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BANK ĊENTRALI TA' MALTA
EUROSISTEMA
CENTRAL BANK OF MALTA

FIFTY-FIFTH ANNUAL REPORT
AND
STATEMENT OF ACCOUNTS
2022

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MISSION STATEMENT

The Central Bank of Malta (the Bank) is an independent institution, which forms an integral part of the Eurosystem and, as a member of the European System of Central Banks (ESCB), has the primary objective of maintaining price stability. It is entrusted with all major central banking tasks, particularly that of ensuring the stability of the financial system.

The Bank carries out its statutory responsibilities in the public interest and is committed to performing its functions effectively, efficiently and economically to the highest level of integrity, competence and transparency. In this regard, in accordance with the Central Bank of Malta Act, and in conformity with the Treaty on European Union and the Treaty on the Functioning of the European Union and the Protocol on the Statute of the ESCB and of the European Central Bank (ECB), it:

(i) **undertakes economic and financial analysis and research** to support the Governor's participation in the decision-making process of the ECB's Governing Council and provides independent advice to the Government on economic and financial policy issues;

(ii) **implements the ECB's monetary policy** through market operations conducted within the operational framework of the Eurosystem;

(iii) **contributes effectively to the stability of the financial system** by identifying and assessing systemic risks and imbalances, and making the appropriate policy recommendations;

(iv) **formulates and implements a macro-prudential policy** to fulfil its task as the national macro-prudential authority;

(v) **promotes and supports the development and integration of financial markets** in Malta through oversight of market infrastructures and by ensuring the availability of cost efficient securities settlement and payment systems;

(vi) **provides an adequate supply of banknotes and coins** to meet the demands of the public, while ensuring high quality and authenticity of the currency in circulation;

(vii) **collects, compiles and publishes economic and financial statistic**s in line with international standards;

(viii) **acts as banker to Government and to the banking system**;

(ix) **holds and actively manages financial asset**s with the aim of optimising returns, subject to prudent risk management practices;

(x) **actively participates in the ESCB, the Eurosystem and other relevant European Union bodie**s, including their sub-structures;

(xi) **acts as the supervisory authority** of credit reference agencies for the purpose of overseeing and regulating the issuance of credit scores.

In addition, as a member of the Eurosystem, the Bank fully subscribes to the Eurosystem's mission, strategic intents and organisational principles.

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**as at 30 March 2023*

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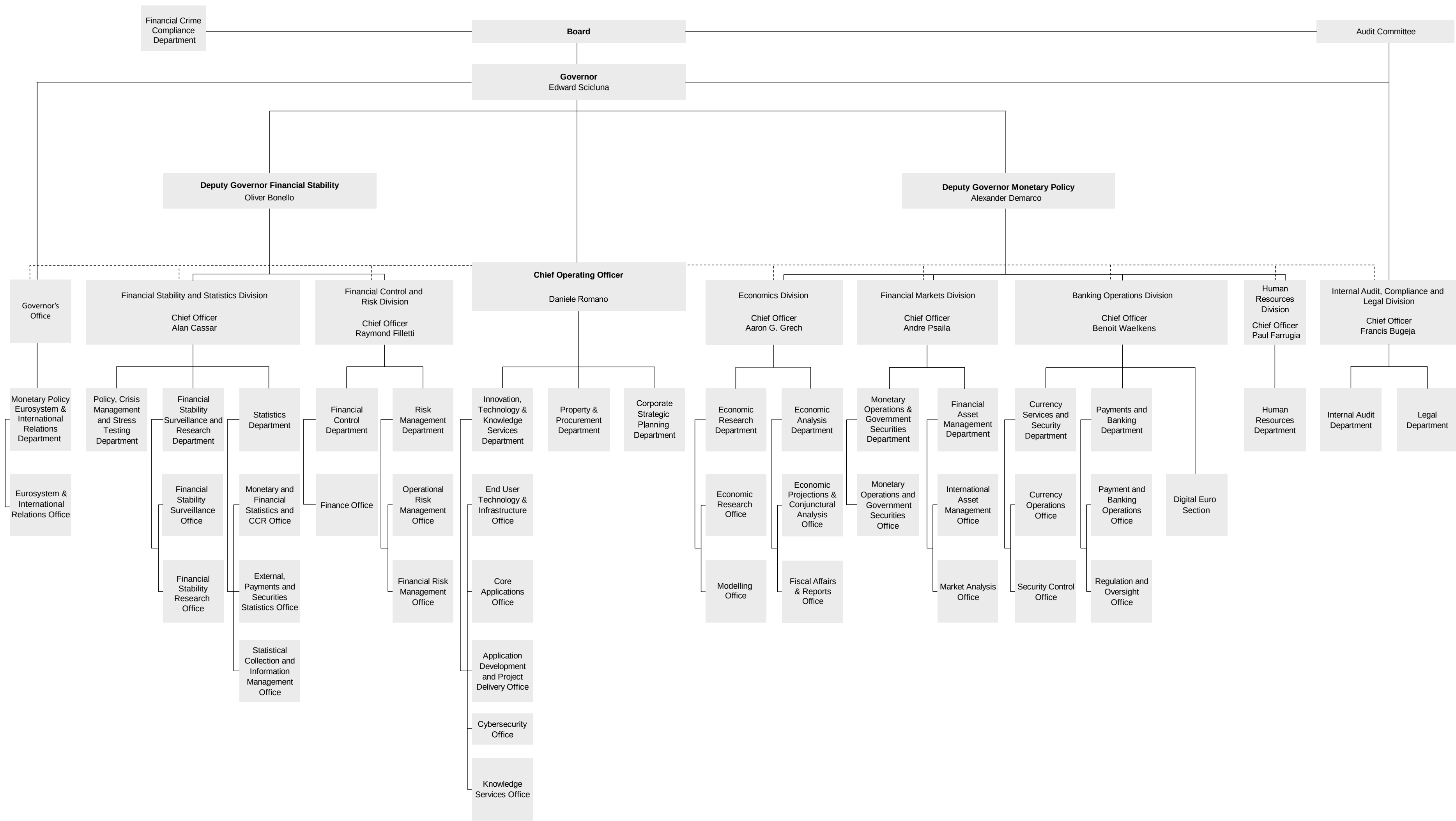
Director

**as at 30 March 2023*

ORGANISATION CHART*



*as at 30 March 2023

Bank Ċentrali ta' Malta
Eurosistema
Il-Gvernatur

Central Bank of Malta
Eurosystem
The Governor

30 March 2023

The Hon Clyde Caruana
Minister for Finance and Employment
Maison Demandols
South Street
Valletta VLT 1102

Dear Minister,

LETTER OF TRANSMITTAL

In terms of article 21 of the Central Bank of Malta Act (Cap. 204), I have the honour to transmit to you, in your capacity as Minister responsible for finance, a copy of the Annual Report of the Bank for the financial year ended 31 December 2022.

Yours sincerely,

Professor Edward Scicluna

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ABBREVIATIONS

ADPDO	Application, Development and Project Delivery Office
AIIB	Asian Infrastructure Investment Bank
AML	anti-money laundering
APP	asset purchase programme
ASPSP	Account Servicing Payment Service Provider
BBM	borrower-based measures
BCI	Business Conditions Index
BCM	Business Continuity Management
BLS	Bank Lending Survey
BoP	Balance of Payments
CAO	Core Applications Office
CCR	Central Credit Register
CCyB	countercyclical capital buffer
CGS	COVID-19 Guarantee Scheme
COICOP	Classification of Individual Consumption by Purpose
COVID-19	coronavirus disease 2019
CPE	compensation per employee
CPI	Consumer Price Index
CSPD	Corporate Strategic Planning Department
CSR	Corporate Social Responsibility
CSRD	Corporate Sustainability Reporting Directive
DSA	debt sustainability analysis
EA	euro area
EBA	European Banking Authority
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECB	European Central Bank
ECMS	Eurosystem Collateral Management System
EDI	Equality, Diversity and Inclusion
EEI	Employment Expectations Indicator
EER	effective exchange rate
EFC	Economic and Financial Committee
EONIA	Euro OverNight Index Average
ESA	European System of Accounts
ESG	environmental, social and governance
ESI	Economic Sentiment Indicator
ESRB	European Systemic Risk Board
€STR	Euro short-term rate
ETF	exchange-traded funds
EU	European Union
EUI	Economic Uncertainty Indicator
EURIBOR	Euro Interbank Offered Rate
FATF	Financial Action Task Force
FC	financial corporation
FCI	Financial Conditions Index
FOMC	Federal Open Market Committee
FRM	Financial Risk Management
FSR	Financial Stability Report
GDDS	General Data Dissemination System
GDP	gross domestic product
GEAD	generalised exactly additive decomposition
GFCF	gross fixed capital formation
GVA	gross value added
HCI	harmonised competitiveness indicator
HFCS	Household Finance and Consumption Survey

HICP	Harmonised Index of Consumer Prices
IAC	Internal Auditors Committee
IIP	international investment position
IMF	International Monetary Fund
IPC	Investment Policy Committee
LFS	Labour Force Survey
LSGS	Liquidity Support Guarantee Scheme
LTRO	longer-term refinancing operations
MAPS	Market Activities Processing System
MCH	Malta Clearing House
MDB	Malta Development Bank
MFI	monetary financial institution
MFSA	Malta Financial Services Authority
MGS	Malta Government Stocks
MIA	Malta International Airport
MIP	Macroeconomic Imbalance Procedure
MPC	Monetary Policy Committee
MPPG	Macroprudential Policy Group
MQF	Malta Qualifications Framework
MRO	main refinancing operation
MSE	Malta Stock Exchange
NEER	nominal effective exchange rate
NEIG	non-energy industrial goods
NFC	non-financial corporation
NGFS	Network for Greening the Financial System
NMPP	non-monetary policy portfolios
NPISH	non-profit institutions serving households
NSO	National Statistics Office
OFI	other financial institutions
ORM	Operational Risk Management
O-SII	other systemically important institution
PELTRO	pandemic emergency longer-term refinancing operation
PEPP	pandemic emergency purchase programme
PPI	Property Price Index
PPD	Property and Procurement Department
PSPP	public sector purchase programme
RIAD	Register of Institutions and Affiliates Database
RPI	Retail Price Index
RST	Resilience and Sustainability Trust
SAFE	Survey on Access to Finance of Enterprises
SCT	SEPA Credit Transfer
SDD	SEPA Direct Debit
SDDS	Special Data Dissemination Standard
SEPA	Single Euro Payments Area
SME	small and medium-sized enterprise
SRI	sustainable and responsible investment
SSM	Single Supervisory Mechanism
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TARGET	Trans-European Automated Real-Time Gross Settlement Express Transfer System
TLTRO	targeted longer-term refinancing operation
TPI	Transmission Protection Instrument
UK	United Kingdom
ULC	unit labour cost
US	United States
VAT	value added tax
WBG	World Bank Group

GOVERNOR'S FOREWORD

The start of the year 2022 continued to be characterised by the effects of pandemic-related restrictions, and the hope that the related supply shortages and surge in inflation would be short lived. This was not to be as another storm with yet more tragic human consequences and new challenges for policy making broke out.

Russia's war in Ukraine, which started in late February, brought with it new supply disruptions along with an energy crisis. As soaring energy and other commodity prices spread through the economy, inflation reached new highs, with some price components posting double-digit growth. In the euro area, consumer price inflation, as measured by the Harmonised Index of Consumer Prices (HICP) reached 8.4% on average last year, the highest rate in the history of the single currency. Central banks in other advanced economies experienced similar developments.

Malta was no exception. However, the Government's decision to keep energy prices stable has helped keep overall inflation in Malta below that in the euro area. This notwithstanding, HICP inflation averaged 6.1% for the year, with price increases becoming more widespread over time, mirroring dynamics observed in the euro area.

Successive ECB projections continue to point to above target inflation rates until 2025. Monetary policy inevitably had to respond with resolve. For the first time since 2011, the Governing Council of the ECB increased policy rates, four times during the year. Such rate increases are unprecedented, in terms of both size and speed. The Governing Council has also taken the first steps towards unwinding the large monetary-policy related holdings of securities accumulated during the previous easing cycle, while reducing the exposure to long-term financing operations.

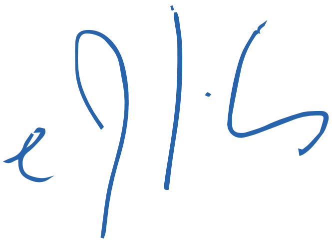
The tightening monetary stance in the euro area and in other advanced economies has weighed negatively on certain elements of our financials. Our primary aim remains that of bringing inflation closer to the policy aim of 2% in the medium term. The Governing Council remains committed to this objective and will take whatever action it deems appropriate in light of incoming information.

However, uncertainty remains high and while the resilience of the euro area economy, as well as that of the Maltese economy, to recent economic shocks is welcome the financial turbulences that arose outside our shores after this Report was finalised also highlight the *speed with which economic and financial market conditions can change. We must likewise keep a tab on longer-term forces affecting the economic and financial systems, such as climate change and population ageing, which also have a bearing on the economy's potential output and inflation. Constant vigilance and flexibility thus remain of the essence.*

It is with this perspective that in 2022, the Central Bank of Malta has taken further steps to upgrade its information and payments messaging infrastructure and ensuring they remain resilient to external threats, while also investing in a modern Treasury Management system. Further steps were taken to align investment practices with sustainable and responsible criteria, while the share of green, social and sustainable bonds in own managed portfolios increased.

The Bank has also established monitoring procedures with new datasets as well as new analytical and modelling capabilities, while engaging closely and regularly with various international institutions, as well as local authorities and the private sector. While this effort is expected to continue, I would also like to reiterate the Bank's commitment to share the results of its analyses. New techniques are being explored to present certain results in a more accessible way to different audiences.

On behalf of the Board of Directors, I would like to thank the Bank's staff for their continued efforts in navigating another challenging year and am confident that together we will realise the various projects we have identified for the year ahead.



Professor Edward Scicluna

EXECUTIVE SUMMARY

Global economic growth moderated sharply during 2022, as the war in Ukraine and other geopolitical factors offset tailwinds resulting from the re-opening of economic activity after the COVID-19 pandemic. The war in Ukraine and the international response to it led to further upward pressure on prices of energy and food commodities, as well as intermediate inputs in production, amid renewed uncertainties about supplies. As a result, consumer price inflation increased globally, in some countries reaching double digit rates. This has significantly dented households' spending power, while at the same time induced several central banks to embark on a monetary policy tightening path. Together with other factors such as concerns about fiscal sustainability, risk aversion and falling stock prices, this has been reflected in tighter global financial conditions.

The euro area economy

In the euro area, real gross domestic product (GDP) grew at a more moderate rate, but nevertheless still strong pace of 3.5% in 2022, after rebounding by 5.3% in 2021 from a low level of activity. Growth in 2022 mainly reflected a robust contribution from domestic demand from the reopening of activity, while the contribution from net trade was marginally negative.

The labour market continued to show resilience, with employment as well as the participation rate surpassing pre-pandemic levels and total hours worked not far off. Meanwhile, the unemployment rate fell to 6.7% by the end of the year, from an average rate of 7.7% in 2021.

As in many other advanced economies, the euro area economy was negatively hit by surging inflation. The annual average rate of inflation based on the HICP reached 8.4%, from 2.6% in 2021. This increase mainly reflected a very strong rise in energy prices, which rose by 37.0%, reflecting sharp increases in prices of fuels, gas and electricity following Russia's invasion of Ukraine. However, prices of food, non-energy industrial goods (NEIG) and services also rose at a faster pace compared to 2021. In fact, HICP inflation excluding energy and food reached a record yearly average of 3.9%, from 1.5% a year earlier.

In this environment of very high inflation, the Governing Council of the ECB started to unwind its accommodative monetary policy stance to achieve the inflation objective of 2% over the medium term. The three policy rates were raised by a cumulative 250 basis points by the end of 2022 – two further 50 basis point rate hikes were announced in February and March 2023.

During the year, the Council also took initial steps towards balance sheet normalisation. In March, the Governing Council revised the purchase schedule for the asset purchase programme (APP) for the ensuing months, lowering the amounts to be purchased. It also stated that if incoming data supported the expectation that the medium-term inflation outlook would not weaken, even after the end of these purchases, net purchases under the APP could end in the third quarter of 2022. Indeed, net purchases under the APP ended on 1 July. Initially, the Council restated its intention to continue reinvesting, in full, the principal payments from maturing securities purchased under this programme for an extended period after the ECB's first interest rate hike to maintain favourable liquidity conditions and an ample degree of monetary accommodation. In December, however, incoming data led the Council to reassess the situation, and it was decided that full reinvestments of maturing APP securities would only continue until the end of February 2023, after which the APP portfolio would decline at a measured and predictable pace. The decline will amount to €15 billion per month on average between March and June 2023, with the subsequent pace being reassessed over time.

As regards the pandemic emergency purchase programme (PEPP), net purchases under this programme ended in March 2022. However, reinvestments will continue until at least the end of 2024. Redemptions coming due in the PEPP portfolio were reinvested flexibly to prevent risks to the monetary policy transmission mechanism related to the pandemic.

During the year under review, the Governing Council also approved a new Transmission Protection Instrument (TPI) to help prevent disorderly market dynamics that pose a serious threat to the smooth transmission of monetary policy across euro area countries. By safeguarding the transmission mechanism against market fragmentation, the TPI will allow the Governing Council to more effectively deliver on its price stability mandate.

