory authorities took over to oversee the process of winding down the bank's operations outside the resolution regime. On March 1, 2022, acting upon instructions from the ECB, the FMA requested SBEU to discontinue its operations on the grounds of imminent insolvency, which triggered a payout event under the Austrian deposit guarantee scheme.*

*This made it possible to prevent the insolvency of SBEU and kick off the orderly wind-down of SBEU's operations, supervised by the Austrian authorities in consultation with the ECB. During this orderly wind-down, all the financial resources provided temporarily out of the Austrian deposit guarantee scheme (EUR 941 million) were returned in full by SBEU. This means that no financial burden was imposed on the deposit guarantee scheme and that negative financial repercussions on Austrian banks could be prevented. SBEU also managed to service all its other creditors on time under the applicable sanction regime and the resolution plan.*

*Banking operations were wound up as planned and SBEU returned its banking license on December 15, 2022. SBEU's subsidiaries have already been sold under separate resolution procedures or are currently in liquidation.*

*Despite the high complexity of the case and the many different actors involved, the SSM, the SRB and the national supervisory and resolution authorities (in Austria: the OeNB and the FMA, with some involvement from the Federal Ministry of Finance) managed to respond quickly and effectively to the SBEU crisis on just one week-end. This made it possible to safeguard financial stability even in this challenging situation and to avert potential damage from SBEU depositors and Austrian taxpayers.*

*Owing to the structural complexity of the banking group, with several subsidiaries in EU and non-EU countries as well as a significant branch in Germany, and the sanctions against Russia, the orderly resolution of SBEU was quite a challenge for all players. The various national supervisory and resolution authorities worked hand in hand effectively and lessons learned can serve as a roadmap for further improving this cooperation.*

## Recent developments in banking regulation

Following proposals by the European Commission on the Banking Package 2021, i.e. amendments to the Capital Requirements Regulation (CRR III) and the Capital Requirements Directive (CRD VI), and following intense negotiations, the European Council reached a political agreement in November 2022 on a general approach on how to implement the globally agreed Basel III reforms in the EU. One of the key measures agreed upon is to apply an output floor to limit the risk weights banks determine by using internal models to 72.5% of the capital

requirements that would apply if they used the standardized approach.

The general approach agreed upon also includes the enhanced integration of environmental, social and governance (ESG) risks in banks' reporting and disclosure frameworks, stress testing, SREP processes and

transition planning with regard to addressing sustainability issues, including ESG risks. The corresponding regulatory activities should be seen in conjunction with other provisions resulting from the European Commission's Sustainable Finance Action Plan. To help achieve the objectives defined in the action plan (reorienting capital flows toward sustainable investment, addressing financial sustainability risks, increasing transparency), European legislators have adopted an EU regulation introducing a sustainable investment taxonomy and sustainability-related disclosure requirements for financial service providers and as well as an EU directive on corporate sustainability reporting. As larger and increasingly standardized datasets are being built given the new reporting requirements, these provisions will ensure that the compatibility of firm and bank activities with sustainability objectives and associated risks will become easier to assess.

Trilogue negotiations between the European Council, the European Commission and the European Parliament to finalize the Banking Package 2021 are expected to start during the first half of 2023.

### Output floor

Capital requirement floor set by the Basel Committee on Banking Supervision at 72.5% of capital requirements calculated with the standardized approach for credit risk. The underlying idea is that the capital requirements calculated using internal models should not deviate excessively from the level that would result from applying the standardized approach. Conversely, capital requirements must be no more than 27.5% below those calculated with the standardized approach.

In 2022, the EBA conducted the first mandatory quantitative impact study (QIS) on the Basel III reforms with December 31, 2021, as the reporting date. The Austrian sample consisted of ten credit institutions, which between them cover around 70% of the risk-weighted assets of the Austrian banking sector. While capital requirements for EU-domiciled banks will increase by around 11.5% based on the European Commission's legislative proposal to finalize the implementation of Basel III in the EU, the increase remains significantly lower for Austrian banks (less than 1%).

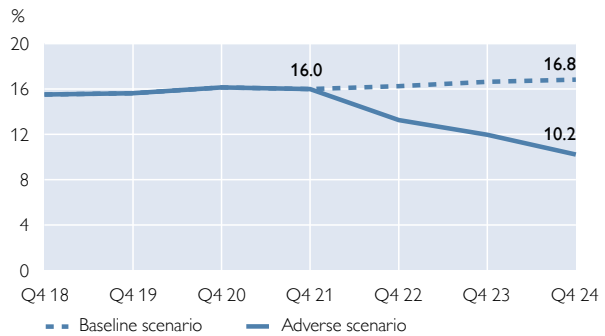
In addition, the EU's crisis management and deposit insurance (CMDI) framework is being revised. Based on the experience of the past eight years, individual areas for improvement of the existing framework were identified in 2022. Key issues relate, for example, to the use of deposit insurance funds in the event of a crisis, government assistance to banks and the exit of medium-sized banks with high deposits. The European Commission is expected to publish its revision proposal in 2023.

The proposal for a regulation on crypto-assets (MiCA) has been the subject of intense debate since September 2021. MiCA is expected to enter into force in 2023 and will be applicable from 2024 or later. Rules on various crypto tokens and on the licensing of crypto-asset service providers are to be introduced in stages up to 2026.

The Digital Operational Resilience Act (DORA), finally, will make an important contribution to enhancing operational resilience and the resilience of digital systems in the financial sector. It includes, inter alia, arrangements for managing IT risks, conducting cyber threat testing, responding to cyber incidents and supervising critical IT service providers. The DORA regulation entered into force at the beginning of 2023 and will apply from the beginning of 2025. The OeNB and the FMA are closely involved in the European preparatory work for its implementation.

Chart 16

#### CET1 ratio of Austrian banking sector shrinks by 5.8 percentage points in adverse stress scenario



Source: OeNB.

#### OeNB stress tests find Austrian banks to be resilient even in the current environment

Different stress test scenarios generate a range of “what if” assessments, serving as an alert mechanism that helps identify potential adverse developments in good time. Stress tests are one among several tools used to arrive at an overall risk assessment for individual banks or the banking sector as a whole. The OeNB conducts annual stress tests for all Austrian banks and continued to do so in 2022, examining the entire Austrian banking system from various perspectives and analyzing capital, liquidity and contagion risks. The OeNB's stress test assumed a macroeconomic scenario involving a further escalation of the war in Ukraine, energy supply disruptions and a sharp global recession amid rising inflation and interest rates.

Domestic banks were found to be resilient even under the adverse scenario. While the stress test knocked 5.8 percentage points off banks' CET1 capital, they still had an aggregate CET1 ratio of 10.2% (chart 16). This rate exceeds the levels observed prior to the financial crisis of 2008 and 2009, despite the rigorous assumptions applied. Given growing uncertainty and an increasingly difficult economic environment, Austrian banks should, however, act with particular care when it comes to distributing profits.

### **ECB sees room for improvement in banks' assessment of climate-related risks following climate risk stress test**

In 2022, the ECB conducted a climate risk stress test involving national supervisors. The calculations were carried out by the participating banks themselves in a bottom-up approach, using the methodology centrally specified by the ECB. The climate stress test consists of three separate modules: (1) a qualitative questionnaire on banks' internal stress testing procedures; (2) the calculation of predefined climate risk metrics; and (3) the computation of several short- and long-term scenarios for a subset of directly supervised significant institutions. The stress test, which is basically a

learning exercise, feeds into the annual supervisory assessment of participating banks on a qualitative basis. The results across participating banks are heterogeneous, with stress-testing capacities and data availability for climate-related risks not yet in line with the ECB's expectations. The ECB therefore recommends that banks improve their data and methodologies for internal stress testing. In addition, the ECB will monitor related progress in the supervisory process. The OeNB conducted its first climate risk stress test in 2021, examining the introduction of a greenhouse gas tax in different scenarios. This stress test was calculated in a top-down approach by the OeNB and yielded results at the sectoral level.



Playful financial literacy. The Oesterreichische Nationalbank supports financial education across all school levels and also offers teacher training.

**#EURO  
at 20**

€NB

## Enhanced OeNB statistics meet high demand for top-quality data

### Our statistical products and services continue to evolve

It takes reliable statistical data to make informed decisions and to develop innovative applications for virtually all areas of life. As a leading provider of financial and economic statistics in Austria, we seek to offer our statistical products and services in a timely manner, in state-of-the-art fashion and tailored to the needs of our target audiences. In 2022, we made a particular effort to improve data visualization by using dashboards, such as for data on [foreign direct investment \(FDI\)](#). In addition, we worked on enabling advanced [user-defined queries](#) (in German), for instance, to ensure better access to the growing range of data we provide (more than 400 tables at present). We use complex systems to support the collection, processing, release and dissemination of statistics, working closely with numerous domestic and foreign reporting entities as well as target and interest groups. To be able to meet high organizational, legal, economic and technical standards and to keep improving the benefit of our statistics for society, we steadily enhance our data strategy and the framework for systematic data governance.

### Our new data strategy supports data opening and strengthens client orientation

Under our new OeNB-wide data strategy, which was adopted in the summer of 2022 for the period from 2022 to 2025, we seek to make the shift from a data-savvy institution to a data-driven institution. In a rapidly changing environment that is characterized by strong growth in data volumes and data complexity, ever-evolving legal requirements and swift technological advances, this shift will help us continue to fulfill our tasks in the best possible way. Our data strategy focuses on the following four fields: (1) data opening and data efficiency, (2) customer orientation and compliance, (3) data competence and data culture, and (4) innovation and

infrastructure. Implementing this structured approach calls for an integrated data design and governance framework that is applied across the OeNB.

Data opening implies making data readily accessible through self-service portals. The idea is to enable data users to work with the available data unassisted, i.e. without

requiring input from data producers, and in a decentralized fashion. Data governance processes are intended to address potential redundancies and forestall the generation of conflicting or interchangeable data products.

To meet client needs, data must be managed adequately. The challenge is to produce meaningful descriptions and simplify data and product searches. To this effect, we are working on a data dictionary and other ways to provide relevant information.

#### Data governance

A framework for managing the availability, usability, integrity and security of data in business systems with a dedicated set of processes, roles, institutions, policies and standards. Data governance aims to increase data use.

### Progress made with ESCB-wide efforts to steadily enhance the reporting framework

The ESCB-wide initiative to harmonize statistical reporting in line with the [Eurosystem Integrated Reporting Framework \(IReF\)](#) aims to reduce the reporting burden for commercial banks while enhancing data quality and analytical flexibility. This initiative thus contributes essentially to reaching the objective, defined by the European Parliament and the EU Council, of an overall integrated reporting system for banks combining reporting for supervision, resolution and monetary policy purposes. In 2022, the ECB set up the IReF framework and launched the nontechnical design phase, with active support from staff seconded from the ESCB national central banks. This phase, scheduled until April 2023, is to be followed by a nontechnical exploratory phase, for which the ECB intends to seek the approval of the Governing

Council in April 2023. Harmonized IReF reporting is due to start in 2027.

In parallel, a newly established ESCB Working Group on Integrated Reporting and Data Dictionary, chaired by the OeNB, has been working closely with IReF program managers. The working group has been active since early 2022 and has two main tasks: (1) support the ESCB Statistics Committee in all matters relating to IReF, including the development of the integrated reporting framework and a corresponding regulation; (2) establish, in cooperation with relevant joint working groups of the ECB and the European Banking Authority (EBA), a common set of data for the overall integrated reporting system for statistical, supervisory and resolution purposes.

At the OeNB, an integrated reporting system has been in place for years. Early in 2021, we started a two-year subproject, aimed at technically upgrading the integrated reporting data model to improve access to related documentation for reporting agents, technical partners and data users, and to facilitate further upgrades and maintenance. All project objectives were achieved by the end of 2022, including the transfer of the complete documentation to a tailor-made application which allows for interactive data processing (e.g. establishing how reported data points relate to each other).

#### **Technical Support Instrument (TSI)**

EU program providing EU member states with tailor-made technical expertise to design and implement reforms.

### **Supervisory data reporting to be made easier for reporting agents**

Furthermore, 2022 saw the implementation of initial recommendations to reduce the reporting burden at the European level, based on a cost-benefit analysis carried out in 2021 to find out how to make reporting under current EBA reporting requirements more efficient, especially for small, noncomplex banks. From mid-2023 onward, the reporting burden will therefore be considerably eased, especially with regard to liquidity reporting requirements.

In 2022, the ESCB Working Group on AnaCredit focused on data quality assurance in the

context of AnaCredit, the database set up to compile and make available granular credit and credit risk data in a harmonized manner across the euro area. Another priority was to provide optimum support to data users from fellow central banks and supervisory authorities, in particular in the context of the Single Supervisory Mechanism (SSM).

### **Harnessing technology to detect unusual developments in the banking sector**

In 2022, the OeNB continued its multiyear research project on how to better identify patterns that point to gross irregularities at individual banks. In this exercise, we aim at developing adequate procedures, models and algorithms for evaluating all available data, including newly available data sources. In addition, the OeNB and the FMA together successfully applied for technical support in tapping additional data sources under the European Commission's Technical Support Instrument (TSI). The issue at question here was which newly available public data might be used to unveil implausible and unusual developments at banks with the help of innovative statistical procedures, including machine learning.

In our multiyear research project on harnessing technology to identify banking irregularities, we made notable progress in 2022 in several machine learning subdisciplines, in particular with regard to unsupervised and supervised learning techniques. We currently work on developing an application based on unsupervised machine learning. The benefit of such applications is that they can handle the vast amount of supervisory data that are being reported to the OeNB. Supervised learning tools, by contrast, apply supervisory expert knowledge as benchmarks ("labels"), enabling us to train innovative automated models to come up with potentially better answers to specific questions ("How likely is Bank X to turn into a problem bank?"). In addition, we also continued to work on a prototype for natural language processing, which might be used to translate texts into machine-readable computer code, thus significantly broadening the range of input data.

### Another milestone in improving our external statistics and payment statistics

2022 saw the successful completion of a three-year project aimed at integrating new data processing systems rolled out for external statistics and financial accounts into the OeNB's IT system architecture. In parallel, we created a new reporting structure for external statistics and implemented new ECB legal requirements. In addition, we started to use a new online reporting application ("MeldeWeb"). All statistical information to be handled by the OeNB is now being processed and evaluated in an integrated state-of-the-art system infrastructure. With our harmonized framework for compiling the balance of payments and the financial accounts we have raised the bar for collecting statistics in Europe.

2022 marked the first year in which the OeNB received more extensive data reports (in terms of data quantity and granularity) on all cashless payment transactions from Austrian payment service providers. Importantly, reporting has been enhanced to include detailed information on fraudulent payments, in line with the ECB regulation on reporting requirements on payments statistics (as amended) and the EBA Guidelines on fraud reporting. To limit the burden on reporting institutions, the range of data to be reported to the ECB and the EBA has been harmonized within the ESCB. Further events of note include the amendment of the Payment Services Act, at the national level, and the conclusion of a Memorandum of Understanding between the EBA and the ECB, at the international level. At the OeNB, we also use these data to calculate travel and tourism revenue and expenditure, for the purpose of payment system oversight and to monitor compliance with sanctions regulations.

### Advances in credit assessment and models

To support central banks using an in-house credit assessment system (ICAS) to assess non-financial corporations, the Deutsche Bundesbank and the OeNB have developed and put in place a common rating platform called CoCAS (Common Credit Assessment System). Preparations to fully bring on board the Bank of Greece as a new user of both the CoCAS platform and the International Financial Reporting Standards (IFRS) model were completed in 2022. The ICAS Expert Group, chaired by the OeNB, worked on drafting minimum standards for incorporating climate-related risks into the in-house credit assessment systems used by the Eurosystem and to prepare the respective decision to be taken by the Governing Council of the ECB.

Moreover, models used in banking supervision were enhanced to use granular data to assess credit spread risks and credit concentration risks. Last but not least, in the European Committee of Central Balance Sheet Data Offices (ECCBSO), an advisory body for questions relating to corporate balance sheet data set up at the initiative of the European Commission in 1987, the OeNB handed over the chair to the Deutsche Bundesbank at the end of its three-year term. Under the auspices of the Bundesbank, the ECCBSO will continue to focus on data integration, sustainability issues and climate-related risks.

#### Financial accounts

As an integral part of Austria's national accounts, the financial accounts record the financial transactions made and the assets accumulated and liabilities incurred by all sectors of the Austrian economy.

#### Common Credit Assessment System (CoCAS)

System developed by the Deutsche Bundesbank and the OeNB to assess the credit quality of amounts outstanding to nonfinancial corporations (credit claims). The OeNB uses CoCAS as its in-house credit assessment system (ICAS) in line with Eurosystem standards.



## Secure and efficient payments as a cornerstone of economic activity

### The OeNB ensures smooth cash management

Euro banknotes in circulation saw a boost in 2022 as a result of the war in Ukraine. As people tend to use cash more heavily as a store of value in times of great uncertainty, cash in circulation typically grows strongly in times of crisis. Recent cases in point include the outbreak of the COVID-19 pandemic in 2020, Russia's latest currency crisis following the marked depreciation of the Russian ruble in 2015, and the financial crisis in 2008 and 2009. Thus, the value of euro banknotes in circulation jumped by 9.1%, in annual terms, at the end of April 2022.

Banknote circulation typically shows significant seasonal peaks, e.g. in the Christmas shopping period. In the second half of 2022, euro banknotes in circulation followed an uncharacteristic downward trend for a number of months as the ECB raised its deposit facility rates in several steps. As a result, Austrian banks reduced their holdings of euro cash from around EUR 12 billion at end-2021 to

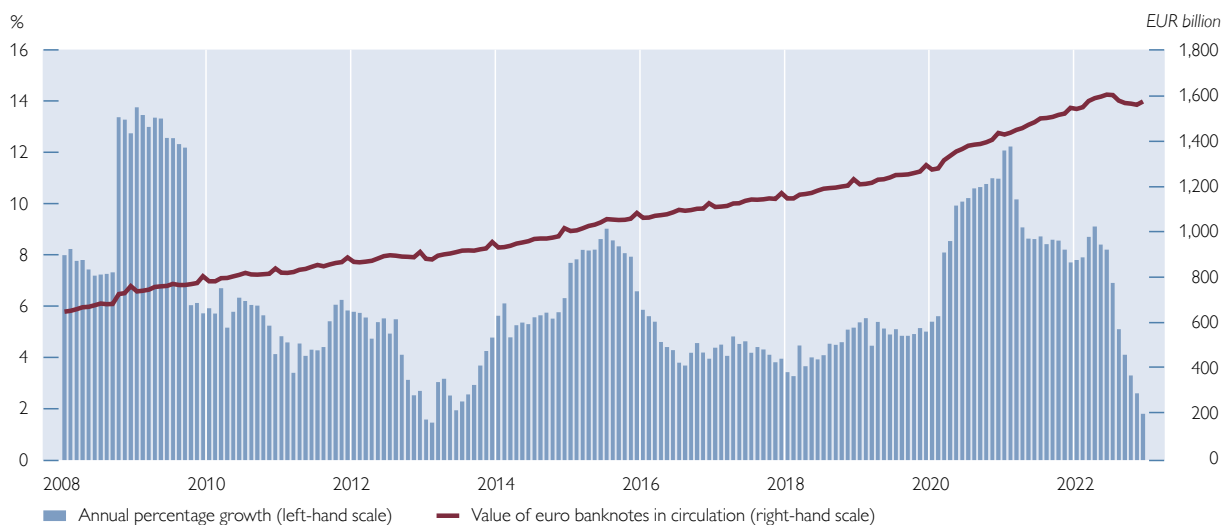
EUR 3.8 billion at end-2022. With banks across the euro area cutting their euro cash holdings by around EUR 39 billion in total, the volume of euro banknotes in circulation went down significantly.

Ultimately, at the end of 2022, a total of 29.45 billion euro banknotes with a value of EUR 1,571.99 billion were in circulation (chart 17). This corresponds to an annual rise of 4.5% in terms of volume and 1.8% in terms of value. Regarding the share of EUR 200 banknotes in circulation, the annual growth rate declined from around 34% at end-2021 to 2.3% at end-2022.

The volume of euro coins in circulation continued to grow steadily. Unlike banknotes, coins are, after all, mainly used for payment transactions rather than as a store of value. On December 31, 2022, 8.5 billion euro coins worth EUR 1.9 billion were in circulation in Austria – a year-on-year rise by 197 million coins or EUR 73.9 million in value. This increase can be observed across all denominations.

Chart 17

### Value of euro banknotes in circulation up 1.8% at end-2022



Source: ECB.

### Our new web application shows ATM accessibility across Austria

For three years, the OeNB has been analyzing the accessibility of automated teller machines (ATMs) in Austria. The results show that people living in Austria tend to have good access to ATMs. At end-2021, the closest ATM was within a distance of 1.1 km (2020: 1.1 km; 2019: 1.2 km) for the population at large – a three-minute drive on average. Two-thirds of the Austrian population live less than 1 km from the nearest ATM, and for 97%, the nearest ATM is less than 5 km away. These figures have remained unchanged since 2019.

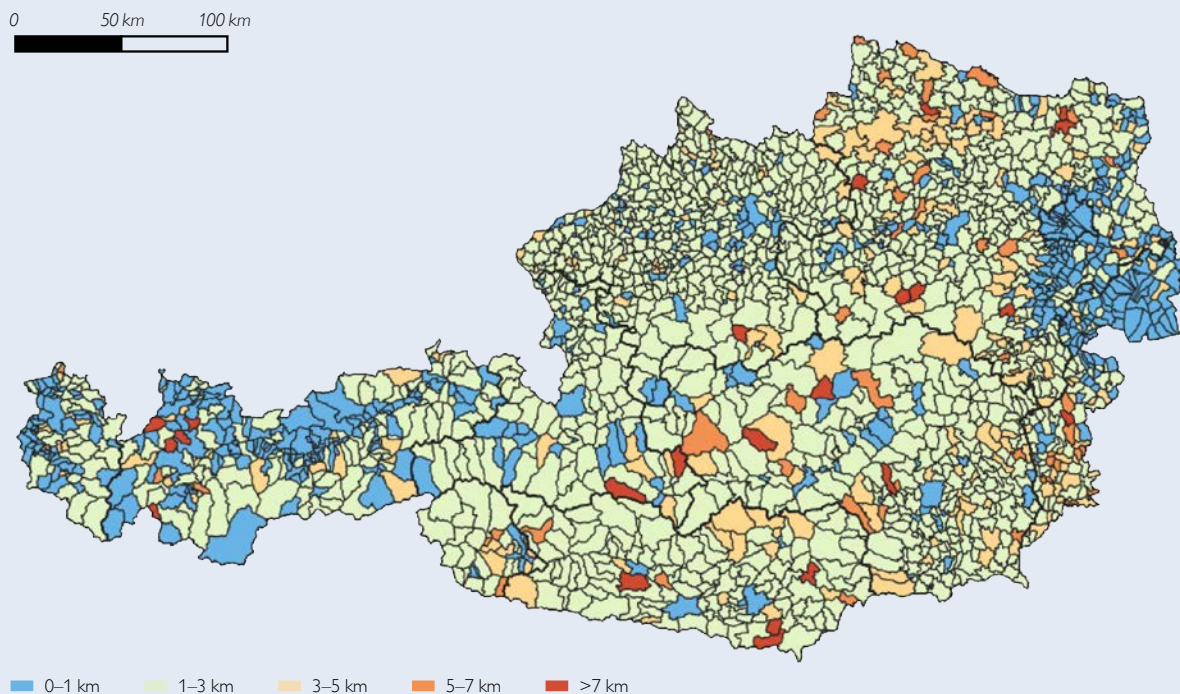
At the municipality level, the number of inhabitants strongly correlates with the average distance to the nearest cash access point. In smaller municipalities with less than 2,000 inhabitants, the average distance to the nearest ATM is 2 km, compared with 380 m for Vienna. Only from a relatively small number of villages all over Austria do people have to travel more than 5 km, on average, to reach the nearest ATM. On average, those are places with some 800 inhabitants.

Around 15% of Austrian municipalities did not have any ATM at the end of 2021. From these places, the average distance to the nearest ATM is 3.8 km on average. People living in municipalities that have ATMs, by contrast, can reach the nearest ATM within 1.7 km on average.

The OeNB's research into ATM accessibility led to the development of an interactive [web application](#) (in German) that offers a detailed regional breakdown for Austria. Users can consult a map (figure 2) that shows the average distance to the nearest ATM for each of the 2,096 Austrian municipalities and also for each district in Vienna. In addition, a series of tables show average distances and travel times as well as the share of the population living within a distance of more than 5 km from the nearest ATM. Thus, results can be compared across municipalities, districts and provinces.

Figure 2

### Short travel distance to nearest ATM for most Austrian residents – a breakdown by municipalities



Source: OeNB, Statistics Austria.

Note: All results and municipal borders refer to 2021.

In line with its mandate to ensure cash supply in Austria, in 2022 the OeNB carried out extensive analyses and evaluations on how to guarantee the provision of cash in the event of a blackout (see section Our blackout contingency plan is in place). After all, cash is the only means of payment that also works when there is no electricity. For this reason, the OeNB advises households to stow away around EUR 100 worth of cash in small denominations for each household member, or the equivalent of two weeks' shopping. In a series of outreach activities planned for 2023, we will strive to raise public awareness for the importance of keeping cash reserves.

In the reporting year, the Eurosystem began preparations for redesigning the euro banknotes and drafting a potential new series. A multidisciplinary theme advisory group consisting of one member from each euro area country compiled a list of potential themes for the new series, from which one theme will be chosen in 2023. The Eurosystem plans to present the new banknote design to the public in 2024 following a design competition. The redesign initiative aims to ensure that euro cash remains a secure means of payment and a symbol of European cohesion.

### Croatia's initial supply of euro cash comes from Austria

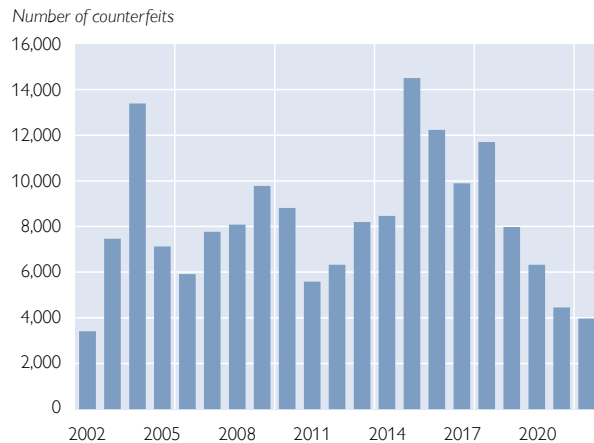
Within the Eurosystem, the OeNB has established itself as a cash supply and logistics hub. Given Austria's geographical location, our expertise in cash logistics and our excellent cooperation with the Croatian central bank, we were able to make a major contribution to the euro cash changeover in Croatia on January 1, 2023. On behalf of the Eurosystem, the OeNB delivered the initial supply of euro banknotes to Croatia, providing the central bank with a total of 346.4 million banknotes in all denominations, worth around EUR 9 billion.

### Euro counterfeits in Austria continue to decline sharply

In line with their legal mandate, the OeNB and its subsidiaries provide people living in Austria and the Austrian economy with secure euro

Chart 18

### Number of counterfeits recovered in Austria continues to decline



Source: OeNB.

banknotes and coins and monitor the volumes and quality of euro cash in circulation. In 2022, the OeNB brought a total of around 1.4 billion euro banknotes into the cash cycle, while around 1.6 billion banknotes were returned to the OeNB. Returned banknotes are processed, checked for authenticity and fitness, and then recirculated. The OeNB is not solely responsible for cash processing but shares this task with credit institutions, bureaux de change and cash-in-transit companies.

The number of counterfeit euro banknotes recovered from circulation continued to decrease rapidly in 2022. In total, 3,971 counterfeits were seized in Austria in the reporting year (2021: 4,456 counterfeits; chart 18). Forged EUR 50 banknotes topped the list in 2022 (1,780 counterfeits recovered), followed by counterfeit EUR 20 banknotes (781) and EUR 100 banknotes (759). Together, these three denominations accounted for 83.6% of the total number of counterfeits seized in Austria in 2022. The situation across Europe was very similar, with counterfeits of the EUR 50, EUR 20 and EUR 10 banknotes together accounting for around 79% of all counterfeits recovered in the reporting year.

As in previous years, most incidences of counterfeit banknotes in Austria continued to be recorded in Vienna (46.1%), followed by

Lower Austria (12.6%) and Upper Austria (11.7%). In 2022, the overall damage caused by euro counterfeits in Austria came to EUR 244,405 (2021: EUR 272,515). At 1.0%, Austria's share in the total volume of counterfeits recovered from circulation in the euro area remained relatively low. This means that most people have only a minimal chance of coming across counterfeit banknotes in Austria.

### Providing unrestricted cash payments remains important

#### Results of the latest OeNB survey on payment behavior in Austria

##### Point of sale (POS)

Place where goods or services are sold and paid for. A typical POS is a cash register in a store. POS terminals can also be found in restaurants, hotels, service stations and other facilities.

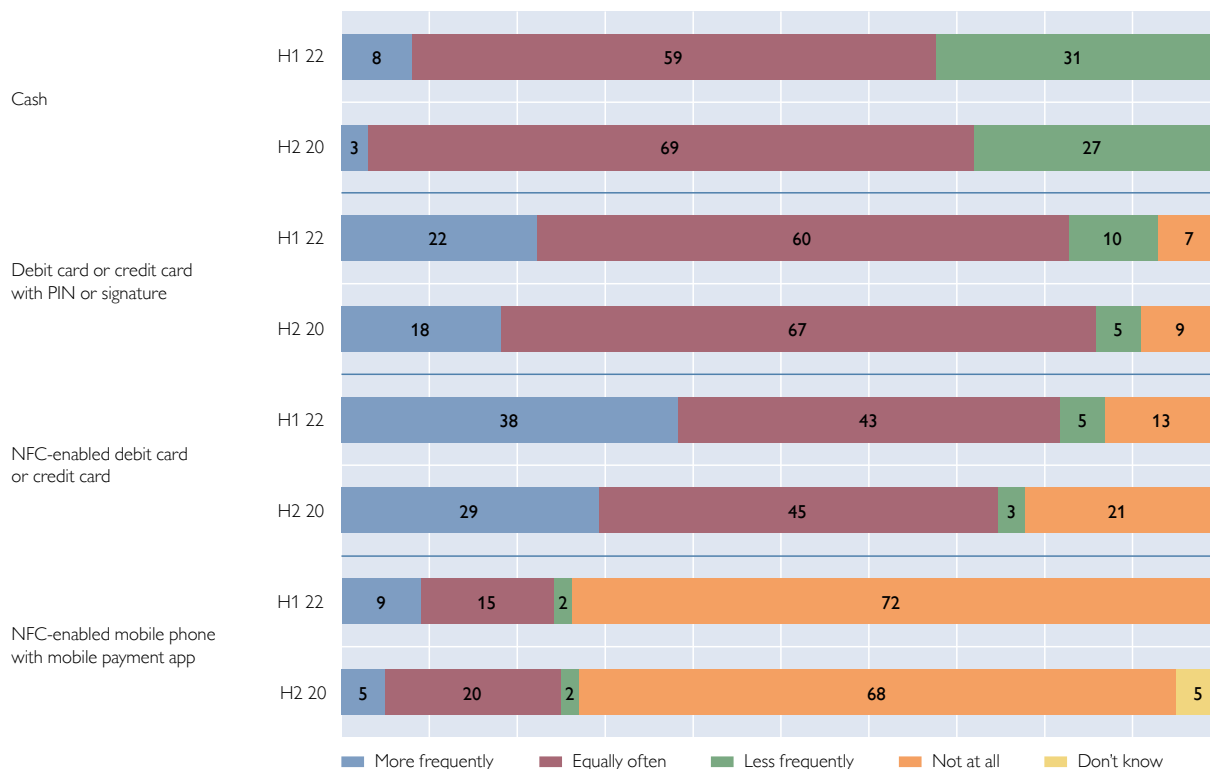
In 2022, the Institute for Empirical Social Studies (IFES) again conducted a country-wide survey on behalf of the OeNB, covering the payment

behavior of households (women and men from the age of 15). This survey feeds into the OeNB Barometer survey. Data were collected from the end of May to mid-August 2022 and are representative for Austria in terms of respondents' age, gender and province of residence. The results provide interesting insights into people's most recent payment behavior compared to their payment behavior in the first year of the pandemic (i.e. in the second half of 2020). Recalling their payment habits in the first half of 2022, just over two-thirds (67%) of respondents said that they had paid in cash more often (8%) than in the reference period, or just as often (59%). Only 31% said that they had used cash less frequently than back then. The share of respondents who said they had used cash even more frequently than in the second half of 2020 went up markedly, namely by 5 percentage points to 8% (chart 19).

Chart 19

### Austrians still prefer cash

Use of payment instruments in % of respondents



Source: OeNB.

A demographic analysis of 2022 survey results shows that people's preference for cash payments increases with age: 7% of respondents aged 45 to 59 years said they preferred paying in cash, while for the 60+ age group, the comparable share is just under one-fifth (18%). Of those below the age of 30, 6% shared their intention to start using cash more often, while the share of those who answered "Don't know" was rather high at 13%. In other words, while the youngest age group strongly leans toward cashless payments, their share of cashless payments may still be subject to further changes. Overall, cash remains the number one means of payment that almost all respondents (99%) reported to be using at the point of sale (POS).

Card payments with PIN or signature continue to be the preferred option for 60% of respondents – a figure that has not changed since the first months of the pandemic. In the first half of 2022, the share of respondents who said they had been using card payments more frequently increased to 22%. The largest relative increase, by 9 percentage points compared to the second half of 2020, was recorded in contactless payments with NFC-enabled cards, which were named by 38%, i.e. more than one-third, of respondents. Only around one-quarter (26%) of respondents claimed they used NFC-enabled mobile phones with corresponding mobile payment apps, which makes mobile payments the least frequently used means of payment in Austria (chart 19).

The trend toward using cashless payments more frequently is attributable to the COVID-19 pandemic, and in particular to the misconception that using cash increased the

risk of contagion, as had been communicated to the public at the outset of the pandemic. This is not the case, however, as an ECB study<sup>21</sup> has shown. In reaction to these find-

ings, 9% of those respondents who indicated that they had been using cash less frequently said that they would go back to using cash more often; 13% said that they were still undecided.

The majority of respondents clearly opposed the introduction of upper limits for cash payments. 62% agreed that it should remain possible to make payments in excess of EUR 10,000 in cash. Having the possibility to make cash payments was considered even more important for smaller amounts. For instance, 94% of respondents said that making payments of EUR 500 in cash should continue to be possible. These results clearly demonstrate that people living in Austria attach great importance to having the option of paying in cash. Survey results also confirmed that cash payments are widely used and accepted all across Austria: Nine out of ten respondents stated that, within the last 12 months, they had been able to pay in cash anywhere they had intended to.

### **An international comparison confirms the importance of cash**

Between October 2021 and June 2022, data on the payment behavior of euro area households were collected for an ECB study<sup>22</sup>. Published at end-2022, the results at the aggregate level show a high degree of consistency with OeNB Barometer data.

#### **Near field communication (NFC)**

A radio standard for wireless data transmission over short distances that is also used for making payments. Bank cards and mobile phones equipped with NFC chips serve to make contactless payments at POS terminals.

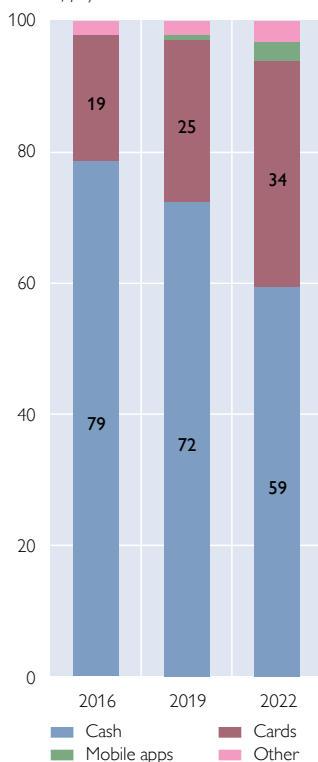
<sup>21</sup> Tamele, B., A. Zamora-Pérez, C. Litardi, J. Howes, E. Steinmann and D. Todt. 2021. *Catch me (if you can): assessing the risk of SARS-CoV-2 transmission via euro cash*. ECB Occasional Paper Series No 259.

<sup>22</sup> ECB. 2022. *Study on the payment attitudes of consumers in the euro area (SPACE)*.

## Cash remains popular in the euro area and Austria

### Cash payments at the POS decline but remain dominant in the euro area

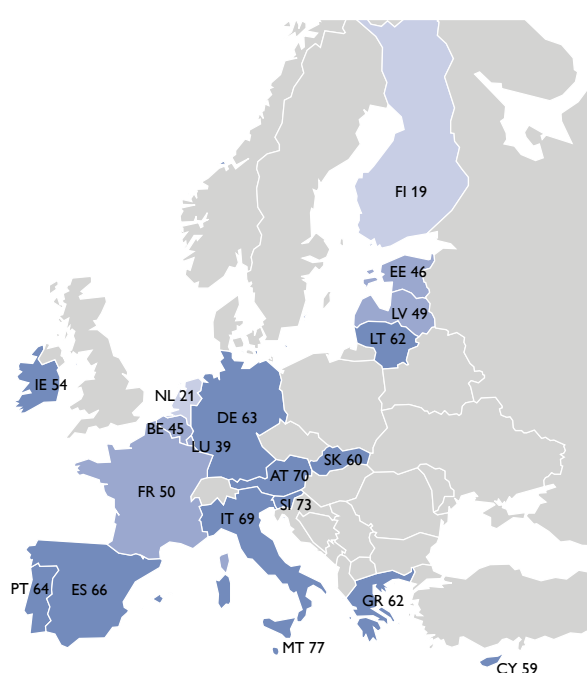
Share of payment instruments in POS transactions, %



Source: OeNB, ECB (SPACE, 2022).

### Share of cash payments at the POS in Austria and other euro area countries

%



Source: OeNB, ECB (SPACE, 2022).

The ECB study confirms the clearly positive trend in cash perception that was observed in Austria: 60% of respondents to the ECB's survey considered it important to be able to pay in cash. This figure is 5 percentage points higher than in 2019. Most frequently, respondents named the protection of privacy and the ease of keeping track of their expenses as the key advantages of cash. Cash remains the most commonly used means of payment at POS terminals in the euro area as a whole, accounting for a share of 59% in overall POS payments (chart 20, left-hand panel). Following a pandemic-related decline in 2021, the share of cash transactions at POS terminals in Austria rose from 66% to 70% in 2022 (chart 20, right-hand panel).

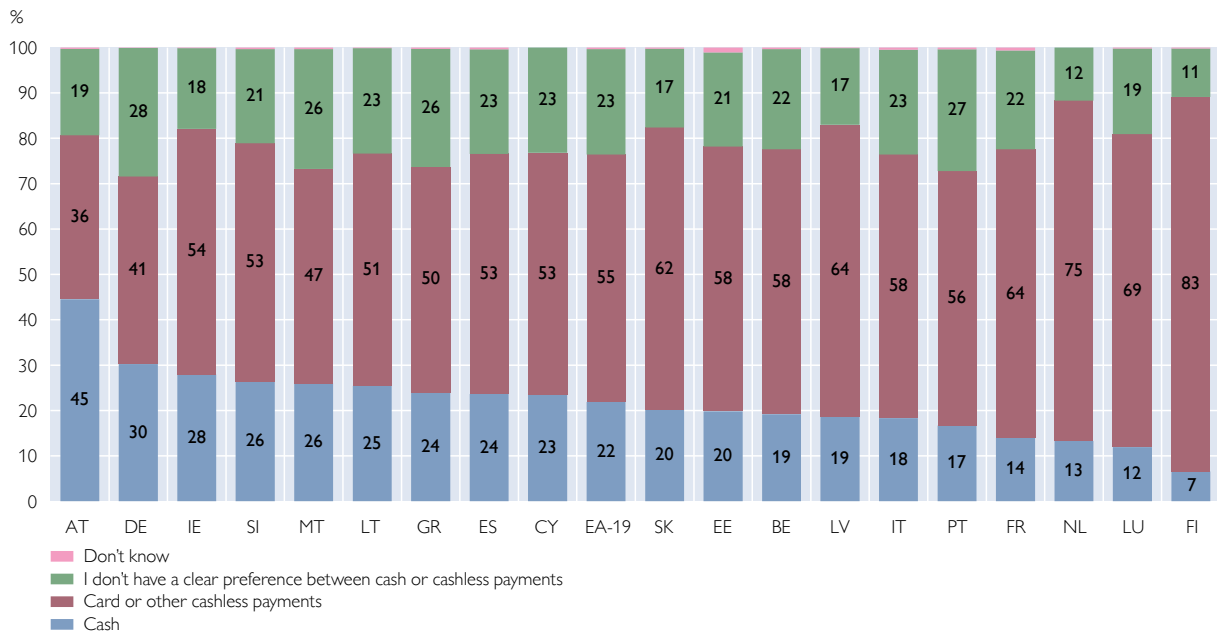
Accounting for 46% of the overall value of POS payments in the euro area, however, card

payments surpassed cash payments (42%) for the first time in 2022. Still, cash payments outnumber card payments (59% vs. 34%; chart 20, left-hand panel).

The share of online payments almost tripled from 6% in 2019 to 17% in 2022. The highest shares of online payments were reported in Belgium (24%), Austria and Ireland (both 21%). Online payments were mainly used to buy food and daily necessities from supermarkets and restaurants.

In contrast with the global trend toward card payments or other forms of cashless payments, people's preference for cash payments has increased by 3 percentage points in Austria since 2019. In terms of cash affinity, Austria thus continues to hold a top position in the euro area. 45% of Austrian consumers prefer to pay in cash, 36% prefer card payments or other

Chart 21

**Euro area comparison 2022: cash remains preferred means of payment in Austria**

Source: OeNB, ECB (SPACE, 2022).

Note: EA-19 = the 19 euro area countries.

cashless payments, and 19% said they had no clear preference (chart 21).

Austrian consumers attach great value to having the option of paying in cash. Compared with the other euro area countries, Austria takes the lead here, too: 43% of Austrian respondents said being able to pay in cash is very important for them, and 23% said it was rather important. So in this ranking, Austria is 6 percentage points above the euro area average.

Overall, the present ECB study shows that by international standards people in Austria give exceptionally high priority to cash payments.

### Cash remains forward-looking and future-proof

The OeNB supports the notion that cash is a smart payment option and that this option needs to be retained. This will ensure that people in Austria can continue to freely choose their preferred means of payment and benefit from the advantages that result from the competition between cash payments and cashless payment. Currently, we have excellent framework conditions in Austria as ATM accessibility is good

and cash withdrawals from most ATMs are not subject to transaction fees. We must therefore strive to maintain these conditions.

When bearing in mind economies of scale, however, it is only possible to guarantee the comprehensive and efficient supply of cash if cash continues to be widely used and accepted. In view of the current global crises, issues like resilience and cash supply have come more and more into focus. To be able to identify future cash-related challenges in good time and to take the necessary action, the OeNB engages in an active dialogue with all stakeholders in the cash cycle.

### The OeNB establishes a euro cash platform

As a central bank, the OeNB advocates the continued availability of euro cash of the highest quality. In doing so, we fulfill our legal mandate to ensure cash supply. By establishing the [euro cash platform](#) in September 2022, we took further steps along this path. Together with representatives of the general public and the business community, we seek to actively

address upcoming changes in the field of payment instruments in Austria in the interest of all stakeholders. Moreover, we seek to strengthen and ensure the position of euro cash as a public means of payment, and thus as the only means of payment that is not intended to generate a profit, in an increasingly digital society and to further strengthen public awareness of these issues.

In a related effort, the OeNB supports Münze Österreich AG's information campaign "Bares ist Wahres" that demonstrates the multiple advantages and unique features of euro cash and shows why euro cash is indispensable. Paying with euro banknotes and coins does not require people's personal data to be shared and thus ensures privacy; moreover, cash payments are direct payments, requiring no intermediary, and they do not involve transaction fees; and last but not least, euro cash is also available in crisis situations. All of these benefits make cash popular with consumers. The popularity of cash in Austria is also confirmed by the results of the above OeNB Barometer survey and the high number of signatures – around half a million – of a petition for a referendum on unrestricted cash payments in September 2022.

### The Eurosystem progresses toward a digital euro

#### Digital euro

Anyone who pays in cash actually pays with central bank money. With a digital euro, the Eurosystem would provide households with a form of central bank money that can be used quickly, easily and safely in addition to euro cash.

Given the increasing demand for secure and reliable electronic means of payment, the Eurosystem is considering issuing central bank money also in digital form. A digital euro would be issued, protected and regulated by the ECB, just like euro cash, and would thus be equally trustworthy. It would be an alternative, future-proof way of making person-to-person (P2P) payments and consumer-to-business (C2B) payments, both at the point of sale and online, and of making transfers to public institutions. Moreover, a digital euro would strengthen the euro area's monetary sovereignty and foster competition and efficiency in the European payments market.

The current two-year investigation phase regarding the roll-out of a digital euro, which is scheduled to end in October 2023, serves to establish what it would take to implement a digital euro. Specifically, there is a need to develop the design specifications, select functions that meet user requirements and agree on the division of responsibilities between the Eurosystem and the supervised financial intermediaries. Together with the ECB and other Eurosystem central banks, the OeNB actively contributes to developing a corresponding payment scheme and distribution model as well as prototypes and to collecting information on customer requirements.

Solutions for both online and offline payments will be developed. Offline payments will be settled directly via the payers' and the payees' devices, i.e. without any third-party intermediaries that verify the payment and settle it in the background. As offline payments do not necessarily require network connectivity, they make overall payments more resilient to external factors such as blackouts or natural disasters.

Ensuring the highest possible level of privacy for both online and offline payments is a key requirement. Central banks would only receive the information required to fulfill their tasks and should not be able to trace end users' payment patterns. Tiered remuneration combined with quantitative restrictions would ensure that the digital euro would primarily be used as a means of payment and not as a form of investment.

Private payment service providers would, in line with the Austrian Payment Services Act, perform the tasks required at the customer interface level, such as opening and closing accounts, transferring digital euro amounts from bank accounts to users' devices or vice versa, adding cash to digital accounts or cashing out digital amounts, and executing or reversing payments. The Eurosystem would verify and record payments. As amounts held in digital euro would be Eurosystem liabilities, the Eurosystem should be able to monitor digital euro issuance, holdings and redemptions.

To ensure i.a. that the digital euro would be widely available and broadly accepted already

on the potential date of its introduction, the European Commission would have to initiate amendments to some legal frameworks. Classifying the digital euro as legal tender would be essential, for instance.

### **EU-wide electronic identification is just around the corner**

Everyday life is swiftly going digital, making electronic identification (eID) a must-have. This, in turn, calls for an appropriate platform technology so that eIDs can be used for a wide range of services, from e-government to electronic health records and e-wallets with payment functions. Consequently, electronic identification is a key element in the European Union's and the Eurosystem's strategies for European retail payments.

So far, only some member states have implemented the EU-wide recognition of national eIDs, which means that only 14% of public services are currently covered. For this reason, the European Commission has initiated a revision of the relevant regulation (eIDAS 2.0) to update and improve the corresponding framework. The revised regulation is scheduled to be adopted in the course of 2023. The European digital identity wallet, a mobile application that ensures electronic identification in line with eIDAS 2.0, is expected to be available from 2024. Meanwhile, the European Commission has invited tenders from public and private enterprises for pilot projects testing the eID wallet.

Together with a consortium of participants from 19 EU member states and Ukraine and in collaboration with the Austrian Federal Ministry of Finance, the OeNB and the OeNPAY Financial Innovation HUB GmbH will contribute to one of the pilot projects that were approved in December 2022. In addition to dealing with the typical case of opening a bank account, the consortium will i.a. examine issues like the electronic driving license, the retrieval of social security data and digital signatures. The project is scheduled to run for up to two years; content work is expected to start during the second quarter of 2023.

### **We help small change donations go digital**

In the age of digital payments, it should also be possible to make and receive digital donations quickly, safely and easily. With this in mind, and as part of the OeNB's competition "Social Digital Challenge," the OeNB and the OeNPAY organized a hackathon on November 16 and 17, 2022, in cooperation with Caritas Austria, Blue Code International AG and World-Direct eBusiness solutions GmbH. Working in interdisciplinary teams, 16 students from different fields of study at upper secondary technical schools and universities had two days to develop a prototype enabling the receipt of digital donations.

The winning team was awarded EUR 1,000 and one OeNB internship per team member; they impressed the jury with a proposal to design personalized donation badges, basically a smart card using NFC technology or a QR code. Charitable organizations could hand out such donation badges to people in need. Donators would scan the QR code (or activate the NFC chip) to access a donations app to choose the amount they wished to donate and their bank and would then be redirected automatically to their internet banking app. Alternatively, the chip could be linked to other payment methods, e.g. payment by card or bluecode. Donees would be registered so that each NFC chip or QR code would be clearly assigned to an individual. This would ensure that donations remained available to the donee even if they lost their NFC chip or QR code. Potential partners such as post offices, pharmacies, social cafés, tobacconists, sausage stands or service stations were considered to act as payment agencies.

### **The OeNB's subsidiaries always keep pace with the times**

In performing its core tasks in cash production, cash supply and cash logistics, the OeNB is supported by three subsidiaries and their staff: Münze Österreich AG, the Oesterreichische Banknoten- und Sicherheitsdruck GmbH (OeBS) and GELDSERVICE AUSTRIA (GSA). The subsidiaries carry out their tasks as separate business entities, guided by the principles of quality, security, sustainability and cost effectiveness.

For the OeNB and its subsidiaries, a strong focus on protecting the environment and ensuring sustainable business development is indispensable for future-oriented and successful corporate governance. With this in mind, related measures are combined in the environmental management system under ISO 14001:2015, and quality certifications are carried out according to the ISO 9001:2015 standard. In addition, processes and procedures in place at the individual subsidiaries and across the group are optimized continuously to improve eco-efficiency.

Within European monetary union, Münze Österreich AG is the official mint of the Republic of Austria. Its exclusive right to mint and issue coins in Austria is laid down in the Coinage Act. In 2022, Münze Österreich AG supplied the OeNB with 146.9 million euro coins with a face value of EUR 39.3 million. Moreover, Münze Österreich AG continually develops new and innovative product lines, e.g. various coin series and gold investment products, to meet customers' rising demand for precious metals. Münze Österreich AG has successfully maintained its global position as a reliable producer also in times of crisis.

The OeBS conducts research and development activities and produces banknotes for the Eurosystem and for international customers. On behalf of the OeNB, the OeBS produces the share of the annual euro banknote production volume allocated to Austria on the basis of the ECB's capital key. In 2022, the OeBS produced roughly 98 million EUR 10 banknotes. As a cooperation partner, the OeBS continues to produce euro banknotes for the Belgian central bank to increase efficiency within the Eurosystem. Banknote production at the OeBS also helps the OeNB meet the logistical requirements resulting from Austria's strategic position as a cash supply hub in Central Europe. The OeBS continues to develop and expand its role as a competence center for securities printing

and detectors by relying on innovation, sustainability and in-house technical developments.

The GSA provides cash logistics and cash processing services to the OeNB, banks, payment service providers and trading companies. The GSA's regional cash centers in Vienna, Graz, Linz, Salzburg, Innsbruck, Klagenfurt and Bregenz support the OeNB in its task of supplying euro cash all over Austria; in doing so, they contribute to ensuring the high quality of cash in circulation.

Another OeNB subsidiary, the OeNPAY Financial Innovation HUB GmbH, has been in business since 2021. It runs a competency network that supports efforts to implement digital payments across Austria and promotes financial innovations in cooperation with all stakeholders in payment services. Its objective is to ensure easy, stable and safe payments for all. To this end, the OeNPAY aims to identify, prepare and use relevant new developments, taking into account mega and technology trends by means of trend scouting. Being a wholly-owned subsidiary of the OeNB, the OeNPAY has taken care to adopt a neutral market position.

The real estate investment group IG-Immobilien Gruppe is tasked with optimally managing the OeNB's real estate investments. It is, inter alia, responsible for preserving and sustainably improving the value of OeNB real estate holdings and for optimizing current earnings on our individual properties. The premises management group BLM Betriebs-Liegenschafts-Management GmbH is in charge, in particular, of providing the premises the OeNB or its subsidiaries require to carry out their business activities.

On their websites, the OeNB's subsidiaries publish annual reports in accordance with the Public Corporate Governance Code initially adopted by the Austrian federal government on October 30, 2012. Table 12 provides a comprehensive list of the OeNB's direct and indirect equity interests.





## Sustainability as a corporate strategy



Building children's financial literacy through their natural ways of learning at an OeNB family event. Our financial literacy division offers training across Austria.

## Brightening the spotlight on sustainability

### What sustainability means for the OeNB

At the OeNB, we keep an eye on how our activities impact on society and the environment – with a view to promoting sustainable development in Austria and beyond. According to the United Nations’ 1987 [Brundtland Report](#), “sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

In the financial sector, and when it comes to sustainability reporting more generally, sustainability tends to be broken down into environmental, social and governance (ESG) factors.

- *Environmental factors* cover, for instance, climate protection, resource efficiency and the use of renewable energy sources. In this respect, the OeNB intends to reduce air and wastewater emissions as well as its ecological footprint (see the OeNB’s Environmental Statement 2022).
- *Social factors* include creating fair working conditions, respecting human rights and investing in employees’ training, job security and health (see the section on human resources management).
- *Corporate governance measures* are designed to prevent corruption or market distortion, e.g. through independent oversight bodies, and to incentivize sustainable behavior (see the sections on governance and risk management).

In the sustainability section of this year’s Annual Report, we cover strategy, risk management, governance as well as metrics and targets. This way, we take due account of the recommendations set forth in the “Guide on climate-related disclosure for central banks” of the Network for Greening the Financial System (NGFS). These recommendations are broadly in line with the guidance provided by the Financial Stability Board’s Task Force on Climate-related Financial Disclosures (TCFD). As part of a Eurosystem-wide initiative, the OeNB

disclosed climate-related aspects of its non-monetary policy portfolios in a dedicated report (see [Climate-related financial disclosures by the Oesterreichische Nationalbank 2022](#)).

### Our sustainability strategy

The OeNB’s 2020–2025 strategy already reflects many elements of the [Sustainable Development Goals](#) (SDGs) issued by the United Nations. In 2023, we will continue (1) mapping the OeNB’s strategic objectives to selected SDGs and (2) improving quantification and reporting. The OeNB committed itself in 2021 to making its activities fully carbon neutral by 2040. At present, we cooperate closely with international bodies to develop metrics and instruments to achieve the respective targets.

### How we deal with sustainability risks

To identify, assess and control all significant risks, the OeNB has established a comprehensive risk management system. As a logical consequence, we have now also integrated ESG risks into our risk processes, i.e. risks related to environmental, social and governance factors. ESG risks could affect the OeNB’s risk profile and turn into financial risks in the longer term. Their careful integration into our risk processes will also support us in achieving the strategic objectives of the OeNB (see the section on risk management).

### Ensuring good governance

The OeNB’s governance is largely determined by the Federal Act on the Oesterreichische Nationalbank (Nationalbank Act), the Treaty on the Functioning of the European Union (TFEU) and the Statute of the ESCB and of the ECB. Within this framework and based on Austria’s Federal Public Corporate Governance Code, the OeNB has

#### Network for Greening the Financial System (NGFS)

A global network of central banks and supervisory authorities that advocates a more sustainable financial system. Its aims are to analyze the impact of climate change on the financial system and to redirect global financial flows to enable low-carbon economic growth. The OeNB has been a member of the NGFS since 2018.

developed its own [corporate governance code](#) to reinforce its statutory independence. This code was last revised in 2018. Moreover, we publish annual corporate governance reports on our website. These reports and our governance code are in German only.

To ensure and strengthen good governance, the OeNB has set up a compliance management system (CMS) and a risk management system. The CMS reflects to a large extent ECB guidelines that lay down the principles of the ethics framework for the Eurosystem and for the Single Supervisory Mechanism. Currently, our CMS is being adapted to changes stipulated by the ECB. Among other things, the CMS includes a preventive system with anti-corruption measures and an electronic whistleblowing system.

The OeNB moreover relies on an enterprise risk management system to capture and assess compliance and legal as well as financial and operational risks. In this respect, we put great emphasis on limiting risks. ESG risks, added explicitly to the risk catalogue in 2022 (see the section on risk management), are treated as a horizontal issue.

Hence, various functions are accountable for ESG topics and contribute to the work of both OeNB and international bodies. At the OeNB, we have organized sustainability management in three workstreams. First, a dedicated competence unit is in charge of coordinating OeNB-wide efforts toward achieving corporate sustainability objectives. Second, an environmental officer (together with an environmental coordinator and environmental controllers of the various divisions) is responsible for implementing the requirements of the EMAS Regulation as well as the measures outlined in the environmental program. Their remit also includes the compilation of environmental data (see the OeNB's Environmental Statement 2022). Third, a green finance platform facilitates an in-depth, evidence-based exchange of ideas across all OeNB departments and with external stakeholders. Under its supervisory mandate, the OeNB has, moreover, set up an expert group on sustainable finance, whose

members foster cross-pollination by combining policy work in international bodies with day-to-day banking supervision activities.

The OeNB plays an active role in several national and international fora:

- We contribute to the *Focal Group Green Finance*, which the Ministry for Climate Action and the Ministry of Finance started to coorganize in 2019. This forum, which liaises with many representatives of the Austrian financial sector, discusses progress made and further action required to promote a sustainable financial market.
- We are also involved in the advisory board of the *Green Finance Alliance*. The members of this national forum – banks and other financial sector companies – pursue the self-imposed goal of making their portfolios climate neutral in a gradual and transparent fashion.
- Apart from the ongoing cooperation in technical working groups of the ESCB, the OeNB has joined the Eurosystem *Climate Change Forum*, which was established in 2022. This forum serves as a vehicle for fostering information exchange and knowledge-sharing and for jointly advancing the Eurosystem's climate agenda. We specifically contribute know-how from the OeNB's longstanding environmental management, green finance platform and climate-related competence unit that was established in 2021.
- Since 2018, the OeNB has been a member of the *Network of Central Banks and Supervisors for Greening the Financial System*, which was founded in 2017. Today, the network's membership comprises 121 central banks and supervisory authorities. Representatives from all OeNB departments contribute to the work on climate-related and environmental risks in four workstreams dedicated to supervision, scenario design and analysis, monetary policy and net zero for central banks. A subgroup of the latter workstream, which focuses on greening central banks' corporate operations, is cochaired by an OeNB representative. The numerous [publications](#) released by the NGFS provide valuable guidance.

Table 1

**Trends in Webex, Skype and MS Teams meetings at the OeNB**

	Unit	Q4 21	Q1 22	Q2 22	Q3 22	Q4 22
Webex meetings	number	1,228	122	128	87	151
Participants	number	5,645	4,996	4,294	1,795	3,900
Overall duration	minutes	63,264	10,068	8,468	6,543	12,400
Skype meetings	number	21,292	23,135	15,552	11,614	12,447
Participants	number	83,005	87,557	56,820	39,864	43,597
Overall duration	minutes	728,265	827,708	501,644	349,519	323,151
MS Teams meetings	number	2,790	6,761	5,621	6,817	8,090
Participants	number	3,580	8,340	22,992	18,968	23,844

Source: OeNB.

- In the field of supervision, the OeNB is represented in the *EBA's working group on sustainable finance* and the *SSM contact group for climate-related and environmental risks*. Concrete supervisory measures have already been taken by SSM supervisors reviewing banks' approaches to managing climate-related and environmental risks.
- The OeNB also participates in the *Vienna Initiative Working Group on Climate Change*, which in 2022 organized several workshops on topics such as data provision or banking supervision and regulation for central, development and commercial banks that are active in the CESEE region.

**Our organization is adapting to an ever-changing environment**

The first half of 2022 continued to be dominated by the COVID-19 pandemic. Consequently, most of our staff continued to work remotely until the end of April 2022, with high-priority external events and business trips

being resumed step by step and under strict safety precautions. As of May, when we invited our employees to return to the office, hybrid working became the new normal (see table 1). Looking back in a staff survey on the time that had passed since the beginning of the pandemic, we found that together we had successfully met the technical, organizational and communication challenges that had arisen when the OeNB had switched to working mostly from home in March 2020.

One of the milestones in the year under review was completing the reorganization of our Economic Analysis and Research Department. The existing structures were replaced with flatter and more flexible hierarchies, with a view to creating agile teams and making the workplace more collaborative. Moreover, the Office of the Fiscal Advisory Council was expanded to comprise the Office of the Austrian Productivity Board, an expert body newly established in 2022 (see box 8).

Box 8

**The Austrian Productivity Board takes up its functions**

The OeNB's tasks go beyond implementing monetary policy and safeguarding financial stability. For example, it provides the secretariat for the *Austrian Fiscal Advisory Council* and the *Austrian Productivity Board*, two institutions that fulfill economic governance and coordination functions in the context of Economic and Monetary Union. Austria's legislative authorities thereby benefit from the OeNB's independent status within the economic policy framework, which ensures that the two bodies can carry out their tasks free from instructions and without direct political interference.

The Productivity Board took up its work in the second half of 2022. It consists of five members in an honorary capacity who are experts on productivity and competitiveness and for whom the Office of the Austrian Productivity Board provides scientific and operational support. The new office with its staff of four is part of the

*Office of the Fiscal Advisory Council and Productivity Board, an organizational unit in the OeNB's Economic Analysis and Research Department. The Productivity Board is chaired by the President of the Fiscal Advisory Council.*

*The tasks of the Productivity Board include monitoring and analyzing, in an independent manner, developments with an impact on Austria's productivity growth and competitiveness. The results of its analyses will be presented in annual reports. In line with the objectives of the European Green Deal, the Board's work focuses on issues relating to Austria's economic, environmental and social performance and on macroeconomic stability. In these areas, the Productivity Board may make recommendations to the federal government and is expected to contribute to the public debate. Other tasks comprise the active participation in scientific exchange and in subject-matter coordination with other European productivity boards and the European Commission. The Board's 2022/23 annual report will be submitted to the Austrian Parliament by the Federal Minister of Labour and Economy at the end of the second quarter of 2023.*

### **The OeNB monitors compliance with financial sanctions**

In the wake of Russia's war of aggression against Ukraine, the international sanctions against Russia have become the focus of attention. Pursuant to Article 8 paragraph 1 Sanctions Act 2010, the OeNB is responsible for the related supervision of credit, financial and payment institutions licensed in Austria. In line with this provision and according to Regulation (EU) No 269/2014 as amended, the supervised institutions reported to the OeNB that 249 bank accounts or custody accounts of sanctioned individuals (total funds: EUR 1.997 billion) were frozen as of December 31, 2022. In the year under review, the OeNB also expanded the range of related [information](#) on its website (in German). As in the past, the OeNB will continue to monitor compliance with the applicable sanctions provisions by credit, financial and payment institutions in the coming years. To best exploit synergies in supervising these institutions, we continue to advocate centralizing the supervision of compliance with anti-money laundering and financial sanctions provisions. This would mean that the responsibility for supervising compliance with financial sanctions would pass from the OeNB to the Austrian Financial Market Authority. For the time being, we hired temporary staff to cope with the extra workload.

### **Our blackout contingency plan is in place**

In the current situation, the risk of a prolonged, large-scale power failure is one of a number of

realistic threat scenarios. As a provider of critical infrastructure, the OeNB takes great care to identify risks related to such scenarios early on and to take adequate precautions. Thus, following an assessment of the impact of a power blackout on the OeNB in early 2022, we put in place appropriate business continuity measures. In addition to helping maintain the necessary infrastructure, these measures apply specifically to the OeNB's three core responsibilities of cash, payments and treasury management. In early 2023, we presented a blackout contingency plan and informed key staff on the required emergency procedures. Both the contingency plan and the related arrangements will be subject to regular tests.

### **We count on innovation as a driver of digital transformation**

In 2022, our IT staff and experts from other business areas continued to collaborate in the OeNB's Innovation Lab, exploring new areas such as digital currencies and digital solutions in regulation (RegTech) and supervision (SupTech). The underlying goal of these endeavors is to build up know-how and make business processes more efficient (table 2).

In the area of digital central bank money, the OeNB, together with the other Eurosystem central banks, is actively involved in developing and designing the technical prototype of a digital euro (see section Eurosystem progresses toward a digital euro). In addition, we work with external partners to examine the various aspects

Table 2

**Indicators of knowledge-based processes at the OeNB**

	Unit	2019	2020	2021	2022
<b>Process efficiency</b>					
Certified areas	number	10	10	10	10
Entries in the OeNB's terminology database	number	23,308	23,748	24,178	24,329
Error-free payment transactions	%	99.88	99.91	99.87	99.87
Staff suggestions for improvements	number	41	19	58 <sup>1</sup>	84 <sup>2</sup>
<b>Technical infrastructure</b>					
IT services for the ESCB/Eurosystem	number	3	3	3	3
Major IT projects	number	5	5	7	9

Source: OeNB.

<sup>1</sup> 22 suggestions for improvement + 36 ideas submitted in an in-house "climate challenge" competition.<sup>2</sup> 55 suggestions for improvement + 29 ideas submitted in an in-house "climate challenge" competition.

of digital central bank money in wholesale transactions.

Moreover, a number of innovative projects explore the potential of automated text analysis, which is of relevance in particular for business areas analyzing large amounts of documents from external sources. By applying state-of-the-art machine learning methods, existing processes are to be semi-automated, which would alleviate the overall workload of the business areas concerned. Typical applications would be the automatic classification or key-wording of documents or the merging of similar texts from several documents.

### Our human resources management reflects the new normal

As the central bank of the Republic of Austria, we are aware of our responsibility for Austria and Europe and of the key role our staff play in the fulfillment of our tasks. We therefore strive to create the best possible framework for our staff and the valuable work they do.

In 2022, as the pandemic began to ease, our organization returned to a new, and more modern, normal. The OeNB has learned from the swift changes in working conditions the pandemic brought about especially in the fields of IT infrastructure and virtual cooperation (table 1).

Taking into account recent trends in workplace flexibility, we established a new remote work framework, enabling our staff to choose a

healthy mix of on-site and remote work. With the implementation of the new arrangement, the previous longer-term teleworking arrangements, which had been used by just under 13% (2019) of staff before the pandemic, were discontinued at end-2022.

Our staff also welcomed the opportunity to again participate in in-person training and team-building events and to catch up on training events missed during the pandemic, as evidenced by the corresponding knowledge acquisition indicators for 2022. The average number of training days per employee was significantly higher (4.7) than in the previous years and even exceeded the comparable pre-pandemic figure (2019: 3.9). Another positive trend is evident in human resources development: 2022 marked the first year in which we achieved an education and training participation rate of 100% (i.e. at least one training event per employee per year; table 5) following the roll-out of mandatory e-learning modules. Since the beginning of the pandemic, our Human Resources Division has gradually expanded the e-learning program – an initiative that has been very well received by our staff.

In the fall of 2022, our "workandfamily" audit team organized the first OeNB family fest after having had to postpone this initiative a number of times during the pandemic. At the event, children and family members of our staff had the opportunity to get to know the OeNB as a workplace and learn more about it in playful

activities. The family fest stands out as a prominent example of our endeavors to reconcile work and family life – one of the OeNB's top priorities.

Another focus in 2022 was preventive health care in general and cancer prevention in particular: Since 2022, the OeNB has been an official Pink Ribbon partner. Moreover, in cooperation with the “discovering hands” initiative, in 2022 we were able to offer our female staff the first-time opportunity to undergo tactile breast examinations as a complement to regular breast cancer screening. In addition, we organized melanoma screenings, prostate examinations and an information campaign aimed to increase participation in available health screenings in general. Moreover, we carried out a survey on psychosocial stress factors among our staff to identify any relevant stress factors at an early stage and be able to take countermeasures in good time. Last but not least, our company health center continued to offer COVID-19 vaccination throughout 2022.

#### discovering hands

A breast cancer screening initiative relying on the increased tactile perception of blind and visually impaired women.

All these measures and efforts are designed to make the OeNB more attractive as an employer and to offer our staff the best possible working environment.

So far, our strategy has been a success, as is evident from the relevant key indicators

(table 5): a continually low staff fluctuation rate (3.1%), the take-up of our enhanced flexible work arrangements (share of staff in part-time work arrangements: 21.8%; average days of remote work per employee: 100.6) and the opportunities for greater job mobility (29 in-house job rotations and 60 job rotations with national and international organizations).

Nevertheless, the indicators also show that there is still room for improvement in gender management, in particular as far as the share of women in expert career and management positions is concerned (table 3, table 5 and box 9).

Our aim is to increase the share of women in both career tracks. With this in mind, the Governing Board adopted the OeNB's second [action plan for the advancement of women](#) in March 2022. Containing 20 different measures to promote women and foster diversity, the action plan will be in force for the next six years pursuant to the Austrian Federal Equal Treatment Act.

In addition to continuing our related information campaigns, we took new initiatives, for instance by recommending the use of inclusive language, introducing an e-learning module for bias awareness training and establishing the OeNB Women's Forum, a networking platform supporting knowledge and information sharing among our female staff.

Table 3

### Share of women in OeNB expert career track and management positions by career levels

	2017	2018	2019	2020	2021	2022
Share of women in %						
<b>Management positions</b>	<b>29</b>	<b>28</b>	<b>28</b>	<b>26</b>	<b>28</b>	<b>29</b>
Head of unit	32	28	26	23	27	28
Deputy head of division	30	33	33	32	29	29
Head of division	24	25	29	26	28	29
Director of department	22	22	22	22	30	30
<b>Expert career track</b>	<b>33</b>	<b>38</b>	<b>36</b>	<b>35</b>	<b>37</b>	<b>35</b>
Level 1	34	39	37	31	37	35
Level 2	31	36	39	40	42	38
Level 3	22	27	21	31	30	28
Level 4	75	78	60	70	43	43

Source: OeNB.

Note: As at December 31.