Meanwhile, the favourable conditions applicable to targeted longer-term refinancing operation III (TLTRO) ended on 23 June 2022. Furthermore, new interest rates became applicable on TLTRO III from 23 November 2022, and banks were also offered additional voluntary early repayment dates. This decision was taken in view of the unexpected and rapid rise in inflation, and the need to recalibrate the terms and conditions on this instrument to align them with the broader monetary policy normalisation process and reinforce its transmission to lending conditions in the wider economy.

In October, the Governing Council also decided to align the remuneration of minimum reserves with the ECB's deposit facility rate, thereby bringing this remuneration rate closer to money market conditions.

Maltese economy

Economic growth in Malta continued to exceed that recorded for the euro area. In 2022, GDP rose by 6.9%, with growth being driven by domestic demand.

The labour market continued to benefit from the reopening of the economy. According to the Labour Force Survey (LFS), employment increased at an average annual rate of 5.0% during the first three quarters of 2022, up from 2.4% in the corresponding period of 2021, and well above the average growth rate of 3.3% estimated since 2003. The unemployment rate based on LFS data, but incorporating also administrative data up to December, stood at 3.0% in 2022, down from 3.4% a year earlier. This decline occurred at a time of a significant increase in net inflows of migrant workers. The unemployment rate stood below the Bank's estimate of structural unemployment, confirming signals from other indicators – such as the ratio of the job vacancy rate to the unemployment rate – and from surveys, that labour market conditions are very tight. Unemployment also remained firmly below that in the euro area.

Data for the first three quarters of the year show a narrowing of the fiscal deficit, partly driven by buoyant tax revenue, and the phasing out of expenditures related to the pandemic. Nevertheless, the fiscal deficit remained significant, in part due to several inflation mitigation measures, exacerbated by the fallout from Russia's invasion of Ukraine. The Bank estimates that the general government balance will show a deficit of 5.2% of GDP in 2022, while debt is estimated to have reached 54.8% of GDP.

Between January and September, the current account balance showed a smaller surplus compared to the same period of 2021, reflecting a widening in the merchandise trade deficit, partly also because of higher imported inflation, and higher net income outflows. These outweighed an increase in net services receipts. When measured over the four quarters to September 2022, the current account surplus was equivalent to 2.2% of GDP.

The annual rate of inflation based on the Retail Price Index (RPI) reached 6.2% in 2022, from 1.5% a year earlier, while similarly HICP inflation also rose strongly, averaging 6.1%, from 0.7% in 2021. The rise in inflation over the course of 2022 was broad based across all non-energy components, while energy inflation stood at zero due to fiscal measures.

Nevertheless, HICP inflation in Malta remained below that in the euro area, which ended the year at 9.2%. The difference between Malta's inflation rate and that in the euro area reflected the latter's high energy inflation rate, which contrasted with zero energy inflation in Malta arising from Government measures.

According to the Bank's latest projections, GDP growth is set to moderate significantly from the strong growth registered in 2021 and 2022, as pandemic related re-opening effects diminish in importance and underlying headwinds from the international economic environment gain traction. At the same time, Malta is expected to avoid the short-term recessionary risks faced by some of its major trading partners, with economic growth expected to remain close to potential between 2023 and 2025.

Despite some easing of global supply chain disruptions, inflationary pressures are expected to remain elevated and widespread during most of the forecast horizon, as recent increases in imported inputs transmit to consumer prices. Hence, overall HICP inflation, while significantly higher than the ECB's target of 2%, should remain below that in most euro area countries. According to the Bank's latest projections, HICP inflation should moderate to 2.2% in 2025.

The fiscal deficit is also expected to shrink, falling just below the Treaty reference value of 3% in 2025, in part reflecting a decreasing profile of inflation support measures.

On balance, risks to economic activity are judged to be tilted slightly to the downside for 2023, and more balanced thereafter. The main downside risks relate to the possibility of stronger than envisaged weakness in the international economic environment, which could lead to lower exports. Foreign demand may also be weaker than expected, especially if monetary policy in advanced economies tightens more forcefully than assumed in this projection round. Some of these risks could be mitigated by stronger than expected wage growth, which could offer additional support to household consumption, though if not accompanied by productivity gains, would undermine competitiveness.

Risks to inflation are considered as balanced for the entire projection horizon. Upside risks emanate from pressures to wage inflation in Malta, reflecting also tight labour market conditions, and an incomplete lagged pass-through of past increases in energy costs in the euro area, which could increase commodity prices further. Downside risks relate to the re-opening of China, which should alleviate further supply bottlenecks and potentially dampen price pressures. A stronger pass-through of the appreciation of the euro since late September 2022, monetary tightening as well as lower international energy and transport costs could also ease inflation.

On the fiscal side, risks are on the downside (deficit-increasing) from 2023 onwards. These mainly reflect the likelihood of State Aid to the national airline, though possible weaker economic growth would also have an impact. These risks may be partly offset by the profile of outlays on price mitigation measures, which could be less than projected if oil and gas prices stabilise at lower levels.

Monetary policy implementation and macroprudential policy

During 2022 the Bank continued to implement the Eurosystem's monetary policy decisions in Malta through standing facilities, liquidity providing operations and asset purchases. Eligible credit institutions in Malta participated in main refinancing operations (MROs) conducted by the ECB, with a total cumulative amount of €185.0 million, up from €84.0 million in 2021. Local credit institutions also increased their utilisation of three-month long-term refinancing operations, borrowing €159.0 million through this facility. Meanwhile, during 2022, an amount of €513.5 million from the TLTRO-III operations was early repaid by credit institutions established in Malta, while an additional €40.0 million were repaid on maturity. By the end of 2022, most of the balances held in pandemic emergency long-term refinancing operations (PELTROs) had matured.

As in 2021, Maltese credit institutions did not utilise the marginal lending facility, but recourse to the overnight deposit facility increased to a daily average of €1,698.0 million.

During 2022, the Central Bank of Malta purchased €109.0 million worth of Maltese sovereign bonds under the public sector purchase programme (PSPP), bringing its cumulative purchases since the programme started to €1,515.6 million. Purchases of sovereign bonds under the PEPP amounted to €77.5 million in 2022, with the total amount bought since the programme's inception reaching €548.6 million. Apart from purchasing sovereign bonds for its PSPP and PEPP portfolios, the Bank also purchased such bonds for the ECB's portfolios.

The Central Bank's balance sheet contracted to €10,469.9 million in 2022, from €12,400.1 million a year earlier. As was the case also for the ECB, the Bank registered a zero financial result for 2022, driven by the shift in the monetary policy stance by the Eurosystem and central banks of other advanced economies during the year. In the preceding financial year, the Bank had generated a profit of €22.2 million which was paid to the Government of Malta.

In its capacity as the macroprudential authority in Malta, the Bank continued to carry out regular assessments of financial sector conditions, in part by means of stress tests and sensitivity analyses. Such analysis featured in the Bank's Financial Stability Report (FSR) as well as in a working paper documenting a stress testing framework for Maltese households. The Bank also continued to carry out the Bank Lending Survey (BLS) with four core domestic banks in Malta.

In 2022, the countercyclical capital buffer (CCyB) was kept unchanged at 0%, as the credit-to-GDP gap narrowed slightly on account of the faster recovery in GDP, compared to growth in bank credit. Supplementary indicators also suggested that an activation of the CCyB was not necessary. Meanwhile, the capital conservation buffer remained active, with banks required to hold an additional capital of 2.5% of risk-weighted assets.

In line with the European Systemic Risk Board (ESRB) recommendation (ESRB/2015/1), on recognising and setting CCyB rates for exposures to third countries, in 2022 the Bank carried out its annual exercise with the aim of identifying material exposures of the domestic banking sector to third countries. The three countries that were identified in 2021 were re-confirmed for the period Q2 2022 until Q2 2023.

The Bank, together with the Malta Financial Services Authority (MFSA), undertook the annual exercise on the identification of the Other Systemically Important Institutions (O-SII) and the related applicable capital buffer rates. The same four credit institutions identified as O-SIIs in 2021 were re-confirmed in 2022.

The Bank also reviewed the external audit reports for 2021 that the credit institutions submitted in terms of Directive No. 16 on borrower-based measures (BBMs) and found them overall compliant with such Directive.

Other bank activities

Financial stability-related issues were discussed regularly with the relevant substructures within the ECB, the ESRB and other EU fora. Such issues as well as the general economic situation were also discussed with the European Commission, the International Monetary Fund (IMF) and the rating agencies.

Meanwhile, the Bank remained active in the Joint Financial Stability Board as well as the Domestic Standing Committee and its Crisis Management Task Force. The Bank also participated in the Forum for Financial Stability and monitored closely developments in the anti-money laundering (AML) efforts of the various stakeholders in addressing earlier recommendations of relevant international bodies. A new Financial Crime Compliance Department led by the Money Laundering Reporting Officer was set up during 2022.

Given the significant rise in global bond yields, the Bank increased the size of its internally managed euro and foreign currency fixed income held-to-maturity portfolios, with the latter also contributing to an increase in official reserves. As regards the non-monetary policy portfolios, the Bank embarked on a diversification strategy rather than remaining fully concentrated on fixed income instruments. It liquidated part of its externally managed corporate bond portfolio as well as one of the unconstrained fixed income funds, whilst increasing the strategic exposure to inflation-linked bonds and equities at better valuations. The Bank continued to diversify its fixed income component geographically, whilst ensuring that such investments remain predominantly invested in high-quality financial assets.

Meanwhile, it continued incorporating climate change considerations in its non-monetary policy portfolios alongside liquidity, capital preservation and return. In this regard, the Bank has adopted several sustainable and responsible investment (SRI) practices in its investment decisions, while looking into ways to improve the quality of analysis and disclosures related to climate change related risks and opportunities.

The share of green, social and sustainable bonds in the Bank's internally managed portfolios continued to increase in 2022. In September, the Board approved the setting up of an SRI Desk within the International Asset Management Office.

The Bank closely monitored the economic impact of the war in Ukraine and its effect on the global economy, supporting the common EU position in this respect. Following an agreement with the Central Bank of Ukraine, in 2022, the Central Bank of Malta started providing exchange facilities of Hryvnia banknotes for Ukrainians benefitting from protection in Malta.

The Bank's regular economic publications were adapted to provide more information that is relevant for assessing inflation and the housing market. The Bank also maintained its regular dialogue with business representatives and public sector institutions to obtain a timelier gauge of economic conditions and prospects. The main results of this exercise are published on a quarterly basis in the Bank's Business Dialogue publication.

Work on a new Computable General Equilibrium model for the Maltese economy reached an advanced stage and new tools were developed to improve simulation and forecasting capabilities. Staff once again carried out specialised economic research that was published as working papers, policy notes and short boxes. In 2022, the Bank organised its fifth Annual Research Workshop, which focused on climate and energy issues and the Household Finance and Consumption Survey (HFCS).

Meanwhile, the Bank remained active in certain local fora, such as the National Productivity Board and the Building Industry Consultative Council. It also contributed to the work of the Rental Observatory, set up by the Housing Authority.

As in past years, the Bank continued to compile and disseminate a range of statistics to official institutions and the public, and to operate the Central Credit Register (CCR). Credit institutions' data were amended to cater for new reporting requirements that came into force in January 2022, and securities holdings statistics were enhanced. Furthermore, a new statutory return was implemented for payments statistics, with the collected statistics subsequently transmitted to the ECB. The Bank is now also publishing an aggregated statement of assets and liabilities of pension funds on its website. In addition, preparatory work was carried out in relation to the ECB's investment funds regulation, ECB requirements for financial accounts statistics and climate indicators. To improve communication with reporting agents, the Bank began to publish periodic statistical newsletters.

Discussions continued with the ECB and the National Statistics Office (NSO) on the validation of the fourth wave results of the HFCS. The first results for Malta from this wave were presented in the Bank's Annual Research Workshop. In the meantime, staff began to collaborate with the ECB on an experimental set of distributional wealth statistics, which combine information from the HFCS with financial accounts statistics. This dataset, which is still being developed, could be used to better assess how different households react to specific shocks.

The Bank also continued to collaborate with the NSO to enhance the quality of external statistics and to follow-up on the recommendations of the ECB and Eurostat in this area. The two institutions made steady progress towards adherence to the IMF's Special Data Dissemination Standard (SDDS) Plus initiative.

During 2022, the Bank continued to monitor credit institutions and other professional cash handlers, ensuring that all cash handlers were appropriately certified and trained, while certifying professional cash handlers using its dedicated online platform. Once again random inspections were carried out on cash handling machines. In 2022, Central Bank of Malta Directive No. 10 on the authentication fitness checking and recirculation of euro banknotes and coins was amended to further expand the list of items that cash handlers need to report to the Bank.

As the regulator and overseer of payment and securities settlement systems in Malta, the Bank carried out its annual assessment of the Malta Stock Exchange (MSE) (in its role as Central Securities Depository) which was approved by the Eurosystem's decision-making bodies. The Bank also continued to participate in Eurosystem discussions related to a digital euro.

The Bank's physical and IT infrastructure received further upgrades in 2022. A new telephony solution was rolled out across all the Bank, and a new anti-malware solution was applied at all endpoints and servers. Security enhancements were implemented for services hosted on the public cloud, and new services were introduced to enable end-users to work securely, even remotely. The Bank's email solution was also upgraded. Another key development was the go live of the Market Activities Processing System (MAPS). MAPS is the Treasury Management System for Central Banks which was developed by *Banque de France* and *Banco de España*. It integrates with the main trading platforms, offering a straight through process spanning from front to back-office, risk management, accounting, and financial reporting functions. Furthermore, a new payment acquisition platform was introduced to enable external clients to independently manage and automate instructions for SEPA payments.

Apart from offering staff training and development support, the Central Bank of Malta is committed to equality, diversity and inclusion (EDI). In 2022, the Bank became signatory to the new ESCB & Single Supervisory Mechanism (SSM) EDI Charter. It also set up an internal EDI Committee to better address EDI issues. The Committee organised several initiatives specifically to celebrate and support Malta Pride Week 2022 and is engaged in obtaining the Equality Mark Certification.

Future developments

In 2023, the Bank will continue to implement projects in line with its 2023 Corporate Strategic Plan and align its operational framework with steps the ECB may take in relation to monetary policy, and the inclusion of climate change in the monetary policy framework. As from March 2023, the Bank will be publishing annual climate related disclosures for its euro denominated non-monetary policy portfolios. Within its remit, the Bank will also continue to strengthen the framework for anti-money laundering and combating the financing of terrorism.

Risk assessment tools and stress testing frameworks will be reviewed to be in a better position to assess potential financial stability risks at an early stage. The Bank will be recommending the introduction of a sectoral systemic risk buffer to mitigate against concentration risk and rising cyclical vulnerabilities in the mortgage lending sector.

Research plans for 2023 include an assessment of BBMs and the development of a network model that captures financial interlinkages across Malta's financial sector. On the economic side, the Bank will continue to monitor closely inflation developments. There are also research plans related to long-term structural trends such as climate policies as well as monetary policy transmission topics and labour market issues. The Bank will also assess the potential for presenting selected survey results by means of dashboards and to make better use of social media to reach out to the public.

K ĊENTRALI TA' MALTA
BINJA ĠLOR

I. Financial and Economic Developments

1. THE EXTERNAL ENVIRONMENT AND THE EURO AREA

During 2022, economic activity in the United States (US) and the United Kingdom (UK) continued to recover from the effects of the pandemic, but economic growth slowed down from the high rates regstered in 2021. Unemployment declined in both economies. Price pressures rose markedly, largely reflecting developments in energy and food prices due to lingering supply and demand imbalances which were amplified by the effects of the war in Ukraine. The annual rate of consumer price inflation averaged 8.0% in the United States and 9.1% in the United Kingdom.

Throughout the year, both the Federal Reserve and the Bank of England raised their key policy rates on several occasions in order to address high inflation. Both central banks also started to unwind the stock of assets held on their balance sheets.

In the euro area, real GDP slowed down to 3.5% in 2022. Employment increased and stood above the level registered before the onset of the pandemic. Meanwhile, the unemployment rate continued to decline throughout 2022, and stood at 6.7% from 7.7% in 2021. Consumer price inflation, measured on the basis of the HICP, rose notably during 2022, with the average for the year standing at 8.4%, up from 2.6% in 2021.

During 2022, the ECB started to unwind its accommodative monetary policy stance in the context of heightened inflation. The Governing Council raised the interest rates on the deposit facility, the MROs, and the marginal lending facility first in July, and then again in September, October and December, such that by December these rates stood 250 basis points above their level at the end of 2021. Further increases were announced in the first quarter of 2023.

At its March meeting, the Governing Council revised the purchase schedule for its APP, and reduced the amount purchased, before ending them as of 1 July 2022. As regards the PEPP, net purchases ended in March 2022. TLTRO III conditions were also revised during the year, to align them with the normalising monetary stance.

During 2022, the price of oil generally increased, amid concerns about oil supplies following the Russian invasion of Ukraine. Towards the end of the year, oil prices subsided somewhat, as weaker economic growth prospects increased the possibility of lower demand for oil. The price of Brent crude oil ended 2022 at USD 83.3 per barrel, 6.0% above its level at end-2021.

Key advanced economies

US economy remains resilient

During 2022, the US economy remained resilient, but economic growth slowed down. Real GDP rose by 2.1% in 2022, following a rise of 5.9% in the previous year (see Table 1.1). In 2022, GDP stood 5.1% above its 2019 level.

The deceleration in real GDP growth was driven by domestic demand. While personal consumption expenditure and gross private domestic investment grew further, they did so at a slower pace. Furthermore, growth in government expenditure turned negative. These developments offset an increase in the contribution of inventories. Meanwhile, net exports had a smaller negative effect on GDP growth compared with 2021.

Table 1.1
REAL GDP GROWTH IN SELECTED ADVANCED ECONOMIES
Percentage changes over preceding period

	2017	2018	2019	2020	2021	2022
United States	2.2	2.9	2.3	-2.8	5.9	2.1
Euro area	2.6	1.8	1.6	-6.1	5.3	3.5
United Kingdom	2.4	1.7	1.6	-11.0	7.6	4.0

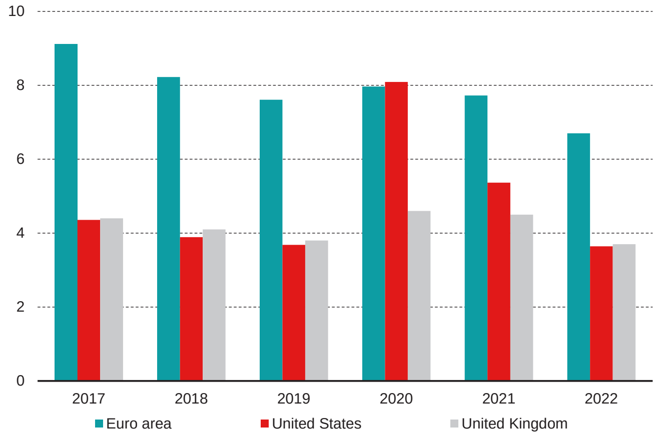
Sources: Bureau of Economic Analysis, US; Eurostat; Office for National Statistics, UK.

In the labour market, the participation rate averaged 62.2% in 2022, as against 61.7% registered in 2021. Employment increased by 3.7%, after increasing by 3.2% in 2021. Compared to 2019, there were 0.5% more persons in employment. Nevertheless, the participation rate remains below pre-pandemic levels.

Non-farm payroll data suggest that during 2022 employment was higher across all main economic sectors, with the strongest level increases recorded in the leisure and hospitality, and in the professional and business services.

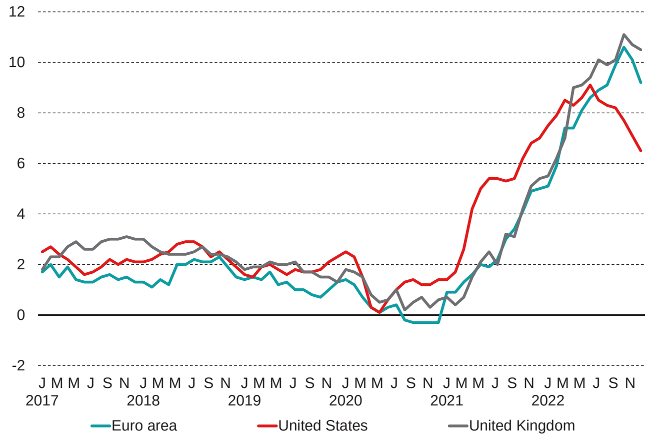
The unemployment rate stood well below the rates seen in the preceding two years, and was more in line with pre-pandemic rates. In 2022, the unemployment rate averaged 3.6%, down from 5.4% in 2021, and was also 0.1 percentage point lower compared with 2019 (see Chart 1.1).

Chart 1.1
UNEMPLOYMENT RATE
(percentage of the labour force; seasonally adjusted)



Sources: Eurostat; US Bureau of Labor Statistics; Office for National Statistics, UK.

Chart 1.2
CONSUMER PRICE INFLATION
(annual percentage changes)

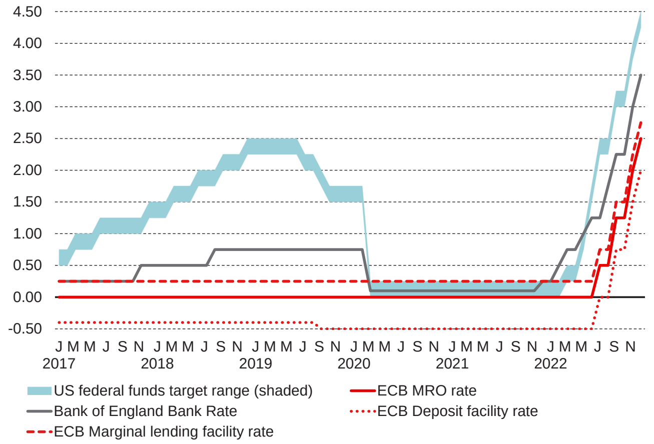


Sources: Eurostat; US Bureau of Labor Statistics; UK Office for National Statistics.

Inflationary pressures increased substantially during 2022, with the annual inflation based on the consumer price index (CPI) averaging 8.0%, up from 4.7% in 2021 (see Chart 1.2). US inflation exceeded 8.0% in March and rose further to reach a 40-year peak of 9.1% in June. Thereafter, inflationary pressures subsided, although at 6.5% it remained well above the monetary policy target of 2%.

High inflation reflected mainly higher energy and food prices, as well as supply and demand imbalances arising from supply bottlenecks. In fact, energy prices rose by 25.2%, after increasing by 21.0% in 2021. Food price inflation rose to 9.9% from 3.9%. Meanwhile, prices of commodities excluding food and energy grew at a faster pace, though by December, the rate of increase was much more muted. Services inflation also increased at a faster rate of 6.2%. As a result, inflation excluding food and energy accelerated to 6.2% in 2022, from 3.6% in 2021.

Chart 1.3
OFFICIAL INTEREST RATES
(percentages per annum; end of month)



Sources: ECB; Federal Reserve; Bank of England.

After holding the federal funds rate near zero since the onset of the pandemic, in March 2022, the Federal Open Market Committee (FOMC) raised the target range for that rate, in response to persistent inflationary pressures and a tight labour market (see Chart 1.3). Further six increases followed throughout the year, as the FOMC sought to achieve its goals of maximum employment and lower inflation to 2.0% over the longer term. By the end of 2022, the target range stood between 4.25% and 4.50%. The Committee also signalled that further increases would be appropriate in order to attain a stance of monetary policy that is sufficiently restrictive to return inflation to 2% over time.

At the beginning of 2022, the Committee decided to continue to reduce the monthly pace of its net asset purchases, bringing them to an end in early March, and issued a set of principles regarding its planned approach for significantly reducing the size of the Federal Reserve's balance sheet. According to these principles, the federal funds rate remains the primary means of adjusting the stance of monetary policy.

In March, the Committee announced that it expected to begin reducing its holdings of Treasury securities and agency debt and agency mortgage-backed securities at a coming meeting. In June, the FOMC began reducing its holdings of Treasury securities and agency debt and agency mortgage-backed securities and continued doing so throughout the year as the Committee emphasised that it remained strongly committed to returning inflation to its objective.

In assessing the appropriate stance of monetary policy, the Committee said that it would continue to monitor the implications of incoming information for the economic outlook. Furthermore, the monetary stance would be adjusted as appropriate, if risks emerge that could impede the attainment of its goals.[1]

UK economy continues to recover

During 2022, the UK economy continued to recover from the effects of the pandemic, though growth in real GDP slowed down to 4.0% in 2022, from 7.6% in 2021 (see Table 1.1). Household expenditure increased at a slower pace as high consumer price inflation, rising mortgage costs and tight financial conditions weighed on consumption. Government consumption also increased less rapidly. On the other hand, gross fixed capital formation (GFCF) increased at a faster pace. Meanwhile, the contribution of net trade was less negative. In 2022, the GDP level stood just 0.4% below its level in 2019.

In 2022, on average, employment increased by 1.0% compared with 2021, when employment had contracted. The employment level was around 0.2% below its pre-pandemic level. The average unemployment rate stood at 3.7%, down from 4.5% a year earlier (see Chart 1.1).

Consumer price inflation in the United Kingdom surged to new highs during 2022. Annual Inflation based on the CPI rose above 9.0% in May, before peaking at 11.1% in October (see Chart 1.2). It ended the year

[1] In its meeting held between end-January 2023 and beginning of February 2023, the Committee decided to raise the target range for the federal funds rate to between 4.50% and 4.75% and confirmed that further rate hikes would be required to bring inflation closer to 2%.

at 10.5%. For 2022 as a whole, inflation averaged 9.1%, up from 2.6% in 2021. Energy inflation increased markedly to 47.6% in 2022, from 8.9% in 2021. Prices for NEIG, services and food also grew at a faster pace. The average annual rate of inflation based on the CPI excluding energy, food, alcohol and tobacco, rose to 5.9% in 2022 from 2.4% in 2021.

The Bank of England Monetary Policy Committee (MPC) started increasing its Bank Rate in February, and did so on eight occasions during the year, to end 2022 at 3.5% (see Chart 1.3). In December, the MPC said that while the labour market was beginning to ease, it remained tight, and there was evidence of inflationary pressures in domestic prices and wages that could justify a more forceful response. The MPC added that it will take the actions necessary to return inflation to the 2% target sustainably in the medium term, in line with its remit. The Committee will, as always, consider and decide the appropriate level of Bank Rate at each meeting.

In early 2022 the MPC decided to begin reducing the stock of UK government bond purchases and the stock of sterling non-financial investment-grade corporate bond purchases financed by the issuance of central bank reserves, by stopping reinvestments. Furthermore, in the case of corporate bonds, a sales programme is expected to be completed no earlier than towards the end of 2023, with a view to fully unwind the stock of these purchases.

In August the Committee stated that it was provisionally minded to start gilt sales shortly after its September meeting. In September, the MPC considered that the conditions to start gilt sales were met and agreed to reduce the stock of purchased UK government bonds, financed by the issuance of central bank reserves, by GBP 80 billion over the next 12 months, to a total of GBP 758 billion. However, on 28 September 2022, the Bank of England also announced that gilt sales would be postponed, in light of a significant repricing of UK and global financial assets, which could undermine financial stability and the flow of credit to the economy. To address this issue, the Bank carried out temporary purchases of long-dated UK government bonds. The GBP 80 billion reduction target was not affected. Temporary gilt purchases were conducted between 28 September and 14 October, with a view to restore orderly market conditions and limit the risk of contagion to broader credit conditions in the economy. On 29 November, the Bank begun to unwind, in a timely but orderly way, the specific gilt purchases resulting from the financial stability operations. As of 13 December 2022, around 40% of the gilts purchased during those operations had been sold.[2]

Economic and financial developments in the euro area

Euro area GDP growth slows down[3]

Real GDP growth in the euro area slowed down to 3.5% in 2022, compared to 5.3% in 2021 (see Table 1.2). After having gathered momentum in the first half of the year, economic growth retraced notably in the second half. In early 2022, strong net exports, a rebound in tourism, and reasonably robust domestic demand outweighed negative repercussions emanating from increasing energy costs, renewed supply-chain disruptions, and uncertainty in light of the Russian invasion of Ukraine. In the second half of the year, however, elevated geopolitical uncertainty related to the war in Ukraine, record-high inflation, disruptions in the energy and food commodity markets, tightening financial conditions and weakening global demand dampened economic growth.

The expansion in real GDP was largely driven by domestic demand. Private consumption was the main domestic demand component pushing up economic activity as it rose by 4.3% over the previous year and contributed 2.2 percentage points to GDP growth. Consumption kept the strong momentum started in 2021, following the easing of pandemic-related restrictions, while consumers' upbeat sentiment was supported by a robust labour market. This was followed by an increase in investment spending, which contributed 0.8 percentage point to GDP growth as GFCF grew by 3.7%, in part reflecting a notable increase in investment in

[2] In its meeting held in February 2023, the MPC increased the Bank Rate by 0.5 percentage point to 4.0%. The MPC said that while headline CPI inflation has begun to ease and is likely to fall sharply over the rest of 2023, the labour market remains tight and domestic price and wage pressures have been stronger than expected, suggesting risks of greater persistence in underlying inflation.

[3] The cut-off date for data on GDP and the labour market in this chapter is 8 March 2023.

Table 1.2
REAL GDP GROWTH IN THE EURO AREA
Chain-linked volumes

	2017	2018	2019	2020	2021	2022
			Annual percentage changes			
Private consumption	1.8	1.5	1.4	-7.7	3.7	4.3
Government consumption	1.1	1.0	1.7	1.0	4.3	1.1
GFCF	3.9	3.1	6.9	-6.2	3.8	3.7
Exports	5.6	3.6	2.8	-8.9	10.6	7.0
Imports	5.2	3.9	4.8	-8.5	8.4	7.9
GDP	2.6	1.8	1.6	-6.1	5.3	3.5
			Percentage point contributions			
Private consumption	1.0	0.8	0.7	-4.1	1.9	2.2
Government consumption	0.2	0.2	0.4	0.2	1.0	0.2
GFCF	0.8	0.6	1.4	-1.4	0.8	0.8
Changes in inventories	0.2	0.1	-0.2	-0.3	0.3	0.3
Exports	2.6	1.7	1.4	-4.3	4.8	3.5
Imports	-2.1	-1.7	-2.1	3.8	-3.5	-3.6
GDP	2.6	1.8	1.6	-6.1	5.3	3.5

Source: Eurostat.

intangible assets in Ireland. Changes in inventories also had a positive impact on GDP growth during 2022, as did government consumption, which increased by 1.1% over the previous year. By contrast, net exports pushed down GDP growth by 0.1 percentage point, as a 7.0% rise in exports was outweighed by a 7.9% increase in imports that also reflected the increase in domestic demand.

From a sectoral perspective, the services sector, notably high-contact services that include travel and tourism, extended its robust positive performance following the relaxation of pandemic-related containment measures. Activity also expanded in most other economic sectors, although contributions to overall growth were smaller. By contrast, activity was stagnant in the sector comprising agriculture and fisheries, in construction and in the financial and insurance sector.

Labour market conditions improve further

Labour market conditions in the euro area improved further during the year under review. The labour market was mainly supported by strong demand, which amply compensated for the phasing out of supporting policy measures implemented at the height of the pandemic.

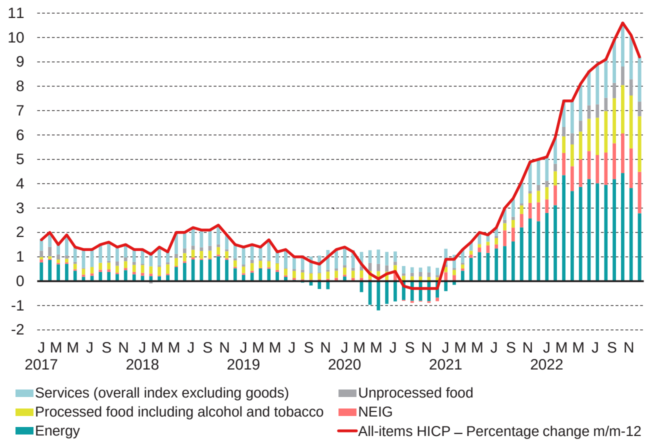
Employment increased by 2.2% in 2022, up from 1.4% in 2021. Seasonally-adjusted data show that the rebound in employment which started in the second half of 2020 continued steadily during the year and imply that, during the final quarter of 2022, the number of people in employment was 2.3% higher than that registered in the final quarter of 2019, just before the onset of the pandemic.

Meanwhile, unemployment continued to decline throughout 2022, with the seasonally-adjusted unemployment rate averaging 6.7% during the year, down from 7.7% in 2021 (see Chart 1.1). In December 2022, the unemployment rate stood at 6.7%, as against 7.0% a year earlier. Cross-country data show that the unemployment rate fell in most euro area countries. However, wide disparities across countries persist, with the unemployment rate at the end of the year standing at 13.0% in Spain but only 2.9% in Malta.

HICP inflation rises sharply

The annual rate of HICP inflation in the euro area rose markedly during 2022, with the average for the year as a whole standing at 8.4%, up from 2.6% in 2021 (see Chart 1.4). This increase mainly reflected a very strong rise in energy inflation, which shot up to 37.0% from 13.0% in 2021, reflecting sharp increases in the prices of fuels, gas and electricity following Russia's invasion of Ukraine. Thus, the contribution of energy to overall inflation rose to 3.8 percentage points, from 1.2 percentage points in the previous year. To a lesser extent, unprocessed food inflation also rose on average, to 10.4%, so that its contribution to overall inflation rose to 0.5 percentage point, from 0.1 percentage point in 2021. Processed food (including alcohol and tobacco) inflation rose to 8.6%, on average, and its contribution to overall inflation increased to 1.4 percentage points, from 0.3 percentage point a year before. Meanwhile, NEIG inflation picked up to 4.6%, pushing up its contribution to overall inflation to 1.2 percentage points, from 0.4 percentage point in 2021. Services inflation rose to 3.5%, on average, contributing 1.5 percentage points to overall inflation, up from 0.6 percentage point in the previous year.

Chart 1.4
CONTRIBUTIONS TO YEAR-ON-YEAR HICP INFLATION IN THE EURO AREA
(percentage points; annual percentage change)



Source: Eurostat.

Inflation went up almost consistently as the year progressed but eased somewhat in the last two months of the year. The annual rate of HICP inflation rose from 5.0% in December 2021 to 10.6% in October 2022, which was the highest inflation rate ever recorded for the euro area. It eased to 10.1% in November and ended the year at 9.2%. Besides energy-price dynamics, other factors contributed to the significant rise in headline inflation. Most importantly, recovering demand after the COVID-19 pandemic outpaced supply, which remained restricted by various bottlenecks. The latter were reinforced by disruptive effects stemming from the war in Ukraine. Supply shortfalls exerted upward pressure on the prices of food and some categories of NEIG, while the recovery in demand contributed to the increase in prices of services, especially those for high-contact services such as restaurants and hotels.