Other new measures in 2022 included a workshop for managers on inclusive leadership and women's promotion and an in-house management shadowing program called Women in Leadership that specifically targeted women. During this program, ten female staff members had the opportunity to job-shadow a manager for some time, thus gaining insights into everyday management tasks. Moreover, additional expert career positions were created specifi-

cally for staff members being on, or having returned from, parental leave. This specific measure is intended to compensate for any career disadvantages that might be caused by prolonged absences or part-time work. In the coming years, the OeNB will continue to implement the existing measures, evaluate them at regular intervals and adjust or expand them where necessary.

Box 9

### Equal pay for equal work amid structural income gaps

Increasing income transparency is one of many objectives of the OeNB's current [action plan for the advancement of women](#). A thorough analysis of the gender pay gap identified at the OeNB mainly reveals that the gap can be attributed to significant structural differences (table 5). It will take proactive measures to achieve a well-balanced gender composition and income structure. This includes measures to align the take-up of part-time work arrangements by women and men and measures to increase the share of women in the workforce (at all management and professional levels).

The OeNB used to report highly aggregated gender pay gap figures for the central government's annual income report (pursuant to Article 6a Federal Equal Treatment Act). These data have not been published, however. On the basis of disaggregated data for 2021, an in-house project now analyzed what forms of income inequality exist at the OeNB and how they can be explained. To this end, we considered the unadjusted gender pay gap, which is defined as the difference between women's and men's average annual salaries and is calculated on a full-time equivalent basis.<sup>23, 24</sup> Broadly speaking, it is the percentage by which women earn less than men. Measured in terms of paid-out total salaries in 2021, the average gender pay gap at the OeNB was 17.4% (table 4). Looking only at paid-out basic salaries (meaning salaries excluding allowances, bonus payments, etc.), we see that the gap narrows to 12.5%. Both calculations do not take into account differences in the extent of employment, though. Factoring in part-time employees converted into full-time equivalents (FTEs), the OeNB's unadjusted gender pay gap in 2021 was 8.2%.<sup>25</sup>

Structural imbalances thus explain a significant part of the gender pay gap recorded at the OeNB, with differences in the take-up of part-time work arrangements playing a major role. In our calculations, basic salaries and allowances were extrapolated to FTEs. This method neglects any possible financial disadvantage of part-time employees that exceeds the extent of employment reduction. Still, our analysis indicates that such a disadvantage does exist also at the OeNB, and for men and women alike. Interestingly, with regard to the average extent of part-time work (measured as a percentage of full-time employment),

Table 4

#### Gender pay gap at the OeNB has structural reasons

	Difference between women's and men's salaries in % of men's salaries
Paid-out total salary	-17.4
Paid-out basic salary	-12.5
Annual salary, FTEs = unadjusted gender pay gap	-8.2

Source: OeNB.

Note: In principle, the gender pay gap observed at the OeNB can be fully explained by employees' education levels, functions, seniority, applicable Conditions of Service, age, and the number of dependent children. Figures refer to 2021. FTEs = full-time equivalents.

<sup>23</sup> Eurostat defines the unadjusted gender pay gap as the difference between the average gross hourly earnings of men and women expressed as a percentage of the average gross hourly earnings of men. According to Eurostat, the unadjusted gender pay gap in 2020, the year to which the latest available data refer, was 13% in the EU and 18.9% in Austria, with the widest gap (27.2%) of all having been recorded in Austria's financial services sector.

<sup>24</sup> This analysis is based on 2021 data for all OeNB employees (excluding staff on leave and staff seconded to other institutions or OeNB subsidiaries) and includes bonus payments for 2021 that were actually paid out in 2022.

<sup>25</sup> As our calculations are performed on an FTE basis, this figure is comparable to the gender pay gap of 18.9% for Austria identified by Eurostat.

*we find no big difference between women and men at the OeNB, with men under part-time contracts working 73% of full-time hours, on average, and women 69%. Obvious differences do exist, however, in the share of men and women that opt for part-time work in general. While only 11% of male OeNB employees work part time, 38% of female staff do. Part-time arrangements therefore have a particularly strong impact on the OeNB's gender pay gap.*

*Employing regression analyses, the unadjusted gender pay gap can be broken down into a number of key explanatory factors that fully explain this gap in case of the OeNB:<sup>26</sup> education level, in-house function (management or expert career position), seniority or applicable Conditions of Service, age, number of dependent children. Another major factor appears to be the consideration of academic qualifications. All factors have the expected signs and are statistically significant. Income rises with age and seniority and is comparatively higher for staff with higher academic qualifications, higher management or expert career positions and for those that receive child allowances. Thus, the lower share of women in expert career positions (26% of women vs. 34% of men) is another structural factor that explains the current gender pay gap at the OeNB.*

## **We strive for an inclusive corporate culture**

In addition to supporting equal opportunities for women and men, we are committed to actively promoting diversity and inclusion as a key element of our corporate culture. In the reporting year, the OeNB continued to participate in the myAbility Talent program, which connects enterprises and highly qualified students with disabilities or chronic conditions. Under this program, students have a chance to experience everyday work life while enterprises can meet talented young people with a wide variety of potentials. So far, the OeNB has offered five myAbility Talent internships to university students (2022: one). We keep striving to promote the inclusion of people with disabilities by directly addressing this target group in specific job advertisements, for instance. Moreover, we seek to make the OeNB's premises, workplace equipment and digital information services more easily accessible.

## **We take our social responsibility seriously**

The OeNB's development aid group, a registered association, has been run by dedicated

active and retired employees since 1982. According to its bylaws, the group only accepts submissions for supporting humanitarian projects that are consonant with the UN Sustainable Development Goals. The group helps finance such projects by collecting membership fees and donations from the OeNB's staff and Governing Board. In 2022, ten submitted projects for Africa and Asia were supported by generous donations collected either at charity events (e.g. "Swimming together" in cooperation with the OeNB's sports and social club or a Christmas bazaar in cooperation with the OeNB's cafeteria), through a fundraising initiative on International Literacy Day and new memberships.

Moreover, the OeNB staff council organized a donation campaign for Ukraine, to which our staff made generous contributions. The funds donated were made available to Caritas Austria, Volkshilfe Austria (Volkshilfe Solidarity) and Doctors Without Borders, charity organizations providing on-site assistance in Ukraine.

<sup>26</sup> The estimation results of our ordinary least squares (OLS) regressions were confirmed by Blinder-Oaxaca decompositions.

Table 5

**Indicators of investment in knowledge-based capital at the OeNB**

	Unit	2018	2019	2020	2021	2022
<b>Staff structure</b>						
Full-time equivalent staff (year-end) <sup>1</sup>	number	1,079.3	1,069.6	1,097.5	1,133.2	1,129.3
aged up to 30 years	%	9.2	7.1	7.3	8.7	8.9
aged 31 to 40 years	%	28.6	29.4	28.9	28.1	26.6
aged 41 years or older	%	62.2	63.5	63.8	63.2	64.6
Fluctuation rate	%	2.8	2.6	2.1	1.7	3.1
Share of staff with academic qualification in total staff	%	64.9	65.8	67.4	69.9	71.6
Staff-to-manager ratio	number	7.0	7.1	7.6	7.7	8.0
<b>Flexible working arrangements</b>						
Part-time arrangements	%	16.0	18.3	18.6	20.8	21.8
Remote work (annual average per employee) <sup>2</sup>	days	x	x	131.9	157.4	100.6
Sabbaticals	number	6	5	3	7	7
<b>Gender management</b>						
Share of women in total staff	%	38.8	39.3	39.6	39.7	40.3
Share of women in management positions	%	27.9	28.8	26.3	27.9	28.7
Share of women in expert career positions	%	37.9	36.2	35.2	36.9	34.7
Share of women in part-time jobs	%	x	72.9	72.7	70.9	71.2
Share of women in education and training participation rate	%	x	x	41.0	39.2	39.5
<b>Mobility</b>						
Participants in in-house job rotation program	number	40	30	23	43	29
Working visits to national and international organizations (external job rotation)	number	56	57	43	45	60
Working visits to the OeNB (incoming)	number	32	31	5	2	12
Internships	number	75	77	70	79	87
<b>Knowledge acquisition</b>						
Education and training days (annual average per employee)	days	4.1	3.9	1.7	3.2	4.7
Education and training participation rate (share of employees who attended at least one training event per year)	%	82.2	82.2	61.9	63.4	86.3

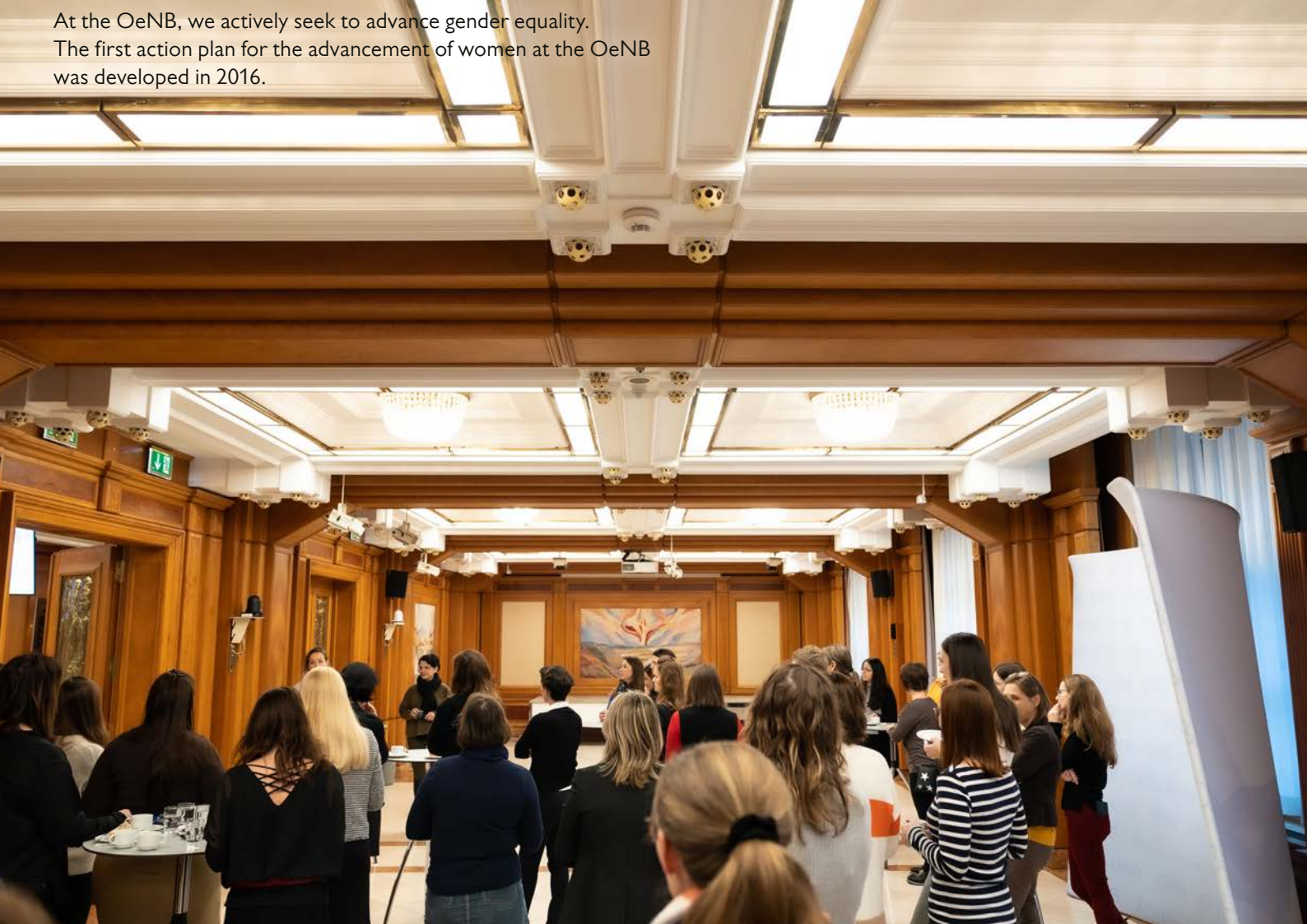
Source: OeNB.

<sup>1</sup> Figures include part-time employees on a pro rata basis.<sup>2</sup> Including long-term teleworking arrangements, which were discontinued at the end of 2022.<sup>3</sup> If mandatory e-learning modules are included, this rate is 100%.

Birgit Niessner, the OeNB's Director of Economics, speaking at the OeNB Women's Forum.



At the OeNB, we actively seek to advance gender equality. The first action plan for the advancement of women at the OeNB was developed in 2016.



## Fostering knowledge transfer and dialogue with the public

### OeNB events reflect COVID-19 pandemic and war in Ukraine

What the COVID-19 pandemic and the war in Ukraine meant for inflation, economic development and global value chains was among the key topics discussed at the OeNB's recent economic events. Under the heading "[The return of inflation](#)," the OeNB's 49<sup>th</sup> Economics Conference in May 2022 examined the effects the pandemic and geopolitical tensions had on inflation as well as the resulting monetary policy challenges. We hosted the conference jointly with [SUERF](#) – The European Money and Finance Forum. In November 2022, our annual Conference on European Economic Integration (CEEI) on "[Economic and monetary policy under wartime conditions – implications for CESEE](#)" dealt with the impact of the war in Ukraine and in particular with its effects on Central, Eastern and Southeastern Europe (CESEE). As part of a series of annual lectures we organize in cooperation with The Vienna Institute for International Economic Studies ([wiiw](#)), the 27<sup>th</sup> Global Economy Lecture in early January 2023 focused on current trends in world trade and the global economy. Our speaker Sergei Guriev, professor of economics at Sciences Po in Paris, discussed "[The political economy of Putin's war in Ukraine](#)." Our monthly Friday Seminars and the [East Jour Fixe](#) series addressed other topical issues such as climate change, digital means of payment and e-motion trends. As our events generally take place in a hybrid format now, speakers and audience alike can participate on site or online. This format has helped us meet changing pandemic-related safety requirements, reduce the carbon footprint of our events and make them accessible to remote audiences.

In addition to our conferences and other live events, our regular [publications](#) also serve

to disseminate our analytical work and findings. Many articles in the OeNB's semiannual [Financial Stability Report](#) and the quarterly [Focus on European Economic Integration](#), which concentrates on CESEE, dealt with topics related to the pandemic and the war in Ukraine. Moreover, special issues of our quarterly [Monetary Policy & the Economy](#) covered various aspects of 20 years of euro cash in Austria and provided in-depth inflation analyses.

### The OeNB is making headway in the social media

One of the priorities in our communication with the general public in 2022 was the 20<sup>th</sup> anniversary of the introduction of euro banknotes and coins, which featured prominently on all our communication channels ([#EUROat20](#)). To reach as many people as possible, we took great care to present information in a short, concise format. We also used our social media channels to explain the tasks the OeNB fulfills as a central bank. In parallel to our [#EUROat20](#) campaign, we launched the OeNB's Facebook account in May 2022. Thanks to our social media presence, we manage to reach an ever-growing audience. On Instagram, the number of our followers has doubled to almost 9,000. Recording growth rates of around 40%, the OeNB's LinkedIn channel now has more than 10,300 followers. On LinkedIn, we mainly provide information on issues related to financial markets, euro cash and financial education, while we mostly use Twitter to promote upcoming OeNB events and studies. Last but not least, the OeNB podcast series has been a real success: Launched some two years ago, it now has twice as many listeners as in the beginning.

### The OeNB celebrates 20 years of euro cash with a series of #EUROat20 activities



The ECB and the other Eurosystem central banks launched a wide range of initiatives in 2022 to mark the 20<sup>th</sup> anniversary of the euro cash changeover. The OeNB played a very active role, celebrating the anniversary with:

- **a kickoff event on January 19, 2022:** Our #EUROat20 campaign was kicked off with a joint press meeting of the OeNB's Governing Board and Austrian Federal Minister of Finance Magnus Brunner. On this occasion, we provided press releases, a press kit and a dedicated Flickr account as well as historical images and footage.
- **a euro-themed illumination:** From January to April 2022, a special LED light installation illuminated the facade of the OeNB's main building in Vienna with images of euro banknotes and coins.
- **the web portal [www.euroat20.at](http://www.euroat20.at):** By the end of December 2022, our dedicated web portal for all #EUROat20 activities had registered almost 10,000 visits. The portal provided data, facts and figures on the euro and also featured an interactive #EUROat20 quiz for visitors to test their knowledge of the common currency. Moreover, a raffle was held among quiz participants for a visit to the OeNB, including a tour of the gold vault.
- **the "Let's talk about the euro" town hall forum:** One of the OeNB's outreach activities during the #EUROat20 campaign was a series of discussions called "Let's talk about the euro" (Red ma übern Euro) that took members of the OeNB's Governing Board to several of Austria's provincial capitals to talk about the euro with local residents. The series benefited from support by major Austrian dailies.
- **a mass media campaign:** To raise public awareness of the euro and euro cash, we launched specific radio, print and online media advertisement and information campaigns.
- **social media activities:** On our social media channels, we posted facts about the euro and shared memories of the cash changeover in personal posts and throwback posts. Moreover, we promoted our anniversary activities by using the hashtags #EUROat20, #EUROmeinBargeld (my cash), #EUROmeineWährung (my currency) and #EUROmeineZukunft (my future).
- **publications, videos and podcasts:** In addition, we issued a short documentary on the history of euro cash ("Die Geschichte des Euro-Bargelds," in German), special podcast episodes, contributions on current issues in the "Thema im Fokus" section on our German website, an anniversary edition of our German folder "[Fakten zum Euro](#)" (Facts on the euro) and a special edition of our quarterly publication [Monetary Policy & the Economy](#) on "20 years of euro cash in Austria."
- **the special exhibition "€URO CASH – 20 years of euro banknotes and coins":** Highlighting the story behind the introduction of euro cash, this special exhibition at the OeNB's Money Museum will be open until June 30, 2023.
- **EUGen and ROSi:** Touring almost all Austrian provinces, our two life-sized euro mascots were handing out giveaways as part of our #EUROat20 campaign. The mascots' names "EUGen" and "ROSi" – alternative spellings of a male and a female German first name, respectively – had been selected from more than 200 entries in a public naming competition.
- **in-house activities:** To mark the special occasion, we set up a "euro corner" at the OeNB's main building and dedicated a section on the intranet to interviews and special features. Moreover, we organized in-house competitions and special activities, and all members of staff were presented with a "euro starter kit 2.0" containing a set of proof-quality euro coins minted in 2022.

The chapter dividers in this report show #EUROat20 highlights from the euro's anniversary year.

### Confidence in the OeNB is on the rise again

The challenging economic and political environment is mirrored in the indicators showing the amount of trust people place in Austrian institutions, and in the OeNB in particular. In

the second half of 2022, 74% of respondents said they trusted the OeNB – a year-on-year rise by 9 percentage points that brought this figure almost back to pre-pandemic levels (table 6). General confidence levels had declined temporarily, which was partly attributable to

method effects caused by social distancing during the pandemic. People's confidence in domestic banks (73%) and in the ECB (45%) improved as well, by 12 percentage points and 3 percentage points, respectively. Confidence in the OeNB's fulfilling its core tasks also went up. 77% of respondents are confident that the OeNB ensures the provision of cash (up 13 percentage points), 62% trust the OeNB to effectively oversee payment systems (up 10 percentage points) and 53% are confident that the OeNB delivers on its mandate of monitoring and supervising banks (up 13 percentage points). Between May and November 2022, the "Let's talk about the euro" town halls (box 10) brought top OeNB managers to several provincial capitals for talks with local residents in an effort to further support confidence building.

All in all, our #EUROat20 activities have been a success. To reach out to different target groups, we employed a mix of communication strategies to disseminate information, offering, for instance, both in-person dialogue and virtual interactive content. In a number of Euro-system working groups, the OeNB's comprehensive #EUROat20 activities served as a benchmark. We found that seeking direct contact with the population and having conversations with people throughout Austria really helped build confidence in the OeNB as an institution. With the newly established euro cash platform (see section Secure and efficient payments as a cornerstone of economic activity), the OeNB aims to strengthen its confidence-building efforts by taking continuous measures to raise people's awareness of the importance of euro cash.

### Financial education benefits from broad-based cooperation

For many years, the OeNB has been particularly concerned with strengthening financial literacy in Austria, providing financial education and helping people understand how the economy works. In these efforts, cooperation is a must-have. This is why, in 2022, we sought to strengthen existing cooperations, find new partners and make progress in other areas as

well. For instance, the OeNB contributes to implementing Austria's National Financial Literacy Strategy, serving on both the Executive Board and the Steering Board of the Financial Literacy Stakeholder Council and co-chairing the Scientific Committee. In addition, we help establish a central online financial education portal in Austria, and we specifically target women.

### The OeNB cooperates with universities and promotes financial education at schools and kindergartens

In 2022, the OeNB concluded cooperation agreements with the University of Vienna and the University College of Teacher Education Burgenland (PPH Burgenland). Under these agreements, students from the two universities have the opportunity to acquire teaching practice while earning full credits for their master's courses. Also, in the year under review, we contributed to teachers' initial training and professional development by offering more seminars across Austria, for instance by providing advanced training sessions for teachers in cooperation with Stiftung Wirtschaftsbildung, a national foundation for economic education.

Moreover, the OeNB cooperates with the province of Lower Austria and the Austrian Federal Ministry of Social Affairs, Health, Care and Consumer Protection to promote financial and consumer education also at the kindergarten level. With a view to launching a pilot project with kindergartens in Lower Austria in September 2023, we are currently developing teaching materials on "saving, buying and selling" together with the Ministry. In addition, the OeNB will give scientific support at the pilot stage and evaluate how the newly created teaching materials are put to use at the participating kindergartens.

Another priority in 2022 was the evaluation of a school pilot project involving 30 schools that tested how, and to what effect, economic education could be more firmly anchored in lower secondary education. In a scientific cooperation with the Institute for Advanced Studies, we finalized the corresponding survey design

and carried out qualitative and quantitative surveys. Also, we offered regular training courses for teachers participating in the pilot project.

### **The OeNB hosted an OECD/INFE conference in October 2022**

In the reporting year, we hosted the semiannual working group meeting of the OECD's International Network on Financial Education (INFE) and a hybrid symposium on "Financial literacy and financial resilience in challenging times." More than 200 international experts from just under 50 countries attended and shared their views on recent developments in areas such as inflation, green finance and digital transformation in financial education.

### **News from the OeNB's Money Museum and Bank History Archives**

After two years of pandemic-related restrictions, the OeNB's Money Museum saw a marked rise in visitor numbers from March 2022 onward. At 1,582 visitors, figures peaked

#### **Joint Vienna Institute (JVI)**

The JVI offers training to central bank experts and public sector officials on a broad range of topics with a focus on economic, fiscal, monetary and financial market policy. Most course participants come from the CESEE and Caucasus regions and from Central Asia. The Austrian Federal Ministry of Finance, the IMF and the OeNB are jointly responsible for financing and managing the JVI. Since its foundation in 1992, the JVI has trained a total of 50,294 course participants.

during the Austrian Broadcasting Corporation's Museum Night. In July, we opened the special exhibition "€URO CASH – 20 years of euro banknotes and coins," which, among other attractions, offered a selfie station where visitors could have their portrait

depicted on a virtual EUR 2 coin. Moreover, the Money Museum went digital in 2022, presenting around 240 items from its collection and 16 virtual tours of specific areas of the permanent exhibition (see the [digital Money Museum](#), in German). In mid-October 2022, the OeNB made its [Bank History Archives](#) accessible online. The online archives can be searched for source material relating to monetary policy, the history of money, architecture and former

work environments and may also be used for genealogical research.

### **Technical central bank cooperation in the aftermath of the pandemic**

#### **Joint Vienna Institute resumes face-to-face teaching**

While in the first half of 2022, the [Joint Vienna Institute](#) (JVI) continued to hold its courses online in view of the pandemic, face-to-face teaching was resumed from June and was very well received by the target audience. Participants said they particularly appreciated the opportunity to learn from one another, build networks and share their expertise and best practice. The war in Ukraine, however, created major challenges for the JVI. Participants from Russia and Belarus have been temporarily excluded from participating in JVI courses; participants from Ukraine, on the other hand, have found it next to impossible to travel to Austria under the circumstances. In addition, it has become increasingly difficult for course participants from Central Asia to obtain the necessary visas.

During the period under review, a total of 103 weeks of training courses were held for 1,552 course participants, with a fairly balanced presence of women and men. Attendance is still below pre-pandemic levels (table 6) as group sizes are now smaller and the war in Ukraine and/or pandemic-related requirements render participation difficult for some candidates. In 2022, the OeNB offered seven weeks of training in the following subject areas: supervision and financial stability, statistics, European integration, human resources, financial education, climate change and green finance, and financial translation and terminology skills.

During the pandemic, the JVI developed a successful webinar series, not least with input from OeNB experts. The 16 webinars held in 2022 reached a total of 1,451 participants.

### Launch of a new regional program for EU candidates and potential candidates in the Western Balkans

The OeNB is a member of the ESCB Working Group on Central Bank Cooperation, which, among other things, coordinates large-scale EU-funded programs that support non-EU central banks in bringing their practices in line with EU standards. In 2022, a new regional

program for the EU candidates and potential candidates in the Western Balkans was launched. Coordinated by the Deutsche Bundesbank, the program, which is scheduled to run for 36 months, involves the ECB and 20 ESCB national central banks, including the OeNB. The European Commission has allocated EUR 3 million from its Instrument for Pre-Accession Assistance (IPA III) to support the implementation of the program.

Table 6

### Indicators of the OeNB's knowledge-based output

	Unit	2019	2020	2021	2022
<b>Cooperation and networks</b>					
National bodies with OeNB representatives	number	85	79	75	78
International and European bodies with OeNB representatives (ESCB, etc.)	number	323	331	345	332
Technical assistance activities with central banks in CESEE, the Caucasus and Central Asia	days	494 <sup>1</sup>	345	376	467
Joint Vienna Institute (JVI) course participants	number	2,410	756	1,578	1,552
OeNB-hosted national and international events	days	200	43	120	177
Lectures delivered by OeNB staff to external audiences	number	879	474	659	803
of which: related to ESG (sustainability)	number	x	x	x	57
<b>Communication and information</b>					
Queries to OeNB hotlines	number	11,432	9,756	7,337	9,171
Research cooperation projects with external partners	number	150	126	106	97
of which: related to ESG (sustainability)	number	x	x	x	24
Money Museum visitors	number	11,019	2,790	2,995	9,372
Cash training course participants (including Euro Shop Tour)	number	16,939	3,354	1,562	5,355
Children and teachers reached through school outreach activities	number	27,914	12,172	9,850	20,239
Seminars for teachers	number	25	27	51	58
Press conferences	number	20	9	8	12
Press releases	number	114	114	101	111
<b>Publications</b>					
Articles published by OeNB staff	number	79	72	98	69
of which: related to ESG (sustainability)	number	x	x	x	5
refereed articles	number	36	27	32	31
of which: related to ESG (sustainability)	number	x	x	x	1
<b>Confidence and image</b>					
Confidence ratio in the second half of the year	%	76	76	65 <sup>2</sup>	74
Image index in the second half of the year (values between 5.5 and 10.0 signal a positive image)	index value	7.2	6.9	6.5 <sup>2</sup>	6.7

Source: OeNB.

<sup>1</sup> Corrected figure.

<sup>2</sup> Break in the time series owing to a pandemic-induced change in survey methodology to a CATI/CAWI mixed mode.



The OeNB's Money Museum showcases past currency. Visit our current special exhibition "€URO CASH – 20 years of euro banknotes and coins" to learn about euro collector coins, money production and unrealized designs. Admission is free.

## The OeNB promotes science, business development, the arts and culture in Austria

### Granting funds earmarked for scientific economic research

The strategic focus of the [OeNB Anniversary Fund](#) for the Promotion of Scientific Research and Teaching is to ensure a level playing field for basic research projects on central bank topics. Through our funding, we help make economic research in Austria more competitive and more attractive.

Guided by these strategic considerations, the OeNB's Governing Board in 2022 approved funding for 32 research projects totaling around EUR 6.5 million. With five awarded projects, the University of Graz was the primary institutional beneficiary (EUR 998,000), followed by Johannes Kepler University Linz with four awarded projects (EUR 901,000).

### Supporting independent economic research in Austria

Independent, high-quality empirical economic research generates valuable input for public policymaking and keeps the public informed by analyzing economic policy measures. In fact, the wide range of economic challenges we face today underscores the relevance of economic research as a major public good. At the OeNB, we acknowledge this notion and, by providing financial support, make an essential contribution to keeping economic research independent of politics and industry.

Accordingly, in the fall of 2021, we thoroughly redesigned our core funding program for Austrian economic research institutions. From January 2022, we invited funding applications under the OeNB's new funding program for the period from 2022 to 2024.

The awarding process featured a multi-stage selection procedure that benefited from major inputs from two international external experts. Funding applications were assessed against a set of clear-cut criteria.

For the first funding period under the new program, the OeNB awarded four institutions

with the following subsidy amounts (to be paid in three installments from 2022 to 2024): (1) the Austrian Institute of Economic Research (EUR 5,925,000 in total), (2) the Institute for Advanced Studies (EUR 4,100,000 in total), (3) The Vienna Institute for International Economic Studies (EUR 1,995,000 in total), and (4) the Complexity Science Hub Vienna (EUR 795,000 in total).

### Supporting business development in Austria

Today, the funds allocated to Austria under the European Recovery Program (ERP), commonly known as the Marshall Plan, serve to finance low-interest rate loans with a view to strengthening Austria as a business location. The OeNB has been instrumental in implementing the Marshall Plan from the very beginning and to this day continues to administer the ERP central bank assets. Most recently, the OeNB was managing 564 ERP loans granted in the industrial, trade and services sectors, with outstanding volumes totaling EUR 764 million.

### Promoting the arts and culture

The OeNB is proud of its commitment to promoting the arts and culture. By purchasing major artworks – including, in 2022, two paintings from the 1920s by Werner Berg and Herbert Ploberger – we contribute to keeping Austrian cultural assets in the country. Moreover, we particularly focus on supporting young Austrian artists by acquiring their works for our art collection. In 2022, important works from our collection were on loan to a number of Austrian museums, such as the Albertina Museum, the Leopold Museum, mumok and Schönbrunn Palace in Vienna, the State Gallery of Lower Austria in Krems, the Neue Galerie Graz, the Nordico City Museum in Linz and Bruck Castle in Lienz. Apart from that, works from the OeNB's collection were also on loan to exhibitions in Paris and Berlin.

With our collection of historical string instruments, we aim at contributing to Austria's international reputation as a land of music. The OeNB's collection currently numbers 45 instruments, all of which were crafted by the most renowned violinmakers of the Italian and French schools. We traditionally loan the instruments to selected musicians free of charge. This partnership makes it possible to preserve this unique cultural heritage and the precious instruments' distinct sound for future generations. As part of our long-standing cooperation

with the Austrian radio station Ö1, instruments from the OeNB's collection again featured in concerts held in Vienna, Graz, Linz and Innsbruck in 2022. During the concert in Vienna, the winner of a composition contest jointly organized by Ö1 and the OeNB, Tanja Elisa Glinsner, premiered her work entitled "Die Geburt des Chrysomeles" (The Birth of Chrysomallos).

You may learn more about the OeNB's collection of historical string instruments on the [OeNB's website](#).

**#EURO  
at20**



**Was hat „Die Zauberflöte“  
mit den Euro-Münzen zu tun?**

*#dieNationalbank*

**#EURO  
at20**

**Wolfgang Amadeus Mozart, einer der  
berühmtesten Musiker Österreichs und  
Komponist der Oper „Die Zauberflöte“,  
ziert die österreichische 1-Euro-Münze.**



*#dieNationalbank*

**#EURO  
at20**

**Österreich, Deutschland, Belgien ...  
welche Bedeutung haben diese  
drei Länder für das Euro-Bargeld?**



*#dieNationalbank*

**#EURO  
at20**

**Der Österreicher Robert Kalina hat die  
Euro-Banknoten der 1. Serie gestaltet.  
Die Überarbeitung für die Europa-Serie wurde  
von dem Deutschen Reinhold Gerstetter  
vorgenommen, und das Design der  
Euro-Münzen stammt vom Belgier Luc Luycx.**



*#dieNationalbank*

**#EURO  
at20**



**Halb voll oder  
halb leer?**

*#dieNationalbank*

**#EURO  
at20**

**Beschädigte Banknoten können in der  
OeNB umgetauscht werden, sofern mehr  
als 50% einer Banknote vorgelegt bzw.  
der Nachweis erbracht werden kann,  
dass die fehlenden Teile vernichtet (etwa  
bei einem Brand) wurden.**



*#dieNationalbank*

**#EURO  
at20**



**Was hat eine alte Vase  
mit dem Euro und ganz  
Europa zu tun?**

*#dieNationalbank*

**#EURO  
at20**

**Eine über 2.000 Jahre alte Vase aus Süditalien  
zeigt das Porträt der „Europa“, einer Gestalt  
aus der griechischen Mythologie. Sie ist  
Namensgeberin für den europäischen  
Kontinent und findet sich auf den Euro-  
Banknoten wieder.**



*#dieNationalbank*



## Enterprise risk management adapts to dynamic environment

In the OeNB's strategy for 2020 to 2025, the implementation of an enterprise risk management (ERM) framework was defined as one of the OeNB's strategic objectives. The OeNB already has a number of different risk management systems in place that serve to reduce risks associated e.g. with investment, equity holdings, IT systems or compliance as well as risks arising from specific projects. These systems are now gradually being harmonized. Further progress was made in 2022 following the launch of the project in 2020 and the adoption of specific ERM business area regulations defining harmonized minimum requirements for risk management in 2021. In 2022, we managed to combine the existing reports dedicated to the individual risk management systems into a single integrated risk report. Moreover, we put a brighter spotlight on ESG risks, i.e. environmental, social and governance risks (see section Integrating ESG risks into our risk management). Rather than identifying ESG risks as yet another type of risk, we have agreed to analyze ESG risks as a driver of the range of risk categories we monitor already, in line with a newly developed internal definition of ESG risks that we consider to best reflect the OeNB's circumstances. It remains up to the individual business areas to address any action points that may be identified in this process.

### Financial risk

The financial risk categories relevant to the OeNB are market, credit and market liquidity risk. Adding a layer of observation, we now pay greater attention to ESG risks, since we are aware of the fact that such risks – especially climate-related ESG risks – can lead to increased financial risks over a longer period of time (see section Integrating ESG risks into our risk management). In managing financial risks, we follow a top-down approach. The OeNB's

Governing Board sets out risk management principles and adopts an annual Risk Appetite Statement for the OeNB's investment portfolio. At the next level, Asset Liability Coordination meetings and Risk Committee meetings serve to manage and monitor financial risks based on the framework requirements thus defined. At the next lower level, the OeNB's Treasury Department operates subject to the risk-limiting rules and regulations that the Governing Board adopts acting on proposals from the Risk Committee. The Risk Committee monitors continuous compliance with these rules and requirements based on specific risk measurement systems and methods. The Risk Committee likewise defines the methods to be used to quantify risks. Investment in new currencies and financial instruments must be authorized by the Governing Board upon in-depth analysis.

#### Risk Appetite Statement

The articulation in written form of the aggregate level and types of risk the OeNB is willing to accept in order to achieve its business objectives.