HICP inflation excluding energy and food averaged 3.9% during 2022, 2.4 percentage points higher than that recorded in 2021. This measure of inflation increased steadily as the year progressed, rising to 5.2% in December.

ECB projects weaker economic activity, while inflation is set to ease

According to the ECB staff macroeconomic projections published in March 2023, economic growth is set to weaken in the near term, before picking up as of mid-2023 as uncertainty diminishes, real incomes rise, and foreign demand strengthens. On the other hand, tighter financing conditions will dampen growth. Inflation is projected to ease, largely due to developments in energy prices. A tighter monetary policy stance is also expected to restrain upward price pressures, countering the impact of faster growth in wages. However, uncertainty remains high and has increased following recent financial market tensions.

Real GDP growth in the euro area is expected to slow down to 1.0% in 2023, but pick up in 2024 and 2025, with economic activity expanding by 1.6% in both years (see Table 1.3). Following stagnant real GDP growth at the turn of the year, economic activity in the euro area is expected to improve in the short term, as a result of lower energy prices, dissipation of global supply bottlenecks, improving real incomes and lower uncertainty related to energy bills. However, the ECB's tightening policy stance and further interest rate hikes expected by markets are likely to increasingly feed through to the real economy, with some additional dampening effects stemming from the recent tightening in credit supply conditions. These factors, together

Table 1.3
MACROECONOMIC PROJECTIONS FOR THE EURO AREA[1]
Annual percentage changes

	2022	2023	2024	2025
GDP	**3.6**	**1.0**	**1.6**	**1.6**
Private consumption	4.3	0.7	1.3	1.4
Government consumption	1.4	-0.2	1.4	1.4
GFCF	3.7	0.3	1.4	1.8
Exports	7.5	3.4	3.5	3.3
Imports	8.3	3.0	3.0	3.2
HICP	**8.4**	**5.3**	**2.9**	**2.1**
HICP excluding energy and food	3.9	4.6	2.5	2.2

Source: ECB.
[1] ECB staff macroeconomic projections (March 2023).

with the expected gradual withdrawal of fiscal stimulus measures and persisting concerns about the energy supply-demand balance, are likely to weigh on economic growth in the medium term.

Compared to the December 2022 projections, real GDP growth has been revised upwards by 0.5 percentage point for 2023. By contrast, growth projections were revised downwards by 0.3 and 0.2 percentage point for 2024 and 2025, respectively. The revision for 2023 reflects carry-over effects from a better than expected performance in the second half of 2022 and significantly lower energy prices. On the other hand, the tightening of financing conditions and the appreciation of the euro are expected to outweigh the positive effects of lower inflation and act as a drag on economic growth in 2024 and in 2025.

Turning to the outlook for prices, according to the March 2023 projections, HICP inflation is envisaged to moderate to 5.3% in 2023, and ease further to 2.9% and 2.1% in 2024 and 2025, respectively. Such developments are expected to take place on the back of the sharp adjustment in energy markets, strong base effects, and the appreciation of the euro exchange rate. Since pipeline pressures related to cost pass-through are still being felt, food inflation is expected to start declining later. The expected decline of headline inflation in the medium-term also reflects the gradual impact of monetary policy normalisation. In contrast to headline inflation, HICP inflation excluding energy and food is expected to increase in 2023 compared to 2022, reflecting lagged effects related to past high energy prices and from the past strong depreciation of the euro. The effects of the recent energy price declines and euro appreciation on core inflation will be felt only later in the horizon. In addition, the tight labour markets and inflation compensation effects imply that wages are likely to grow at rates well above historical averages, putting upward pressure on inflation.

Compared to the December 2022 projections, HICP inflation has been revised downwards by 1.0 percentage point for 2023, and by 0.5 and 0.2 percentage point for 2024 and 2025 respectively. The notable downward revision in 2023 is driven by the energy component, partially offset by upward surprises in HICP inflation excluding energy and food. As to 2024 and 2025, the HICP inflation rate projections were revised downwards on account of a lower impact from fiscal measures on energy inflation, more strongly dissipating indirect inflationary effects and an increasing pass-through of the recent appreciation in the euro exchange rate.

ECB raises key interest rates as monetary policy normalises

The ECB's Governing Council started to unwind its highly accommodative monetary policy stance in 2022 in the context of heightened inflationary pressures. The Governing Council took firm decisions to achieve its inflation objective of 2% over the medium term. Thus, the interest rates on the deposit facility, the MROs and the marginal lending facility were raised during the second half of the year, ending the year at 2.00%, 2.50% and 2.75%, respectively, compared to -0.50%, 0.00% and 0.25% at the beginning of 2022 (see Chart 1.3).

At the beginning of the year, the Governing Council confirmed the monetary policy stance adopted in December 2021. At its March meeting, the Governing Council revised the purchase schedule for its APP for the ensuing months. It reduced the amounts to be purchased and stated that if incoming data supported the expectation that the medium-term inflation outlook would not weaken, even after the end of its net asset purchases, the Governing Council would conclude net purchases under the APP in the third quarter of 2022. The Council restated its intention to continue reinvesting, in full, the principal payments from maturing securities purchased under the APP for an extended period of time past the date when it started raising the key ECB interest rates and, in any case, for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation. As regards the PEPP, the Governing Council ended net purchases at the end of March 2022. It decided that the reinvestment period for the principal payments from maturing securities purchased under the PEPP would be until at least the end of 2024, and in any case, the future roll-off of the PEPP portfolio would be managed to avoid interference with the appropriate monetary policy stance. The Council also announced that net purchases under the PEPP could be resumed, if necessary, to counter negative shocks related to the pandemic.

On 9 June, the Governing Council announced its intention to raise the key interest rates by 25 basis points at its July monetary policy meeting and to increase rates again in September and gradually thereafter depending on incoming economic data and inflation developments. This announcement was made as previously specified conditions necessary for the Council to start raising rates were satisfied. Also, at its June meeting, the Governing Council decided to end net asset purchases under its APP as of 1 July 2022. As to the PEPP, while net purchases under the programme ended in March, the Governing Council reiterated its intention to reinvest the principal payments from maturing securities purchased under this programme until at least the end of 2024. The Council reaffirmed that net purchases under the PEPP could be restarted, if necessary, to neutralise negative shocks related to the pandemic.

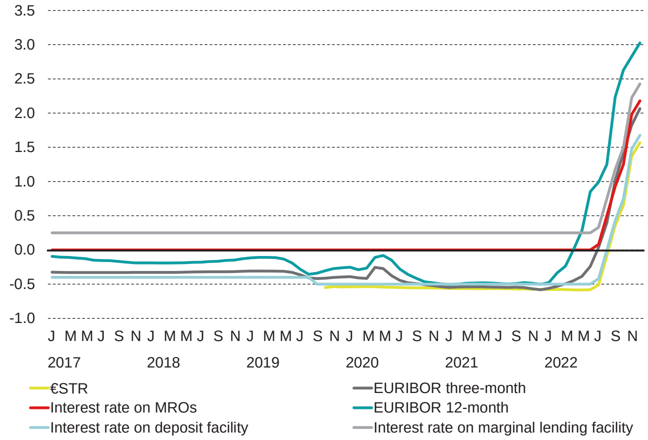
Following its earlier announcement, the Governing Council decided to increase interest rates for the first time since 2011 in July. On 21 July, the Council raised the three key interest rates by 50 basis points.

At its July meeting, the Governing Council also approved the TPI to help prevent disorderly market dynamics that pose a serious threat to the transmission of monetary policy. Whereas net asset purchases under the APP ended as of 1 July 2022, the Council reaffirmed its intention to continue fully reinvesting the principal payments from maturing securities purchased under the APP for an extended period of time and for as long as necessary to maintain favourable liquidity conditions and an appropriate monetary policy stance. Regarding the PEPP, the Governing Council reiterated its intention to reinvest the principal payments from maturing securities purchased until at least the end of 2024. Redemptions coming due in the PEPP portfolio were being reinvested flexibly to prevent risks to the monetary policy transmission mechanism related to the pandemic. As was previously announced, the special conditions applicable under TLTRO III ended on 23 June 2022.

The Governing Council hiked rates by 75 basis points on 8 September. The Governing Council envisaged raising interest rates further to dampen demand and guard against the risk of a persistent upward shift in inflation expectations. It added, however, that future policy rate decisions would continue to be data-dependent and follow a meeting-by-meeting approach.

On 27 October 2022, the Governing Council raised the three key ECB interest rates by a further 75 basis points. Also, it adjusted the interest rates applicable to TLTRO III from 23 November 2022 and offered banks additional voluntary early repayment dates. Furthermore, the Council decided to set the remuneration of minimum reserves at the ECB's deposit facility rate. Subsequently, on 15 December 2022, the Council raised key interest rates again by 50 basis points and announced that from the beginning of March 2023 the Eurosystem would not reinvest all of the principal payments from maturing securities in the APP portfolio so that the portfolio would decline at a measured and predictable pace.[4]

Chart 1.5
KEY INTEREST RATES
(percentages per annum; monthly averages)



Source: ECB.

Money market rates rebound and turn positive

In the context of the ECB's unwinding of its highly accommodative monetary policy stance and indications that it would implement further tightening steps in due course, money market rates in the euro area rebounded in 2022. The euro short-term rate (€STR) stood at -0.58% on average in December 2021 but, by mid-September, it turned positive and averaged 1.57% in December.[5] Reflecting changes in the key ECB interest rates, the €STR rose by 215 basis points during 2022. It remained slightly below the interest rate on the ECB's deposit facility throughout the year.

The three-month Euro Interbank Offered Rate (EURIBOR) averaged -0.58% in December 2021 but rose incrementally during the first half of 2022, turning positive in July. It increased further in the following months and averaged 2.07% in December. The 12-month EURIBOR rose from -0.50% to -0.24% between December 2021 and March 2022, turning positive in April and continued to rise during the rest of the year. It averaged 3.03% in December (see Chart 1.5).[6]

Euro area bond yields rise notably

Ten-year benchmark government bond yields in the euro area rose markedly further during 2022, against the background of rising inflation, increasing short-term interest rates and expectations that the monetary policy stance would continue to tighten. Overall, the euro area ten-year government benchmark bond yield increased from 0.28% at end-December 2021 to 3.00% one year later.

All sovereign bond yields in the euro area rose during 2022. German ten-year bond yields turned positive in early 2022 and continued to rise throughout the year, reaching 2.08% in December or 246 basis points higher than twelve months before. Italian bond yields went up by 321 basis points to average 4.26% in December, whereas French and Spanish yields rose to a lesser extent. Yields on Cypriot bonds recorded the strongest increase, gaining 356 basis points and averaging 4.20% in December, while Slovenian, Slovak and Latvian bond yields also gained considerably.

As a result, spreads between yields on ten-year German bonds and those on bonds issued by the other euro area governments widened over the year (see Chart 1.6). By the end of the year, spreads on Greek and Italian bonds widened to over 200 basis points, while those on Spanish and Portuguese bonds increased to slightly over 100 basis points. Spreads were more contained in France and Ireland, as well as in the Netherlands.

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4 In February 2023, the Governing Council raised the three key ECB interest rates by 50 basis points and stated that it expected to raise them further. In view of the underlying inflation pressures, the Governing Council expressed its intention to raise interest rates by another 50 basis points at its March monetary policy meeting and would then evaluate the subsequent path of its monetary policy. The Governing Council also decided on the modalities for reducing the Eurosystem's holdings of securities under the APP. In March 2023, the Governing Council hiked the three policy interest rates by 50 basis points so that the interest rates on the deposit facility, the MROs and the marginal lending facility reached 3.00%, 3.50% and 3.75%, respectively. The Council stated that it was monitoring current market tensions closely and stood ready to respond as necessary to preserve price stability and financial stability in the euro area.

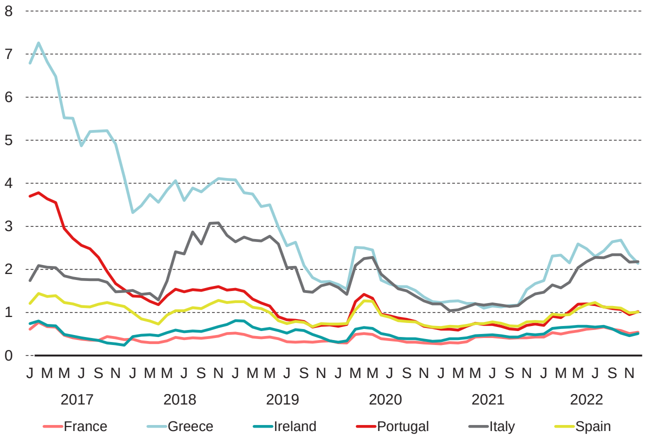
5 The €STR is a reference rate based on money market data collected by the Eurosystem, reflecting the wholesale euro unsecured overnight borrowing costs of banks located in the euro area. The €STR has replaced the EONIA interest rate as from 4 January 2022.

6 The EURIBOR is an interest rate benchmark indicating the average rate at which principal European banks lend unsecured funds on the interbank market in euro for a given period.

The euro partly recovers lost ground versus the US dollar, appreciates against the British pound

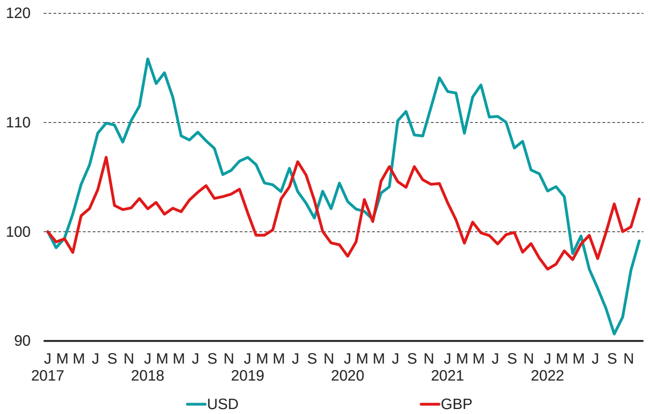
The euro exchange rate appreciated in nominal effective terms during 2022, with the NEER-19 gaining 0.4% from its end-2021 level.[7] This contrasted with a depreciation of 5.1% in 2021. The marginal increase in the external value of the euro during 2022 mainly reflected the monetary policy decisions taken by the ECB to address heightened inflationary pressures and reversal of flows into safe-haven currencies which had taken place in the context of the COVID-19 pandemic. Perceptions of a more hawkish tone by the Federal Reserve compared to the ECB, however, weighed on the euro during most of the year.

Chart 1.6
SELECTED EURO AREA GOVERNMENT BOND YIELD SPREADS
(difference vis-à-vis German ten-year government bond yields in percentage points)



Source: ECB.

Chart 1.7
EXCHANGE RATE MOVEMENTS OF THE EURO AGAINST OTHER MAJOR CURRENCIES
(index of end of month rates; Jan. 2017=100; an increase in the index implies euro appreciation)



Source: Eurostat.

On a bilateral basis, the euro lost 5.8% against the US dollar. The depreciation of the euro versus the US currency took place during the first ten months of the year, mainly on account of the continued broad-based strength of the dollar, reflecting positive macroeconomic developments in the United States and investors' expectations of a tighter US monetary policy stance relative to the euro area (see Chart 1.7). Subsequently, however, the euro recovered substantially against the US unit, largely in the context of the ECB's rapid normalisation of its monetary policy stance and as risk aversion abated. By contrast, the single currency appreciated by 5.6% against the pound sterling, as the latter was weakened by political developments in the United Kingdom and persistent economic uncertainty that was also related to Brexit ramifications.

Over the year as a whole, the euro recorded a mixed performance against a number of other currencies. The euro strengthened against the Japanese yen, the Chinese renminbi, the Hungarian forint, the Swedish krona, the Norwegian krone, the Korean won and the Polish zloty. On the other hand, the single currency weakened versus the Singapore and the Hong Kong dollars, the Swiss franc, the Czech koruna and, to a much lesser extent, the Australian and the Canadian dollars and the Romanian leu.

[7] The nominal effective exchange rate (NEER) is based on the weighted averages of the euro exchange rate against the currencies of Australia, Bulgaria, Canada, China, Croatia, Czech Republic, Denmark, Hong Kong, Hungary, Japan, Norway, Poland, Romania, Singapore, South Korea, Sweden, Switzerland, the United Kingdom and the United States.

Commodities

Oil prices rise before subsiding

Oil prices started 2022 on a high note and by early February the price of Brent crude oil crossed the threshold of USD 100 per barrel, as markets were optimistic that the new COVID-19 variant would not have a negative impact on global oil demand to the extent previously feared. Following the Russian invasion of Ukraine, oil prices rose further as fears about oil supplies increased. As the year progressed, ongoing risks associated with supplies coupled with embargoes on Russian oil continued to pose upward pressure on oil prices. However, demand concerns from the worsening global economic outlook offset some of this upward pressure. The price of Brent crude oil ended 2022 at USD 83.3 per barrel, 6.0% above the level prevailing at the end of 2021 (see Chart 1.8).

Chart 1.8
PRICE OF BRENT CRUDE OIL
(end of week; US dollars per barrel)

Source: Reuters.

Non-energy commodity prices rose during 2022, with World Bank data showing an increase of 10.6%. The increase mainly reflected higher prices for fertilisers and to a lesser extent agricultural products.

2. MONETARY AND FINANCIAL DEVELOPMENTS

According to the Bank's Financial Conditions Index (FCI), in 2022 financing conditions tightened sharply compared with 2021, and also from a historical perspective.

The total assets of domestic monetary financial institutions (MFI) in Malta rose during 2022, contrasting the drop in the asset holdings of international banks. Meanwhile, Maltese residents' deposits continued to expand, albeit at a more moderate pace when compared to 2021. The shift away from longer-term deposits towards more liquid overnight deposits persisted in an environment of low interest rates, as the transmission of the ECB's policy rate hikes to retail deposit rates remained partial. Meanwhile, growth in credit to residents also rose at a slower pace, reflecting a deceleration in loans to general government. By contrast, credit to the private sector rose at a faster pace, mostly reflecting developments in lending to NFCs. At the same time, growth in loans to households eased marginally, reflecting slower growth in loans for house purchases, while consumer credit and other lending to households recovered from the previous year's decline.

Compared with 2021, NFCs' net issuance of corporate debt and equity increased, albeit by a more moderate pace. Meanwhile, net issuance of securities decreased from a year earlier, reflecting lower net issuances by Government.

Interest rates on deposits to Maltese residents edged down marginally during the year. By contrast, interest rates on loans increased, reflecting higher rates charged to NFCs. As a result, the spread between the lending and deposit rate widened, and remained at elevated levels compared with that in the euro area.

In the primary money market, domestic yields rose sharply during 2022. Similarly, yields on five-year and ten-year Maltese government bonds increased, mirroring a similar movement in the corresponding euro area yields, which increased in response to the start of interest rate hikes by the ECB and expectations of further increases in policy rates. In the equity market, the MSE Equity Price Index fell when compared with the level registered at the end of December 2021, with the decline being more pronounced than that registered a year earlier.

Firms continued to benefit from guarantees in terms of the Malta Development Bank (MDB) COVID-19 Guarantee Scheme (CGS), although the number of approved facilities and the overall sanctioned and disbursed amounts decreased compared to December 2021. By the end of 2022, sanctioned amounts under this scheme amounted to €482.6 million.

During 2022, the MDB announced three new schemes to help businesses address the cost pressures triggered by the war in Ukraine. Take up of these schemes, however, was limited, with only four facilities approved by end-December.

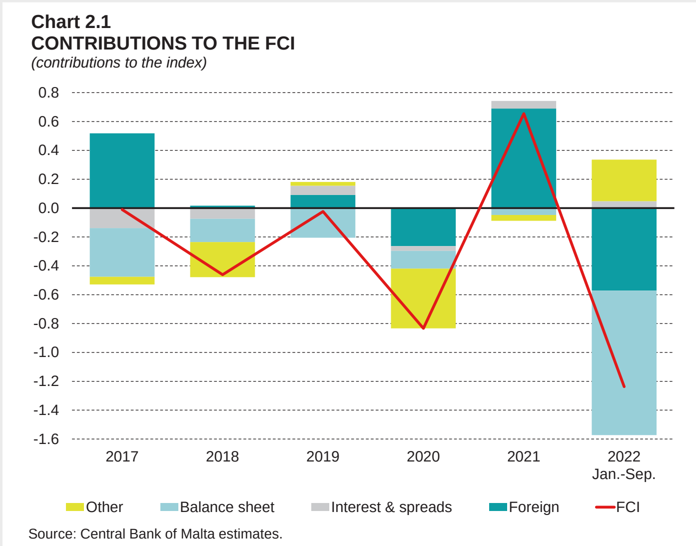
Financial conditions

FCI indicates tighter conditions

The Bank monitors domestic financial conditions through a summary measure which combines a number of domestic and international financial variables that influence economic activity.[1]

[1] The analysis in this section is based on the Bank's FCI, as described in Micallef, B., and Borg, I., "A Financial Conditions Index for the Maltese Economy", in Grech, A.G., & Zerafa, S. (eds.), *Challenges and Opportunities of Sustainable Economic Growth: the case of Malta*, Central Bank of Malta, 2017, and later updated in the Central Bank of Malta – Annual Report 2017.

Financial conditions for the period January to September 2022 tigthened sharply when compared with 2021. While in 2021, financial conditions were considered as loose, in 2022 they were tight from a historical perspective. They were also less favourable than those prevailing during the pandemic. This mainly reflected foreign factors, although tighter domestic conditions also contributed (see Chart 2.1).

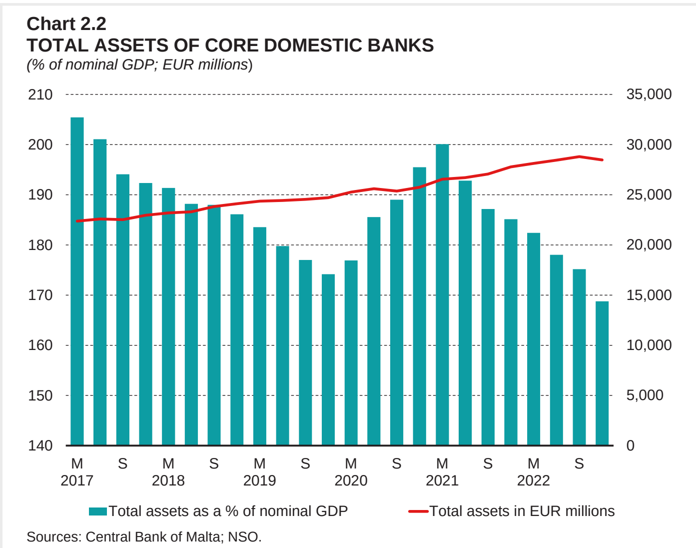


The tightening attributed to foreign factors reflected the fall in stock prices in the euro area during 2022, as well as an increase in financial market uncertainty. Domestic factors also tightened in the period under review, largely reflecting slower growth in real credit and in real deposits, as well as a decline in the return on equity, which are subsumed in the 'balance sheet' factors of domestic banks. Meanwhile, the 'other' category had a marginally smaller loosening effect when compared with the previous year, mostly due to a faster decline in domestic stock prices, which offset higher issues of NFC securities. By contrast, the 'interest rate' component had a broadly neutral contribution like that of 2021. The spread between yields on Maltese long-term government bonds and the German bund widened. However, this was offset by a narrowing in the spread between the domestic lending rate over the policy rate.

Following these developments, the FCI on average signalled significantly tighter conditions compared to historical patterns.

Assets of the banking sector and other monetary aggregates

Total assets pertaining to the Maltese banking system (including the Central Bank of Malta) stood at €52,719.4 million at the end of 2022, a decrease of €2,545.7 million when compared with 2021. This decline masks contrasting developments in the assets of domestic and international banks.



The assets of core domestic MFIs increased by €698.0 million, or 2.5%.[2] As a result, the share of core domestic banks' assets in GDP stood at 168.8% at the end of 2022. This was below the 185.1% recorded a year earlier (see Chart 2.2), as GDP outpaced assets by a significant margin. Meanwhile, assets pertaining to non-core

[2] The core domestic banks in Malta are APS Bank Limited, Bank of Valletta plc, BNF Bank plc, HSBC Bank Malta plc, Lombard Bank Malta plc, and MeDirect Bank (Malta) plc.

domestic banks rose by €27.1 million, or 0.8%. On the other hand, assets pertaining to international banks dropped by €1,314.3 million, or 11.5%. The assets of the Central Bank of Malta also decreased during the year, shedding €1,956.5 million, mainly reflecting lower intra-Eurosystem claims.[3]

Residents' deposits expand at a slower pace

Total deposits held by residents with MFIs in Malta rose by 3.0% during 2022, reaching €23,367.8 million by the end of the year (see Table 2.1). This expansion mainly reflects developments in overnight deposits belonging to households. Overnight deposits held by NFCs also increased, but to a lesser extent. Growth in total deposits slowed down compared to 2021, when it had reached 8.8%, with weaker dynamics observed across most deposit categories.

Overnight deposits remained the dominant category of deposits for residents during 2022, reflecting a preference for liquid assets in the context of the low interest rate environment and very limited pass through of the first ECB rate hikes to retail deposit rates. Overnight deposits increased by 8.1% over the 12 months to December, compared with a 12.3% increase a year earlier. As a result, by the end of 2022, the share of overnight deposits in total deposits rose to 87.4%, from 83.3% in December 2021 (see Chart 2.3). This share increased in 2014, when it reached 60.7% from 53.6% at the end of 2013, and continued on an upward trend thereafter, driven by a surge in households' overnight balances.

In contrast to overnight deposits, time deposits with a maturity of less than two years – the second largest category – contracted sharply in 2022. These decreased by 24.7%, following a contraction of 4.3% a year earlier, reflecting efforts by certain credit institutions to reduce the number of fixed term deposits. As a result, their share in overall deposits fell to 7.8% from 10.7% in December 2021. Additionally, deposits classified

Table 2.1
DEPOSITS OF MALTESE RESIDENTS
Annual percentage changes; EUR millions

	2020 Dec.	2021 Dec.	2022 Dec.	2022 Amount outstanding	2022 Absolute change
Overnight deposits	**9.8**	**12.3**	**8.1**	**20,428.0**	**1,523.5**
of which					
Households	14.4	12.8	12.4	14,019.8	1,543.5
NFCs	16.8	11.2	8.1	4,717.0	354.1
Deposits redeemable at notice up to 3 months	**40.1**	**59.9**	**-38.7**	**116.6**	**-73.7**
of which					
Households	4.7	14.7	5.4	41.6	2.1
NFCs	150.1	67.3	-59.5	46.9	-68.8
Deposits with agreed maturity up to 2 years	**-3.3**	**-4.3**	**-24.7**	**1,822.4**	**-598.1**
of which					
Households	-2.3	-6.2	-27.6	1,353.7	-516.7
NFCs	-10.9	-12.8	-3.4	190.7	-6.7
Deposits outside M3[(1)]	**-19.6**	**-13.9**	**-14.4**	**1,000.8**	**-168.6**
of which					
Households	-15.6	-12.7	-9.6	941.7	-99.7
NFCs	-35.9	-1.1	-34.5	34.8	-18.3
Total residents' deposits[(2)]	**5.7**	**8.8**	**3.0**	**23,367.8**	**683.2**

(1) Deposits outside M3 include deposits redeemable at notice of more than three months and deposits with an agreed maturity of over two years.

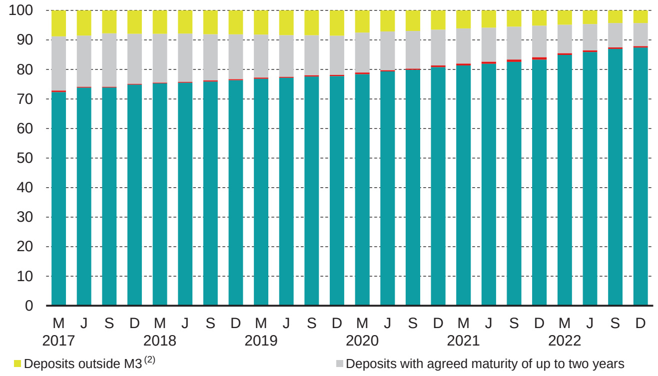
(2) Total residents' deposits exclude deposits belonging to Central Government.

Source: Central Bank of Malta.

[3] Data on the banking sector's assets in this chapter may differ from those reported in the financial statements, due to methodological differences.

outside M3 edged down by 14.4% when compared with their end-2021 level. Following this decline, their share in the total stood at 4.3% at the end of 2022, below the 5.2% registered 12 months earlier. Meanwhile, the share of deposits redeemable at notice of up to three months edged down slightly, to 0.5%.

Chart 2.3
DISTRIBUTION OF TOTAL RESIDENT DEPOSITS(1)
(percentage points)



Source: Central Bank of Malta.
(1) Deposits exclude those belonging to central government.
(2) Deposits outside M3 include deposits redeemable at notice of more than three months and deposits with an agreed maturity of over two years.

Credit to residents expands at a slower rate

Credit to residents of Malta expanded during 2022, albeit at a slower pace compared to 2021. It reached €18,385.9 million by the end of the year (see Table 2.2). This signifies an increase of €1,305.0 million, or 7.6%, over the December 2021 level. The expansion was mainly driven by developments in credit to residents outside general government, which increased by €978.0 million, or 7.8% (see Chart 2.4). Growth in this component exceeded that of 5.9% a year earlier. Credit to general government rose by €327.0 million, or 7.3%, following an increase of 16.1% in 2021. The slower rate of growth in this component reflects a slower volume of net issues of government securities during the year.

The acceleration in credit to residents outside general government was largely driven by faster growth in loans to NFCs. These rose by 7.8% in 2022, following a 0.3% increase in 2021. At the same time, lending to households rose by 9.5%, following a 9.6% increase over the 12 months to December 2021.

Faster growth in loans to NFCs reflected an increase in lending to private sector NFCs, which offset a stronger decline in credit to public sector NFCs. Meanwhile, MFI holdings of securities and equity issued by the private sector declined in the year to December 2022, after increasing in 2021. This mainly reflected movements in MFI

Table 2.2
MFI CREDIT TO MALTESE RESIDENTS
Annual percentage changes; EUR millions

	2020 Dec.	2021 Dec.	2022 Dec.	2022 Amount outstanding	2022 Absolute change
Credit to general government	**32.3**	**16.1**	**7.3**	**4,815.4**	**327.0**
Credit to residents outside general government	**5.3**	**5.9**	**7.8**	**13,570.5**	**978.0**
Securities & equity	-25.9	11.2	-5.8	323.6	-19.9
Loans	6.5	5.7	8.1	13,247.0	997.9
of which:					
Loans to households	5.4	9.6	9.5	7,673.6	663.1
Mortgages	6.7	10.9	9.8	7,107.7	637.0
Consumer credit and other lending	-6.4	-4.2	4.8	565.9	26.1
Loans to NFCs(1)	8.6	0.3	7.8	4,631.1	336.9
Total credit to residents	**10.9**	**8.4**	**7.6**	**18,385.9**	**1,305.0**

(1) NFCs include sole proprietors and non-profit institutions serving households (NPISH).
Source: Central Bank of Malta.

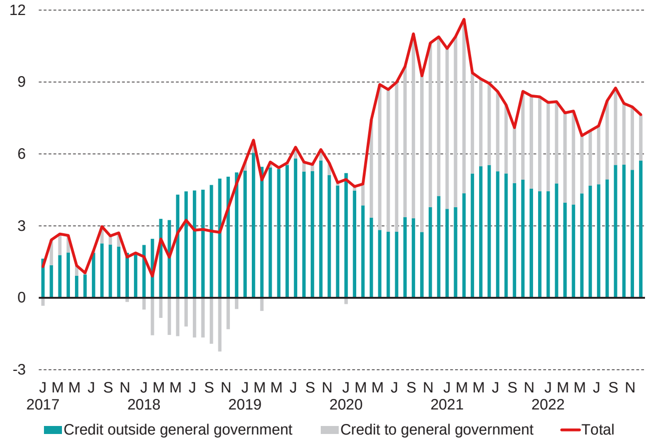
holdings of securities and shares issued by private sector NFCs and financial intermediaries, other than insurance companies and pension funds.

The deceleration in loans to households mainly reflected slower growth in lending for house purchases (see Chart 2.5). Indeed, mortgage lending grew by 9.8% during 2022, compared with a 10.9% increase in 2021. By contrast, consumer credit and other lending recovered from the previous year's contraction, as it increased by 4.8%.

A sectoral breakdown of loans to NFCs suggests a recovery in momentum across most sectors, primarily driven by developments in loans to the sector comprising real estate activities (see Chart 2.6). The latter increased strongly in 2022, following a decline in the previous year. A similar pattern can be observed in loans to the transportation, storage, information and communication sector, as well as the energy sector. At the same time, loans to the wholesale and retail trade sector and the manufacturing sector increased at a faster pace in 2022. By contrast, loans to the accommodation and catering sector contracted, while loans to the construction sector rose at a slower pace compared to 2021.

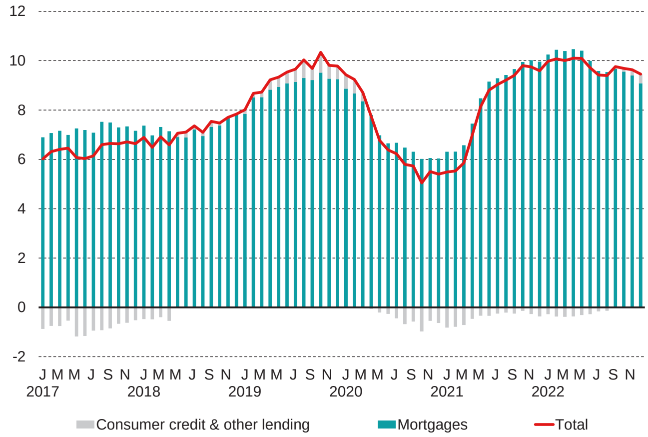
Supplementary data suggest that NFCs have increased their reliance on alternative sources of finance, such as internal funding and capital markets, following a slight decrease in the previous year. By the end of 2022, €1,930.1 million in corporate debt was outstanding on the MSE, 14.9% higher than the amount listed 12 months earlier (see Chart 2.7). Around 66% of this amount was issued by financial entities other than credit institutions. These institutions also accounted for most of the increase

Chart 2.4
CONTRIBUTIONS TO GROWTH IN CREDIT TO MALTESE RESIDENTS
(percentage points; annual percentage change)



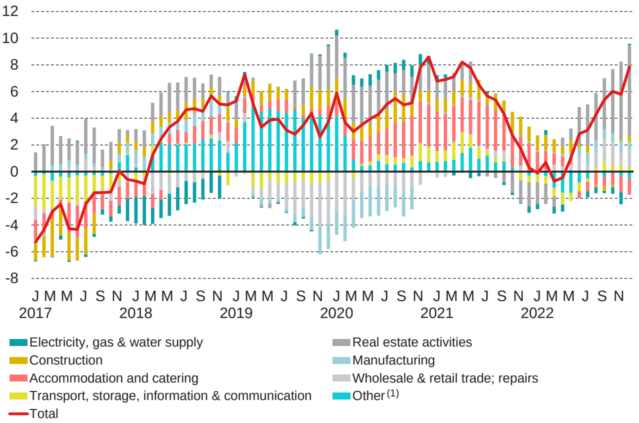
Source: Central Bank of Malta.