### Market risk

Market risk is the risk of exposure arising from changes in financial market prices, as driven in particular by exchange rate, stock price and interest rate changes. To limit market risk for OeNB investments, the OeNB's Governing Board lays down rules that must be observed in market risk management. Market risk is primarily measured in terms of the expected shortfall. Calculations are consistently based on a one-year horizon and a confidence interval of 99%. The actual risk exposure depends on the amount of assets invested, including gold, and holdings of Special Drawing Rights (SDRs) as well as on the amount of own funds and earmarked funds invested. The OeNB also calculates the risk involved in real estate holdings, using a real estate index based on value at risk (VaR) calculations with a one-year horizon and a confidence interval of 99%.

### **Credit risk**

Credit risk is the risk that a counterparty will fail to meet some or all of its obligations. For the OeNB, credit risk arises from the implementation of the single monetary policy in the euro area, on the one hand, and from any investment activities related to the OeNB's own funds portfolio and own account holdings, on the other. Credit risk arising from Euro-system monetary policy operations is calculated by the ECB and accounted for on a pro rata basis in OeNB risk reporting. Credit risk arising from holdings for own account and investments of own funds is calculated by the OeNB and taken into account when monitoring risk utilization. In all instances, credit risk is calculated with a one-year horizon and a confidence level of 99%. In principle, the OeNB manages the credit risk arising from its own funds portfolio and related investment activities with a limit system which provides up-to-date information on all risk limits and exposures.

### **Market liquidity risk**

Market liquidity risk is the risk that a market may be too thin or may not be able to accommodate all trades, so that the trading volume is lower than desired and assets cannot be traded quickly enough or perhaps only at a discount. To prevent incurring market liquidity risk, the OeNB analyzes the market liquidity of financial products, adjusts holdings to issuing volumes and limits the maximum residual maturities of transactions. Security and liquidity considerations take precedence over yield in managing the OeNB's assets.

### **Operational risk**

Operational risk categories comprise all risks arising from deficiencies or inadequacies in internal processes or systems, human errors or disruptions from external events. They may damage corporate reputation, impair the achievement of corporate objectives or cause financial damage for the OeNB. In cooperation with the responsible business areas, operational

risk management aims to assess, control and continually monitor the current risk situation and to reduce identified risks by taking adequate risk-mitigating measures. The management of operational risk at the OeNB is governed by the ERM business area regulations and, more specifically, by staff rules on operational risk management. The OeNB is aware of its responsibility as an operator of critical infrastructure and therefore considers the potential impact of operational risk more closely also in the context of business continuity and crisis management. Specific contingency measures have been defined to help maintain the OeNB's business operations. Recent events – such as the coronavirus pandemic, the war in Ukraine but also the uncertain energy situation in Europe – have required a host of analyses and contingency planning for potential crisis situations. In 2022, in particular, we adopted a range of measures to address blackout risks (see section Our organization is adapting to an ever-changing environment) and to make sure that the OeNB stands ready to handle potential energy shortages.

### **Information security risk**

Our IT Department operates an information security management system certified according to ISO 27001, with a view to examining and dealing with information security risk on a systematic basis. Technical and organizational vulnerabilities are identified in line with protection requirements defined by the OeNB to ascertain whether they present confidentiality, integrity or availability risks. In this context, the need to protect information and to manage the security of IT systems must be balanced with cost and usability considerations.

To meet the cyber resilience oversight expectations (CROE) for financial market infrastructures adopted by the Governing Council of the ECB, the OeNB's Governing Board added cyber resilience to the areas covered by the OeNB's corporate strategy. Gaps identified in a preliminary examination will be closed under a targeted information security program covering the years up to 2025.

## Integrating ESG risks into our risk management

In 2022, we continued integrating ESG risks into the OeNB's risk management processes. We developed a common definition of ESG risks that we will be using within the OeNB. This allows us to systematically capture ESG risks as drivers of existing financial risk categories such as market, credit and operational risks. We pay particular attention to climate-related risks, which include chronic and acute physical and transition risks. Physical risks result from climate-related changes and natural disasters, while transition risks arise from the transition to a carbon-neutral economy.

A concept that plays an important role in the treatment of ESG risks and in sustainability reporting is “double materiality.” Double materiality means that a company should not only consider how sustainability aspects affect the company itself (outside-in perspective) but also assess the risks the company's activities pose to society and the environment (inside-out perspective). The outside-in perspective takes precedence when it comes to preventing or limiting any OeNB losses. ESG factors might have a negative impact on the financial position and performance and impede our ability to achieve the OeNB's objectives. Vice versa, when it comes to the public's perception of the OeNB and the OeNB's legal compliance, reputational, legal and liability risks (i.e. the inside-out perspective) take center stage.

While the management of monetary policy operations and portfolios is governed by common Eurosystem guidelines, the nonmonetary policy portfolio is managed under the OeNB's own responsibility. To capture any financial risks and potential triggers of reputational, legal and/or liability risks that may arise from an ESG perspective with regard to this portfolio, we started out by conducting a self-assessment. In the course of our self-assessment, we analyzed both various scenarios that could negatively affect the OeNB's risk profile and the respective transmission channels. In the scenario analyses, we considered, among

other things, technological advances and tightening regulatory requirements in terms of energy efficiency and carbon emissions, as well as increases in natural disasters and biodiversity loss. Traditional transmission channels include, for example, profitability, asset valuations and the cost of compliance.

Furthermore, we paid particular attention to the share of sovereign debtors in the OeNB's nonmonetary policy portfolio, as sovereign debtors might also face ESG risks at some point. Several factors may lead to higher sovereign spending and thus put a strain on public finances. They may include recurrent natural disasters, efforts to ensure a socially just transition to a carbon-neutral economy as well as structural measures and incentive schemes to decarbonize the national economy.

We based this qualitative assessment on a longer-term, forward-looking horizon that exceeds that of traditional risk models. The frequency and scale of climate-related risks will only become clearer as time progresses. At this point, historical data series do not sufficiently reflect climate-related risks.

We expect data availability to improve significantly in the coming years, which will allow for a more accurate quantitative assessment of climate-related risks. At any rate, scenario analyses and longer-term simulations are set to play a key role in evaluating ESG risks as drivers of traditional risk categories.

To complement the qualitative analysis, we calculated the sensitivity of the OeNB's nonmonetary policy portfolio to climate-related risks as on December 31, 2022. To this end, we drew on metrics such as the carbon footprint of the assets denominated in euro (see [Climate-related financial disclosures of the Oesterreichische Nationalbank 2022](#)).

In 2022, the ESCB agreed that ESG reporting will be based on harmonized data. At the OeNB, we started using data from two ESG data providers in 2022 for drawing up analyses

### ESG risks

Potential negative impact of environmental, social and governance (ESG) factors on the OeNB's financial position and performance, reputation and ability to achieve its objectives.

and calculating metrics and targets as well as for reporting purposes. In terms of data reliability, both providers comply with high methodological requirements that also cover quality control and validation routines. Missing data are estimated via models.

We actively integrate ESG data into the risk management processes applicable to the OeNB's nonmonetary policy portfolio, and we are committed to capturing such risks in a transparent and consistent manner. The OeNB therefore engages in frequent dialogue with the

ESG data providers with a view to improving both data availability and quality.

To ensure an independent assessment of ESG risks, the OeNB's risk-monitoring unit is functionally and hierarchically separate from the risk-taking units, including the highest decision-making level. Incorporating ESG risks as drivers of traditional financial risk types, such as credit and market risks, ultimately allows for an integrated risk analysis that best reflects complex interactions.

**Red ma übern EURO**  
Das Nationalbank-Forum

Town hall meeting with OeNB  
Executive Director Gottfried  
Haber in Klagenfurt, Carinthia.

# EUROmeinBargeld





Building children's financial literacy through their natural ways of learning at an OeNB family event. Our financial literacy division offers training across Austria.

# The OeNB's Environmental Statement 2022

## Updated Environmental Statement in line with EMAS Regulation (EC) No 1221/2009

In the summer of 2022, Europe experienced an unprecedented heatwave and droughts with a number of serious consequences; in the context of global warming, this is a further indication of the looming climate crisis. With fossil fuel prices soaring especially since the war in Ukraine began, even areas not immediately affected by that war have begun to feel considerable uncertainty. Now, there is a risk that investments in swift technological transition and low-carbon solutions for mobility, production and heating might be postponed. However, if we do not throw all our weight behind green transition as long as there is still time, we will have to face extensive follow-up costs and economic instability. Extreme climate events such as droughts or floods not only cause enormous human suffering, but also entail infrastructural damage, destroy harvests and disrupt supply chains. Moreover, they affect product prices, thereby making inflation more volatile. All these effects will be even more serious if we fail to meet the goals set forth in the Paris Agreement, namely to keep global warming well below 2°C and, if possible, even below 1.5°C. It is therefore high time to step up our joint efforts and accelerate decarbonization.

Under the [ECB climate agenda 2022](#), the European Central Bank supports green transition in line with its mandate, not least with the aim of mitigating associated risks to the Eurosystem balance sheet as well as to price and financial stability. In practice, the ECB is taking additional steps to better integrate climate-related aspects into its monetary policy operations (in particular with regard to corporate bond purchases and the collateral framework for Eurosystem credit operations), to introduce climate-related financial disclosures and to enhance risk management.

All these efforts and environmental measures are also aligned with the [European Green Deal](#), which aims to make Europe climate neutral by 2050. This climate target is legally binding under the European Climate Law, which was adopted by the European Parliament and the Council in 2021. The European Climate Law also laid down the target of reducing net greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels (Regulation (EU) 2021/1119).

## Numerous OeNB events and outreach activities raise green awareness

The OeNB strives to contribute to examining, planning and implementing low-carbon transition in cooperation with the relevant stakeholders in Austria and Europe. Green finance plays an important role in this context. A recent economic study found that carbon pricing at the European and the national level drives up inflation in Austria only marginally.<sup>27</sup> The rising prices of EU emission allowances have had little impact in Austria, as more than 80% of Austria's electricity are already produced from renewable energy sources. Domestic carbon pricing in other sectors of the Austrian economy might cause headline inflation to rise by between 0.1 percentage point and 0.2 percentage points annually, at the most, between 2022 and 2025. Additional factors are second-round effects from higher wage settlements

### EMAS

The OeNB practices environmental management under the EU's Eco-Management and Audit Scheme (EMAS). Under this voluntary commitment, we continually improve environmental protection within our organization, not least by encouraging employee support. Organizations audited under EMAS effectively contribute to environmental protection, save costs and show social responsibility.

### Climate neutrality

In 2022, natural disasters and extreme weather events continued to indicate that climate change is progressing. Counteractive measures are meant to help reduce greenhouse gas emissions to quantities that can, ideally, be neutralized, i.e. fully absorbed by carbon sinks such as soils, forests and oceans. The 2022 United Nations Climate Change Conference (COP27) in Egypt focused on climate financing and efforts to limit global warming to 1.5°C, if possible. Europe aims to become the first climate-neutral continent in the world by the year 2050. The OeNB seeks to achieve effective climate neutrality in all its activities even sooner, by 2040.

<sup>27</sup> Breitenfellner, A., F. Fritzer, D. Prammer, F. Rumler and M. Salish. 2022. *What is the impact of carbon pricing on inflation in Austria?* In: *Monetary Policy & the Economy Q3/22*. OeNB. 23–41.

and indirect inflation effects arising as production costs are being passed on to consumers, which are difficult to assess.

In 2022, the OeNB continued to be involved in numerous events on sustainability, environmental and climate action issues. On March 24, 2022, for instance, we held a joint workshop with the European Investment Bank on financing green transition in Austria. In addition, a series of in-house presentations discussed a wide range of topics like carbon prices, “green” quantitative easing, the impact of carbon prices on stock prices, an international comparison of e-fuel production efficiency, the technological preconditions of energy transition, climate policy and stranded assets (i.e. assets that suffered from unanticipated or premature write-downs or devaluations) and the causes of the EU electricity price crisis. Some of these presentations arose from specific research collaborations. Both OeNB Executive Director Thomas Steiner and Austrian Federal President Alexander Van der Bellen spoke at a Club of Rome (Austrian Chapter) event held at the OeNB in May 2022 to mark the 50<sup>th</sup> anniversary of the Club of Rome’s report “The Limits to Growth.” In September 2022, the OeNB’s Brussels Representative Office and the Austrian Chamber of Labour organized a panel discussion on how to finance green transition, and in October, OeNB Executive Director Thomas Steiner gave an opening speech on the future of green finance at the Hungarian central bank. Also in the fall, we hosted three rounds of dialogues on transparency in environmental, social and corporate governance (ESG) under the OeNB’s Presidential Innovation Fellowship, welcoming representatives from the real economy, the financial sector and the investor community to discuss strategies against greenwashing, among other things. Rounding off our many dedicated activities and events, the OeNB’s annual Conference on European Economic Integration (CEEI) devoted one of its sessions to green transition in Central, Eastern and Southeastern Europe (CESEE).

### **The OeNB has practiced certified environmental management for around two decades**

Green transition at the OeNB began more than 20 years ago, not least through the use of district heating and, later, district cooling, the operation of facade-integrated photovoltaics and a series of EMAS certifications. In addition, the OeNB began to disclose its CO<sub>2</sub> emissions and initiated measures to limit emission volumes: Our energy management has been certified under ISO 50001 since 2014. In 2022, we analyzed the urban area surrounding our premises in Vienna and the buildings themselves in cooperation with climate experts, architects and urban greening experts (table 11). The aim of this project was to identify urban heating issues and enhance the OeNB’s climate fitness as well as to contribute to curbing the climate-related acceleration of urban heating in the years to come. As climate change progresses and its effects become more obvious, our demands on office buildings change as well. To meet these demands, our facilities management focuses on continuous modernization and revitalization, also with a view to saving resources by using existing buildings for as long as possible. (After all, the OeNB’s main building is more than 100 years old.) Land is a limited resource, which means that the use and development of building stock is gaining importance in environmental protection. With this in mind, our climate fitness project aims to promote greening and shading measures as a healthy future alternative to air conditioning. This is even more important as the annual number of extreme heat days with temperatures above 30°C keeps rising. At the same time, in a project coordinating climate action, we are working with external experts to enhance our environmental performance report in line with Greenhouse Gas Protocol standards and to step up the involvement of all OeNB business areas concerned.

### **Eco management under EMAS supports continuous improvement**

The objective of environmental management under EMAS is to continually improve corporate environmental protection by integrating ecological criteria into operational procedures. Related monitoring relies on an environmental database documenting all relevant measured values, the applicable legal provisions, and internal and external audits. Compliance with the relevant environmental provisions is well on target, as evidenced i.a. by the OeNB's regular EMAS management reviews.

### **Certified energy management under ISO 50001 ensures energy savings**

In response to sharply rising energy prices, the Austrian federal government has called on households and public institutions to minimize the use of energy and resources. To support these efforts, we designed a set of measures to be implemented on our premises with the aim of

- reducing room temperatures to a range of 19°C to 21°C in winter,
- reducing the operating times of ventilation systems outside office hours,
- reducing lighting duration (LED lighting in corridors has been reduced to a minimum; emergency lighting signs and intensifiers continue to be illuminated at all times in line with legal requirements),
- turning off the facade lighting of the OeNB's main building as a signal to the public,
- saving energy by reducing office cooling in summer (trading higher office temperatures for lower energy consumption).

According to current energy management data, the OeNB's annual electricity consumption per employee (FTE) totaled 5.2 MWh in 2022. Some areas show higher consumption than in previous years, but this can be explained by higher demand for cooling in the summer and stricter requirements for banknote storage and production, which drove up measured values in the OeNB's Money Center in particular. At the same time, improvements in building technol-

ogy and yet another winter with mild outside temperatures made it possible to keep district heating consumption at very low levels.

For many years, the OeNB has exclusively been purchasing electricity from certified renewable sources. To reduce greenhouse gas emissions and save energy, we also rely on heat recovery, facade-integrated photovoltaics, the sustainable use of buildings, optimized lighting concepts comprising motion detectors and LED lamps as well as improved technical facilities. Measures range from precision controls for elevators, sunshades, pumps and ventilators to a free-cooling system that cools our main building by directing cooler outside air flows into the building's interior at night without requiring much operating energy itself. Other related activities include measures to raise awareness of environmental issues among our staff (e.g. supporting public transport use in commuting and business travel), ideas competitions (e.g. on climate protection and energy saving) and the provision of multiyear funding to renaturation and research programs from the OeNB's Anniversary Fund. In an almost 15-year cooperation with the World Wide Fund for Nature (WWF), for instance, we have sponsored flood control and river renaturation projects and thus helped reestablish wildlife in previously lost habitats and create entirely new habitats.

In addition, the OeNB's vehicle fleet also comprises plug-in hybrid cars and electric service bicycles ("OeNBikes"). To encourage staff to use these service bicycles rather than taxis for errands around town, we will plant a tree for every 250 km covered by e-bike. The first tree was already planted in the fall of 2022. In addition, we make charging stations for private electric bicycles and scooters available to our staff as an incentive to use these climate-friendly alternatives alongside public transport. All OeNB charging stations are supplied with certified green electricity. Our commitment to energy efficiency is also reflected in the fact that the OeNB has been certified under energy management standard ISO 50001 since 2014.

## The OeNB's environmental indicators improved in the wake of the pandemic

In general, the OeNB's environmental indicators for 2022 show that measured values in facilities and business travel management went down visibly as a result of the pandemic. Although windows were kept open longer in an effort to improve ventilation, the need for heating remained below the pre-pandemic average in the reporting year. At the same time, office work has changed fundamentally – a lasting success from an environmental point of view. Working from home has been very well accepted by our staff, and many OeNB or ECB working meetings have been changed to a virtual or hybrid format for good. Incentives to promote trains over

planes also show in the OeNB's transport mileage (table 9). Minimizing greenhouse gas emissions by reducing business travel (table 8) is another way to contribute to climate protection.

In addition to being EMAS-certified, the multimedia, internet and print service unit at the OeNB's Information Management and Services Division has been awarded ISO 9001 and ISO 14001 accreditations. This means that priority is given to environmentally friendly production processes, resource conservation and waste prevention, combined with high quality standards. Higher paper consumption in 2022 (table 7) is due to an increase in stocks, which were replenished in a forward-looking manner in response to market developments.

Table 7

## The OeNB's ecological indicators (2020–2022)

	Unit	2020	2021	2022
<b>Energy</b>				
Electricity consumption per FTE <sup>1,2</sup>	MWh	5.6	5.1	5.2
Heat consumption	kWh per m <sup>2</sup>	38	46	45
District cooling	kWh per m <sup>2</sup>	39	53	60
Total energy consumption (buildings) <sup>3</sup>	MWh	13,143	12,813	12,518
of which: renewable energy <sup>4</sup>	MWh	9,427	8,959	8,842
Total energy consumption including business travel	MWh	13,842	13,171	13,275
<b>Water</b>				
Drinking water consumption per FTE	liters per day	x	16	23
Industrial water consumption per FTE	liters per day	x	15	30
Total water consumption per FTE <sup>5</sup>	liters per day	59	31	53
<b>Consumption of materials and products</b>				
Total paper consumption per FTE <sup>6</sup>	kg	24	15	24
Consumption of printing/copying paper per FTE	sheets	4,072	2,307	4,266
Share of recycled copying paper	%	53	46	49
Consumption of cleaning agents <sup>7</sup>	g per m <sup>2</sup>	7	5	8
Total CO <sub>2</sub> emissions per FTE <sup>8</sup>	tons	1.9	1.8	1.7

Source: OeNB.

<sup>1</sup> Number of employees (full-time equivalents – FTEs): 2020 = 1,087.5; 2021 = 1,133; 2022 = 1,129.3. The OeNB's environmental management system according to EMAS covers the following locations: Vienna (main building, Otto-Wagner-Platz 3; northern office building, Rotenhausgasse 4; and the areas in the Money Center that are assigned to the OeNB, Garnisongasse 15; all 1090 Vienna) and OeNB – Western Austria (Adamgasse 2, 6020 Innsbruck).

<sup>2</sup> All energy data on buildings include the Money Center but exclude the location OeNB – Western Austria and the Brussels Representative Office (around 20 FTEs).

<sup>3</sup> Partly lower energy consumption due to the COVID-19 pandemic.

<sup>4</sup> Since 2010, the OeNB has procured green electricity from certified providers.

<sup>5</sup> Excluding the location OeNB – Western Austria and the Brussels Representative Office; lower water consumption in 2021 due to the COVID-19 pandemic; more detailed breakdown (drinking water and industrial water) from 2021.

<sup>6</sup> Total consumption in 2022: 27,160 kg, based on paper purchased (i.e. including stocks).

<sup>7</sup> Total consumption in 2022: 557 liters.

<sup>8</sup> Operation of facilities (including emergency generators) and business travel and transport; total in 2022: 1,940 tons, conversion factors according to the Environment Agency Austria, including indirect greenhouse gas emissions (previous years' figures were recalculated).

Note: Land used: 20,758 m<sup>2</sup>; sealed surface: 17,860 m<sup>2</sup>, green area: 4,520 m<sup>2</sup> (including green roof areas). The following indicators required by EMAS are not provided in this table because of negligible values: emissions of greenhouse gases and air pollutants such as CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC, SF<sub>6</sub> or SO<sub>2</sub>, NO<sub>x</sub> and fine dust.

Table 8

### Sources of greenhouse gas emissions at the OeNB (2020–2022)

	2020	2021	2022
	Tons of CO <sub>2</sub> <sup>1</sup>		
<b>Scope 1 emissions</b>			
Vehicle fleet	60.6	60.7	71.8
Cooling agents	0.0	5.0	6.7
Emergency generator tests	11.7	12.0	13.1
Subtotal	72.3	77.7	91.6
<b>Scope 2 emissions</b>			
District heating <sup>2</sup>	868.7	699.3	638.3
District cooling <sup>2</sup>	687.4	666.4	664.4
Subtotal	1,556.1	1,365.7	1,302.7
<b>Scope 3 emissions</b>			
Electricity <sup>3</sup>	107.9	79.3	79.8
Business travel by airplane <sup>4</sup>	282.7	61.0	441.3
Business travel by car	29.2	9.1	20.9
Business travel by train <sup>5</sup>	0.7	0.3	3.9
Subtotal	312.6	70.4	545.9
<b>Total</b>	<b>1,941.0</b>	<b>1,513.8</b>	<b>1,940.2</b>

Source: OeNB.

<sup>1</sup> Greenhouse gas emissions including indirect effects; updated conversion factors according to the Environment Agency Austria.

<sup>2</sup> Conversion factor for district heating according to the Environment Agency Austria. Previous environmental statements used the conversion factor provided by the energy provider.

<sup>3</sup> Unlike in previous environmental statements, this item is now listed under scope 3 emissions in line with the Greenhouse Gas Protocol. The OeNB procures green electricity from certified providers.

<sup>4</sup> Fluctuations i.a. due to the COVID-19 pandemic. By end-2022, figures had more or less returned to pre-pandemic levels.

<sup>5</sup> The OeNB encourages rail travel as an environmentally friendly business travel alternative, which is reflected in an increase by the factor of ten in rail travel over the previous year.

Table 9

### OeNB transport mileage (2020–2022)

	Unit	2020	2021	2022
Business travel by airplane <sup>1</sup>	km	676,192	154,907	642,631
Business travel by car	km	117,300	39,933	96,145
Business travel by train <sup>2</sup>	km	83,400	20,400	201,000
Fuels for transport	liter	20,123	19,768	23,604

Source: OeNB.

<sup>1</sup> Fluctuations i.a. due to the COVID-19 pandemic.

<sup>2</sup> The OeNB encourages rail travel as an environmentally friendly business travel alternative, which is reflected in an increase by the factor of ten in rail travel over the previous year.

Table 10

### Waste generation by the OeNB (2020–2022)

	2020	2021	2022
	kg		
<b>Nonhazardous materials</b>	44,390	39,190	35,979
Nonhazardous materials per FTE <sup>1</sup>	40	35	32
<b>Hazardous materials</b>	9,322	10,639	10,855
Hazardous materials per FTE <sup>2</sup>	8	9	10
<b>Recyclables</b>	90,990	87,965	105,590
Recyclables per FTE <sup>3</sup>	83	78	94
<b>Total waste</b>	<b>144,702</b>	<b>137,794</b>	<b>152,424</b>

Source: OeNB.

<sup>1</sup> Reduction in this category is attributable to rigorous waste separation and reuse of recyclable materials in general and, from 2020, also to the COVID-19 pandemic.

<sup>2</sup> Slight increase in 2020 due to more frequent and varied use of mobile devices (digital working environment).

<sup>3</sup> Fluctuations in waste paper due to office moves and archive clearances.

Table 11

## The OeNB's environmental performance up to 2022 and environmental program for 2023

	Year	Status	Action
<b>Further greening of procurement</b>			
Hiring an EMAS-certified cleaning contractor	2023	to be continued	business area
Procuring office material according to ecological criteria (e-procurement)	2023	to be continued	business area
<b>Responsible resource use, further reduction of greenhouse gas emissions and electricity consumption</b>			
Climate targets coordination project (involving all business areas in reducing greenhouse gas emissions)	2023	to be continued	business area
Urban heating project on future OeNB climate fitness	2022	implemented	business area
Replacing lighting in northern office building (mail room)	2022	implemented	energy specialists
Switching to LED lighting on service floors (main building, northern office building)	2023	to be continued	energy specialists
Modernizing plumbing, cooling and heating installations	2023	to be continued	energy specialists
Planning project for energy improvement of northern office building facade, windows and sun shading	2023	planned	energy specialists
Planning project for renewal of ventilation station (eastern top floor; main building)	2023	planned	energy specialists
Continuing project on exchanging ceiling panels and installing new LED lighting	2023	planned	energy specialists
Renewing convector fans in the cash counter area	2023	planned	energy specialists
Installing more efficient heat recovery units in the ventilation system (northern office building)	2023	planned	energy specialists
<b>Promoting environmental awareness, training</b>			
Promoting green mobility (offering training for OeNBikes)	2023	to be continued	business area
Training new staff	2022	implemented	EPT
Urban gardening (providing information on plants in the city)	2022	implemented	EPT
<b>Networking and communication</b>			
Membership in the Central Banks and Supervisors Network for Greening the Financial System (NGFS)	2023	to be continued	EPT
Lecturing on green finance	2023	planned	EPT
Cooperating with partners such as the Club of Rome, the WWF (World Wide Fund for Nature) and OEGUT (Austrian Society for Environment and Technology)	2023	to be continued	EPT
Auditing the waste disposal contractor	2022	implemented	waste management officer
Auditing OeNB – Western Austria (on site)	2023	planned	environmental officer
Greening the food offered at the OeNB further, reducing plastic material	2022	implemented	EPT

Source: OeNB.

Note: EPT = environmental protection team.

**EMAS validation**

*This updated Environmental Statement published by the Oesterreichische Nationalbank, Otto-Wagner-Platz 3, 1090 Vienna, Austria, has been validated in accordance with the EMAS Regulation by TÜV SÜD, Franz-Grill-Straße 1, Arsenal Objekt 207, 1030 Vienna, Austria, AT-V-0003.*

*The Lead Verifier of TÜV SÜD herewith confirms that the OeNB's environmental policy, its environmental program and environmental management system, its environmental review and its environmental audit procedures conform to Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 (EMAS Regulation), as amended by Commission Regulation (EU) 2018/2026 of 19 December 2018, and validates the relevant information for the Environmental Statement in accordance with Annex IV section B points (a) to (h).*

Vienna, January 2023



Kurt Kefer, Lead Environmental Verifier

The next update of the OeNB's Environmental Statement will be published in spring 2024.



**Meiner.  
Deiner.  
Unserer.**

**Einfach gut. Seit 20 Jahren.**

Happy euro to you! Seit 20 Jahren ist der Euro als Bargeld unser täglicher Begleiter. Er ist ein fester Bestandteil des Alltags geworden, denn er ist stabil, sicher und ganz einfach praktisch für alle. Kein Wunder, dass vier von fünf Menschen in Europa den Euro einfach gut finden. Und Sie? Testen Sie Ihr Wissen beim EURO@20-Quiz auf [www.euroat20.at](http://www.euroat20.at).

**#EUROat20**

Entgeltliche Schaltung

# Direct and indirect equity interests

Table 12

## Direct and indirect equity interests of the OeNB as on December 31, 2022

Share in %	Company	Capital issued
100	Münze Österreich Aktiengesellschaft, Vienna (Austria)	EUR 6,000,000.00
100	Schoeller Münzhandel GmbH, Vienna (Austria)	EUR 1,017,420.00
(100) 100	Schoeller Münzhandel Deutschland GmbH, Hamburg (Germany)	EUR 6,000,000.00
50	PRINT and MINT SERVICES GmbH, Vienna (Austria)	EUR 35,000.00
22.25	proionic GmbH, Raaba-Grambach (Austria)	EUR 52,877.00
16.67	World Money Fair Holding GmbH, Berlin (Germany)	EUR 30,000.00
(16.67) 100	World Money Fair Berlin GmbH, Berlin (Germany)	EUR 25,000.00
(16.67) 100	World Money Fair AG, Basel (Switzerland)	CHF 300,000.00
12.28	Stirtec GmbH, Premstätten (Austria)	EUR 95,050.00
100	Oesterreichische Banknoten- und Sicherheitsdruck GmbH, Vienna (Austria)	EUR 10,000,000.00
50	PRINT and MINT SERVICES GmbH, Vienna (Austria)	EUR 35,000.00
0.25	Europafi S.A.S., Vic-le-Comte (France)	EUR 133,000,000.00
100	GELDSERVICE AUSTRIA Logistik für Wertgestionierung und Transportkoordination G.m.b.H., Vienna (Austria)	EUR 3,336,336.14
100	OeNPAY Financial Innovation HUB GmbH, Vienna (Austria)	EUR 35,000.00
100	IG Immobilien Invest GmbH, Vienna (Austria)	EUR 40,000.00
100	Austrian House S.A., Brussels (Belgium)	EUR 5,841,610.91
100	City Center Amstetten GmbH, Vienna (Austria)	EUR 72,000.00
100	EKZ Tulln Errichtungs GmbH, Vienna (Austria)	EUR 36,000.00
100	HW Hohe Warte Projektentwicklungs- und ErrichtungsgmbH, Vienna (Austria)	EUR 35,000.00
100	IG Belgium S.A., Brussels (Belgium)	EUR 19,360,309.87
100	IG Hungary Irodaközpont Kft., Budapest (Hungary)	EUR 11,852.00
100	IG Immobilien Beteiligungs GmbH, Vienna (Austria)	EUR 40,000.00
100	IG Immobilien M97 GmbH, Vienna (Austria)	EUR 120,000.00
100	IG Immobilien Management GmbH, Vienna (Austria)	EUR 40,000.00
100	IG Immobilien Mariahilfer Straße 99 GmbH, Vienna (Austria)	EUR 72,000.00
100	IG Immobilien O20-H22 GmbH, Vienna (Austria)	EUR 110,000.00
100	IG Netherlands N1 and N2 B.V., Hoofddorp (Netherlands)	EUR 91,000.00
100	BLM Betriebs-Liegenschafts-Management GmbH, Vienna (Austria)	EUR 40,000.00
100	BLM-IG Bauträger GmbH, Vienna (Austria)	EUR 35,000.00
(100) 100	OWP5 Betriebs-Liegenschafts-Management GmbH, Vienna (Austria)	EUR 35,000.00
100	BLM New York 43 West 61 <sup>st</sup> Street LLC, New York (USA)	USD 10.00

Source: OeNB, subsidiaries.

Note: The OeNB's share of the subscribed capital of the European Central Bank (ECB), Frankfurt (Germany), which totals EUR 10,825,007,069.61, amounted to 2.3804% as on December 31, 2022. The OeNB also holds 8,000 shares (at SDR 5,000 each) and 564 nonvoting shares in the Bank for International Settlements (BIS), Basel (Switzerland), as well as 56 shares (at EUR 125.00 each) in Swift (Society for Worldwide Interbank Financial Telecommunication), La Hulpe (Belgium).

Table 12 shows the OeNB's direct and indirect equity interests in line with Article 68 paragraph 4 Nationalbank Act.



Financial statements  
of the Oesterreichische Nationalbank  
for 2022

# Balance sheet as at December 31, 2022

## Assets

	December 31, 2022 EUR	December 31, 2021 EUR
<b>1 Gold and gold receivables</b>	15,358,270,669.08	14,488,739,030.49
<b>2 Claims on non-euro area residents denominated in foreign currency</b>	16,061,086,478.14	15,494,813,442.70
2.1 Receivables from the IMF	8,321,518,961.45	8,007,217,853.56
2.2 Balances with banks and security investments, external loans and other external assets	7,739,567,516.69	7,487,595,589.14
<b>3 Claims on euro area residents denominated in foreign currency</b>	789,470,944.24	1,163,865,733.49
<b>4 Claims on non-euro area residents denominated in euro</b>	260,298,498.16	287,522,712.67
4.1 Balances with banks, security investments and loans	260,298,498.16	287,522,712.67
4.2 Claims arising from the credit facility under ERM II	–	–
<b>5 Lending to euro area credit institutions related to monetary policy operations denominated in euro</b>	53,952,790,000.00	87,425,540,000.00
5.1 Main refinancing operations	–	15,000,000.00
5.2 Longer-term refinancing operations	53,952,790,000.00	87,410,540,000.00
5.3 Fine-tuning reverse operations	–	–
5.4 Structural reverse operations	–	–
5.5 Marginal lending facility	–	–
5.6 Credits related to margin calls	–	–
<b>6 Other claims on euro area credit institutions denominated in euro</b>	29,079.78	9,769.76
<b>7 Securities of euro area residents denominated in euro</b>	120,412,179,802.72	114,769,945,846.80
7.1 Securities held for monetary policy purposes	113,426,311,838.91	107,646,927,227.03
7.2 Other securities	6,985,867,963.81	7,123,018,619.77
<b>8 General government debt denominated in euro</b>	381,945,527.35	386,205,576.19
<b>9 Intra-Eurosystem claims</b>	42,966,640,294.45	31,936,697,882.09
9.1 Participating interest in the ECB	312,223,881.73	294,367,249.37
9.2 Claims equivalent to the transfer of foreign reserves	1,180,823,432.72	1,180,823,432.72
9.3 Claims related to the issuance of ECB debt certificates <sup>1</sup>	x	x
9.4 Net claims related to the allocation of euro banknotes within the Eurosystem	41,473,592,980.00	30,461,507,200.00
9.5 Other claims within the Eurosystem (net)	–	–
<b>10 Items in course of settlement</b>	2,150.61	–
<b>11 Other assets</b>	10,942,584,992.67	8,955,057,426.04
11.1 Coins of euro area	87,100,263.02	116,448,081.30
11.2 Tangible and intangible fixed assets	170,741,663.21	175,991,219.77
11.3 Other financial assets	8,506,308,013.31	6,865,862,804.63
11.4 Off balance sheet instruments' revaluation differences	–	–
11.5 Accruals and prepaid expenses	1,143,393,002.97	890,830,482.40
11.6 Sundry	1,035,042,050.16	905,924,837.94
<b>Total assets</b>	<b>261,125,298,437.20</b>	<b>274,908,397,420.23</b>

<sup>1</sup> Only an ECB balance sheet item.

## Liabilities

	December 31, 2022 EUR	December 31, 2021 EUR
<b>1 Banknotes in circulation</b>	42,326,988,525.00	41,582,593,050.00
<b>2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro</b>	97,900,211,925.25	124,649,535,676.22
2.1 Current accounts (covering the minimum reserve system)	5,477,599,316.08	112,099,535,676.22
2.2 Deposit facility	92,422,612,609.17	12,550,000,000.00
2.3 Fixed-term deposits	—	—
2.4 Fine-tuning reverse operations	—	—
2.5 Deposits related to margin calls	—	—
<b>3 Other liabilities to euro area credit institutions denominated in euro</b>	569,436,341.68	947,989,663.95
<b>4 Debt certificates issued<sup>1</sup></b>	x	x
<b>5 Liabilities to other euro area residents denominated in euro</b>	6,356,448,721.79	12,596,208,806.99
5.1 General government	3,210,541,518.58	9,267,294,833.81
5.2 Other liabilities	3,145,907,203.21	3,328,913,973.18
<b>6 Liabilities to non-euro area residents denominated in euro</b>	277,358,550.43	4,001,497,704.39
<b>7 Liabilities to euro area residents denominated in foreign currency</b>	81,915.84	35,145.84
<b>8 Liabilities to non-euro area residents denominated in foreign currency</b>	—	—
8.1 Deposits, balances and other liabilities	—	—
8.2 Liabilities arising from the credit facility under ERM II	—	—
<b>9 Counterpart of Special Drawing Rights allocated by the IMF</b>	6,890,557,200.33	6,803,578,847.87
<b>10 Intra-Eurosystem liabilities</b>	81,744,888,915.33	57,148,227,675.87
10.1 Liabilities equivalent to the transfer of foreign reserves <sup>1</sup>	x	x
10.2 Liabilities related to the issuance of ECB debt certificates	—	—
10.3 Net liabilities related to the allocation of euro banknotes within the Eurosystem	—	—
10.4 Other liabilities within the Eurosystem (net)	81,744,888,915.33	57,148,227,675.87
<b>11 Items in course of settlement</b>	—	—
<b>12 Other liabilities</b>	1,081,997,165.89	1,253,601,247.62
12.1 Off balance sheet instruments' revaluation differences	6,911,611.66	14,996,265.10
12.2 Accruals and income collected in advance	1,039,214,044.45	1,132,612,877.32
12.3 Sundry	35,871,509.78	105,992,105.20
<b>13 Provisions</b>	4,702,453,468.43	6,977,404,069.77
<b>14 Revaluation accounts</b>	14,998,685,062.13	14,648,961,599.45
<b>15 Capital and reserves</b>	4,276,190,645.10	4,292,409,460.28
15.1 Capital	12,000,000.00	12,000,000.00
15.2 Reserves	4,264,190,645.10	4,280,409,460.28
<b>16 Profit for the year</b>	—	6,354,471.98
<b>Total liabilities</b>	<b>261,125,298,437.20</b>	<b>274,908,397,420.23</b>

<sup>1</sup> Only an ECB balance sheet item.

## Profit and loss account for the year 2022

	Year ending December 31, 2022 EUR	Year ending December 31, 2021 EUR
1.1 Interest income	2,450,361,230.95	2,187,368,123.58
1.2 Interest expense	-2,739,372,154.39	-2,097,243,232.59
1 Net interest income	-289,010,923.44	90,124,890.99
2.1 Realized gains/losses arising from financial operations	-458,161,183.07	392,523,737.62
2.2 Expenses related to financial assets and positions	-1,349,169,422.70	-219,142,580.31
2.3 Transfer to/from provisions for financial risks	1,933,606,888.91	-220,000,000.00
2 Net result of financial operations, write-downs and risk provisions	126,276,283.14	-46,618,842.69
3.1 Fees and commissions income	10,518,375.53	10,169,889.56
3.2 Fees and commissions expense	-9,145,936.24	-8,705,383.39
3 Net income from fees and commissions	1,372,439.29	1,464,506.17
4 Income from equity shares and participating interests	100,740,145.57	92,356,017.95
5 Net result of pooling of monetary income	280,604,982.68	284,289,405.39
6 Other income	74,866,527.26	90,379,898.33
<b>Total net income</b>	<b>294,849,454.50</b>	<b>511,995,876.14</b>
7 Staff costs	-170,031,471.14	-164,684,776.39
8 Expenses for retirement	-13,623,218.09	-129,028,682.76
9 Administrative expenses	-85,795,522.90	-80,587,825.27
10 Depreciation of tangible and intangible fixed assets	-13,086,612.66	-13,115,960.49
11 Banknote production services	-4,574,520.00	-23,867,604.36
12 Other expenses	-7,738,109.71	-6,568,098.51
<b>Total expenses</b>	<b>-294,849,454.50</b>	<b>-417,852,947.78</b>
<b>Operating profit</b>	<b>-</b>	<b>94,142,928.36</b>
13 Corporate income tax	-5,452.00	-23,537,684.09
<b>Annual net profit/loss</b>	<b>-5,452.00</b>	<b>70,605,244.27</b>
14 Transfer from/to reserves <sup>1</sup>	5,452.00	-
15 Profit/loss carried forward from the previous year <sup>1</sup>	-	-
16 Transfer to the pension reserve and central government's share of profit	-	-64,250,772.29
<b>17 Profit for the year</b>	<b>-</b>	<b>6,354,471.98</b>

<sup>1</sup> In line with the profit and loss account format laid down in Article 231 of the Commercial Code (Unternehmensgesetzbuch – UGB), the OeNB's profit and loss account was adjusted for the financial year 2022 to include the items Transfer from/to reserves and Profit/loss carried forward from the previous year.

# Notes on the financial statements for 2022

## General notes on the financial statements

### Legal framework

The Oesterreichische Nationalbank (OeNB) is obligated under Article 67 paragraph 2 of the Federal Act on the Oesterreichische Nationalbank 1984<sup>1</sup> (hereinafter Nationalbank Act), Federal Law Gazette No. 50/1984, as amended, to prepare its balance sheet and its profit and loss account in conformity with the rules established by the Governing Council of the ECB under Article 26.4 of the Protocol on the Statute of the European System of Central Banks and of the European Central Bank (Statute of the ESCB and of the ECB). The OeNB has adopted the ESCB's accounting rules<sup>2</sup> and applied them to these financial statements in their entirety. Activities not covered by these rules are treated as regulated by the generally accepted accounting principles referred to in Article 67 paragraph 2 second sentence Nationalbank Act and, according to Article 67 paragraph 3 Nationalbank Act, the provisions of the third volume of the Unternehmensgesetzbuch (Commercial Code) are applied in addition. The OeNB is exempt, inter alia, from Article 199 Commercial Code (contingent liabilities arising from guarantees) and from Articles 244 et seq. Commercial Code (consolidated financial statements). Moreover, Article 68 paragraph 3 Nationalbank Act exempts the OeNB from including specific disclosures under Article 243 Commercial Code. In light of the provisions of Article 72 Nationalbank Act, no differences can arise between the carrying values reported by the OeNB in the balance sheet for commercial and for tax purposes.

### Format of the balance sheet and of the profit and loss account

The balance sheet and the profit and loss account in the financial statements for 2022 were prepared in the format laid down by the Governing

Council of the ECB. Transactions that are not disclosed in the balance sheet are recorded and disclosed separately because the Eurosystem's accounting format does not provide for off balance sheet transactions (see section *Notes on transactions not disclosed in the balance sheet*). Balance sheet and profit and loss items that have a zero balance or are negligible are not explained separately (e.g. asset item 10 *Items in course of settlement*). In line with the profit and loss account format laid down in Article 231 Commercial Code, two profit and loss items were added in 2022 after profit and loss item 13 *Corporate income tax*: profit and loss item 14 *Transfer from/to reserves* and profit and loss item 15 *Profit/loss carried forward from the previous year*. Consequently, *Transfer to the pension reserve and central government's share of profit* became profit and loss item 16 and *Profit for the year* became profit and loss item 17.

### Valuation rules and accounting policies

The OeNB's financial statements are prepared in conformity with valuation rules and accounting policies which are applied by the Eurosystem and which follow accounting principles harmonized by European Union (EU) law and generally accepted international accounting standards. These standards comprise the following accounting principles: economic reality and transparency, prudence, recognition of post-balance sheet events, materiality, going-concern basis, accruals principle, consistency and comparability.

### Time of recording

Foreign exchange transactions, financial instruments denominated in foreign currency and related accruals must be recorded at trade date (economic approach) while securities transactions (including transactions with equity instruments) denominated in foreign currency may be recorded according to the cash/settlement

<sup>1</sup> The Nationalbank Act was last amended with effect from August 14, 2018 (Federal Law Gazette I No. 61/2018).

<sup>2</sup> Guideline of the ECB of 3 November 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (recast) (ECB/2016/34), as amended on November 11, 2021 (ECB/2021/51).

approach. Interest accrued in relation to foreign currency transactions, including premiums or discounts, must be recorded on a daily basis from the spot settlement date. To record euro-denominated transactions, financial instruments and related accruals, either the economic or the cash/settlement approach may be used.

Foreign currency transactions whose exchange rate is not fixed against the accounting currency are recorded at the euro exchange rate prevailing on the day of the transaction.

### **Basis of accounting**

At year-end, valuation is based on current market prices or rates. This applies equally to transactions that are disclosed in the balance sheet and to transactions that are not.

The valuation of foreign currency holdings comprises the entire position in a given currency (including off balance sheet instruments). Moreover, holdings of Special Drawing Rights (SDRs), including holdings of specific foreign currencies that serve to hedge the SDR currency risk, are treated as a single holding. Own funds invested in foreign exchange assets are treated as a separate currency item under *other financial assets*, and so are any equity instruments (equity shares and equity funds) denominated in foreign currency.

Revaluation of securities and investment fund shares/units takes place on a security-by-security basis, i.e. securities with the same International Securities Identification Number (ISIN) are grouped together.

Securities currently held for monetary policy purposes (debt securities) are accounted for at amortized cost (subject to impairment). Marketable securities (other than securities currently held for monetary policy purposes and those classified as held-to-maturity<sup>3</sup>) and similar assets are valued either at market prices or on the basis of the relevant yield curve prevailing on the balance sheet date, on a security-by-security basis. Options embedded in securities are not separated for valuation purposes. The valuation on December 30, 2022, was based on

the latest market prices available; at the time of valuation, market prices must not be older than two working days.

Marketable securities classified as held-to-maturity and non-marketable securities are valued at amortized cost subject to impairment. Illiquid equity shares and any other equity instruments held as permanent investments are valued at cost subject to impairment.

Participating interests are valued on the basis of the net asset value of the relevant company.

### **Income recognition**

Realized gains and losses may only occur in the course of transactions entailing a reduction in securities or currency positions. They correspond to the difference between the transaction value and the acquisition value calculated according to the average cost method and must be included in the profit and loss account.

Unrealized gains and losses arise during revaluation and correspond to the difference between the market price and the acquisition value calculated according to the average cost method. Unrealized gains must not be taken to the profit and loss account but must be transferred to a revaluation account on the liabilities side of the balance sheet. Unrealized losses are set off against unrealized gains from previous periods in the corresponding revaluation account, and additional losses are transferred to the profit and loss account. They may not be reversed against new unrealized gains in subsequent years. Unrealized losses in any one security or currency are not netted against unrealized gains in other securities or currencies (prohibition of netting).

Premiums or discounts arising on purchased securities are calculated and presented as part of interest income and are amortized over the remaining life of the securities.

### **Tangible and intangible fixed assets**

*Tangible and intangible fixed assets* are valued at cost less depreciation. As a rule, depreciation is calculated on a straight-line basis from the

<sup>3</sup> *Held-to-maturity securities are securities with fixed or determinable payments and a fixed maturity that the OeNB intends to hold until maturity.*

quarter after acquisition throughout the expected economic lifetime of the assets. Acquisitions of string instruments and art objects as well as additions to the collection of the OeNB's Money Museum are excluded from this provision. They are capitalized at acquisition cost, and are not depreciated according to the straight-line method as these assets do not lose their value gradually over time. Extraordinary depreciation is required if permanent impairment is expected. In line with the ESCB's accounting rules, no write-ups are added to amortized cost should the reasons for impairment no longer apply. The depreciation periods applicable to the individual assets are listed in table 1.

Table 1

Asset	Depreciation period
Computers, related hardware and software, motor vehicles	4 years
Intangible assets	5 years
Equipment, furniture and plant in building	10 years
Buildings	25 years
Fixed assets costing less than EUR 10,000 including value added tax (low-value assets)	depreciation in the year of acquisition

### Key ECB interest rates

Table 2 shows the development of key interest rates in 2022.

### Banknotes in circulation, intra-Eurosystem balances and interim ECB profit distribution

#### Banknotes in circulation

The ECB and the euro area national central banks (NCBs), which together comprise the Eurosystem, issue euro banknotes. The banknotes in circulation presented in the balance sheets of the OeNB and of the other Eurosystem central banks are calculated as per the last working day of each month in accordance with the banknote allocation key of the Eurosystem.<sup>4</sup>

The ECB has been allocated an 8% share of the total value of euro banknotes in circulation,

whereas the remaining 92% have been allocated to the NCBs according to their weightings in the capital key of the ECB. The share of banknotes allocated to the OeNB is disclosed in the balance sheet under liability item 1 *Banknotes in circulation*.

The difference between the value of the euro banknotes allocated to the OeNB in accordance with the banknote allocation key and the value of the euro banknotes that the OeNB actually puts into circulation gives rise to remunerated intra-Eurosystem balances. If the value of the euro banknotes put into circulation exceeds the value of the euro banknotes allocated in accordance with the banknote allocation key, the OeNB records *net liabilities related to the allocation of euro banknotes within the Eurosystem*. Conversely, the OeNB records *net claims related to the allocation of euro banknotes within the Eurosystem*.

From the cash changeover year until five years following the cash changeover year, the intra-Eurosystem balances arising from the allocation of euro banknotes are adjusted in order to avoid significant changes in NCBs' relative income positions as compared to previous years. The adjustments are effected by taking into account the differences between the average value of banknotes put in circulation of each NCB in the reference period and the average

Table 2

	Interest rate on the main refinancing operations	Interest rate on the marginal lending facility	Interest rate on the deposit facility
	%	%	%
Until July 26, 2022	0.00	0.25	-0.50
From July 27, 2022	0.50	0.75	0.00
From Sep. 14, 2022	1.25	1.50	0.75
From Nov. 2, 2022	2.00	2.25	1.50
From Dec. 21, 2022	2.50	2.75	2.00

<sup>4</sup> Banknote allocation key means the percentages that result from taking into account the ECB's share (8%) in the total euro banknote issue and applying the capital key to the NCBs' share (92%) in such total.

value of banknotes that would have been allocated to them during that period under the ECB's capital key. The adjustments will be reduced in annual stages until the first day of the sixth year after the cash changeover year, when income on banknotes (seigniorage) will be allocated fully in proportion to the NCBs' paid-up shares in the ECB's capital. In the year under review, no adjustments were made.

The interest income and expense on these balances is cleared through the accounts of the ECB and is disclosed under profit and loss item 1 *Net interest income*.

### Intra-Eurosystem balances

Intra-Eurosystem balances result primarily from cross-border payments in the EU that are settled in central bank money in euro. They are primarily settled in TARGET2 – the Trans-European Automated Real-time Gross settlement Express Transfer system 2 – and give rise to bilateral balances in the TARGET2 accounts of EU central banks. These bilateral balances are netted and then assigned to the ECB on a daily basis, leaving each NCB with a single net bilateral position vis-à-vis the ECB only. The OeNB's intra-Eurosystem balances vis-à-vis the ECB arising from TARGET2, as well as other intra-Eurosystem balances denominated in euro (e.g. interim ECB profit distributions to NCBs, monetary income results), are presented net under liability item 10.4 *Other liabilities within the Eurosystem (net)*. Intra-ESCB balances vis-à-vis non-euro area NCBs not arising from TARGET2 are disclosed either under *claims on non-euro area residents denominated in euro* or *liabilities to non-euro area residents denominated in euro*.

Intra-Eurosystem claims arising from the OeNB's participating interest in the ECB are reported under asset item 9.1 *Participating interest in the ECB*.

Intra-Eurosystem claims arising from the transfer of foreign reserves to the ECB by the OeNB at the time of joining the Eurosystem are denominated in euro and reported under asset item 9.2 *Claims equivalent to the transfer of foreign reserves*.

Intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem are reported net under asset item 9.4 *Net claims related to the allocation of euro banknotes within the Eurosystem*.

The interest income and expense on these balances is cleared through the accounts of the ECB and is disclosed under profit and loss item 1 *Net interest income*.

### Interim ECB profit distribution

The Governing Council of the ECB has decided that the seigniorage income of the ECB, which arises from the 8% share of euro banknotes allocated to the ECB, as well as the income arising from the securities held for monetary policy purposes purchased under

- the Securities Markets Programme (SMP),
- the third covered bond purchase programme (CBPP3),
- the asset-backed securities purchase programme (ABSPP),
- the public sector purchase programme (PSPP) and
- the pandemic emergency purchase programme (PEPP)

are distributed in January of the following year by means of an interim profit distribution, unless otherwise decided by the Governing Council. Any such decision shall be taken where, on the basis of a reasoned estimate prepared by the Executive Board, the Governing Council expects that the ECB will have an overall annual loss or will make an annual net profit that is less than this income. The Governing Council may also decide to transfer all or part of this income to the provision for financial risks. Moreover, the Governing Council may decide to reduce the amount of the income on euro banknotes in circulation to be distributed in January by the amount of the costs incurred by the ECB in connection with the issue and handling of euro banknotes.

Any amount distributed by the ECB to the OeNB is disclosed in profit and loss item 4 *Income from equity shares and participating interests*.

### Provisions for financial risks and loss-absorbing capital

The OeNB's risk provisions are broken down into provisions for financial risks and loss-absorbing capital. They are part of the OeNB's net equity, which is shown in table 5. The risk provision is established in line with the ESCB's accounting rules and serves to cover financial risks<sup>5</sup>. It constitutes a central bank-specific provision equivalent to reserves. Details on this year's use of the risk provision are provided under liability item 13 *Provisions*.

The baseline measures reflect the current risk profile, while the stress measures provide for typical stress phases during the investment horizon. All risk measures represent an expected shortfall with a confidence level of 99% over a one-year horizon. The risk range is compared with the OeNB's risk coverage capital, which goes beyond the risk provisions shown in table 3. The risk coverage capital also comprises foreign currency and securities revaluation accounts. In line with the prohibition of netting, the existing revaluation accounts are only recognized as coverage for corresponding risks. Revenue risks represent risks for which the risk provisions for financial risks cannot or must not be used.

These risks are not part of the risk range and are captured separately. They include in particular the asset liability mismatch related to monetary policy and the OeNB's share in ECB risks.

The OeNB strives to cover its financial risks in line with the principle of universality. To this end, all financial risks are compared with the corresponding financial provisions. On December 31, 2022, the stress measures captured financial risks in the amount of EUR 6,892.456 million. The main risk drivers were the global interest rate increases, which had driven up interest rate risk in the OeNB's own funds portfolio. The risk coverage capital, in turn, ran to EUR 5,832.752 million.

Moreover, the OeNB's loss-absorbing capital amounts to EUR 1,624.105 million.

Table 3 shows the provisions for financial risks and loss-absorbing capital.

### Related-party transactions

Article 238 paragraph 1 item 12 Commercial Code stipulates that the notes on the financial statements must include information about material transactions with related parties that were not concluded under normal market conditions. The OeNB has a special reporting system

Table 3

	December 31, 2021 EUR million	Increase EUR million	Decrease EUR million	December 31, 2022 EUR million
<b>I. Provisions for financial risks</b>				
L 15.2 Reserve for nondomestic and price risks	1,973.263	–	–	1,973.263
L 13 Risk provision (equivalent to reserves)	4,398.169	–	–1,933.607	2,464.563
	<b>6,371.432</b>	<b>–</b>	<b>–1,933.607</b>	<b>4,437.826</b>
<b>II. Loss-absorbing capital</b>				
L 15.2 Profit-smoothing reserve	148.700	+0.154	–0.005	148.849
L 15.2 OeNB Anniversary Fund for the Promotion of Scientific Research and Teaching				
OeNB Anniversary Fund National Foundation <sup>1</sup> endowment	1,452.900	–	–17.644	1,435.256
OeNB Anniversary Fund (initial funding)	40.000	–	–	40.000
	<b>1,641.600</b>	<b>+0.154</b>	<b>–17.649</b>	<b>1,624.105</b>
<b>Total</b>	<b>8,013.032</b>	<b>+0.154</b>	<b>–1,951.256</b>	<b>6,061.931</b>

<sup>1</sup> National Foundation for Research, Technology and Development.

Note: L = liability item.

<sup>5</sup> Financial risks comprise market, liquidity and credit risks.

and internal control measures for such instances in place.

Any business the OeNB transacted with related parties in 2022 was at normal market conditions.

In the financial year 2022, the OeNB provided funding to several economic research institutions (Austrian Institute of Economic Research (WIFO), Institute for Advanced Studies (IHS), The Vienna Institute for International Economic Studies (wiiw), Complexity Science Hub Vienna (CSH)) as well as to economic education providers (Joint Vienna Institute (JVI), Austrian Society for European Politics (ÖGfE), the foundation for economic literacy called Stiftung für Wirtschaftsbildung and the umbrella organization of debt advice services in Austria called ASB Schuldnerberatungen GmbH), with total funding running to EUR 6.370 million (2021: EUR 5.464 million).

### **Information under section 9.2 Corporate Governance Code of the OeNB**

The relations maintained by the OeNB with its shareholder as well as with the members of the Governing Board and of the General Council comply with the legal and statutory provisions (see section *Related-party transactions* for information related to Article 238 paragraph 1 item 12 Commercial Code).

The Republic of Austria is the sole shareholder of the OeNB. Pursuant to Article 69 paragraph 3 Nationalbank Act, the central government's share of profit corresponds to 90% of the OeNB's annual net profit. Of the then remaining profit for the year, the central government additionally receives, by decision of the General Meeting, a dividend of up to 10% of its share of the OeNB's capital.

Lending by the OeNB to its employees in the form of advances on salaries and employer loans is reported in asset item 11.6 *Sundry*.

The remuneration received by the members of the Governing Board and of the General Council is reported in profit and loss item 7 *Staff costs*.

In 2022, the OeNB did not transact any business with Governing Board members that

did not directly concern the latter's tasks as members of the Governing Board.

There are no services and work contracts between members of the General Council and the OeNB in evidence that extend beyond the former's activities as members of the General Council.

### **Impact of the COVID-19 pandemic**

The financial year 2022 continued to be influenced by the COVID-19 pandemic. In the course of 2020, the Governing Council of the ECB had adopted comprehensive monetary policy measures to mitigate the impact the COVID-19 pandemic was having on the euro area economy. These measures were prolonged in 2022. As part of its Eurosystem tasks, the OeNB participated in implementing these measures, the result of which is reflected in the OeNB's balance sheet and profit and loss account.

In the year under review, the pandemic had no effect on the OeNB's accounting policies, valuation rules and presentation of its financial position and the results of its operations or on the going-concern principle.

The OeNB did not receive any grants, such as short-time work support, fixed cost grants or investment premiums in 2022, and did not apply for any COVID-19-related payment deferrals or debt relief.

### **Impact of Russia's war of aggression against Ukraine**

In line with its established crisis and risk management processes as well as its statutory tasks, the OeNB regularly monitors and analyzes potential effects of Russia's war of aggression against Ukraine with respect to both its own operations and the Austrian financial market. Depending on the issue at hand, it does so in close coordination with the Austrian federal government, the Austrian Financial Market Authority (FMA) and the ECB. In the year under review, there was no effect on the OeNB's accounting policies, valuation rules and presentation of its assets, financial position and earnings or on the going-concern principle.

In the banking sector, the war triggered the resolution of a Russian-owned bank based in Austria. The bank's resolution did not adversely affect financial stability, and no creditors were harmed overall. The bank returned its bank license and, during its wind-down, fully repaid financial resources provided by the Austrian deposit guarantee scheme. The bank's outstanding monetary policy operations with the OeNB became due in March 2022. The Euro-

system and hence also the OeNB – as part of the Eurosystem – have not incurred any losses.

### The OeNB's net currency position

Table 4 shows the net currency position of the OeNB.

### Net equity

Table 5 shows net equity.

Table 4

	December 31, 2022	December 31, 2021	Change	
	EUR million	EUR million	EUR million	%
Gold and gold receivables	15,358.271	14,488.739	+869.532	+6.0
Claims on non-euro area residents denominated in foreign currency	16,061.086	15,494.813	+566.273	+3.7
Claims on euro area residents denominated in foreign currency	789.471	1,163.866	–374.395	–32.2
Other assets <sup>1</sup>	84.171	27.115	+57.056	n.a.
less:				
Liabilities to euro area residents denominated in foreign currency	0.082	0.035	+0.047	+133.1
Counterpart of Special Drawing Rights allocated by the IMF	6,890.557	6,803.579	+86.978	+1.3
Other liabilities <sup>1</sup>	32.543	0.638	+31.905	n.a.
Revaluation accounts <sup>2</sup>	12.073	19.571	–7.497	–38.3
	<b>25,357.744</b>	<b>24,350.710</b>	<b>+1,007.034</b>	<b>+4.1</b>
Transactions not disclosed in the balance sheet (net) <sup>3</sup>	–244.993	–203.073	+41.920	+20.6
<b>Total</b>	<b>25,112.751</b>	<b>24,147.638</b>	<b>+965.114</b>	<b>+4.0</b>

<sup>1</sup> Included in asset item 11.5 and in liability item 12.2.

<sup>2</sup> Resulting from the change in net unrealized exchange rate gains on foreign currency-denominated securities and off balance sheet transactions as at the balance sheet date.

<sup>3</sup> Valued at year-end prices.

Table 5

	December 31, 2021	Increase	Decrease	December 31, 2022
	EUR million	EUR million	EUR million	EUR million
L 13 Risk provision (equivalent to reserves)	4,398.169	–	–1,933.607	2,464.563
L 14 Revaluation accounts <sup>1</sup>	14,648.962	+349.723	–	14,998.685
L 15.1 Capital	12.000	–	–	12.000
L 15.2 Reserves				
Reserve for nondomestic and price risks	1,973.263	–	–	1,973.263
Profit-smoothing reserve	148.700	+0.154	–0.005	148.849
OeNB Anniversary Fund for the Promotion of Scientific Research and Teaching				
OeNB Anniversary Fund National Foundation endowment	1,452.900	–	–17.644	1,435.256
OeNB Anniversary Fund (initial funding)	40.000	–	–	40.000
<b>Net equity</b>	<b>22,673.994</b>	<b>+349.878</b>	<b>–1,951.256</b>	<b>21,072.616</b>

<sup>1</sup> Valuation gains may only be used to set off future valuation losses in the corresponding valuation units (prohibition of netting) or may be realized through transactions related to the corresponding stocks.

Note: L = liability item.

## Notes on the balance sheet

### Assets

#### 1 Gold and gold receivables

Closing balance	EUR million
<b>December 31, 2022</b>	<b>15,358.271</b>
December 31, 2021	14,488.739
Change	+869.532 (+6.0%)

The OeNB's gold holdings amounted to 9,002,107.568 fine ounces or 279,996.84 kg of fine gold on December 31, 2022. Given a valuation price of EUR 1,706.075 per fine ounce (i.e. EUR 54,851.58 per kg of fine gold) on December 31, 2022, the value of asset item *gold and gold receivables* increased to EUR 15,358.271 million on the balance sheet date.

#### 2 Claims on non-euro area residents denominated in foreign currency

Closing balance	EUR million
<b>December 31, 2022</b>	<b>16,061.086</b>
December 31, 2021	15,494.813
Change	+566.273 (+3.7%)

This balance sheet item comprises claims on the International Monetary Fund (IMF) and balances with banks, security investments, external loans and other external assets.

Table 6 shows asset item 2.1 *Receivables from the IMF. Receivables from the IMF*, which are given in Special Drawing Rights (SDRs), were valued at the SDR rate as reported by the ECB on December 30, 2022, i.e. SDR 1 = EUR 1.2517 (2021: SDR 1 = EUR 1.2359).

Total claims on the IMF amounted to EUR 8,321.519 million or SDR 6,648.174 million at end-2022 (2021: EUR 8,007.218 or SDR 6,478.856 million). They comprise the claim on the participation in the IMF, SDR holdings and other claims on the IMF.

The claim on the participation in the IMF, the so-called reserve tranche (net), is the difference between Austria's quota totaling EUR 4,921.684 million or SDR 3,932.000 million (2021: EUR 4,859.559 million or SDR 3,932.000 million) and the balances at the disposal of the IMF amounting to EUR 3,572.979 million or SDR 2,854.501 million (2021: EUR 3,651.140 million or SDR 2,954.236 million).

SDRs are reserve assets that were created by the IMF and have been allocated to IMF member states according to their respective quotas. To meet financing needs, SDRs may be used to buy other currencies. SDR holdings<sup>6</sup> were recognized in the balance sheet at EUR 6,951.066 million (SDR 5,553.301 million) as at December 31, 2022. Under the IMF's Articles of Agreement, the OeNB is obligated to provide currency on demand in exchange for

Table 6

	December 31, 2022	December 31, 2021	Change	
	EUR million	EUR million	EUR million	%
Austria's quota equivalent to SDR 3,932.0 million <sup>1</sup>	4,921.684	4,859.559	+62.126	+1.3
less:				
Balances at the disposal of the IMF	3,572.979	3,651.140	-78.161	-2.1
<b>Claim on the participation in the IMF</b>	<b>1,348.705</b>	<b>1,208.419</b>	<b>+140.287</b>	<b>+11.6</b>
SDR holdings	6,951.066	6,745.811	+205.255	+3.0
Other claims on the IMF	21.747	52.988	-31.241	-59.0
<b>Total</b>	<b>8,321.519</b>	<b>8,007.218</b>	<b>+314.301</b>	<b>+3.9</b>

<sup>1</sup> Pursuant to Federal Law Gazette No. 309/1971, the OeNB manages the entire quota on its own account on behalf of the Republic of Austria.

<sup>6</sup> Pursuant to Federal Law Gazette No. 440/1969, the OeNB is entitled to participate in the SDR system on its own account on behalf of the Republic of Austria and to enter the SDRs purchased or allocated gratuitously on the asset side of the balance sheet.

SDRs up to the point at which its SDR holdings are three times as high as its gratuitously allocated SDRs (see liability item 9 *Counterpart of Special Drawing Rights allocated by the IMF*).

The OeNB's other claims on the IMF arise from Austria's funding commitments to the IMF under the New Arrangements to Borrow (NAB) and bilateral borrowing agreements with the IMF.

Related to SDRs, the NAB and the bilateral contract, the OeNB's balance sheet contains a contingent liability to the IMF which would result in a claim of the same size in the event of draw-downs against remuneration by the IMF (see section *Notes on transactions not disclosed in the balance sheet*).

Table 7 shows asset item 2.2 *Balances with banks and security investments, external loans and other external assets*.

### 3 Claims on euro area residents denominated in foreign currency

Table 8 shows *claims on euro area residents denominated in foreign currency*.

### 4 Claims on non-euro area residents denominated in euro

Table 9 shows the composition of asset item 4.1 *Balances with banks, security investments and loans*.

As in the previous year, at the balance sheet date, no impairment losses were recorded for held-to-maturity securities. Securities other than held-to-maturity are recognized at market prices.

### 5 Lending to euro area credit institutions related to monetary policy operations denominated in euro

Table 10 shows liquidity-providing transactions executed by the OeNB.

Table 7

	December 31, 2022 EUR million	December 31, 2021 EUR million	Change EUR million	%
Securities	7,316.651	7,349.651	-33.000	-0.4
Balances with banks	422.917	137.945	+284.972	n.a.
<b>Total</b>	<b>7,739.568</b>	<b>7,487.596</b>	<b>+251.972</b>	<b>+3.4</b>

Table 8

	December 31, 2022 EUR million	December 31, 2021 EUR million	Change EUR million	%
Securities	789.439	960.755	-171.317	-17.8
Balances with banks	0.032	203.110	-203.078	-100.0
<b>Total</b>	<b>789.471</b>	<b>1,163.866</b>	<b>-374.395</b>	<b>-32.2</b>

Table 9

	December 31, 2022 EUR million	December 31, 2021 EUR million	Change EUR million	%
Securities	160.079	187.320	-27.241	-14.5
Held-to-maturity securities	100.220	100.203	+0.017	+0.0
<b>Total</b>	<b>260.298</b>	<b>287.523</b>	<b>-27.224</b>	<b>-9.5</b>

Table 10

	December 31, 2022 EUR million	December 31, 2021 EUR million	Change EUR million	%
5.1 Main refinancing operations	—	15.000	-15.000	-100.0
5.2 Longer-term refinancing operations	53,952.790	87,410.540	-33,457.750	-38.3
<b>Total</b>	<b>53,952.790</b>	<b>87,425.540</b>	<b>-33,472.750</b>	<b>-38.3</b>

Income accruing to the Eurosystem NCBs in their performance of monetary policy operations is allocated to the NCBs (see profit and loss item 5 *Net result of pooling monetary income*). In accordance with Article 32.4 of the Statute of the ESCB and of the ECB, losses from monetary policy operations, if they were to materialize, are to be shared (by decision of the Governing Council of the ECB) in full by the Eurosystem NCBs in proportion to the prevailing ECB capital key shares.

Losses can only materialize if both the counterparty fails and the recovery of funds received from the realization of the collateral provided by the counterparty is not sufficient. For specific collateral which can be accepted by NCBs at their own discretion, risk sharing has been excluded by the Governing Council of the ECB.

### 5.1 Main refinancing operations

The *main refinancing operations* provide credit institutions in the euro area with liquidity on a weekly basis. They are executed with a maturity of normally one week, on the basis of standard tenders.<sup>7</sup> Since October 2008, these operations have been conducted as fixed rate tender procedures with full allotment.

The interest rate on the main refinancing operations is shown in table 2.

### 5.2 Longer-term refinancing operations

*Longer-term refinancing operations* aim to provide counterparties with longer-term liquidity, in addition to the main refinancing operations. In 2022, these operations were conducted as fixed rate tender procedures with full allotment with a maturity of three months. Of these operations, EUR 0.3 billion were outstanding on the balance sheet date.

As a rule, the interest rate on *longer-term refinancing operations* is equivalent to the interest rate on the main refinancing operations (see

table 2). Exceptions apply to the refinancing operations described in more detail below.

#### *Pandemic emergency longer-term refinancing operations (PELTROs)*

In light of the COVID-19 pandemic, in 2020<sup>8</sup>, the Governing Council of the ECB decided to conduct a new series of ultimately eleven additional longer-term refinancing operations, called pandemic emergency longer-term refinancing operations (PELTROs). These operations provided a liquidity backstop to the euro area banking system and contributed to preserving the smooth functioning of the money market during the extended pandemic period. The PELTROs were conducted as fixed rate tender procedures with full allotment. The tenor of the operations conducted by the OeNB ranged from eight to 16 months. Over the life of the respective PELTRO, the interest rate is 25 basis points below the average rate applied in the Eurosystem's main refinancing operations.