Chart 2.5
CONTRIBUTIONS TO GROWTH IN LOANS TO HOUSEHOLDS
(percentage points; annual percentage change)



Source: Central Bank of Malta.

Chart 2.6
LOANS TO NFCs BY SECTOR
(percentage points; annual percentage change)

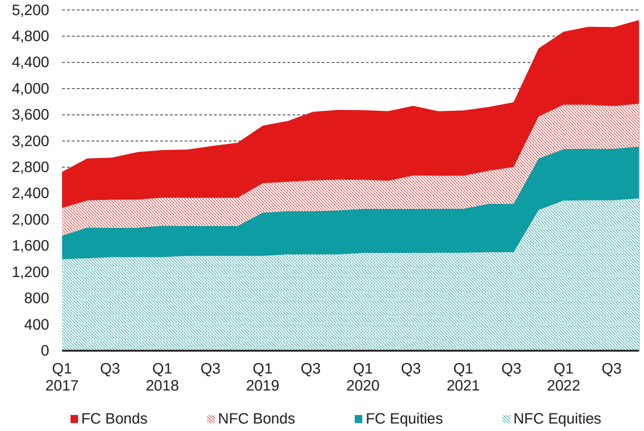


Source: Central Bank of Malta.
(1) Mainly includes entertainment, health, education, professional services, communication, and administration.

since December 2021. The rest was issued by NFCs.

Meanwhile, the outstanding amount of equity listed on the MSE increased by 6.2% in annual terms, to €3,116.5 million. Around three-fourths of this volume was issued by NFCs, with financial corporations (FC) playing a secondary role. The largest equity issues were in companies within the real estate sector, and in infrastructure projects. Overall, the amount of listed equity outstanding at the end of 2022 exceeded that of bonds by over 60%.[4]

Chart 2.7
OUTSTANDING SECURITIES OF NFCs AND FCs LISTED ON MSE
(EUR millions outstanding as at end-period)



Sources: MSE; Central Bank of Malta estimates.

Interest rates on deposits broadly stable, while rates on loans increase

Interest rates on residents' deposits with MFIs in Malta edged down marginally in 2022, with the weighted average deposit rate offered to households and NFCs going down by 1 basis point to 0.15% by the end of the year (see Table 2.3).[5] This was mainly driven by a lower rate on households' time deposits with a maturity

Table 2.3
INTEREST RATES ON DEPOSITS AND LOANS
Percentages per annum to residents of Malta; weighted average rates as at end of period

	2019	2020	2021	2022			
	Dec.	Dec.	Dec.	Mar.	June	Sep.	Dec.
Total deposits(1)	**0.30**	**0.21**	**0.16**	**0.16**	**0.15**	**0.14**	**0.15**
of which							
Overnight deposits							
Households	0.05	0.02	0.02	0.02	0.02	0.02	0.02
NFCs	0.03	0.01	0.01	0.03	0.03	0.02	0.03
Time deposits (less than 2 years)							
Households	0.71	0.57	0.51	0.53	0.50	0.54	0.72
NFCs	0.72	0.58	0.49	0.44	0.47	0.59	0.74
Time deposits (more than 2 years)							
Households	1.97	1.87	1.78	1.78	1.78	1.77	1.73
NFCs	1.53	1.39	1.12	1.11	1.36	1.60	1.60
Total Loans(1)	**3.46**	**3.36**	**3.23**	**3.19**	**3.18**	**3.25**	**3.32**
of which							
Households and NPISH	**3.29**	**3.21**	**3.01**	**2.97**	**2.96**	**2.94**	**2.87**
Lending for house purchses	3.03	2.98	2.80	2.78	2.77	2.75	2.67
Consumer credit and other lending	4.87	4.77	4.67	4.55	4.56	4.52	4.54
NFCs	**3.76**	**3.61**	**3.63**	**3.59**	**3.60**	**3.82**	**4.15**
Spread(2)	**3.16**	**3.15**	**3.06**	**3.03**	**3.03**	**3.11**	**3.16**

Source: Central Bank of Malta.
(1) Annualised agreed rates on outstanding euro-denominated amounts belonging to households (incl. NPISH) and NFCs.
(2) Difference between composite lending rate and composite deposit rate.

4 Apart from the official MSE platform, small and medium-sized enterprises (SMEs) can also obtain finance through the specifically-geared platform – Prospects.
5 Basis points are rounded to the nearest whole number.

of over two years. The decrease in residents' deposits was concentrated in the first half of the year, while some increases were recorded in the last quarter of the year, likely in response to the start of policy rate tightening by the ECB.

Meanwhile, the weighted average lending rate paid by households and NFCs to resident MFIs increased by 9 basis points, reaching 3.32%. This increase – which was also concentrated in the second half of the year – was driven by higher rates paid by NFCs, which rose further above those charged to households, reflecting differences in credit risk. By contrast, rates charged to households fell by 14 basis points. Mortgage rates and rates on consumer credit and other lending declined by 13 basis points, to 2.67% and 4.54%, respectively. Decreases were reported by most banks, and were particularly significant in the case of one MFI.

The spread between the weighted average lending rate and the deposit rate closed the year under review at 316 basis points, somewhat above the 306 basis points recorded at the end of 2021.

BOX 1: ACCESS TO FINANCE IN 2022[1]

SMEs account for most of the value added produced in the economy but face unique challenges when it comes to obtaining finance, especially in terms of access to capital markets.[2,3] The aim of this box is to analyse information collected through the Survey on Access to Finance of Enterprises (SAFE) on developments in the financial situation of enterprises in Malta and across the European Union (EU) in 2022.[4]

The SAFE was conducted by the European Commission in cooperation with the ECB between 7 September and 27 October 2022 among 15,625 enterprises across the European Union, including 101 Maltese firms. It covers the period between April and September 2022.

The financial situation of SMEs

Survey results show that between April and September 2022 – the reference period for the latest survey – 44% of SMEs in Malta reported an unchanged turnover level. Around 35% of SMEs reported an increase, while 20% reported a decline.[5] As a result, on balance, 15% of respondents assessed turnover to have increased over the 6 months preceding the survey. This is an improvement over 2021, when on balance, turnover was assessed to have remained unchanged. By contrast, between April and September 2022, a net 16% of domestic SMEs in Malta reported a decrease in profits, a marginally smaller share compared with the net 18% of domestic SMEs which reported lower profit in 2021.

In the EU, a net 18% of SMEs reported higher turnover, slightly higher than that of 14% reporting higher sales a year earlier.[6] Meanwhile, profits fell for 20% of firms in 2022 compared to 6% of firms in the preceding year. Hence, in Malta and across the EU, firms on balance reported a decline in profits despite higher turnover, with the share of SMEs' reporting a decline in profits slightly lower in Malta.

With regard to labour and other costs, on balance, 85% and 83% of Maltese SMEs respectively claimed that these have increased during the reference period. While the net share of respondents reporting higher labour costs is higher than that for the EU27 (68%), Maltese SMEs were slightly less likely to report increases in non-labour costs (including materials, energy and other costs) than those in the EU (91%). These figures mark a significant increase in the incidence of firms which report cost increases relative to 2021 – when only 44% and 58% of domestic SMEs reported higher labour and other costs, respectively. Survey results for 2022 show that the share of firms reporting such higher costs is now even above that recorded in recent years (see Chart 1).

During the period covered by the survey, on balance, the number of employees was assessed to have increased by 14% of SMEs in Malta, as opposed to 5% of SMEs in the EU. The share of domestic SMEs reporting a net increase in the number of employees in 2022 contrasts with that recorded a year earlier, when the number of employees was assessed to have remained stable. The pace of hiring seems to have moderated compared to 2019, when 22% of SMEs in Malta had reported a net

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1 Prepared by Sandra Zerafa. Ms. Zerafa is the coordinator of economic publications within the Economic Analysis Department of the Central Bank of Malta. The views expressed are those of the author and do not necessarily reflect the views of the Central Bank of Malta. Any errors are the author's own.

2 Structural Business Statistics published by the NSO indicate that in 2020, 99.7% of firms in the non-financial business economy were SMEs.

3 SMEs account for 77.7% of all persons employed in Malta and for 65.9% of all turnover. See NSO *News Release* 116/2022 https://nso.gov.mt/en/News_Releases/Documents/2022/07/News2022_116.pdf

4 Companies that employ less than 250 persons and make less than 50 million in turnover are classified as SMEs.

5 Figures from SAFE are rounded, in line with the approach followed by the ECB when commenting on SAFE results.

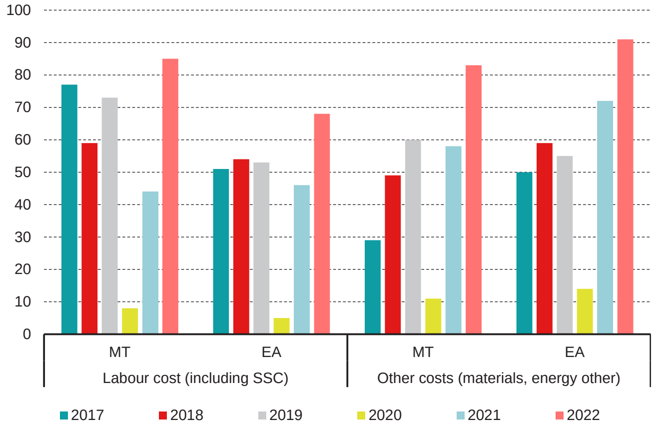
6 Net percentages refer to the difference between the percentage of respondents reporting that a given factor has increased and those reporting that it has decreased.

increase in the number of employees, likely reflecting the increasing difficulties to find personnel with the required skills.

Meanwhile, a net 22% of firms in Malta recorded an increase in inventories and working capital, compared with 7% in the EU.

In 2022, 67% of firms reported an unchanged level of fixed investment; while a fifth of respondents reported an increase, and slightly less than a tenth reported a decrease. Hence, on balance, 13% of SMEs in Malta reported an increase in investment in plant, machinery, or equipment. This compares with 9% of SMEs in the EU. While the increase in the share of domestic SMEs that reported higher investment signals a recovery over the past two years, the net balance in Malta is still below that reported in 2019, when it stood at 35%.

Chart 1
SMEs REPORTING HIGHER LABOUR AND OTHER COSTS
(net share of respondents)



Source: SAFE, various editions.

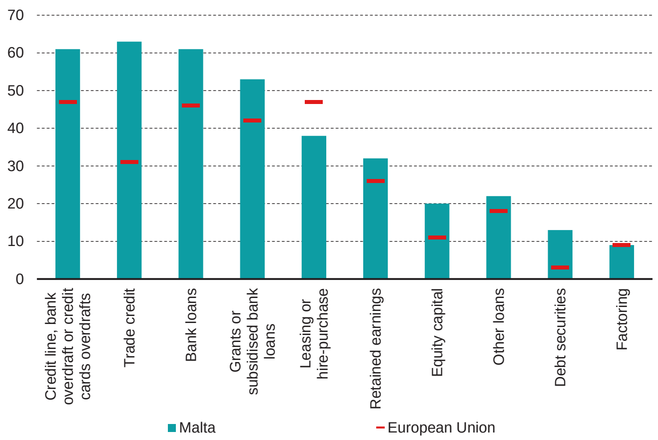
The SAFE also reveals that the share of local SMEs reporting an increase in interest rate expenses rose to 16%, from 13% a year earlier. More widespread increases were observed in the EU, where this share rose to 28%, from 10% in 2021.

Sources of finance used by SMEs

In 2022, the proportion of domestic SMEs that considered trade credit as relevant to their business rose to 63% from 56% a year earlier. This share was marginally higher than that of Maltese SMEs that deem bank-related products and bank loans as relevant (see Chart 2). The fact that trade credit was the most relevant source of finance by SMEs suggests that certain businesses might have found it easier to resort to this type of financing to fill liquidity gaps.

During the period under review, a significant share of SMEs in Malta continued to prefer bank-related products such as overdrafts and credit lines, as well as bank loans over most market-based products and other

Chart 2
SOURCES OF FINANCE DEEMED RELEVANT BY SMEs
(used in the past or consider using in the future; percentage of respondents)



Source: SAFE (2022).

sources of finance. However, the share of SMEs in Malta that used credit lines, bank overdrafts or credit cards overdraft, or that expected to use them in the future, fell to 61%. This marks the lowest rate recorded since 2016. The relevance of this type of financing has been consistently decreasing – falling gradually from 83% in 2016 to 71% in 2019 and 2020, before increasing to 78% in 2021. Similarly, the share of firms that used bank loans in the past or considered using them in the future fell to 61% from 64% in 2021.

By comparison, in the EU, just below half of the respondent SMEs used bank loans and credit lines, bank overdrafts or credit cards overdraft, or expected to use them in the future – with the share being broadly stable over recent years.

The share of SMEs in Malta that considered grants or subsidised bank loans as being relevant to their enterprise edged up to 53% in 2022, from 48% a year earlier. By contrast, the share of SMEs in the EU that mentioned this type of financing as being relevant fell marginally to 42% from 43% in 2021.

Meanwhile, the relevance of internal funds (retained earnings or asset sales) as a source of finance also fell in Malta, following a significant increase in 2021. In 2022, 32% of domestic SMEs considered this source as relevant for their business, down from 52% a year earlier, and below that of 46% recorded pre-pandemic. Nevertheless, it was still above a net 26% reported in the EU.

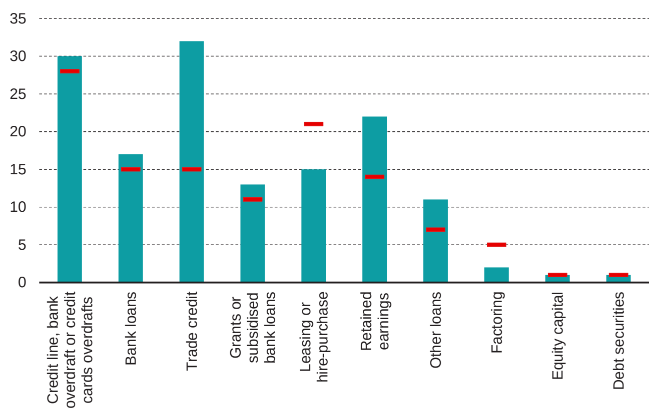
Chart 3 reports on the use of different types of funding sources used during 2022. Trade credit as well as credit lines, bank overdrafts and credit cards overdraft were used most often. However, the share of domestic SMEs using these types of financing fell.

The proportion of those that used trade credit in 2022 fell to 32% from 38% a year earlier, and stood in the same level as that recorded in 2020. Although the share of SMEs in Malta that used this type of financing was more than double that in the EU on average, the SAFE notes some heterogeneity among countries. At 42%, SMEs in Ireland were the highest users of this source of financing, followed by Cyprus (40%), and Greece as well as Poland (34%). Meanwhile, in France, Germany, Hungary, the Czech Republic, Luxembourg, Slovenia and Croatia, less than 10% of SMEs used this type of financing.

The share of domestic SMEs using credit lines, bank overdrafts and credit lines decreased to 30% from 49% in 2021, and marks the lowest rate recorded since 2015. The share of domestic SMEs that used this type of financing in 2022 was slightly above the share of EU firms reporting that they used this source of funding in recent months (28%).

Similarly, the share of firms that used bank loans in the last six months preceding the survey fell to 17%

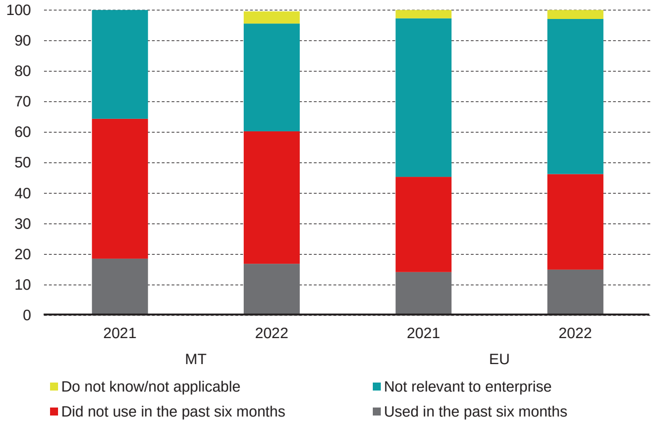
Chart 3
SOURCES OF FINANCE USED BY SMEs IN 2022
(over the preceding six months; percentage of respondents)



Source: SAFE (2022).

in Malta from 19% a year earlier, standing below the share of firms that had recently relied on internal funds (22%), though above that of 15% in the EU.

Chart 4
NEW LOANS OR LOAN RENEWALS
(percentage of respondents who took new loans or renewed the loans in the past six months)



Sources: SAFE (2021); SAFE (2022).

In general, the use of instruments of finance by Maltese firms was in line with or higher than that in the EU, with the exception of leasing, hire purchase and factoring, where the fraction of firms using such financing stood lower in Malta.

Less than half (43%) of domestic SMEs did not use bank loans in 2022, as opposed to 46% in 2021, while 35% replied that they considered them irrelevant for their enterprise, marginally down from 36% a year earlier. Meanwhile, in the EU, 31% of SMEs claimed that they did not use bank loans in the six months preceding the survey, while half of SAFE respondents stated that bank loans were irrelevant for their enterprise. The figures for 2022 were thus broadly similar to those reported in the preceding year, with EU firms still more likely to say that bank loans were not used or were irrelevant than Maltese firms (see Chart 4).

When asked to elaborate on why bank loans are not deemed relevant, 78% of domestic SMEs stated that they did not need this type of financing. Meanwhile, 7% reported that interest rates or prices were too high, while a further 5% of domestic SMEs claimed that no bank loans were available, while 10% cited other reasons.[7]

In the EU, 74% of firms that considered bank loans as being irrelevant replied that they do not need such financing. A further 9% mentioned too high interest rates, while only 3% reported that bank loans were unavailable. Another 14% of SMEs mentioned other reasons.

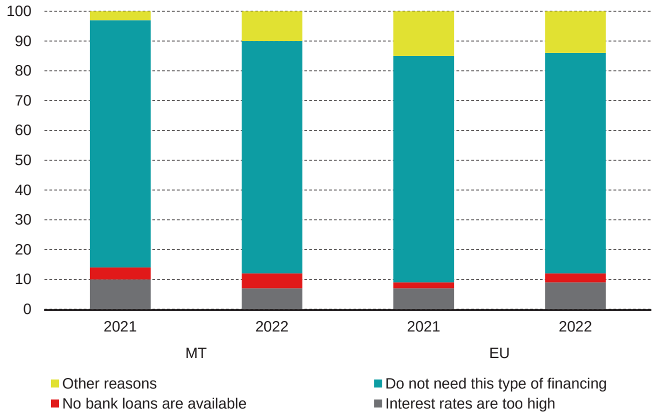
The reasons behind the irrelevance of bank loans cited by EU firms were largely unchanged from those reported in 2021. Meanwhile in Malta, the composition of responses changed slightly from that reported in 2021. The share of SMEs that cited bank loan unavailability rose marginally, while those that claimed that they do not need this type of finance fell (see Chart 5).

The share of SMEs that used retained earnings or proceeds from the sale of assets fell to 22% in 2022, from 28% a year earlier (see Chart 3). This share remained above that in the EU, which remained stable at 14%. This could explain why Maltese firms were more likely than their EU counterparts to report that they did not need bank financing. Hence, although there remains a much higher recourse to retained earnings in Malta when compared to the EU, the gap has narrowed somewhat.

[7] 'Other reasons' include insufficient collateral or guarantees, reduced control over the enterprise, too much paperwork and unspecified reasons.

The share of firms that reported using subsidised loans or grants decreased to 13% in 2022, from 15% in 2021. This share was marginally higher than that reported for the EU (11%). This suggests that the use of this type of financing is converging to that recorded in the pre-pandemic period (2019: 10%), after increasing to 20% in 2020. Following the outbreak of the pandemic, a number of SMEs benefitted from moratoria on loan repayments to ease liquidity shortage caused by the COVID-19 pandemic.

Chart 5
REASONS WHY BANK LOANS ARE DEEMED IRRELEVANT FOR BUSINESS
(percentage of respondents who replied that bank loans were irrelevant for their enterprise)



Sources: SAFE (2021); SAFE (2022).

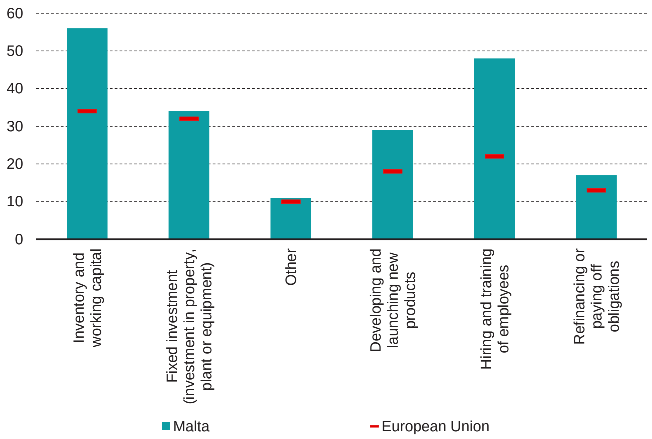
Meanwhile, the proportion of firms that used leasing or hire-purchase more than doubled and stood at 15% in 2022, up from 6% in 2021. Nevertheless, it stood below that of 21% reported in the EU. During the period under review, the use of other loans such as those from family and friends, a related enterprise or shareholders, increased slightly to 11% from 10% a year earlier. During the same period, only 1% of domestic SMEs made use of equity and debt securities. In fact, debt securities, factoring and equity capital remained the three sources of finance that were least used in Malta and across the EU.

Uses of external finance

Chart 6 shows the purpose for which SMEs in Malta and in the EU used external financing obtained during 2022. The share of SMEs that obtained external finance for inventory or working capital fell to 56% in 2022 from 59% a year earlier but remained above that of 34% in EU. In the latter case, this share also fell from 38% a year earlier.

The proportion of domestic SMEs that used external financing for fixed investment in property, plant or equipment remained unchanged at 34%, and stood marginally above that of 32% in the EU. Meanwhile, the proportion of SMEs in Malta that used external financing for the development and launching of new products rose to 29% from 24% in the preceding year and stood above that of 18% in the EU.

Chart 6
USES OF EXTERNAL FINANCE
(over the preceding six months; percentage of respondents)



Source: SAFE (2022).

During the period under review, the share of domestic SMEs that used external financing for the hiring and training of employees rose significantly to 48%, from 29% a year earlier. This share is the highest recorded since 2015 and might reflect the tight labour market conditions and broadening wage pressures. It also stood significantly above that of 22% recorded among respondent firms in the EU. A further 17% of domestic SMEs used external finance to refinance or pay off obligations, compared to 13% in the EU.

Most pressing problems facing SMEs

Chart 7 provides a breakdown of the most pressing problems that SMEs faced between 2018 and 2022. The share of respondent SMEs that cited the availability of skilled staff or experienced managers as the most pressing problem stood at 35% in 2022, up from 30% a year earlier and slightly above the shares recorded in the three years preceding the pandemic. This was also the most pressing problem for SMEs in the EU (27%).

SAFE results show that in 2022 the countries with a larger share of respondents than Malta that cited skills availability as most problematic were the Netherlands (40%), Austria (37%) and Croatia (37%).

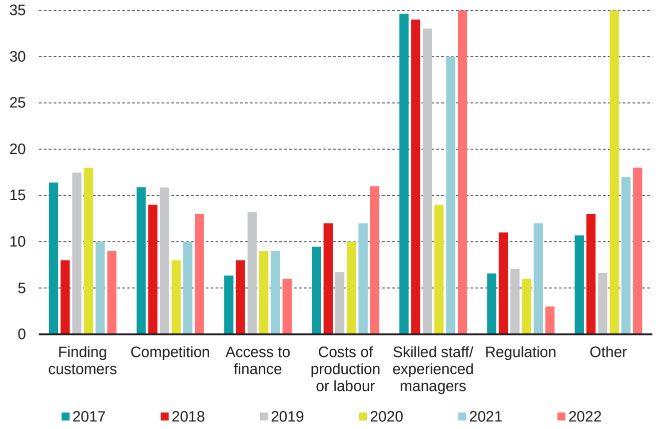
Meanwhile, 18% of domestic SMEs have reported ‘other problems’ than those listed in the survey as the most challenging issues that they faced in 2022, as opposed to 21% in the EU.

Other non-financial barriers that undermine firm growth include costs of production and labour. The share of SMEs in Malta that consider higher costs as their most pressing ones rose to 16% in 2022 from 12% a year earlier but was below that of 18% in the EU. Meanwhile, the share of SMEs that cited a burdensome regulatory framework as a most important problem in 2022 dropped to 3%, from 12% in the preceding year. The share of firms concerned with these issues in 2022 was below that of 9% reported by their EU counterparts.

During the reference period, 9% of SMEs in Malta considered the problem of finding customers for their products or services as their most pressing problem, down marginally from 10% reported a year earlier and that of 12% in the EU.

Meanwhile, 13% of domestic SMEs considered competition as the most pressing problem – above the share of 10% in 2021 but still below that of 16% reported pre-pandemic. In 2022, competition was considered as a most important problem for only 7% of SMEs across the EU.

Chart 7
MOST PRESSING PROBLEM FACING FIRMS
(percentage of respondents)



Source: SAFE, various editions.

With regard to access to finance, the share of SMEs in Malta that considered this as a most pressing problem has declined compared with recent years. It fell to 6% in 2022 – the same proportion as that in the EU. According to SAFE 2022, access to finance remained a very pressing problem to SMEs in Greece, where it was mentioned by around 14% of participating firms, and least of a problem in Ireland, Slovenia and the Netherlands – reported by less than 5% of respondents in each country.

Availability of financing

When asked about the availability of different types of financing, a net share of 3% reported a deterioration in the availability of bank loans in Malta – an unchanged share when compared to a year earlier. By contrast, in the EU the net share reporting a deterioration stood at 8%, compared with a net share of 6% that reported an improvement a year earlier.

Furthermore, a net 2% of SMEs in Malta believed that the availability of credit lines, bank or credit card overdrafts improved in 2022, as opposed to a net share of 3% that signalled a deterioration in 2021. Meanwhile, in the EU the net share of SMEs reporting a deterioration stood at 4% in 2022 compared with a net 6% of SMEs that reported improved availability a year earlier.

On balance, a smaller net share of SMEs (1%) in Malta claimed improved availability of trade credit compared to 2021 (7%). Meanwhile, the availability of 'other loans' worsened as 4% of domestic SMEs reported a deterioration as opposed to a 7% net improvement in 2021.

By contrast, on balance, 18% of domestic respondents claimed that the availability of financing through leasing or hire-purchase improved, as opposed to a small deterioration reported in 2021.

Looking forward to the six months ahead, domestic SMEs expected a deterioration in the availability of bank loans, credit line, bank overdraft or credit cards overdraft, trade credit and 'other loans'. By contrast, they expected an improvement in equity capital, leasing or hire-purchase as well as debt securities. Meanwhile, in the EU, on balance, surveyed SMEs expected a deterioration in the availability of the various types of financing mentioned above.

Credit demand

The SAFE also provides information on the demand for finance by participating firms to complement replies on the availability of financing (supply). Table 1 shows the number of firms that applied for bank loans, trade credit, bank overdraft, credit line or credit card overdraft since 2018. The proportion of SMEs that applied for bank overdraft, credit lines or credit card overdrafts remained unchanged at 14% in 2022. During the same period, 46% did not apply because of sufficient internal funds. Internal earnings thus remained the main factor behind firms' reluctance to apply for a bank loan (EU: 42%). The share of those that did not apply because of possible rejection rose to 8% from 4% a year earlier, while the proportion of those that did not apply for other reasons increased to 32%.

Table 1
FOR EACH OF THE FOLLOWING WAYS OF FINANCING, COULD YOU PLEASE INDICATE WHETHER YOU:

Over the preceding six months; per cent of responding firms

	Bank overdraft, credit line or credit card overdrafts					Bank loans					Trade credit				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
Applied over the past six months	42	24	26	14	14	22	16	20	21	15	48	32	29	32	26
Did not apply because of possible rejection	2	8	3	4	8	1	6	1	3	7	0	1	1	2	4
Did not apply because of sufficient internal funds	32	48	51	55	46	45	53	59	58	40	32	29	44	48	31
Did not apply for other reasons	23	14	20	28	32	25	16	19	18	38	16	28	23	18	39

Source: SAFE (2022).

During 2022, the proportion of domestic SMEs that applied for bank loans fell to 15% from 21% a year earlier and stood marginally lower than the share of 16% recorded in the pre-pandemic period. The share of respondent firms that did not apply because of possible rejection rose to 7%, while the proportion of those that did not apply for other reasons more than doubled and stood at 38%. Meanwhile 40% of firms did not seek bank loans due to sufficient internal funds – down from 58% in 2021 and less than 43% of SMEs in the EU.

The percentage of respondents that applied for trade credit fell to 26% in 2022 from 32% in the preceding year. This was marginally below that of 28% in the EU. Survey results show that a significantly lower share of respondents (31%) did not apply because of sufficient internal funds compared with 48% a year earlier. While only 4% did not apply for fear of rejection, 39% did not apply for other reasons – a considerable higher share than that reported in SAFE carried out in preceding years.

Looking forward, when asked about the type of external financing they would solicit to realise their growth ambitions, domestic SMEs expressed a strong preference for bank loans. 76% of SMEs in Malta prefer this type of financing. Only 14% of domestic SMEs showed preference to taking loans from other sources, while just 1% of respondents replied that they would seek equity investment. The preferences of domestic SMEs in Malta are largely in line with those reported by their EU counterparts, though at 63%, a smaller share of SMEs in the EU prefer bank loans, while a higher proportion of SMEs (6%) would choose equity capital.

When asked about the limiting factors for obtaining finance, 22% of domestic SMEs believed that there were no obstacles as opposed to 36% across the EU. Both in Malta and in the EU, this share fell when compared to a year earlier. The share of SMEs that considered interest rates or price as being a potential limiting factor stood at 16% in Malta, marginally lower than 17% reported in 2021. However, this share rose to 26% in the EU from 12% a year earlier. Meanwhile, 21% of local respondents said that they had insufficient collateral or guarantee, as opposed to 13% in the preceding year – more than double the share of 10% reported in the EU as whole. Furthermore, almost a fifth of domestic SMEs reported too much paperwork as a limiting factor, up from 7% in 2021 and across the EU.

Conclusion

The SAFE 2022 indicates that on balance, SMEs in Malta and in the EU signalled a recovery in business activity, with a higher net share of domestic SMEs reporting an increase in turnover in 2022 compared with a year earlier as well as with their EU counterparts. Nonetheless, profitability fell for a greater proportion of firms over a year earlier on account of higher labour and other costs, though Maltese SMEs were slightly less likely to report increasing costs of materials and energy than those in the EU. This likely reflects the fact that energy prices remained unchanged in Malta thereby limiting scope for cost increases compared to a scenario in which such prices would have responded to higher international commodity prices. On the other hand, labour shortages and labour costs seem to have become ever more challenging, with indications that funding resources might be diverted to address such issues instead of being put to more productive use.

While in large part, domestic SMEs continued to obtain external finance for inventory or working capital purposes, the proportion of those that used external financing for the hiring and training of employees rose significantly and stood well-above that recorded among respondent firms in the EU. This reflects tight domestic labour market conditions. In fact, the proportion of SMEs in Malta citing the availability of skilled staff or experienced managers as their most pressing problem rose above the level recorded in the three years preceding the pandemic.

Access to finance continued to stand among the least pressing problems during the period under review. The share of SMEs in Malta that reported a deterioration in the availability of bank loans was also unchanged from a year earlier. Respondents however, expected availability of bank related products to worsen in the months ahead – though to a lesser extent than that in the EU, where expectations of deterioration among the various types of financing are shared by a significantly larger proportion of firms. Meanwhile, collateral scarcity is still a limiting factor for some businesses.

The SAFE also reveals that a higher proportion of local SMEs reported an increase in interest rates compared to 2021. Domestically, developments were not as strong as those observed in the EU, possibly reflecting the fact that locally the transmission of tighter monetary policy across the euro area, was more limited.

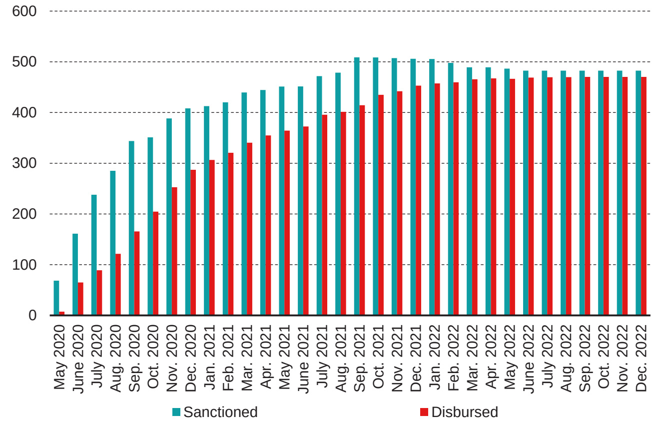
Liquidity support measures

To alleviate liquidity challenges as a result of the pandemic, in 2020 the Government launched the MDB CGS. This scheme provides guarantees to commercial banks with the aim of enhancing access to new working capital loans for businesses. The scheme was eventually extended to cover the refinancing of loans. It enables credit institutions to leverage government guarantees up to a total portfolio volume of €777.8 million.[6]

By the end of 2022, 622 facilities were approved and still outstanding under the scheme, covering total sanctioned lending of €482.6 million. As the scheme partly guarantees new loans for working capital, the amounts actually disbursed under the scheme may fall short of those sanctioned. In fact, €470.2 million were disbursed by the end of the year. By the end of December, 62.0% of the total portfolio volume was sanctioned, while 60.5% was disbursed (see Chart 2.8). The amount of disbursed loans in terms of the scheme stood at 10.2% of total outstanding loans.

In value terms the sector comprising accommodation and food service activities had the largest total value of sanctioned loans at €119.0 million, spread over 146 facilities (see Table 2.4). This was followed by the sector comprising wholesale

Chart 2.8
SANCTIONED AND DISBURSED LOANS OUTSTANDING UNDER THE MDB CGS
(EUR millions)



Sources: Central Bank of Malta; MDB.