The eleven PELTROs conducted by the OeNB with Austrian credit institutions amounted to EUR 0.5 billion in total (Eurosystem: EUR 29.9 billion). Two PELTROs matured in 2022. As a result, only the two last PELTROs amounting to EUR 0.1 billion (Eurosystem: EUR 1.1 billion) were outstanding on the balance sheet date (and due to mature on January 26, 2023).

#### *Targeted longer-term refinancing operations (TLTROs III)*

From 2019 onward, the Governing Council of the ECB decided to launch ten targeted longer-term refinancing operations (TLTROs III) with a three-year maturity. For the first seven TLTROs III, from September 2021, starting 12 months after the settlement of each TLTRO III, participants have had the option on a quarterly basis of terminating or reducing the amount of the TLTRO III concerned before maturity.<sup>9</sup> For the eighth or subsequent TLTROs III, participants have had

<sup>7</sup> Guideline of the ECB of 19 December 2014 on the implementation of the Eurosystem monetary policy framework (ECB/2014/60), as amended on May 2, 2022 (ECB/2022/17).

<sup>8</sup> Decisions of the Governing Council of the ECB of April 30, 2020, and of December 10, 2020.

<sup>9</sup> Decision of the ECB of 22 July 2019 on a third series of targeted longer-term refinancing operations (ECB/2019/21), as amended on October 27, 2022 (ECB/2022/37).

that option on a quarterly basis starting from June 2022. According to the initial decisions taken by the Governing Council of the ECB, the final interest rate applicable to each TLTRO III operation could be as low as the average interest rate on the deposit facility prevailing over the life of the operation. In response to the COVID-19 pandemic, in 2020<sup>10</sup> the Governing Council of the ECB decided that for the period between June 24, 2020, and June 23, 2021, and the period between June 24, 2021, and June 23, 2022 – referred to as the special interest rate period and the additional special interest rate period, respectively – the interest rate applicable can be as low as 50 basis points below the average interest rate on the deposit facility prevailing over the same period, but in any case may not become less negative than –1%. Additionally, on October 27, 2022, the Governing Council decided that, from November 23, 2022, until the maturity date or early repayment date of each respective outstanding TLTRO III operation, the interest rate on TLTROs III will be indexed to the average applicable key ECB interest rates over this period. On the same date, the Governing Council decided that three additional voluntary early repayment dates (in November 2022 as well as in January and in February 2023) are introduced to provide TLTRO III participants with additional opportunities to partly, or fully, repay their respective TLTRO III borrowings before their maturity.

This means that for the 2022 financial statements the following rates were used for calculating the TLTRO III interest accruals:

- until June 23, 2022, the interest rates over the additional special interest rate period, for which the interest rate-related data were communicated to the counterparties on June 10, 2022,
- for the period from June 24, 2022, until November 22, 2022, the interest rate was linked to the average applicable key ECB interest rate from the settlement date until November 22, 2022, and
- for the period from November 23, 2022, until December 31, 2022, the interest rate was indexed to the average applicable key ECB interest rate over this period.

Furthermore, the impact of policy rate changes in 2022 on interest of the pre-special interest rate period is also considered in 2022.

The interest rate on the deposit facility is shown in table 2.

All in all, the OeNB conducted 124 TLTRO III operations with Austrian credit institutions in the amount of EUR 87.4 billion (Eurosystème: EUR 2,339.3 billion). By December 31, 2022, EUR 33.9 billion had been repaid by Austrian credit institutions, of which EUR 30.0 billion were early repayments of TLTRO III operations becoming due in 2023 (tranches 3 to 6). As a result, EUR 53.5 billion (Eurosystème: EUR 1,317.5 billion) of these operations were outstanding on the balance sheet date.

## 7 Securities of euro area residents denominated in euro

Table 11 shows the composition of this balance sheet item.

Table 11

	December 31, 2022 EUR million	December 31, 2021 EUR million	Change EUR million	%
7.1 Securities held for monetary policy purposes	113,426.312	107,646.927	+5,779.385	+5.4
7.2 Other securities	6,985.868	7,123.019	–137.151	–1.9
of which:				
Securities	6,835.290	6,797.451	+37.839	+0.6
Held-to-maturity securities	150.578	325.568	–174.990	–53.7
<b>Total</b>	<b>120,412.180</b>	<b>114,769.946</b>	<b>+5,642.234</b>	<b>+4.9</b>

<sup>10</sup> Decisions of the Governing Council of the ECB of April 30, 2020, and of December 10, 2020.

## 7.1 Securities held for monetary policy purposes

On December 31, 2022, this balance sheet item consists of the securities acquired by the OeNB within the scope of the CBPP3, the SMP, the PSPP and the PEPP. These securities are accounted for at amortized cost subject to impairment (see section *Valuation rules and accounting policies*).

The last securities held by the OeNB under the CBPP2 matured in the course of 2022, and therefore the OeNB no longer has holdings of these securities as at December 31, 2022.

Table 12 provides an overview of the Eurosystem's asset purchase programs.

During the first quarter of 2022, the Eurosystem continued its net purchases under the asset purchase programme (APP) at a monthly pace of EUR 20 billion on average. In March 2022, the Governing Council of the ECB decided<sup>11</sup> to revise the net purchase amounts to EUR 40 billion in April, EUR 30 billion in May and EUR 20 billion in June, while in June 2022, the Governing Council decided<sup>12</sup> to end net asset

purchases under the APP as of July 1, 2022. The Governing Council intends to continue reinvesting, in full, the principal payments from maturing securities until the end of February 2023. Subsequently, the APP portfolio will decline at a measured and predictable pace, as the Eurosystem will not reinvest all of the principal payments from maturing securities. The decline will amount to EUR 15 billion per month on average until the end of the second quarter of 2023 and its subsequent pace will be determined over time. The Governing Council will regularly reassess the pace of the APP portfolio reduction to ensure it remains consistent with the overall monetary policy strategy and stance, to preserve market functioning, and to maintain firm control over short-term money market conditions.

Following the decision of the Governing Council of the ECB of December 2021,<sup>13</sup> the Eurosystem continued its net asset purchases under the PEPP during the first quarter of

Table 12

	Start date	End date	Decision	Universe of eligible securities <sup>1</sup>
<b>Completed/terminated programs</b>				
CBPP1	July 2009	June 2010	ECB/2009/16	Covered bonds of euro area residents
CBPP2	November 2011	October 2012	ECB/2011/17	Covered bonds of euro area residents
SMP	May 2010	September 2012	ECB/2010/5	Public and private debt securities issued in the euro area <sup>2</sup>
<b>Asset purchase programme (APP)</b>				
CBPP3	October 2014	active	ECB/2020/8, as amended	Covered bonds of euro area residents
ABSPP	November 2014	active	ECB/2014/45, as amended	Selected tranches of asset-backed securities of euro area residents
PSPP	March 2015	active	ECB/2020/9	Bonds issued by euro area central, regional or local governments or recognized agencies as well as issued by international organizations and multilateral development banks located in the euro area
CSPP	June 2016	active	ECB/2016/16, as amended	Bonds and commercial paper issued by non-bank corporations established in the euro area
<b>Pandemic emergency purchase programme (PEPP)</b>				
PEPP	March 2020	active	ECB/2020/17, as amended	All asset categories eligible under APP <sup>3</sup>

<sup>1</sup> Further eligibility criteria for the specific programs can be found in the decisions of the Governing Council of the ECB.

<sup>2</sup> Only public debt securities issued by five euro area treasuries were purchased under the SMP.

<sup>3</sup> A waiver of the eligibility requirements was granted for securities issued by the Greek government.

<sup>11</sup> Decision of the Governing Council of the ECB of March 10, 2022.

<sup>12</sup> Decision of the Governing Council of the ECB of June 9, 2022.

<sup>13</sup> Decision of the Governing Council of the ECB of December 16, 2021.

2022, though at a lower pace than in the previous quarter. The net PEPP purchases were discontinued at the end of March 2022. The Governing Council intends to reinvest the principal payments from maturing securities purchased under the PEPP until at least the end of 2024. The Governing Council will continue applying flexibility in the reinvestments, with a view to countering risks to the monetary policy transmission mechanism related to the pandemic. The future roll-off of the PEPP portfolio will be managed to avoid interference with the appropriate monetary policy stance.

Tables 13, 14 and 15 show the amortized cost (= book value), the market prices and the nominal value of the securities held by the OeNB.

Profits or losses on securities held for monetary policy purposes are pooled and redistributed under the framework of the allocation of monetary income within the Eurosystem. For securities purchased under the CBPP2<sup>14</sup> as well as government/agency bonds purchased under the PSPP and the PEPP, remuneration at the interest rate on the main refinancing operations (see table 2) is assumed. Any losses incurred under these programs are not shared by the Eurosystem NCBs. For securities purchased under other programs,<sup>15</sup> remuneration is based on the actual return. In accordance with the decision of the Governing Council of the ECB taken under Article 32.4 of the Statute of the ESCB and of the ECB, losses from these securities holdings, if they were to materialize, are shared in full by the Eurosystem NCBs, in proportion to the ECB capital key shares prevailing in the financial year in which the relevant losses occur.

The Governing Council of the ECB assesses on a regular basis the financial risks associated with the securities held under all the monetary policy asset purchase programs. In this context,

Table 13

Book value	December 31, 2022	December 31, 2021	Change	
	EUR million	EUR million	EUR million	%
CBPP2	–	139.485	–139.485	–100.0
CBPP3	13,357.917	10,826.662	+2,531.255	+23.4
SMP	70.224	163.765	–93.540	–57.1
PSPP gov <sup>1</sup>	62,056.283	60,466.743	+1,589.540	+2.6
PEPP gov <sup>1</sup>	37,617.303	35,750.017	+1,867.286	+5.2
PEPP CBs <sup>2</sup>	324.585	300.256	+24.329	+8.1
<b>Total</b>	<b>113,426.312</b>	<b>107,646.927</b>	<b>+5,779.385</b>	<b>+5.4</b>

<sup>1</sup> Government/agency bonds.

<sup>2</sup> Covered bonds.

Table 14

Market price	December 31, 2022	December 31, 2021	Change	
	EUR million	EUR million	EUR million	%
CBPP2	–	140.359	–140.359	–100.0
CBPP3	11,245.015	10,819.401	+425.614	+3.9
SMP	81.489	185.099	–103.610	–56.0
PSPP gov <sup>1</sup>	53,357.456	62,312.382	–8,954.926	–14.4
PEPP gov <sup>1</sup>	30,439.359	35,145.165	–4,705.805	–13.4
PEPP CBs <sup>2</sup>	243.369	294.013	–50.644	–17.2
<b>Total</b>	<b>95,366.688</b>	<b>108,896.419</b>	<b>–13,529.730</b>	<b>–12.4</b>

<sup>1</sup> Government/agency bonds.

<sup>2</sup> Covered bonds.

Table 15

Nominal value	December 31, 2022	December 31, 2021	Change	
	EUR million	EUR million	EUR million	%
CBPP2	–	139.500	–139.500	–100.0
CBPP3	13,368.300	10,739.369	+2,628.931	+24.5
SMP	74.050	169.050	–95.000	–56.2
PSPP gov <sup>1</sup>	57,760.361	54,690.886	+3,069.475	+5.6
PEPP gov <sup>1</sup>	33,767.550	31,484.050	+2,283.500	+7.3
PEPP CBs <sup>2</sup>	320.800	294.400	+26.400	+9.0
<b>Total</b>	<b>105,291.061</b>	<b>97,517.255</b>	<b>+7,773.806</b>	<b>+8.0</b>

<sup>1</sup> Government/agency bonds.

<sup>2</sup> Covered bonds.

<sup>14</sup> The last covered bonds the OeNB had purchased under the CBPP1 and the CBPP2, respectively, were repaid in 2017 and 2022.

<sup>15</sup> SMP, CBPP3, ABSPP, PSPP supranational bonds, CSPP and PEPP (covered bonds, asset-backed securities, supranational bonds, corporate sector securities).

impairment tests are conducted on an annual basis, using data as at the year-end, and are approved by the Governing Council of the ECB. In these tests, impairment indicators are assessed separately for each program. In cases where potential impairment indicators are observed, further analysis is performed to confirm that the cash flows of the underlying securities have not been affected by an impairment event.

As a result of an impairment test conducted at the end of 2022 on securities purchased under the abovementioned asset purchase programs, the Governing Council of the ECB concluded that all future cash flows on these securities are expected to be received. As in the previous year, no impairment losses were therefore recorded for the securities held in any of these programs as at December 31, 2022.

## 7.2 Other securities

As in the previous year, at the balance sheet date, no impairment losses were recorded for held-to-maturity securities. Securities other than held-to-maturity are recognized at market prices.

## 8 General government debt denominated in euro

Closing balance	EUR million
<b>December 31, 2022</b>	<b>381.946</b>
December 31, 2021	386.206
Change	-4.260 (-1.1%)

This balance sheet item corresponds fully to the claim on the Austrian Federal Treasury from silver commemorative coins issued by the former Austrian State Mint before 1989, based on the 1988 Coinage Act (Federal Law Gazette

Table 16

Changes in 2022	EUR million
Government remuneration for silver commemorative coins returned to Münze Österreich AG	+2.525
Proceeds from metal recovery	-0.971
Redemptions made from the central government's share of profit in 2021	-5.814
<b>Total</b>	<b>-4.260</b>

No. 597/1988, as amended); Article 21 paragraph 1 item 2 of this Act authorizes the OeNB to include in its balance sheet an unremunerated claim on the central government in the amount of the face value of the accumulated silver coins. Table 16 shows the changes in 2022.

Pursuant to Article 21 paragraph 2 Coinage Act, the central government has, since 1992, been repaying the resulting debt in annual installments of EUR 5.814 million.

The central government will have to repay any redeemable amount outstanding on December 31, 2040, in equal annual installments over the five following years (2041 to 2045). The unredeemable amount as outstanding at the end of 2040 (equaling 7.5% of the face value of the silver commemorative coins that are (still) in circulation) is covered by a provision (see liability item 13 *Provisions*).

## 9 Intra-Eurosystem claims

Closing balance	EUR million
<b>December 31, 2022</b>	<b>42,966.640</b>
December 31, 2021	31,936.698
Change	+11,029.942 (+34.5%)

Table 17 shows the composition of this balance sheet item.

Table 17

	December 31, 2022 EUR million	December 31, 2021 EUR million	Change EUR million	%
9.1 Participating interest in the ECB	312.224	294.367	+17.857	+6.1
9.2 Claims equivalent to the transfer of foreign reserves	1,180.823	1,180.823	–	–
9.4 Net claims related to the allocation of euro banknotes within the Eurosystem	41,473.593	30,461.507	+11,012.086	+36.2
<b>Total</b>	<b>42,966.640</b>	<b>31,936.698</b>	<b>+11,029.942</b>	<b>+34.5</b>

### 9.1 Participating interest in the ECB

Pursuant to Article 28 of the Statute of the ESCB and of the ECB, the NCBs of the ESCB are the sole subscribers to the capital of the ECB. For the OeNB, this balance sheet item includes the initial paid-up share in the ECB's subscribed capital and the net amount paid by the OeNB due to the increase in its share in the ECB's equity value resulting from all previous adjustments of the ECB's capital key.

Subscriptions depend on shares which are fixed in accordance with Article 29 of the Statute of the ESCB and of the ECB and are subject to adjustment every five years or whenever there is a change in composition of the ESCB NCBs. As a result of the departure of the United Kingdom from the EU and the resulting withdrawal of the Bank of England from the ESCB, the weightings assigned to the remaining NCBs in the ECB's capital key were adjusted with effect from February 1, 2020. The OeNB's share in the ECB's capital fully paid up by the Eurosystem NCBs (relative capital key) amounted to 2.9269% as at the balance sheet date.

The subscribed capital of the ECB is EUR 10,825 million. After the Bank of England's withdrawal from the ESCB on January 31, 2020, the ECB kept its subscribed capital unchanged and the share of the Bank of England in the ECB's subscribed capital was reallocated among both the euro area NCBs and the remaining non-euro area NCBs. As a result, the OeNB's share in the ECB's subscribed capital increased by 17.1% to EUR 257.7 million.

The ECB's paid-up capital also remained unchanged at EUR 7,659 million in 2020, as the remaining NCBs covered the withdrawn Bank of England's paid-up capital of EUR 58 million. In addition, the Governing Council of the ECB decided that the euro area NCBs would pay up in full their increased subscriptions in two annual installments in 2021 and 2022.<sup>16</sup> As

a result, the OeNB was required to pay up an installment of EUR 17.9 million on December 29, 2021, increasing its share in the paid-up capital of the ECB from EUR 222.0 million in 2020 to EUR 239.8 million in 2021. On December 28, 2022, the OeNB subsequently paid up its final installment of EUR 17.9 million, increasing its share in the paid-up capital of the ECB from EUR 239.8 million in 2021 to EUR 257.7 million in 2022.

### 9.2 Claims equivalent to the transfer of foreign reserves

This balance sheet item represents the OeNB's claims arising from the transfer of foreign reserve assets to the ECB. The claims are presented at the euro value the corresponding assets had at the time they were transferred to the ECB. Pursuant to Article 30.2 of the Statute of the ESCB and of the ECB, these contributions of the NCBs to the transfer of foreign reserve assets to the ECB are fixed in proportion to their share in the ECB's subscribed capital. The remuneration of these claims is calculated daily at the latest available interest rate on the main refinancing operations, adjusted to reflect a zero return on the gold component. The claims on the ECB do not constitute claims for a re-transfer of foreign reserve assets. See section *Notes on transactions not disclosed in the balance sheet* for information about any additional capital contributions to be transferred to the ECB.

### 9.4 Net claims related to the allocation of euro banknotes within the Eurosystem

This balance sheet item consists of the OeNB's claims vis-à-vis the Eurosystem relating to the allocation of euro banknotes within the Eurosystem (see section *Banknotes in circulation, intra-Eurosystem balances and interim ECB profit distribution*).

<sup>16</sup> See in particular Decision of the ECB of 22 January 2020 on the paying-up of the European Central Bank's capital by the national central banks of Member States whose currency is the euro and repealing Decision (EU) 2019/44 (ECB/2020/4); Decision of the ECB of 22 January 2020 on the paying-up of the European Central Bank's capital by the non-euro area national central banks and repealing Decision (EU) 2019/48 (ECB/2020/2); Decision of the ECB of 22 January 2020 laying down the terms and conditions for transfers of the European Central Bank's capital shares between the national central banks and for the adjustment of the paid-up capital and repealing Decision (EU) 2019/45 (ECB/2020/5).

Table 18

	December 31, 2022	December 31, 2021	Change	
	EUR million	EUR million	EUR million	%
11.1 Coins of euro area	87.100	116.448	-29.348	-25.2
11.2 Tangible and intangible fixed assets	170.742	175.991	-5.250	-3.0
11.3 Other financial assets	8,506.308	6,865.863	+1,640.445	+23.9
11.5 Accruals and prepaid expenses	1,143.393	890.830	+252.563	+28.4
11.6 Sundry	1,035.042	905.925	+129.117	+14.3
<b>Total</b>	<b>10,942.585</b>	<b>8,955.057</b>	<b>+1,987.528</b>	<b>+22.2</b>

## 11 Other assets

Table 18 shows *other assets*.

### 11.1 Coins of euro area

This balance sheet item represents the OeNB's stock of fit coins issued by euro area countries.

### 11.2 Tangible and intangible fixed assets

Table 19 shows the composition of this balance sheet item.

Equipment contains, inter alia, office equipment, the art collection, IT hardware and software as well as motor vehicles.

Tangible real assets comprise the OeNB's Money Museum collection items carried as assets (coins, historical banknotes and historical securities, objects related to the history of money and stamps) and the OeNB's collection of historical string instruments. On December 31, 2022, unchanged against the previous year, the latter comprised 36 violins, six violoncellos and three violas. The string instruments are on loan to musicians under the OeNB's cultural promotion program.

### 11.3 Other financial assets

Table 20 shows *other financial assets*.

Table 19

	Acquisition and production costs				Accumulated depreciation					Book value		
	As at Jan. 1, 2022	Additions	Disposals	Transfer	As at Dec. 31, 2022	As at Jan. 1, 2022	Annual depreciation	Depreciation disposals	Transfer	As at Dec. 31, 2022	As at Jan. 1, 2022	As at Dec. 31, 2022
	EUR million				EUR million					EUR million		
Land and buildings <sup>1</sup>	119.726	0.892	-0.012	-	120.607	-88.154	-4.680	0	-	-92.833	31.573	27.773
Equipment	100.580	7.005	-4.726	-	102.859	-69.702	-8.390	4.655	-	-73.436	30.878	29.422
Tangible real assets	116.587	0.022	-	-	116.609	-3.130	-	-	-	-3.130	113.458	113.480
Intangible fixed assets	0.173	-	-	-	0.173	-0.090	-0.017	-	-	-0.107	0.083	0.066
<b>Total</b>	<b>337.066</b>	<b>7.919</b>	<b>-4.738</b>	<b>-</b>	<b>340.248</b>	<b>-161.075</b>	<b>-13.087</b>	<b>4.656</b>	<b>-</b>	<b>-169.506</b>	<b>175.991</b>	<b>170.742</b>

<sup>1</sup> The book value of developed land equals zero. Land and buildings acquired prior to December 31, 1956, were booked at the cost recorded in the opening schilling balance sheet (Federal Law Gazette No. 190/1954).

Table 20

	December 31, 2022	December 31, 2021	Change	
	EUR million	EUR million	EUR million	%
Securities	7,775.539	6,142.657	+1,632.882	+26.6
Participating interests	730.314	722.604	+7.711	+1.1
Other investment and claims	0.455	0.602	-0.147	-24.5
<b>Total</b>	<b>8,506.308</b>	<b>6,865.863</b>	<b>+1,640.445</b>	<b>+23.9</b>

EUR 1,592.121 million of the OeNB's total securities portfolio represent investments of pension reserve assets, another EUR 1,472.097 million reflect investments of the OeNB Anniversary Fund for the Promotion of Scientific Research and Teaching (of which EUR 1,434.481 million were earmarked as an endowment for the National Foundation). Under its own funds management, the OeNB had invested EUR 4,711.321 million.<sup>17</sup>

Of the participating interests, EUR 425.499 million formed part of the own funds portfolio and EUR 304.815 million part of the investment portfolio relating to investments of the pension reserve. Table 21 shows the changes in participating interests.

### 11.5 Accruals and prepaid expenses

Table 22 shows the composition of this balance sheet item.

### 11.6 Sundry

Table 23 shows the composition of this balance sheet item.

Table 21

EUR million

Net asset value on December 31, 2021	722.604
Additions in 2022	—
Disposals in 2022 (at book value)	—
Annual depreciation in 2022	—
Revaluation in 2022	+7.711
Net asset value on December 31, 2022	730.314

Table 22

	December 31, 2022 EUR million	December 31, 2021 EUR million	Change EUR million	%
Accrued income	15.990	13.966	+2.024	+14.5
Prepaid expenses (especially accrued interest)	1,127.403	876.865	+250.538	+28.6
<b>Total</b>	<b>1,143.393</b>	<b>890.830</b>	<b>+252.563</b>	<b>+28.4</b>

Table 23

	December 31, 2022 EUR million	December 31, 2021 EUR million	Change EUR million	%
Claims arising from ERP loans to companies	853.233	763.963	+89.270	+11.7
Claims on Münze Österreich AG in respect of dividends for 2022 and 2021, respectively	94.766	70.135	+24.631	+35.1
unsettled schilling coin returns	0.018	0.030	−0.012	−41.1
Claims on the tax authorities	33.947	9.259	+24.688	n.a.
Employer loans	14.676	16.378	−1.702	−10.4
Accounts receivable	11.913	11.015	+0.897	+8.1
Advances	9.081	8.532	+0.549	+6.4
Balancing item relating to forward sales or purchases	6.919	16.060	−9.141	−56.9
Advances on salaries	6.587	7.341	−0.754	−10.3
Schilling coins	2.651	2.440	+0.211	+8.7
Other accounts receivable	1.252	0.772	+0.480	+62.2
<b>Total</b>	<b>1,035.042</b>	<b>905.925</b>	<b>+129.117</b>	<b>+14.3</b>

<sup>17</sup> The OeNB's own funds shown under liabilities include its capital, the reserve for nondomestic and price risks, the profit-smoothing reserve, earmarked capital funded with net interest income from ERP loans and the risk provision.

The residual terms of advances on salaries mostly exceed one year. All advance payments and employer loans are secured by life insurance or credit default insurance contracts.

## Liabilities

### 1 Banknotes in circulation

Closing balance	EUR million	
<b>December 31, 2022</b>	<b>42,326.989</b>	
December 31, 2021	41,582.593	
Change	+744.395	(+1.8%)

This item consists of the OeNB's share of total euro banknotes in circulation (table 24).

For further explanations on this item, see section *Banknotes in circulation, intra-Eurosystem balances and interim ECB profit distribution*.

### 2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro

Table 25 shows the composition of this balance sheet item.

### 2.1 Current accounts (covering the minimum reserve system)

This balance sheet item contains the credit balances on the transaction accounts of credit institutions that are required to hold minimum reserves<sup>18</sup>, excluding funds of credit institutions that are not freely disposable, and excluding accounts of credit institutions that are exempt from minimum reserve requirements, which are disclosed separately under liability item 3 *Other liabilities to euro area credit institutions denominated in euro*.

Banks' minimum reserve balances until December 20, 2022, were remunerated at the latest available interest rate used by the Eurosystem in its tenders for main refinancing operations. On October 27, 2022, the Governing Council of the ECB decided that, starting from December 21, 2022, these balances will be remunerated at the Eurosystem's deposit facility rate.

Since June 2014, the reserve holdings exceeding the required minimum reserves have been remunerated at 0% or the deposit facility rate,

Table 24

	December 31, 2022 EUR million	December 31, 2021 EUR million	Change EUR million	%
Total value of euro banknotes put into circulation	853.396	11,121.086	-10,267.690	-92.3
Adjusted for net claims related to the allocation of euro banknotes within the Eurosystem	41,473.593	30,461.507	+11,012.086	+36.2
of which:				
Claims related to the allocation of euro banknotes within the Eurosystem	45,154.529	34,077.708	+11,076.822	+32.5
less:				
Liabilities resulting from the ECB's share in euro banknotes in circulation <sup>1</sup>	3,680.936	3,616.200	+64.736	+1.8
<b>Total<sup>2</sup></b>	<b>42,326.989</b>	<b>41,582.593</b>	<b>+744.395</b>	<b>+1.8</b>

<sup>1</sup> This corresponds to the OeNB's share in the 8% of the total value of euro banknotes in circulation that is recorded in the balance sheet of the ECB.

<sup>2</sup> This corresponds to 2.6925% of the total amount of euro banknotes in circulation as at December 31, 2022, and December 31, 2021.

Table 25

	December 31, 2022 EUR million	December 31, 2021 EUR million	Change EUR million	%
2.1 Current accounts (covering the minimum reserve system)	5,477.599	112,099.536	-106,621.936	-95.1
2.2 Deposit facility	92,422.613	12,550.000	+79,872.613	n.a.
<b>Total</b>	<b>97,900.212</b>	<b>124,649.536</b>	<b>-26,749.324</b>	<b>-21.5</b>

<sup>18</sup> Regulation of the ECB of 22 January 2021 on the application of minimum reserve requirements (ECB/2021/1), as amended on December 6, 2022 (ECB/2022/43).

whichever is lower. Starting on October 30, 2019, the Governing Council of the ECB introduced a two-tier system for reserve remuneration, which exempted part of credit institutions' excess liquidity holdings from negative remuneration at the rate applicable on the deposit facility. This part was remunerated at the annual rate of 0%. The volume of reserve holdings in excess of minimum reserve requirements that was exempt from negative remuneration – the exempt tier – was determined as a multiple of six<sup>19</sup> of an institution's minimum reserve requirement. The non-exempt tier of excess liquidity holdings continued to be remunerated at the lower of either 0% or the deposit facility rate. Following the raising of the deposit facility rate to above zero as of September 14, 2022, the Governing Council of the ECB decided to suspend the two-tier system by setting the multiplier to zero as the two-tier system for the remuneration of excess reserves was no longer necessary.<sup>20</sup>

For the development of the interest rate on the main refinancing operations and of the deposit facility rate, see table 2.

## 2.2 Deposit facility

The item *deposit facility* refers to overnight deposits placed with the OeNB by credit institutions that access the liquidity-absorbing standing facility at a prespecified rate.

For the development of the rate on the deposit facility, see table 2.

## 3 Other liabilities to euro area credit institutions denominated in euro

Closing balance	EUR million
<b>December 31, 2022</b>	<b>569.436</b>
December 31, 2021	947.990
Change	-378.553 (-39.9%)

This item includes credit balances on the current accounts of credit institutions required to hold minimum reserves that are not freely disposable and cover assets.

<sup>19</sup> The multiplier may be adjusted by the Governing Council of the ECB over time in line with changing levels of excess liquidity holdings.

<sup>20</sup> Decision of the Governing Council of the ECB of September 8, 2022.

## 5 Liabilities to other euro area residents denominated in euro

Closing balance	EUR million
<b>December 31, 2022</b>	<b>6,356.449</b>
December 31, 2021	12,596.209
Change	-6,239.760 (-49.5%)

This balance sheet item comprises general government deposits of EUR 3,210.542 million (2021: EUR 9,267.295 million) and current account holdings to the amount of EUR 3,145.907 million (2021: EUR 3,328.914 million) of financial institutions not required to hold minimum reserves and of enterprises.

## 6 Liabilities to non-euro area residents denominated in euro

Closing balance	EUR million
<b>December 31, 2022</b>	<b>277.359</b>
December 31, 2021	4,001.498
Change	-3,724.139 (-93.1%)

This balance sheet item consists of balances of central banks, credit institutions and supranational financial institutions resident outside the euro area.

## 9 Counterpart of Special Drawing Rights allocated by the IMF

Closing balance	EUR million
<b>December 31, 2022</b>	<b>6,890.557</b>
December 31, 2021	6,803.579
Change	+86.978 (+1.3%)

This balance sheet item represents the euro equivalent of the SDR 5,504.959 million allocated gratuitously to the OeNB by the IMF up to August 2021, measured at current market prices. The OeNB was allocated SDRs on each January 1, from 1970 to 1972 and from 1979 to 1981 as well as on August 28 and September 9, 2009, and most recently on August 23, 2021 (see asset item 2.1 *Receivables from the IMF*).

## 10 Intra-Eurosystem liabilities

Closing balance	EUR million
<b>December 31, 2022</b>	<b>81,744.889</b>
December 31, 2021	57,148.228
Change	+24,596.661 (+43.0%)

This balance sheet item shows the OeNB's net liabilities arising from transactions with the NCBs participating in TARGET2 and with the ECB. It also comprises the nonremunerated liabilities to the ECB resulting from EUR/USD swap transactions between the ECB and the OeNB. Moreover, this item covers the Eurosystem balance arising at year-end from the monetary income reallocation and the balances arising from any interim ECB profit distribution.

*Intra-Eurosystem liabilities* with the ECB (excluding the abovementioned swap transactions)

are remunerated on a daily basis at the prevailing interest rate on the main refinancing operations (see table 2).

## 12 Other liabilities

Table 26 shows the composition of *other liabilities*.

### 12.3 Sundry

Table 27 shows the composition of sundry liabilities.

Pursuant to Article 69 paragraph 3 Nationalbank Act, the central government's share of profit corresponds to 90% of the annual net profit after transfers to the pension reserve. Given a balanced annual result of zero, no share of profit is recorded for the financial year 2022.

The item earmarked funds of the OeNB Anniversary Fund refers to the funds not yet disbursed at the balance sheet date.

Table 26

	December 31, 2022 EUR million	December 31, 2021 EUR million	Change EUR million	%
12.1 Off balance sheet instruments' revaluation differences	6.912	14.996	-8.085	-53.9
12.2 Accruals and income collected in advance	1,039.214	1,132.613	-93.399	-8.2
12.3 Sundry	35.872	105.992	-70.121	-66.2
<b>Total</b>	<b>1,081.997</b>	<b>1,253.601</b>	<b>-171.604</b>	<b>-13.7</b>

Table 27

	December 31, 2022 EUR million	December 31, 2021 EUR million	Change EUR million	%
Central government's share of profit of 90% under Article 69 paragraph 3 Nationalbank Act	–	57.190	-57.190	-100.0
Earmarked funds of the OeNB Anniversary Fund				
OeNB Anniversary Fund (initial funding)	31.184	32.280	-1.095	-3.4
OeNB Anniversary Fund National Foundation endowment	–	12.212	-12.212	-100.0
Sundry	4.687	4.310	+0.377	+8.8
<b>Total</b>	<b>35.872</b>	<b>105.992</b>	<b>-70.121</b>	<b>-66.2</b>

### 13 Provisions

Table 28 shows *provisions*.

In 2022, EUR 1,933.607 million were used from the risk provision to fully offset the write-downs on securities and foreign currency in the amount of EUR 1,349.131 million (profit and loss item 2.2 *Expenses related to financial assets and positions*) as well as realized losses arising from differences in security prices in the amount of EUR 584.476 million (profit and loss item 2.1 *Realized gains/losses arising from financial operations*). Apart from that, the amount of the risk provision was not further adjusted. In view of the risk range and having taken monetary policy, macroeconomic and financial stability considerations into account, the Governing Board allocated EUR 220.000

million to adjust the risk provision in the financial statements for 2021. For more details, see *Provisions for financial risks and loss-absorbing capital* as well as profit and loss item 2 *Net result of financial operations, write-downs and risk provisions*.

The OeNB's retirement plan for employees recruited up to April 30, 1998, is based on internally funded pensions. The legal basis of this plan is the Nationalbank Act. It obligates the OeNB to hold a pension reserve to cover its liability under this retirement plan. All employees recruited from May 1, 1998, are covered by the pension system under the General Social Security Act (Allgemeines Sozialversicherungsgesetz – ASVG). With effect from May 1, 1999, a contract between the OeNB and a pension fund was concluded for these employees. This means that

Table 28

	December 31, 2021	Use/release	Allocation	December 31, 2022
	EUR million	EUR million	EUR million	EUR million
<b>Risk provision</b>	4,398.169	–1,933.607	–	2,464.563
<b>Pension reserve</b>	2,179.299	–294.496	+10.828	1,895.631
<b>Personnel provisions</b>				
Supplementary contributions to pension plans	78.467	–1.554	–	76.912
Severance payments	57.573	–4.690	+7.285	60.168
Anniversary bonuses	20.612	–2.128	–	18.485
Compensation for the pension fund agreement (third-generation Conditions of Service)	18.823	–18.823	–	–
Residual leave entitlements	17.914	–0.280	+0.647	18.282
Other emoluments	8.302	–8.302	+8.542	8.542
Death gratuity payments	4.219	–	+1.006	5.225
Overtime entitlements	1.222	–0.127	–	1.095
One-off contributions for employees on secondment or leave	0.878	–0.205	+0.063	0.736
Prepaid salaries in 2021 or 2022	0.362	–0.362	+0.390	0.390
Sabbaticals	0.078	–	+0.019	0.097
Compulsory social security contributions	0.069	–0.069	+0.088	0.088
Partial retirement (early-exit scheme)	0.021	–	+0.175	0.196
<b>Other provisions</b>				
Schilling banknotes without an exchange deadline	107.070	–1.033	–	106.038
Estimated unredeemable amount outstanding from the Austrian Federal Treasury for silver commemorative coins issued before 1989	43.289	–13.776	–	29.513
Corporate income tax	23.532	–23.532	–	–
Loss compensation OeNPAY	6.815	–1.463	+0.039	5.391
Accounts payable	6.660	–3.407	+2.753	6.006
Accounts payable to subsidiaries	2.656	–2.656	+3.326	3.326
Sundry	1.374	–0.860	+1.258	1.772
<b>Total</b>	<b>6,977.404</b>	<b>–2,311.371</b>	<b>+36.420</b>	<b>4,702.453</b>

the OeNB's direct liability to pay retirement benefits is limited to staff recruited before May 1, 1998, and that, as a result, the pension reserve set up to secure this liability has become a closed system.

Pursuant to Article 69 paragraph 2 National-bank Act, the OeNB has to transfer up to 10% of its annual net profit, after changes in reserves and adjusted for any profit/loss carried forward, to the pension reserve until the pension reserve meets the actuarial present value of projected pension benefits securing the pension claims of OeNB staff.

Since January 1, 2015, staff members employed under the first and second generations of the OeNB's Conditions of Service have been obliged, pursuant to the Act to Limit Specific Pension Benefits (Sonderpensionenbegrenzungs-gesetz – SpBegrG), to pay pension contributions to the OeNB (first generation: 10.25% as from 2018; second generation: 10.25% of basic salaries up to the earnings cap as defined in the General Social Security Act, and as from 2017, 5% for any part of salaries in excess of this earnings cap). Retired staff who are entitled to pension or supplementary pension payments under the first and second generations of the OeNB's Conditions of Service have been obliged to make a special pension contribution (of between 3.3% and 25%) to the OeNB from their monthly pension benefits as well as from special payments they are entitled to.

In 2022, the pension reserve was partly used for pension expenses, as the OeNB's current earnings (i.e. its operating profit) did not fully cover the pension payouts. The net loss arising from the investments and valuation of pension reserve assets was likewise offset by the pension reserve and did therefore not affect the OeNB's profit and loss account. For more details, see profit and loss item 8 *Expenses for retirement*.

The actuarial present value of projected pension benefits, amounting to EUR 3,466.684 million on December 31, 2022, was not fully covered by the pension reserve and hidden reserves in the real estate portfolio. The EUR 1,133.381 million funding gap as at December 31, 2022, was recorded as a contingent liability (see section *Notes on transactions not disclosed in the balance sheet*, table 32).

In line with the average cost method as set forth in opinion no. 27 "Personnel provisions (Commercial Code – UGB)" by the Austrian Financial Reporting and Auditing Committee (AFRAC), the discount rate is derived from the seven-year moving average of the interest rate (discount interest rates pursuant to Article 253 paragraph 2 of the German Commercial Code based on the last 84 month-end values) applied to an average residual maturity of 15 years as published by the Deutsche Bundesbank on November 30, 2022. The discount rate and the assumptions adopted for the annual assessment base growth rates are shown in table 29.

The actuarial present value of projected pension benefits was calculated by applying the pension calculation rules published by the Austrian Actuarial Association (AVÖ 2018-P – Rechnungsgrundlagen für die Pensionsversicherung). The reasons that entitle employees or their dependents to receive benefits from the pension reserve are death, disability or withdrawal from employment upon attainment of pension entitlement age. Fluctuations are not taken into account. The pension entitlement age is governed by the provisions in the applicable Conditions of Service and service contracts, in observance of the Act to Limit Specific Pension Benefits. The pension scheme liabilities for beneficiaries are stated pro rata. The net present value is used for prospective beneficiaries that have attained pension entitlement age and for those who have qualified for benefits. The

adjusted discount rate caused the projected pension benefits to decrease by EUR 39.200 million and the change in the assumed assessment base growth rate caused the projected pension benefits to rise by EUR 366.575 million in 2022. In addition, the adjustment of the average increments used in the actuarial calculations increased the projected pension benefits by EUR 1.791 million.

Beyond pension benefits, provisions for severance payments, anniversary bonuses, residual leave entitlements, death gratuity payments and supplementary contributions to pension plans are calculated according to actuarial principles. Except for the pension entitlement age, the calculations are based on the same legal provisions, methods and assessment bases as those used to calculate the actuarial present value of projected pension benefits to be covered by the pension reserve. The pension entitlement age to be used for these calculations has been aligned with the age at which employees whose employment contracts are subject to compulsory pension insurance initially joined the OeNB. For employees who joined the OeNB aged 25 or older, the statutory retirement age is used. For employees who joined the OeNB under the age of 25, the lower of their initial recruitment age plus 40 years or the earliest possible corridor pension age or the statutory retirement age is used. In both cases, the OeNB accounts for the transitional provisions that apply to women.

The provisions for death gratuity payments and for supplementary contributions to pension plans are calculated in the same way as the pension reserve. In addition, with regard to the provisions for supplementary contributions to pension plans, the pension fund is assumed to yield an average future investment income of 3.5% per annum.

The discount rate used for calculating the provisions for severance payments, partial retirement (early-exit scheme) and sabbaticals is the seven-year moving average of the interest rate (discount interest rates pursuant to Article 253 paragraph 2 of the German Commercial Code based on the last 84 month-end values) applied to an average residual maturity of eight years as published by the Deutsche Bundesbank on November 30, 2022. The calculation of the provision for anniversary bonuses was based on an assumed average residual maturity of ten years. The discount rates and the assumptions adopted for the annual assessment base growth rates are shown in table 29.

As regards the provisions for severance payments, the adjustment of the average increments used in the actuarial calculations as well as the change in the discount rate led to a decrease of EUR 0.832 million and EUR 0.203 million, respectively, while the change in the assumed assessment base growth rates raised the provision by EUR 4.040 million. The provisions for anniversary bonuses decreased in line with the adjusted increments (–EUR 0.618 million) and the adjusted discount rate (–EUR 0.080 million) and increased owing to the change in the assumed assessment base growth rates (+EUR 1.370 million).

The provisions for death gratuity payments and for supplementary contributions to pension plans are calculated in the same way as the pension reserve. The provisions for supplementary contributions to the pension plans declined by EUR 0.287 million as a result of the adjusted discount rate and increased by EUR 6.640 million due to the change in the assumed assessment base growth rates. At the same time, the provisions for supplementary contributions to the pension plans decreased by a significant

Table 29

Parameter	December 31, 2022 % per annum	December 31, 2021 % per annum
<b>Discount rate</b>		
Pension reserve, supplementary contributions to the pension plans and death gratuity payments	1.43	1.36
Severance payments, partial retirement (early-exit scheme) and sabbaticals	0.98	0.87
Anniversary bonuses	1.15	1.05
<b>Assumed growth rates (long-term trend)</b>		
Qualifying period <sup>1</sup>	2.8	2.3
Current pension payments <sup>2</sup>	2.2	1.8

<sup>1</sup> As real salaries are expected to be higher, the 2023 and 2024 assumed growth rates deviate from the long-term trend both for payroll development and valuation (2023: 6.1%; 2024: 5.7%).

<sup>2</sup> As ASVG pension adjustments are expected to be higher, the 2023 and 2024 assumed growth rates deviate from the long-term trend both for payroll development and valuation (2023: 5.8%; 2024: 3.0%).

EUR 16,001 million due to the revised average increments.

Table 29 provides an overview of the discount rates and assumed growth rates underlying actuarial calculations.

The changes in the provisions for anniversary bonuses and other long-term personnel provisions are recorded in profit and loss item 7 *Staff costs* under *salaries* and the change in the provisions for severance payments is recorded under *expenses for severance payments and contributions to severance funds*. The change in the provisions for supplementary contributions to pension plans is recorded in profit and loss item 8 *Expenses for retirement*. If the netting of transfers to and transfers from the respective provisions yields a positive balance, this amount is recorded under profit and loss item 6 *Other income*.

Pending agreement on a pension fund settlement, the OeNB had established a provision in 2021 for compensation payments in 2022 to employees subject to the third generation of the Conditions of Service. As this agreement was not achieved, the provision was released in 2022. For more details, see profit and loss item 6 *Other income*.

The level of the provision for schilling banknotes without an exchange deadline, which was established on December 31, 2002, without affecting income, relates to the expected amount of schilling banknotes to be redeemed, while taking into account the annual exchange amounts in the past. As exchange expectations

remained largely unchanged compared to last year, the provision was only reduced for the exchange made in 2022 in the amount of EUR 1.033 million.

On account of a loss compensation agreement according to which the OeNB, starting from the financial year 2021, covers any annual losses of its subsidiary OeNPAY of up to a total amount of EUR 8 million for a period of five years, the OeNB established a long-term provision on December 31, 2021. In 2022, EUR 1.463 million were transferred from the provision to cover the OeNPAY's loss in 2022, and the remaining provision was discounted to the net present value. As a consequence, EUR 0.039 million had to be transferred to the provision (see also profit and loss item 2 *Net result of financial operations, write-downs and risk provisions*).

#### 14 Revaluation accounts

This balance sheet item contains unrealized valuation gains as well as revaluation effects from the revaluation of participating interests recorded in the opening balance sheet of January 1, 1999 (initial valuation), which have not been released yet. Table 30 shows the composition of this balance sheet item.

The amounts on the revaluation accounts reflect the valuation gains established in the course of the valuation of assets (by individual valuation units) as on December 31, 2022. These gains are realizable in the context of future transactions in the respective categories or may

Table 30

	December 31, 2022	December 31, 2021	Change	
	EUR million	EUR million	EUR million	%
<b>Revaluation accounts</b>				
Gold	13,140.441	12,270.909	+869.532	+7.1
Foreign currency	766.527	555.581	+210.945	+38.0
Securities	628.478	1,366.942	-738.464	-54.0
Participating interests	136.131	128.420	+7.711	+6.0
Collection of the OeNB's Money Museum	64.368	64.368	–	–
	<b>14,735.944</b>	<b>14,386.221</b>	<b>+349.723</b>	<b>+2.4</b>
<b>Valuation gains from January 1, 1999</b>				
Participating interests	262.741	262.741	–	–
<b>Total</b>	<b>14,998.685</b>	<b>14,648.962</b>	<b>+349.723</b>	<b>+2.4</b>

be used to reverse revaluation losses that may arise in future years. Any other use is inadmissible.

## 15 Capital and reserves

According to Article 8 Nationalbank Act, the capital of the OeNB is EUR 12 million and is divided equally into 150,000 shares. The Republic of Austria has been the sole shareholder of the OeNB since May 27, 2010, with the Ministry of Finance acting as the shareholder's representative. Table 31 shows *reserves*.

The profit-smoothing reserve may be used to level out the annual result. According to the General Meeting's decision of March 30, 2022, EUR 0.154 million out of the profit for the year 2021 were allocated to the profit-smoothing reserve. When the financial statements for 2022 were prepared, EUR 0.005 million were released from the profit-smoothing reserve to enable the OeNB to obtain a balanced result (see also profit and loss item 14 *Transfer from/to reserves*).

The reserve for nondomestic and price risks serves to cover the OeNB's financial risks.

The capital of the OeNB Anniversary Fund for the Promotion of Scientific Research and Teaching consists of its initial funding (EUR 40.0 million) and an endowment to support the National Foundation (EUR 1,435.3 million). The change in the financial year 2022 results from the net loss from investments and valuation.

Funds earmarked for appropriation by the Anniversary Fund to the National Foundation may be used to obtain a balanced result, funds from the initial funding of the Anniversary Fund may be used to cover any loss for the year.

Earmarked capital funded with net interest income from ERP loans represents the cumulative interest income accruing to the OeNB from lending out of the ERP loan portfolio managed by the OeNB. Appropriation of this ERP capital is subject to international law; this item is earmarked exclusively for ERP loans. Therefore, ERP capital must not be used to cover any loss for the year.

Table 31

	December 31, 2022	December 31, 2021	Change	
	EUR million	EUR million	EUR million	%
Profit-smoothing reserve	148.849	148.700	+0.149	+0.1
Reserve for nondomestic and price risks	1,973.263	1,973.263	–	–
OeNB Anniversary Fund for the Promotion of Scientific Research and Teaching	1,475.256	1,492.900	-17.644	-1.2
Earmarked capital funded with net interest income from ERP loans	666.823	665.546	+1.276	+0.2
<b>Total</b>	<b>4,264.191</b>	<b>4,280.409</b>	<b>-16.219</b>	<b>-0.4</b>

Table 32

	December 31, 2022 EUR million	December 31, 2021 EUR million
Obligation under the IMF's Articles of Agreement to provide currency for SDRs up to the point at which the OeNB's SDR holdings are three times as high as its gratuitously allocated SDRs <sup>1</sup>	13,720.605	13,664.926
Contingent liability to the IMF under the NAB <sup>1</sup>	4,530.661	4,441.955
Contingent liability to the IMF under the bilateral borrowing agreement <sup>1</sup>	2,641.000	2,641.000
Obligation to make supplementary contributions to the stake in the capital of the BIS (8,564 shares of SDR 5,000 each)	40.198	39.691
Forward purchases (euro- and foreign currency-denominated forward transactions and swaps)	2,215.669	204.136
Forward sales (euro- and foreign currency-denominated forward transactions and swaps)	2,215.669	204.136
Liabilities from foreign currency investments effected in the OeNB's name for third account	55.364	64.311
Repayment obligation upon termination of employment equivalent to the interest accrued on pension contributions paid by OeNB staff	18.432	18.043
Contingent liability relating to the funding gap in the pension reserve	1,133.381	509.333
Contingent liability equivalent to the OeNB's share of the maximum of EUR 50 billion of reserve assets that the ECB may call up under Article 30.1 of the Statute of the ESCB and of the ECB	1,190.200	1,190.200
Contingent asset arising from bank guarantees received	8.017	7.838
Contingent asset from OeKB guarantees for payment transactions	1,000.000	1,000.000
Financial assistance granted under the ERP Fund	7.338	7.380

<sup>1</sup> These contingent liabilities may be activated by the IMF against remuneration, giving rise to a corresponding claim of the same size.

Table 33

	2022 EUR million	2021 EUR million	Change <sup>1</sup> EUR million	%
1 Net interest income	-289.011	90.125	+379.136	n.a.
2 Net result of financial operations, write-downs and risk provisions	126.276	-46.619	+172.895	n.a.
3 Net income from fees and commissions	1.372	1.465	-0.092	-6.3
4 Income from equity shares and participating interests	100.740	92.356	+8.384	+9.1
5 Net result of pooling of monetary income	280.605	284.289	-3.684	-1.3
6 Other income	74.867	90.380	-15.513	-17.2
<b>Total net income</b>	<b>294.849</b>	<b>511.996</b>	<b>-217.146</b>	<b>-42.4</b>
7 Staff costs	-170.031	-164.685	+5.347	+3.2
8 Expenses for retirement	-13.623	-129.029	-115.405	-89.4
9 Administrative expenses	-85.796	-80.588	+5.208	+6.5
10 Depreciation of tangible and intangible fixed assets	-13.087	-13.116	-0.029	-0.2
11 Banknote production services	-4.575	-23.868	-19.293	-80.8
12 Other expenses	-7.738	-6.568	+1.170	+17.8
<b>Total expenses</b>	<b>-294.849</b>	<b>-417.853</b>	<b>-123.003</b>	<b>-29.4</b>
<b>Operating profit</b>	<b>-</b>	<b>94.143</b>	<b>-94.143</b>	<b>-100.0</b>
13 Corporate income tax	-0.005	-23.538	-23.532	-100.0
<b>Annual net profit/loss</b>	<b>-0.005</b>	<b>70.605</b>	<b>+70.611</b>	<b>+100.0</b>
14 Transfer from/to reserves <sup>2</sup>	0.005	-	+0.005	x
15 Profit/loss carried forward from the previous year <sup>2</sup>	-	-	-	-
16 Transfer to the pension reserve and central government's share of profit	-	-64.251	-64.251	-100.0
<b>17 Profit for the year</b>	<b>-</b>	<b>6.354</b>	<b>-6.354</b>	<b>-100.0</b>

<sup>1</sup> Absolute increase (+) or decrease (-) in the respective item.

<sup>2</sup> In line with the profit and loss account format laid down in Article 231 of the Commercial Code (Unternehmensgesetzbuch – UGB), the OeNB's profit and loss account was adjusted for the financial year 2022 to include the items Transfer from/to reserves and Profit/loss carried forward from the previous year.

## Notes on transactions not disclosed in the balance sheet

Table 32 shows transactions not disclosed in the balance sheet.

## Notes on the profit and loss account

Table 33 shows the profit and loss account.

### 1 Net interest income

*Net interest income* represents the balance of interest income and interest expense (table 34). This item visibly reflects the impact of the key interest rate increases. For the development of the key interest rates, see table 2.

### 2 Net result of financial operations, write-downs and risk provisions

Table 35 shows the *net result of financial operations, write-downs and risk provisions*.

On December 31, 2022, the expenses related to participating interests were ascribable to transfers to the long-term risk provision under the loss compensation agreement with the OeNPAY (for details see liability item 13 *Provisions*). In 2021, these expenses comprised the loss compensation paid for the financial year 2021 and the cost of establishing a long-term provision to cover the residual amount of compensation for the subsequent four financial years.

In 2022, the risk provision was reduced by EUR 1,933.607 million to offset, without affecting income, the write-downs on foreign currency and securities as well as the realized losses arising from differences in security prices. For details on the risk provision, see liability item 13 *Provisions*.

Table 34

	2022 EUR million	2021 EUR million	Change EUR million	%
Monetary policy operations and deposits	-595.906	-297.912	+297.994	+100.0
TARGET2	-355.845	–	+355.845	x
Securities held for monetary policy purposes	209.334	175.470	+33.864	+19.3
Intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem	200.557	–	+200.557	x
Net interest income from foreign currency investments	144.919	66.447	+78.472	+118.1
Net interest income from euro investments	43.254	35.144	+8.111	+23.1
General government deposits and current account holdings of credit institutions and enterprises not required to hold minimum reserves	43.099	106.493	-63.394	-59.5
Transfer of foreign reserve assets to the ECB	5.890	–	+5.890	x
Sundry	15.688	4.483	+11.205	n.a.
<b>Total</b>	<b>-289.011</b>	<b>90.125</b>	<b>+379.136</b>	<b>n.a.</b>

Table 35

	2022 EUR million	2021 EUR million	Change EUR million	%
2.1 Realized gains/losses arising from financial operations	-458.161	392.524	+850.685	n.a.
<i>of which:</i>				
Currencies (gold and foreign currency)	126.315	104.389	+21.926	+21.0
Securities	-584.476	288.135	+872.611	n.a.
2.2 Expenses related to financial assets and positions	-1,349.169	-219.143	+1,130.027	n.a.
<i>of which:</i>				
Write-downs on foreign currency	-126.590	-41.777	+84.814	n.a.
Write-downs on securities	-1,222.541	-169.501	+1,053.040	n.a.
Expenses related to participating interests	-0.039	-7.865	-7.827	-99.5
2.3 Transfer to/from provisions for financial risks	1,933.607	-220.000	+2,153.607	n.a.
<b>Total</b>	<b>126.276</b>	<b>-46.619</b>	<b>+172.895</b>	<b>n.a.</b>

#### 4 Income from equity shares and participating interests

Table 36 shows *income from equity shares and participating interests*.

#### 5 Net result of pooling of monetary income

Table 37 shows the OeNB's *net result of pooling of monetary income* in the Eurosystem.

This profit and loss item comprises the OeNB's net result from the reallocation of monetary income within the Eurosystem. The ECB calculates monetary income annually in accordance with Article 32 of the Statute of the ESCB and of the ECB.

The amount of the OeNB's monetary income is determined by measuring the annual income

that derives from the earmarkable assets held against its liability base. The liability base consists of banknotes in circulation, liabilities to euro area credit institutions related to monetary policy operations denominated in euro, the OeNB's net intra-Eurosystem liabilities resulting from TARGET2 transactions as well as deposit liabilities to defaulted Eurosystem counterparties, which have been reclassified from liability item 2.1 *Current accounts (covering the minimum reserve system)*. Any interest paid on these liabilities is deducted from the monetary income to be pooled.

The earmarkable assets consist of the following items: lending to euro area credit institutions related to monetary policy operations

Table 36

	2022 EUR million	2021 EUR million	Change EUR million	%
Dividends				
Münze Österreich AG	94.766	70.135	+24.631	+35.1
BIS	2.980	5.358	-2.378	-44.4
Distribution of GSA profit	1.274	0.261	+1.013	n.a.
Distribution of ECB profit				
Interim profit distribution	—	4.390	-4.390	-100.0
Profit distribution for the previous year	1.221	11.212	-9.991	-89.1
Distribution of OeBS profit	0.500	1.000	-0.500	-50.0
<b>Total</b>	<b>100.740</b>	<b>92.356</b>	<b>+8.384</b>	<b>+9.1</b>

Table 37

	2022 EUR million	2021 EUR million	Change EUR million	%
Monetary income <sup>1</sup>	453.143	-746.478	+1,199.621	+160.7
Deductible items <sup>2</sup>	-525.543	500.369	+1,025.912	n.a.
Monetary income to be pooled (net)	-72.400	-246.109	-173.709	-70.6
Redistribution of monetary income	208.865	34.249	+174.615	n.a.
<b>Net result for monetary income reallocation for the reporting year</b>	<b>281.265</b>	<b>280.358</b>	<b>+0.907</b>	<b>+0.3</b>
Net income/loss from the revision of monetary income of the previous years	-0.660	3.931	+4.591	+116.8
<b>Total</b>	<b>280.605</b>	<b>284.289</b>	<b>-3.684</b>	<b>-1.3</b>

<sup>1</sup> Due to the interest expense on longer-term refinancing operations, in particular TLTROs III (see also asset item 5.2 Longer-term refinancing operations), the OeNB's monetary income resulted in a negative balance in 2021.

<sup>2</sup> Due to the negative interest rates on excess minimum reserves (see also liability item 2.1 *Current accounts (covering the minimum reserve system)*), the OeNB recorded net income in 2021.

denominated in euro, securities held for monetary policy purposes, net intra-Eurosystem claims equivalent to the transfer of foreign reserve assets to the ECB and net intra-Eurosystem claims related to the allocation of euro banknotes within the Eurosystem as well as accrued interest recorded at quarter-end on monetary policy assets the maturity of which is one year or longer. Moreover, a limited amount of the OeNB's gold holdings in proportion to its capital key share is included (gold is considered to generate no income).

Securities acquired by the OeNB under the CBPP2 and government/agency bonds acquired under the PSPP and under the PEPP generate income at the latest available interest rate on the main refinancing operations. Where the value of the OeNB's earmarkable assets exceeds, or falls short of, the value of its liability base, the difference is offset by applying to the difference the latest available interest rate on the main refinancing operations. For the development of the rate on the main refinancing operations, see table 2.

The monetary income pooled by the Eurosystem is allocated among NCBs according to their share in the fully paid-up capital.<sup>21</sup> The pooling and reallocation of monetary income leads to certain net reallocation effects. The difference between the monetary income pooled by the OeNB (–EUR 72.400 million) and the income reallocated to the OeNB (EUR 208.865 million) results from the calculation of monetary income.

## 6 Other income

In 2022, income in the amount of EUR 18.823 million resulted from the release of the provision established in 2021 for compensation payments to employees subject to the third generation of the Conditions of Service pending agreement on a pension fund settlement (see also profit and loss item 8 *Expenses for retirement* and liability item 13 *Provisions*). The partial release of the provisions for the supplementary

contributions to pension plans generated income in the amount of EUR 0.803 million in 2022 (2021: EUR 32.470 million). This item also comprises income in the amount of EUR 13.776 million resulting from the partial release of the estimated unredeemable amount outstanding from the Austrian Federal Treasury. In addition, this item reflects rental income and income from transactions with OeNB subsidiaries and the ECB amounting to EUR 16.458 million. The FMA's reimbursement to the OeNB for the direct costs resulting from banking supervision and the costs related to bank recovery and resolution amounts to the statutory maximum of EUR 8 million and EUR 2 million, respectively. This item also comprises income in the amount of EUR 7.113 million from passing on the expenses for banknote deliveries to another NCB.

In 2021, extraordinary income in the amount of EUR 12.945 million was recorded that had resulted from an IMF payout related to the debt relief granted to Sudan.

## 7 Staff costs

*Staff costs* comprise the cost of current employees. These costs are reduced by recoveries of salaries.

Salaries decreased by EUR 0.981 million net to EUR 135.903 million compared to the previous year (2021: EUR 136.884 million). The OeNB's outlays were reduced by recoveries of salaries totaling EUR 4.222 million (2021: EUR 4.318 million) for staff members on secondment to affiliates and other institutions.

The members of the OeNB's Governing Board received emoluments (table 38) totaling EUR 1.229 million in 2022 (2021: EUR 1.210 million).

Table 38

### Emoluments in line with the Act on the Limitation of Remunerations for Public Officials

	EUR million
Governor Robert Holzmann	0.328
Vice Governor Gottfried Haber	0.309
Executive Director Eduard Schock	0.296
Executive Director Thomas Steiner	0.296

<sup>21</sup> Under Article 33.2 of the Statute of the ESCB and of the ECB, income will not be reallocated if the pooled amount is fully or partially retained by the ECB to cover an annual loss incurred by the ECB.

The remuneration of Governing Board members is regulated by the Federal Constitutional Act on the Limitation of Remunerations for Public Officials (BezÜbegrenzungs-gesetz – BezBegrBVG); pursuant to Article 3 paragraph 1 of this Act, the emoluments were increased with a factor of 1.016 with effect from January 1, 2022. Remuneration in kind (tax value of the private use of company cars, insurance subsidies) and other benefits totaled EUR 0.040 million (2021: EUR 0.039 million).

The emoluments (payments in cash and kind) due to the OeNB's current President and Vice President pursuant to Article 24 Nationalbank Act were set by the General Meeting with effect from January 1, 2019. Since March 2021, the President has been foregoing any remuneration, dedicating it instead, until the end of his term of office, to the "Presidential Innovation Fellowships (OeNB)" offered on his initiative. Up until the start of the fellowship program, the President received remuneration of EUR 0.015 million in 2021. As in the previous year, the Vice President received remuneration in the amount of EUR 0.044 million in 2022. The other members of the General Council perform their duties of office without remuneration. They receive an attendance fee of EUR 250 for donation to charity for every day they participate in a meeting of the General Council or one of its subcommittees. Travel expenses associated with the exercise of General Council members' functions are reimbursed (2022: EUR 78.00; 2021: EUR 23.00).

Contributions to severance funds were made in the amount of EUR 1.234 million in 2022 (2021: EUR 1.122 million), of which, as in the previous year, EUR 0.019 million were made for management officials (Governing Board members). Expenses for severance payments

amounted to EUR 7.564 million in 2022 (2021: EUR 1.477 million), having mostly increased on account of the much higher transfers to the provision.

Expenses for compulsory social security contributions as well as compulsory contributions and charges related to wages and salaries totaled EUR 26.228 million in 2022 (2021: EUR 25.964 million). Of this amount EUR 17.179 million (2021: EUR 17.157 million) were social security contributions, EUR 4.884 million (2021: EUR 4.785 million) were contributions to the Family Burden Equalization Fund, and EUR 4.002 million (2021: EUR 3.852 million) were municipal tax payments.

Table 39 shows staff in full-time equivalents (FTEs).

## 8 Expenses for retirement

All pension expenses relate to the OeNB's defined benefit retirement plan based on internally funded pensions for employees recruited up to April 30, 1998. Pension expenses amounted to EUR 127.201 million in 2022 (2021: EUR 126.022 million). No investment income on the pension reserve was available in 2022. Therefore, EUR 119.971 million of the pension reserve and EUR 7.230 million from the profit and loss account were used to cover pension expenses. For details see also asset item 11.3 *Other financial assets* and liability item 13 *Provisions*. In 2021, EUR 21.907 million were covered from investment income, while the remaining pension expenses in the amount of EUR 104.115 million were recorded in the profit and loss account. Pension expenses include the remuneration of retired Governing Board members or their dependents (totaling EUR 4.400 million in 2022; 2021: EUR 4.326 million).

Table 39

	Reporting date December 31 <sup>1</sup>			Annual average <sup>1</sup>		
	2022	2021	Change	2022	2021	Change
FTEs <sup>2</sup>	1,129.3	1,133.2	–3.9	1,138.1	1,123.9	+14.2
Total	1,226.2	1,227.7	–1.5	1,237.7	1,226.3	+11.4

<sup>1</sup> Figures include part-time employees on a pro rata basis.

<sup>2</sup> Excluding interns and employees on secondment or leave (such as maternity and parental leave).

The OeNB's other legal and contractual obligations totaled EUR 6.393 million (2021: EUR 24.914 million), of which EUR 6.393 million resulted from pension plan contributions and supplementary contributions to pension plans (2021: EUR 6.091 million). Set up in 2021 based on a declaration of intent by the Governing Board, the provision (EUR 18.823 million) for compensation payments to employees subject to the third generation of the Conditions of Service pending agreement on a pension fund settlement was completely released in 2022. The respective income is shown in profit and loss item 6 *Other income*. For details see also liability item 13 *Provisions*.

In 2022, the adjustment of the average increments used in the actuarial calculations reduced the provision requirement for supplementary contributions to pension plans. At the same time, higher expectations for real salaries in 2023 and 2024 led to a notable increase in the provision. Netting all transfers from and to the provision and considering any additional contributions to be made resulted in income in 2022 (shown in profit and loss item 6 *Other income*) in the amount of EUR 0.803 million (2021: EUR 32.470 million).

## 9 Administrative expenses

*Administrative expenses* include, inter alia, rent, maintenance, operating expenses and repair costs of EUR 35.910 million (2021: EUR 34.783 million) as well as banknote processing expenses of EUR 11.650 million (2021: EUR 11.258 million). The headline figure also includes expenses that the OeNB charges entirely to subsidiaries or the ECB (in particular rent, operating costs and security-related service costs) in the amount of EUR 4.758 million (2021: EUR 4.494 million). In 2022, the OeNB moreover again charged one other NCB expenses for banknote deliveries in the amount of EUR 7.113 million (2021: EUR 5.522 million). Administrative expenses for auditing the OeNB's financial statements amounted to EUR 0.110 million (2021: EUR 0.098 million), those for other certification services to EUR 0.050 million (2021: EUR 0.039 million).

Pursuant to Article 238 paragraph 1 item 14 Commercial Code, material obligations arising from the use of tangible fixed assets not disclosed in the balance sheet must be recorded separately. These obligations amount to EUR 12.246 million in the subsequent financial year (2021: EUR 11.817 million). In the subsequent five financial years, these obligations total EUR 61.892 million (2021: EUR 58.651 million).

## 11 Banknote production services

These expenses result from the purchase of euro banknotes from the OeBS.

## 13 Corporate income tax

Pursuant to Article 72 paragraph 1 Nationalbank Act, the operating profit of the financial statements drawn up pursuant to Article 67 Nationalbank Act and in accordance with Article 69 paragraph 1 Nationalbank Act constitutes the OeNB's taxable income within the meaning of Article 22 paragraph 1 of the Corporate Income Tax Act 1988. As its operating profit was zero, the OeNB only had to pay the minimum amount of corporate income tax (EUR 0.005 million) for the financial year 2022. In 2021, the OeNB paid EUR 23.538 million in *corporate income tax*.

## 14 Transfer from/to reserves

EUR 0.005 million from the profit-smoothing reserve were used to obtain a balanced result (see liability item 15 *Capital and reserves*).

## 15 Profit/loss carried forward from the previous year

No profit was carried forward in 2022 as the profit for the year 2021 was used in full based on a decision by the General Meeting (see profit and loss item 17 *Profit for the year*).

## 16 Transfer to the pension reserve and central government's share of profit

The OeNB's result for 2022 was zero following the use of the profit-smoothing reserve (see also profit and loss item 14 *Transfer from/to reserves*), which is why the statutory rules on profit

Table 40

	2021 use EUR
Dividend payout on the OeNB's capital stock of EUR 12 million under Article 69 Nationalbank Act (up to 10%)	1,200,000.00
Allocation of funds to the OeNB Anniversary Fund for the Promotion of Scientific Research and Teaching	
Funds earmarked for promotion by the OeNB	5,000,000.00
Transfers to the profit-smoothing reserve	154,471.98
<b>Profit for the year</b>	<b>6,354,471.98</b>

distribution laid down in Article 69 paragraphs 2 and 3 Nationalbank Act are not applicable. In 2021, EUR 7.061 million were transferred to the pension reserve in line with Article 69 paragraph 2 Nationalbank Act. In line with Article 69 paragraph 3 Nationalbank Act, the central government's share of profit amounted to EUR 57.190 million.

### 17 Profit for the year

In 2022, the OeNB records a balanced result of zero (2021: profit for the year in the amount of EUR 6,354,471.98). For this reason, the Governing Board has not submitted a profit appropriation proposal to the General Council for 2022 for endorsement at the General Meeting.

Based on a decision by the General Meeting, the profit for the year 2021 was used as shown in table 40.

## Post-balance sheet events

### Early TLTRO III repayments

By February 22, 2023, EUR 7.2 billion of the TLTRO III operations outstanding to the OeNB as at December 31, 2022, had been repaid (Eurosysteem: EUR 99.3 billion).

### Entry into the Eurosystem

Pursuant to a Council decision<sup>22</sup> and in accordance with Article 140 (2) of the Treaty on the Functioning of the European Union, Croatia adopted the euro on January 1, 2023.<sup>23</sup> In accordance with Article 48.1 of the Statute of the ESCB and of the ECB and the legal acts<sup>24</sup> adopted by the Governing Council of the ECB on December 30, 2022, Hrvatska narodna banka paid up the remainder of its capital subscription to the ECB. In accordance with Article 48.1 in conjunction with Article 30.1 of the Statute of the ESCB and of the ECB, Hrvatska narodna banka transferred foreign reserve assets to the ECB in an amount corresponding to its subscribed capital share as at January 1, 2023 (0.6595%).

As a result of the change in the capital key following Hrvatska narodna banka's entry into the Eurosystem, the OeNB's share in the ECB's paid-up capital (Eurosystem key) declined from 2.9269% to 2.9033%. The OeNB's share in the ECB's subscribed capital remains unchanged at 2.3804%.

In line with the Council Decision of 15 July 2003<sup>25</sup> on the statistical data to be used for the adjustment of the key for subscription to the capital of the European Central Bank, the capital keys were adjusted with effect from January 1, 2023 (table 41).

<sup>22</sup> Council Decision (EU) 2022/1211 of 12 July 2022 on the adoption by Croatia of the euro on 1 January 2023, *Official Journal of the European Union* (OJ) L 187/31 of July 14, 2022.

<sup>23</sup> Given the geographical proximity, the OeNB was commissioned by the Governing Council of the ECB to deliver the initial supply of euro banknotes to Croatia.

<sup>24</sup> Decision (EU) 2023/135 of the European Central Bank of 30 December 2022 on the paying-up of capital, transfer of foreign reserve assets, and contribution by Hrvatska narodna banka to the European Central Bank's reserves and provisions (ECB/2022/15), OJ L 17/94 of January 19, 2023; Agreement of 30 December 2022 between Hrvatska narodna banka and the European Central Bank regarding the claim credited to Hrvatska narodna banka by the ECB under Article 30.3 of the Statute of the European System of Central Banks and of the European Central Bank, OJ L C 18/1 of January 19, 2023.

<sup>25</sup> Council Decision (2003/517/EC) of 15 July 2003; OJ L 181/46 of July 19, 2003.

Table 41

Key for subscription of the ECB's capital from January 1, 2023	Subscribed capital EUR	%	Paid-up capital EUR	%
Nationale Bank van België/ Banque Nationale de Belgique	320,744,959.47	2.9630	320,744,959.47	3.6139
Deutsche Bundesbank	2,320,816,565.68	21.4394	2,320,816,565.68	26.1494
Eesti Pank	24,800,091.20	0.2291	24,800,091.20	0.2794
Banc Ceannais na hÉireann/ Central Bank of Ireland	149,081,997.36	1.3772	149,081,997.36	1.6798
Bank of Greece	217,766,667.22	2.0117	217,766,667.22	2.4536
Banco de España	1,049,820,010.62	9.6981	1,049,820,010.62	11.8287
Banque de France	1,798,120,274.32	16.6108	1,798,120,274.32	20.2600
Hrvatska narodna banka	71,390,921.62	0.6595	71,390,921.62	0.8044
Banca d'Italia	1,495,637,101.77	13.8165	1,495,637,101.77	16.8518
Central Bank of Cyprus	18,943,762.37	0.1750	18,943,762.37	0.2134
Latvijas Banka	34,304,447.40	0.3169	34,304,447.40	0.3865
Lietuvos bankas	50,953,308.28	0.4707	50,953,308.28	0.5741
Banque centrale du Luxembourg	29,000,193.94	0.2679	29,000,193.94	0.3268
Bank Ċentrali ta' Malta/ Central Bank of Malta	9,233,731.03	0.0853	9,233,731.03	0.1040
De Nederlandsche Bank	515,941,486.95	4.7662	515,941,486.95	5.8133
Oesterreichische Nationalbank	257,678,468.28	2.3804	257,678,468.28	2.9033
Banco de Portugal	206,054,009.57	1.9035	206,054,009.57	2.3217
Banka Slovenije	42,390,727.68	0.3916	42,390,727.68	0.4776
Národná banka Slovenska	100,824,115.85	0.9314	100,824,115.85	1.1360
Suomen Pankki – Finlands Bank	161,714,780.61	1.4939	161,714,780.61	1.8221
<b>Subtotal for euro area NCBs</b>	<b>8,875,217,621.22</b>	<b>81.9881</b>	<b>8,875,217,621.22</b>	<b>100.0000</b>
Bulgarian National Bank	106,431,469.51	0.9832	3,991,180.11 <sup>1</sup>	
Česká národní banka	203,445,182.87	1.8794	7,629,194.36 <sup>1</sup>	
Danmarks Nationalbank	190,422,699.36	1.7591	7,140,851.23 <sup>1</sup>	
Magyar Nemzeti Bank	167,657,709.49	1.5488	6,287,164.11 <sup>1</sup>	
Narodowy Bank Polski	653,126,801.54	6.0335	24,492,255.06 <sup>1</sup>	
Banca Națională a României	306,228,624.99	2.8289	11,483,573.44 <sup>1</sup>	
Sveriges Riksbank	322,476,960.60	2.9790	12,092,886.02 <sup>1</sup>	
	<b>1,949,789,448.36</b>	<b>18.0119</b>	<b>73,117,104.33</b>	
<b>Total<sup>2</sup></b>	<b>10,825,007,069.58</b>	<b>100.0000</b>	<b>8,948,334,725.55</b>	<b>100.0000</b>

<sup>1</sup> Corresponds to 3.75% of the subscribed capital to the ECB as a contribution to the operational costs of the ECB (ECB/2020/2).

<sup>2</sup> Totals and subtotals may not add up due to rounding.

## GOVERNING BOARD (DIREKTORIUM)

Governor Robert Holzmann  
Vice Governor Gottfried Haber  
Executive Director Eduard Schock  
Executive Director Thomas Steiner

## GENERAL COUNCIL (GENERALRAT)

President Harald Mahrer  
Vice President Barbara Kolm  
Bettina Glatz-Kremsner (until February 28, 2023)  
Erwin Hameseder  
Stephan Koren  
Franz Maurer  
Susanne Riess-Hahn  
Peter Sidlo (until February 28, 2023)  
Christoph Traunig  
Brigitte Unger  
State Commissioner Harald Waiglein  
Deputy State Commissioner Alfred Lejsek

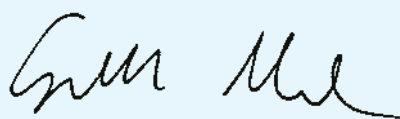
In accordance with Article 22 paragraph 5 Nationalbank Act, the following representatives of the Central Staff Council participated in discussions on personnel, social and welfare matters:

Birgit Sauerzopf  
Christian Schrödinger

Vienna, March 7, 2023



Robert Holzmann



Gottfried Haber



Eduard Schock



Thomas Steiner

# Bestätigungsvermerk der Abschlussprüfungsgesellschaft

Oesterreichische Nationalbank, Wien

31. Dezember 2022

## BESTÄTIGUNGSVERMERK

### Bericht zum Jahresabschluss

### Prüfungsurteil

Wir haben den Jahresabschluss der

**Oesterreichische Nationalbank, Wien,**

bestehend aus der Bilanz zum 31. Dezember 2022, der Gewinn- und Verlustrechnung für das an diesem Stichtag endende Geschäftsjahr und dem Anhang, geprüft.

Nach unserer Beurteilung entspricht der beigefügte Jahresabschluss den gesetzlichen Vorschriften und vermittelt ein möglichst getreues Bild der Vermögens- und Finanzlage zum 31. Dezember 2022 sowie der Ertragslage der Gesellschaft für das an diesem Stichtag endende Geschäftsjahr in Übereinstimmung mit den österreichischen unternehmensrechtlichen Vorschriften und den sondergesetzlichen Bestimmungen des Nationalbankgesetzes 1984 in der geltenden Fassung sowie den Bestimmungen der vom Rat der Europäischen Zentralbank gemäß Artikel 26 Abs 4 des "Protokolls über die Satzung des Europäischen Systems der Zentralbanken und der Europäischen Zentralbank" mittels der "Leitlinie der Europäischen Zentralbank vom 3. November 2016 über die Rechnungslegungsgrundsätze und das Berichtswesen im Europäischen System der Zentralbanken (EZB/2016/34)", zuletzt geändert am 11. November 2021 (EZB/2021/51), erlassenen Vorschriften.

### Grundlage für das Prüfungsurteil

Wir haben unsere Abschlussprüfung in Übereinstimmung mit den österreichischen Grundsätzen ordnungsmäßiger Abschlussprüfung durchgeführt. Diese Grundsätze erfordern die Anwendung der International Standards on Auditing (ISA). Unsere Verantwortlichkeiten nach diesen Vorschriften und Standards sind im Abschnitt "Verantwortlichkeiten des Abschlussprüfers für die Prüfung des Jahresabschlusses" unseres Bestätigungsvermerks weitergehend beschrieben. Wir sind von der Gesellschaft unabhängig in Übereinstimmung mit den österreichischen unternehmensrechtlichen und berufsrechtlichen Vorschriften, und wir haben unsere sonstigen beruflichen Pflichten in Übereinstimmung mit diesen Anforderungen erfüllt. Wir sind der Auffassung, dass die von uns bis zum Datum des Bestätigungsvermerks erlangten Prüfungsnachweise ausreichend und geeignet sind, um als Grundlage für unser Prüfungsurteil zu diesem Datum zu dienen.

**Verantwortlichkeiten der gesetzlichen Vertreter und des Unterausschusses des Generalrates für Rechnungslegung und interne Kontrollsysteme für den Jahresabschluss**

Die gesetzlichen Vertreter sind verantwortlich für die Aufstellung des Jahresabschlusses und dafür, dass dieser in Übereinstimmung mit den österreichischen unternehmensrechtlichen Vorschriften und den sondergesetzlichen Bestimmungen des Nationalbankgesetzes 1984 in der geltenden Fassung sowie den Bestimmungen der vom Rat der Europäischen Zentralbank gemäß Artikel 26 Abs 4 des "Protokolls über die Satzung des Europäischen Systems der Zentralbanken und der Europäischen Zentralbank" mittels der "Leitlinie der Europäischen Zentralbank vom 3. November 2016 über die Rechnungslegungsgrundsätze und das Berichtswesen im Europäischen System der Zentralbanken (EZB/2016/34)", zuletzt geändert am 11. November 2021 (EZB/2021/51), erlassenen Vorschriften ein möglichst getreues Bild der Vermögens-, Finanz- und Ertragslage der Gesellschaft vermittelt. Ferner sind die gesetzlichen Vertreter verantwortlich für die internen Kontrollen, die sie als notwendig erachten, um die Aufstellung eines Jahresabschlusses zu ermöglichen, der frei von wesentlichen falschen Darstellungen aufgrund von dolosen Handlungen oder Irrtümern ist.

Bei der Aufstellung des Jahresabschlusses sind die gesetzlichen Vertreter dafür verantwortlich, die Fähigkeit der Gesellschaft zur Fortführung der Unternehmenstätigkeit zu beurteilen, Sachverhalte im Zusammenhang mit der Fortführung der Unternehmenstätigkeit - sofern einschlägig - anzugeben, sowie dafür, den Rechnungslegungsgrundsatz der Fortführung der Unternehmenstätigkeit anzuwenden, es sei denn, die gesetzlichen Vertreter beabsichtigen, entweder die Gesellschaft zu liquidieren oder die Unternehmenstätigkeit einzustellen oder haben keine realistische Alternative dazu.

Der Unterausschuss des Generalrates für Rechnungslegung und interne Kontrollsysteme ist verantwortlich für die Überwachung des Rechnungslegungsprozesses der Gesellschaft.

**Verantwortlichkeiten des Abschlussprüfers für die Prüfung des Jahresabschlusses**

Unsere Ziele sind, hinreichende Sicherheit darüber zu erlangen, ob der Jahresabschluss als Ganzes frei von wesentlichen falschen Darstellungen aufgrund von dolosen Handlungen oder Irrtümern ist, und einen Bestätigungsvermerk zu erteilen, der unser Prüfungsurteil beinhaltet. Hinreichende Sicherheit ist ein hohes Maß an Sicherheit, aber keine Garantie dafür, dass eine in Übereinstimmung mit den österreichischen Grundsätzen ordnungsmäßiger Abschlussprüfung, die die Anwendung der ISA erfordern, durchgeführte Abschlussprüfung eine wesentliche falsche Darstellung, falls eine solche vorliegt, stets aufdeckt. Falsche Darstellungen können aus dolosen Handlungen oder Irrtümern resultieren und werden als wesentlich angesehen, wenn von ihnen einzeln oder insgesamt vernünftigerweise erwartet werden könnte, dass sie die auf der Grundlage dieses Jahresabschlusses getroffenen wirtschaftlichen Entscheidungen von Nutzern beeinflussen.

Oesterreichische Nationalbank, Wien

31. Dezember 2022

Als Teil einer Abschlussprüfung in Übereinstimmung mit den österreichischen Grundsätzen ordnungsmäßiger Abschlussprüfung, die die Anwendung der ISA erfordern, üben wir während der gesamten Abschlussprüfung pflichtgemäßes Ermessen aus und bewahren eine kritische Grundhaltung.

Darüber hinaus gilt:

- Wir identifizieren und beurteilen die Risiken wesentlicher falscher Darstellungen aufgrund von dolosen Handlungen oder Irrtümern im Abschluss, planen Prüfungshandlungen als Reaktion auf diese Risiken, führen sie durch und erlangen Prüfungsnachweise, die ausreichend und geeignet sind, um als Grundlage für unser Prüfungsurteil zu dienen. Das Risiko, dass aus dolosen Handlungen resultierende wesentliche falsche Darstellungen nicht aufgedeckt werden, ist höher als ein aus Irrtümern resultierendes, da dolose Handlungen kollusives Zusammenwirken, Fälschungen, beabsichtigte Unvollständigkeiten, irreführende Darstellungen oder das Außerkraftsetzen interner Kontrollen beinhalten können.
- Wir gewinnen ein Verständnis von dem für die Abschlussprüfung relevanten internen Kontrollsystem, um Prüfungshandlungen zu planen, die unter den gegebenen Umständen angemessen sind, jedoch nicht mit dem Ziel, ein Prüfungsurteil zur Wirksamkeit des internen Kontrollsystems der Gesellschaft abzugeben.
- Wir beurteilen die Angemessenheit der von den gesetzlichen Vertretern angewandten Rechnungslegungsmethoden sowie die Vertretbarkeit der von den gesetzlichen Vertretern dargestellten geschätzten Werte in der Rechnungslegung und damit zusammenhängende Angaben.
- Wir ziehen Schlussfolgerungen über die Angemessenheit der Anwendung des Rechnungslegungsgrundsatzes der Fortführung der Unternehmenstätigkeit durch die gesetzlichen Vertreter sowie, auf der Grundlage der erlangten Prüfungsnachweise, ob eine wesentliche Unsicherheit im Zusammenhang mit Ereignissen oder Gegebenheiten besteht, die erhebliche Zweifel an der Fähigkeit der Gesellschaft zur Fortführung der Unternehmenstätigkeit aufwerfen können. Falls wir die Schlussfolgerung ziehen, dass eine wesentliche Unsicherheit besteht, sind wir verpflichtet, in unserem Bestätigungsvermerk auf die dazugehörigen Angaben im Jahresabschluss aufmerksam zu machen oder, falls diese Angaben unangemessen sind, unser Prüfungsurteil zu modifizieren. Wir ziehen unsere Schlussfolgerungen auf der Grundlage der bis zum Datum unseres Bestätigungsvermerks erlangten Prüfungsnachweise. Zukünftige Ereignisse oder Gegebenheiten können jedoch die Abkehr der Gesellschaft von der Fortführung der Unternehmenstätigkeit zur Folge haben.
- Wir beurteilen die Gesamtdarstellung, den Aufbau und den Inhalt des Jahresabschlusses einschließlich der Angaben sowie ob der Jahresabschluss die zugrunde liegenden Geschäftsvorfälle und Ereignisse in einer Weise wiedergibt, dass ein möglichst getreues Bild erreicht wird.

Wir tauschen uns mit dem Unterausschuss des Generalrates für Rechnungslegung und interne Kontrollsysteme unter anderem über den geplanten Umfang und die geplante zeitliche Einteilung der Abschlussprüfung sowie über bedeutsame Prüfungsfeststellungen, einschließlich etwaiger bedeutsamer Mängel im internen Kontrollsystem, die wir während unserer Abschlussprüfung erkennen, aus.

**Bericht zum Geschäftsbericht gemäß § 68 NBG**

Auf den gemäß § 68 Abs 1 NBG zu erstellenden Geschäftsbericht finden die Bestimmungen des § 243 Abs 1 bis 3 UGB (Lagebericht), mit Ausnahme von Abs 2 letzter Satz und Abs 3 Z 1, 2 und 5 UGB, Anwendung.

Die gesetzlichen Vertreter sind verantwortlich für die Aufstellung des Geschäftsberichts in Übereinstimmung mit den gesetzlichen Vorschriften.

Wir haben unsere Prüfung in Übereinstimmung mit den Berufsgrundsätzen zur Prüfung des Geschäftsberichts durchgeführt.

Die im Geschäftsbericht enthaltenen Jahresabschlussinformationen (Lagebericht) sind aufgrund der österreichischen unternehmensrechtlichen Vorschriften darauf zu prüfen, ob sie mit dem Jahresabschluss in Einklang stehen und ob sie nach den geltenden rechtlichen Anforderungen aufgestellt wurden.

Unser Prüfungsurteil zum Jahresabschluss deckt die im Geschäftsbericht enthaltenen anderen (sonstigen) Informationen, die nicht den Jahresabschluss und die gemäß § 68 NBG geforderte Darstellung der direkten und indirekten Beteiligungen und den Lagebericht betreffen, nicht ab und wir geben keine Art der Zusicherung darauf.

Im Zusammenhang mit unserer Prüfung des Jahresabschlusses haben wir die Verantwortlichkeit, diese sonstigen Informationen zu lesen und dabei zu würdigen, ob die sonstigen Informationen wesentliche Unstimmigkeiten zum Jahresabschluss oder unseren bei der Abschlussprüfung erlangten Kenntnissen aufweisen oder anderweitig falsch dargestellt erscheinen.

Falls wir auf der Grundlage der von uns durchgeführten Arbeiten den Schluss ziehen, dass eine wesentliche falsche Darstellung dieser sonstigen Informationen vorliegt, sind wir verpflichtet, über diese Tatsache zu berichten. Wir haben in diesem Zusammenhang nichts zu berichten

**Urteil**

Nach unserer Beurteilung sind die im Geschäftsbericht zu § 243 Abs 1 bis 3 UGB (Lagebericht), mit Ausnahme von Abs 2 letzter Satz und Abs 3 Z 1, 2 und 5 UGB enthaltenen Jahresabschlussinformationen und die Darstellung der direkten und indirekten Beteiligungen nach den geltenden rechtlichen Anforderungen aufgestellt worden und stehen in Einklang mit dem Jahresabschluss.

Oesterreichische Nationalbank, Wien

31. Dezember 2022

*Erklärung*

Angesichts der bei der Prüfung des Jahresabschlusses gewonnenen Erkenntnisse und des gewonnenen Verständnisses über die Gesellschaft und ihr Umfeld wurden wesentliche fehlerhafte Angaben im Geschäftsbericht nicht festgestellt.

Wien, am 7. März 2023

Ernst & Young  
Wirtschaftsprüfungsgesellschaft m.b.H.

Unterschrieben 

Ernst Schönhuber  
qualifiziert elektronisch unterfertigt  
Mag. Ernst Schönhuber  
Wirtschaftsprüfer

Unterschrieben 

Andrea Stippl  
qualifiziert elektronisch unterfertigt  
Mag. Andrea Stippl  
Wirtschaftsprüferin

---

**TRANSLATION**

## **4. AUDITOR'S REPORT<sup>\*)</sup>**

### **Report on the Financial Statements**

#### **Audit Opinion**

We have audited the financial statements of

**Oesterreichische Nationalbank, Vienna.**

These financial statements comprise the balance sheet as of December 31, 2022, the income statement for the fiscal year then ended and the notes.

Based on our audit the accompanying financial statements were prepared in accordance with the legal regulations and present fairly, in all material respects, the assets and the financial position of the Company as at December 31, 2022 and its financial performance for the year then ended in accordance with Austrian Generally Accepted Accounting Principles and the statutory requirements of the 1984 Federal Act on the Oesterreichische Nationalbank (Nationalbank Act), as amended, and the requirements of the rules adopted by the Governing Council of the European Central Bank in accordance with Article 26 paragraph 4 of the Protocol on the Statute of the European System of Central Banks and of the European Central Bank by means of the Guideline of the European Central Bank of November 3, 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (ECB/2016/34), as amended on November 11, 2021 (ECB/2021/51).

#### **Basis for Opinion**

We conducted our audit in accordance with Austrian Standards on Auditing. These standards require that we comply with International Standards on Auditing (ISA). Our responsibilities under these regulations and standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of our report. We are independent of the Company in accordance with the Austrian General Accepted Accounting Principles and professional requirements and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained until the date of this auditor's report is sufficient and appropriate to provide a basis for our opinion by this date.

#### **Responsibilities of the Management and the Subcommittee of the General Council on Accounting and Internal Control Systems for the Financial Statements**

Management is responsible for the preparation of the financial statements in accordance with Austrian Generally Accepted Accounting Principles and the statutory requirements of the National Bank Act, as amended, and the requirements of the rules adopted by the Governing Council of the European Central Bank in accordance with Article 26 paragraph 4 of the Protocol on the Statute of the European System of Central Banks and of the European Central Bank by means of the Guideline of the European Central Bank of November 3, 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (ECB/2016/34), as amended on November 11, 2021 (ECB/2021/51), for them to present a true and fair view of the assets, the financial position and the financial performance of the Company and for such internal

Oesterreichische Nationalbank, Vienna

December 31, 2022

**TRANSLATION**

controls as management determines are necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

The Subcommittee of the General Council on Accounting and Internal Control Systems is responsible for overseeing the Company's financial reporting process.

**Auditor's Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Austrian Standards on Auditing, which require the application of ISA, will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Austrian Standards on Auditing, which require the application of ISA, we exercise professional judgment and maintain professional scepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

**TRANSLATION**

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Subcommittee of the General Council on Accounting and Internal Control Systems regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

**Statement on the Annual Report according to Article 68 Nationalbank Act**

The Annual Report to be prepared pursuant to Article 68 paragraph 1 Nationalbank Act is subject to the requirements of Article 243 paragraphs 1 to 3 of the Commercial Law (management report) with the exception of paragraph 2 last sentence and paragraph 3 nos. 1, 2 and 5 Commercial Law.

Management is responsible for the preparation of the annual report in accordance with statutory requirements.

We conducted our audit in accordance with Austrian Standards on Auditing for the audit of the Annual Report.

According to the relevant rules under Austrian Generally Accepted Accounting Principles, financial information contained in the Annual Report (management report) is to be audited as to whether it is consistent with the financial statements and whether it has been drawn up in accordance with the applicable statutory requirements.

Our audit opinion on the annual financial statements does not cover the other information contained in the Annual Report that does not relate to the annual financial statements and the presentation of direct and indirect investments and the Annual Report required by Article 68 Nationalbank Act, and therefore does not imply any assurance in this regard.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, to consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

*Opinion*

In our opinion, the financial information contained in the Annual Report in line with Article 243 paragraphs 1 to 3 of the Commercial Law (management report) with the exception of paragraph 2 last sentence and paragraph 3 nos. 1, 2 and 5 Commercial Law, as well as the presentation of information on direct and indirect investments are in line with the applicable statutory requirements and are consistent with the financial statements.

Oesterreichische Nationalbank, Vienna

December 31, 2022

**TRANSLATION***Statement*

Based on the findings during the audit of the financial statements and due to the thus obtained understanding concerning the Company and its circumstances no material misstatements in the management report came to our attention.

Vienna, March 7, 2023

Ernst & Young  
Wirtschaftsprüfungsgesellschaft m.b.H.

Mag. Ernst Schönhuber mp    Mag. Andrea Stippl mp  
Wirtschaftsprüfer / Certified Public Accountant    Wirtschaftsprüferin / Certified Public Accountant

---

\*) This report is a translation of the original report in German, which is solely valid. Publication or sharing with third parties of the financial statements together with our auditor's opinion is only allowed if the financial statements and the annual report are identical with the German audited version.

## Report of the General Council on the Annual Report and the financial statements for 2022

The General Council (Generalrat) fulfilled the duties incumbent on it under the 1984 National-bank Act by holding its regular meetings, by convening subcommittees to examine specific issues and by making informed decisions. The Governing Board (Direktorium) periodically reported to the General Council on the OeNB's operations and results, on the conditions in the money, capital and foreign exchange markets, on important day-to-day management issues, on all developments of significance for an appraisal of monetary and economic developments, on the arrangements made for auditing the OeNB's finances, and on any other significant dispositions and events affecting the OeNB's

operations. The financial statements for the year 2022 were given an unmodified auditor's opinion after examination by the auditors elected at the General Meeting of March 27, 2018, Ernst & Young Wirtschaftsprüfungsgesellschaft m.b.H., on the basis of the OeNB's books and records as well as the information and evidence provided by the Governing Board. In its meeting of March 20, 2023, the General Council approved the Governing Board's Annual Report and the financial statements for 2022. The General Council submits the Annual Report and the financial statements to the General Meeting for adoption.

Notes

## Abbreviations

ABSPP	asset-backed securities purchase programme	INFE	International Network of Financial Education (OECD)
AMS	Public Employment Service Austria	IReF	Integrated Reporting Framework
APP	(expanded) asset purchase programme	ISO	International Organization for Standardization
ATM	automated teller machine	JVI	Joint Vienna Institute
BIS	Bank for International Settlements	KIM-V	Kreditinstitute-Immobilienfinanzierungsmaßnahmen-Verordnung (regulation for sustainable lending standards for residential real estate financing)
CBPP	covered bond purchase programme	LED	light-emitting diode
CCyB	countercyclical capital buffer	LTRO	longer-term refinancing operation
CEEI	Conference on European Economic Integration (OeNB)	MFA	macrofinancial assistance
CESEE	Central, Eastern and Southeastern Europe(an)	NCB	national central bank
CET1	common equity tier 1	NFC	near field communication
CoCAS	Common Credit Assessment System	OeBS	Oesterreichische Banknoten- und Sicherheitsdruck GmbH
COP27	2022 United Nations Climate Change Conference	OECD	Organisation for Economic Co-operation and Development
CPI	consumer price index	OeNPAY	OeNPAY Financial Innovation HUB GmbH
CRD	Capital Requirements Directive	O-SII	other systemically important institution
CRR	Capital Requirements Regulation	PELTRO	pandemic emergency longer-term refinancing operation
CSPP	corporate sector purchase programme	PEPP	pandemic emergency purchase programme
EBA	European Banking Authority	PIN	personal identification number
eID	electronic identification	PMB	Program Monitoring with Board Involvement
EMAS	Eco-Management and Audit Scheme	POS	point of sale
EPT	environmental protection team (OeNB)	PSPP	public sector purchase programme
ERP	European Recovery Program	QR	quick response
ERM	enterprise risk management	SDR	Special Drawing Right
ESCB	European System of Central Banks	SMP	Securities Markets Programme
ESG	environmental, social and governance (criteria)	SREP	supervisory review and evaluation process
ESRB	European Systemic Risk Board	SRI	sustainable and responsible investment
EURIBOR	Euro Interbank Offered Rate	SSM	Single Supervisory Mechanism
FDI	foreign direct investment	SyRB	systemic risk buffer
FMA	Austrian Financial Market Authority	TARGET2	Trans-European Automated Real-time Gross settlement Express Transfer system, second generation
Fed	US Federal Reserve System	TLTRO	targeted longer-term refinancing operation
FMSB	Financial Market Stability Board	TPI	Transmission Protection Instrument
FTE	full-time equivalent	TSI	Technical Support Instrument
GDP	gross domestic product	UN	United Nations
GSA	GELDSERVICE AUSTRIA		
HICP	Harmonised Index of Consumer Prices		
ICAS	in-house credit assessment system		
IFRS	International Financial Reporting Standards		
IMF	International Monetary Fund		

## Conventions used in tables

- x = data cannot be provided for technical reasons
- .. = not available
- 0 = the numerical value is zero or less than one-half the unit indicated

### Legend entries in the financial statements:

- x = data cannot be provided for technical reasons
- = the numerical value is zero
- 0 = the numerical value is less than one-half the unit indicated
- n.a. = not applicable

Discrepancies may arise from rounding.

## Periodical publications

The OeNB switched to digital publishing in 2016. Our publications can be downloaded at <https://www.oenb.at/en/Publications.html>. To receive e-mail alerts for new issues, please register at <https://www.oenb.at/en/Services/Newsletter.html>.

### Annual Report

German, English | annually

This report informs readers about the Eurosystem's monetary policy and underlying economic conditions as well as about the OeNB's role in maintaining price stability and financial stability. It also contains the OeNB's financial statements and annual updates on the key activities of the core business areas.

<https://www.oenb.at/en/Publications/Oesterreichische-Nationalbank/Annual-Report.html>

### Property Market Review – Austria; Austria and CESEE

German, English | quarterly

This publication analyzes developments on real estate markets given their importance for both price and financial stability, with an alternating regional focus.

<https://www.oenb.at/en/Publications/Economics/property-market-review.html>

### Inflation aktuell

German | quarterly

This publication presents the OeNB's analysis of recent inflation developments in Austria and its inflation outlook for Austria for the current and next year. In addition, it provides in-depth analyses of topical issues.

<https://www.oenb.at/Publikationen/Volkswirtschaft/inflation-aktuell.html>

### Konjunktur aktuell

German | seven times a year

This publication provides a concise assessment of current cyclical and financial developments in the global economy, the euro area, Central, Eastern and Southeastern European countries, and in Austria. The quarterly releases (March, June, September and December) also include short analyses of economic and monetary policy issues.

<https://www.oenb.at/Publikationen/Volkswirtschaft/konjunktur-aktuell.html>

### Monetary Policy & the Economy

English | quarterly

This publication assesses cyclical developments in Austria and presents the OeNB's regular macroeconomic forecasts for the Austrian economy. It contains economic analyses and studies with a particular relevance for central banking and summarizes findings from macroeconomic workshops and conferences organized by the OeNB.

<https://www.oenb.at/en/Publications/Economics/Monetary-Policy-and-the-Economy.html>

### Facts on Austria and Its Banks

German, English | twice a year

This publication provides a snapshot of the Austrian economy based on a range of structural data and indicators for the real economy and the banking sector. Comparative international measures enable readers to put the information into perspective.

<https://www.oenb.at/en/Publications/Financial-Market/Facts-on-Austria-and-Its-Banks.html>

### Financial Stability Report

English | twice a year

The reports section of this publication analyzes and assesses the stability of the Austrian financial system as well as developments that are relevant for financial stability in Austria and at the international level. The special topics section provides analyses and studies on specific financial stability-related issues.

<https://www.oenb.at/en/Publications/Financial-Market/Financial-Stability-Report.html>

### Focus on European Economic Integration

English | quarterly

This publication presents economic analyses and outlooks as well as analytical studies on macroeconomic and macro-financial issues with a regional focus on Central, Eastern and Southeastern Europe.

<https://www.oenb.at/en/Publications/Economics/Focus-on-European-Economic-Integration.html>

### Statistiken – Daten & Analysen

German | twice a year

This publication contains analyses of the balance sheets of Austrian financial institutions, flow-of-funds statistics as well as external statistics (English summaries are provided). A set of 13 tables (also available on the OeNB's website) provides information about key financial and macroeconomic indicators.

<https://www.oenb.at/Publikationen/Statistik/Statistiken---Daten-und-Analysen.html>

## Statistiken – Daten & Analysen: Special Issues

German, English | irregularly

In addition to the quarterly statistical series “Statistiken – Daten & Analysen,” the OeNB publishes a range of dedicated issues, providing cyclical updates on Austria’s sector accounts, cross-border foreign direct investment, etc.

<https://www.oenb.at/en/Publications/Statistics/Special-Issues.html>

## CESEE Research Update

English | quarterly

This online newsletter informs readers about research priorities, publications as well as past and upcoming events with a regional focus on Central, Eastern and Southeastern Europe. Subscribe to the newsletter at:

<https://www.oenb.at/en/Publications/Economics/CESEE-Research-Update.html>

## Proceedings of OeNB Workshops

German, English | irregularly

This series, launched in 2004, documents contributions to OeNB workshops with Austrian and international experts (policymakers, industry experts, academics and media representatives) on monetary and economic policymaking-related topics.

<https://www.oenb.at/en/Publications/Economics/Workshops.html>

## Working Papers

English | irregularly

This series provides a platform for discussing and disseminating economic papers and research findings. All contributions are subject to international peer review.

<https://www.oenb.at/en/Publications/Economics/Working-Papers.html>

## Proceedings of the OeNB’s Economics Conference

English | annually

The OeNB’s annual Economics Conference provides an international platform where central bankers, economic policymakers, financial market agents as well as scholars and academics exchange views and information on monetary, economic and financial policy issues. The proceedings serve to document the conference contributions.

<https://www.oenb.at/en/Publications/Economics/Economics-Conference.html>

## Publications on banking supervisory issues

German, English | irregularly

<https://www.oenb.at/en/Publications/Financial-Market/Publications-of-Banking-Supervision.html>

## Addresses

	Postal address	Telephone/E-mail
<b>Head office</b>		
Otto-Wagner-Platz 3 1090 Vienna, Austria	PO Box 61 1011 Vienna, Austria	Phone: (+43-1) 404 20-6666 E-mail: <a href="mailto:oenb.info@oenb.at">oenb.info@oenb.at</a>
<b>OeNB – Western Austria</b>		
Adamgasse 2 6020 Innsbruck, Austria	Adamgasse 2 6020 Innsbruck, Austria	Phone: (+43-512) 908 100-0 E-mail: <a href="mailto:regionwest@oenb.at">regionwest@oenb.at</a>
<b>Brussels Representative Office</b>		
Oesterreichische Nationalbank Permanent Representation of Austria to the EU Avenue de Cortenberg 30 1040 Brussels, Belgium		Phone: (+32-2) 285 48-41, 42, 43 E-mail: <a href="mailto:repb@oenb.at">repb@oenb.at</a>

The Annual Report of the OeNB provides information about the Eurosystem's monetary policy and reviews developments in the economy, in financial markets and payment systems. Furthermore, it details the OeNB's national and international tasks as well as the broad range of services the OeNB offers. The OeNB's financial statements and the notes on the financial statements are an integral part of the Annual Report, as are the Sustainability Report and the Environmental Statement. From 2006 to 2021, the term "Sustainability Report" was used to refer to the Annual Report together with the Intellectual Capital Report and the Environmental Statement.

<b>Publisher and editor</b>	Oesterreichische Nationalbank, Otto-Wagner-Platz 3, 1090 Vienna, Austria PO Box 61, 1011 Vienna, Austria <a href="http://www.oenb.at">www.oenb.at</a> <a href="mailto:oenb.info@oenb.at">oenb.info@oenb.at</a> Phone (+43-1) 40420-6666
<b>Editors in chief</b>	Markus Arpa, Birgit Niessner
<b>Coordination</b>	Manfred Fluch, Ingrid Haussteiner, Maria Silgoner
<b>Contributions</b>	Sandra Bader, Alexandra Bernhard, Andreas Breitenfellner, Gabriela Chefalo, Gernot Ebner, Robert Ferstl, Birgit Fromm-Leichtfried, Matthias Fuchs, Andreas Giefing, Christian Hansen, Jakob Hanzl, Lenka Kršnakova, Claudia Kwapil, Ulla Mangold, Martin Much, Herbert Nekvasil, Georg Nitsche, Andreas Reinstaller, Sabine Schlögl, Josef Schreiner, Tobias Steiner, Alfred Stiglbauer, Helmut Stix, Alexandra Storch, Patrick Thienel, Andrea Untersperger, Klaus Vondra, Mara Vyborny, Tina Wittenberger, Julia Wörz
<b>Translation and editing</b>	Joanna Czurda, Ingrid Haussteiner, Sophie Kalny, Ingeborg Schuch, Susanne Steinacher
<b>Statistical support</b>	Angelika Knollmayer, Beate Resch
<b>Design</b>	Information Management and Services Division
<b>Pictorial design</b>	Linda Dreier, Robert Musil, Melanie Schuhmacher
<b>Photos</b>	OeNB, Sebastian Reich
<b>Layout and typesetting</b>	Andreas Kulleschitz, Melanie Schuhmacher
<b>Printing and production</b>	Oesterreichische Nationalbank, 1090 Vienna
<b>Data protection information</b>	<a href="http://www.oenb.at/en/dataprotection">www.oenb.at/en/dataprotection</a>
<b>ISSN 2311-0007 (online)</b>	

© Oesterreichische Nationalbank, 2023. All rights reserved.

May be reproduced for noncommercial, educational and scientific purposes provided that the source is acknowledged.

Please collect used paper for recycling.