Table 2.4
MDB CSG – AS AT DECEMBER 2022
Number of facilities; EUR millions

	Total number of facilities[(1)]	Sanctioned amount[(2)]
Manufacturing	55	24.5
Construction	34	46.8
Wholesale and retail trade; repair of motor vehicles and motor cycles	170	89.8
Transportation and storage and information and communication	39	45.2
Accommodation and food service activities	146	119.0
Professional, scientific and technical activities	37	20.4
Administrative and support service activities	38	13.7
Real estate	17	7.3
Other[(3)]	86	115.9
Total	**622**	**482.6**

Source: MDB.

[(1)] The number of facilities taken by various sectors.

[(2)] The total number of loans sanctioned under the scheme as at end month, in EUR millions.

[(3)] Includes loans to education, health and social work, financial and insurance activities, arts, entertainment and recreation and other services activities, activities of households, electricity, gas & water supply sector and agriculture, forestry and fishing, and public administration and defence.

[6] The CGS is administered by the MDB for the purpose of guaranteeing new loans granted by commercial banks for working capital purposes to businesses facing liquidity shortfalls as a result of the pandemic. The scheme enables credit institutions to leverage government guarantees up to a total portfolio volume of €777.8 million. It was approved by the European Commission on 2 April 2020. See https://mdb.org.mt/en/Schemes-and-Projects/Pages/MDB-Working-Capital-Guarantee-Scheme.aspx for further details.

and retail activities, with a total value of sanctioned loans at €89.8 million and 170 facilities. The construction sector as well as the sector comprising transportation, storage, information and communication also had a significant value of sanctioned loans.

In May 2022, the MDB launched the first of three support measures in response to the war in Ukraine and high inflation. The Subsidised Loans Scheme provides temporary urgent liquidity support, backed by government guarantees, to importers and wholesalers of grains and animal feed, thereby ensuring the security of supply of such products. By end-December, three facilities were approved, with total sanctioned lending of €14.2 million. The outstanding level of disbursements in terms of this scheme stood at €11.8 million.

In June 2022, the MDB launched two other support measures that fall under the Liquidity Support Guarantee Scheme (LSGS). This scheme covers two measures: LSGS-A provides bank financing support to all undertakings affected by the extraordinary circumstances caused by the war in Ukraine, while LSGS-B is specific to fuel and oil importers. A total portfolio of €100 million and €50 million in working capital loans are available under LSGS-A and LSGS-B, respectively. Government guarantees cover 90% of each working capital loan under LSGS-A, and 80% under LSGS-B. By the end of December 2022, a total of €24.5 million was approved under one of these schemes.

Credit standards, terms and conditions remain broadly stable

Results from the BLS show that credit standards, and credit terms and conditions on loans to NFCs in Malta remained unchanged in 2022. Responses with regards to demand for credit by NFCs were more mixed. At the beginning of the year, half of the surveyed banks reported that demand had somewhat declined, but by the end of 2022, half of the respondents said that demand had somewhat increased, with the remaining banks reporting unchanged demand.

Credit standards, and terms and conditions for house purchases as well as consumer credit and other lending were mostly unchanged throughout the year. Likewise, most banks reported no change in the demand for these credit categories.

In response to a series of ad hoc questions on changes in banks' access to wholesale and retail funding, and on their risk transfer capability as a result of the prevailing situation in financial markets, throughout most of the year, the majority of banks reported unchanged market access to retail funding and risk transfer capabilities. By the end of the year, however, results with regards to access to short-term and long-term retail funding were more mixed.

Participating banks claimed that their non-performing loan (NPL) ratio had not affected their credit standards, and credit terms and conditions during 2022. In the last quarter of the year, banks were also asked to gauge the impact of regulatory or supervisory requirements relating to capital, liquidity or provisioning on their assets, capital and funding conditions as well as on their lending policies. The majority of surveyed banks reported no changes in their capital positions, total assets and credit margins. Moreover, all banks said that there were no changes relating to funding conditions and credit standards as a result of the regulatory or supervisory requirements.

Banks were also asked to assess the impact of the ECB's APP on their financial situation, assets and lending behaviour. The majority of surveyed banks said that the APP had no impact on their assets and the banks' profitability. None of the participating banks reported that the APP affected their credit standards, lending volumes, and terms and conditions.

With regard to the impact of the ECB's negative deposit facility rate, the majority of participating banks reported a fall in their overall profitability as a result of lower net interest income. On the contrary, surveyed banks did not report any changes in their lending rates, and in their lending and deposits volumes. Furthermore, most banks stated that there were no changes to their deposit rates, and non-interest rate charges as a result of the negative deposit facility rate.

Respondent banks were also asked about the impact of the ECB's two-tier system for remunerating excess liquidity holdings on their financial situation, lending and deposit rates. Most of the banks reported an improvement in their overall profitability. Interest rates on loans and deposits were unaffected. Surveyed banks were also asked to gauge the impact of the Eurosystems's third TLTRO. The majority of respondents reported no impact on their bank's financial situation, lending policy and lending volumes.

Respondent banks were asked to state how their credit standards, terms and conditions on new loans and the demand for loans had changed across the main sectors of economic activity – namely manufacturing, construction, services, wholesale and retail trade, and real estate. Generally respondent banks reported no change in credit standards and the terms and conditions in the past six months. Replies regarding demand for loans were more mixed across participating banks and sectors.

The money market

In the domestic primary market, the yield on three-month Treasury bills rose to 2.23% at the end of 2022, from -0.41%, 12 months earlier.

In total, the Treasury issued €2,511.2 million worth of bills in 2022, which is higher than the amount of €1,904.2 million issued in 2021. The majority of bills issued had a maturity of three months, followed by those with a maturity of six months. Together they made up over 95% of all bills. The remainder consisted largely of new bills with a longer maturity. The amount of Treasury bills issued in 2022 was lower than the amount of maturing bills, which stood at €2,263.9 million.

The capital market

In the capital market, total issues of long-term debt by the Government and the private sector declined to €1,481.3 in 2022, from €1,697.4 million in 2021 (see Table 2.5). Taking into account the amount of redemptions, roll-overs and buybacks made over the year, positive net issues of long-term debt were recorded in 2022. These stood at €945.6 million, mostly consisting of net issuances of MGS, as against €1,188.9 million in 2021.

Table 2.5
ISSUES OF LONG-TERM DEBT SECURITIES[1]
EUR millions [2]

	2018	2019	2020	2021	2022
Government					
Total issues[3]	150.0	350.0	1,335.0	1,455.2	1,044.7
Redemptions & roll-overs[4,5]	384.1	422.2	461.1	458.8	374.6
Net issues	-234.1	-72.2	873.9	996.4	670.1
Corporate sector					
Total issues	117.3	377.6	176.0	242.2	436.6
Redemptions, roll-overs & buybacks[5,6]	85.5	167.9	162.0	49.7	161.1
Net issues	31.8	209.7	14.0	192.5	275.5
Total net issues	**-202.3**	**137.5**	**887.9**	**1,188.9**	**945.6**

Sources: Central Bank of Malta; MSE; Treasury.

(1) Banks, non-MFIs and public NFCs are included with corporate issuers. Long-term securities are those with an original term to maturity exceeding one year, and include preference shares.

(2) Amounts denominated in foreign currency are converted to euro according to the exchange rate prevailing on the day of transactions.

(3) Data exclude MGSs that were issued directly to the Foundation for Church Schools.

(4) Redemptions exclude the redemption of MGSs that were issued directly to the Foundation for Church Schools.

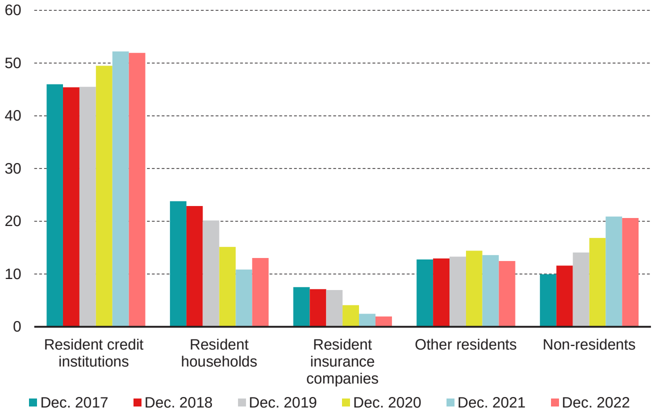
(5) Roll-overs refer to the reinvesting of funds from a mature security into a new issue of the same or a similar security. They are therefore deducted from new issues.

(6) Buy-backs, which consist of the purchase of corporate bonds by the issuing company are also deducted from new issues.

New issues of MGS exceed redemptions

In 2022, the Government issued €1,044.7 million in long-term debt and redeemed €374.6 million, such that net issues for the year were positive for the third consecutive year (see Table 2.5). The Treasury tapped the bond market five times in 2022, through 13 individual issues spread across households and wholesale investors. These issues had maturity dates ranging from five to 30 years.

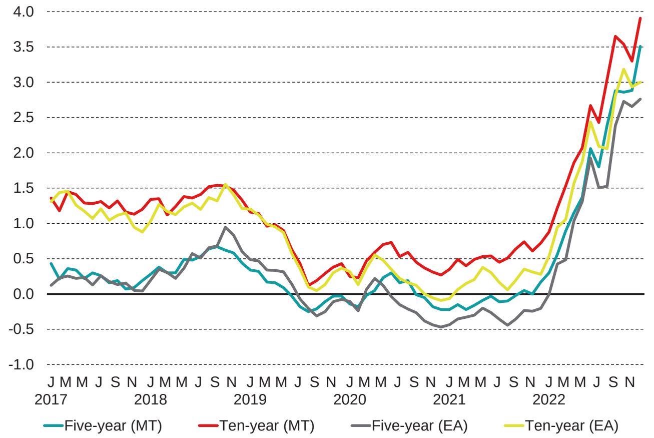
Chart 2.9
OUTSTANDING MGS BY INVESTOR BASE[1]
(percentages)



Sources: Central Bank of Malta; MSE.
[1] Incorporates both fixed-rate and floating-rate MGS.

The amount of outstanding MGS increased to €7,307.2 million at the end of 2022, of which 79.4% was held domestically and 20.6% was held by non-residents (see Chart 2.9). Resident credit institutions held 51.9% of outstanding MGS, compared to 52.2% in 2021. After having fallen in the previous year, the share of MGS held by resident households increased to 13.1% from 10.8% previously.

Chart 2.10
GOVERNMENT BOND YIELDS
(percentages per annum; end of month)



Sources: Central Bank of Malta; ECB.

Secondary market turnover of MGS fell during 2022. It stood at €108.4 million compared with €144.8 million a year earlier.

Secondary market yields on domestic MGS increased significantly during 2022, with the five-year and ten-year yields rising by 334 and 319 basis points, respectively, to 3.51% and 3.91% at end-December (see Chart 2.10). Meanwhile, in the euro area, the benchmark five-year yield increased by 297 basis points compared with its end-2021 level, and ended the year at 2.76%. The euro area ten-year yield rose by 272 basis points to 3.00%. As domestic yields outpaced euro area benchmark yields, the spreads against the latter widened. At the end of 2021, the spreads on the five-year and ten-year yields stood at 75 and 91 basis points, respectively. Maltese sovereign yields have been trending upwards in line with other euro area yields, which were affected by the ECB's first policy rate increases and expectations of further hikes in policy rates, in light of elevated inflation.

Corporate bond issues increase

In the corporate bond market, new issues of long-term debt listed on the MSE stood at €436.6 million in 2022. As the amount of redemptions and buybacks stood at €161.1 million, net issues for the year were positive and higher than a year earlier. During 2022, 18 private companies had new bonds listed on the MSE.

By the end of the year, 21 firms had listed bonds through Prospects, one less compared with end-2021.[7]

[7] Prospects is a multi-lateral trading facility operated by the MSE with the aim of facilitating access to capital markets for SMEs.

Turnover in the secondary corporate bond market increased during 2022. It stood at €99.9 million, up from €89.5 million in the previous year.

MSE index declines further

In 2022, turnover in the equity market fell marginally to €32.0 million, from €32.5 million, a year earlier. The MSE Equity Price Index fell by 9.9% during 2022 and ended the year at 3554.2 (see Chart 2.11). This decline was more than double that registered in 2021, when the index lost 4.5%.

Meanwhile, the MSE Equity Total Return Index, which accounts for changes in equity prices and dividends, was 9.7% lower than its level at end-December 2021.

Chart 2.11
MSE EQUITY PRICE INDEX
(end of month)

Source: MSE.

BOX 2: OVERVIEW OF THE FINANCIAL ASSETS AND LIABILITIES OF THE MALTESE ECONOMY BY INSTITUTIONAL SECTOR[1,2]

The Central Bank of Malta has been compiling Malta's financial accounts statistics since 2004. The latest available statistics in this regard refer to end-September 2022. Financial accounts statistics provide comprehensive information on the financial assets and liabilities of the Maltese economy classified by institutional sector, namely households, NFCs, credit and financial institutions, the general government, and the 'rest-of-the-world' sector.[3,4]

This Box includes three sections: The first section contains an analysis of the net financial wealth of each sector of the economy, the second provides an analysis of private sector debt on the basis of the European Commission's Macroeconomic Imbalance Procedure (MIP), and the final section outlines the financial interlinkages among the resident sectors.[5]

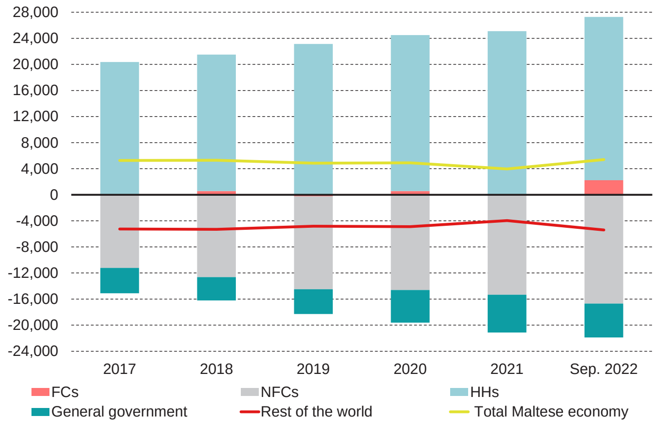
Net financial wealth of the Maltese economy

Sectoral level balance sheet statistics on net financial wealth show that, overall, the resident economic sectors continued to be net lenders in September 2022 (see Chart 1). The net financial wealth of the resident economy amounted to €5,398.9 million at end September 2022, increasing from €3,963.0 million in December 2021.[6] The increase was mainly driven by an improvement in the net financial wealth of FCs and, to a lesser extent, that of the general government, which offset the drop in the net financial wealth of NFCs and households.[7]

Financial assets and liabilities of the financial corporations sector

The aggregate net financial wealth of Malta's FCs amounted to €2,226,1 million in September 2022 (see Chart 2). The increase since December 2021 was mainly due to lower net liabilities in the form of equity and insurance technical reserves, as well as higher net assets in the form of loans. These offset increases in net liabilities arising from deposits and other accounts payable, and a decrease in net holdings

Chart 1
NET WEALTH OF THE MALTESE ECONOMY AND THE REST-OF-THE-WORLD SECTOR
(EUR millions)



Source: Central Bank of Malta.

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1 Prepared by Kimberly Vatter, Senior Economist Statistician, and Janica Borg, Senior Expert at the External, Payments and Securities Statistics Office within the Statistics Department. The views expressed are those of the authors and do not necessarily reflect those of the Central Bank of Malta.

2 For the purpose of this Box, the term 'Maltese economy' is used interchangeably with the term 'resident sectors/economy'.

3 See also *Annual Report* 2016, "Sectoral Financial Linkages Using Malta's Financial Accounts", pp. 30-35, Central Bank of Malta.

4 The 'rest of the world' sector comprises non-resident units engaging in transactions with resident institutions.

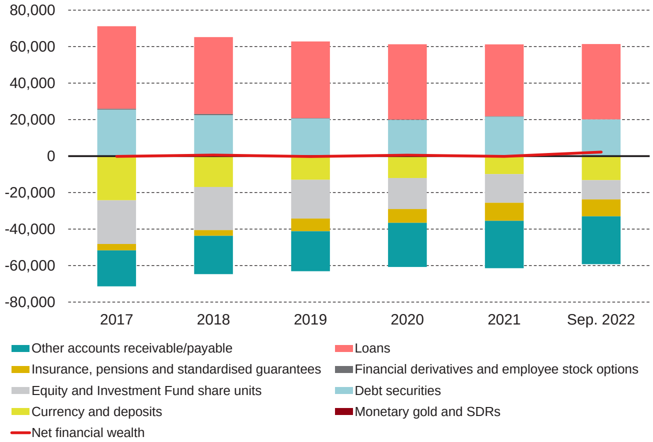
5 Regulation (EU) 1176/2011 on the prevention and correction of macroeconomic imbalances sets out the MIP procedure.

6 Net financial wealth is defined as the difference between financial assets and liabilities; it shows which sectors are net lenders and which are net borrowers.

7 In line with *ESA 2010*, FCs include the central bank, depositary-taking corporations except the central bank, money market funds, non-money market investment funds, insurance corporations, pension funds, other financial intermediaries, financial auxiliaries, and captive financial institutions and money lenders.

of debt securities and financial derivatives. The main changes in the net financial wealth of FCs were driven by the non-domestically relevant FCs.

Chart 2
FINANCIAL SECTOR'S NET FINANCIAL WEALTH BY INSTRUMENT
(EUR millions)

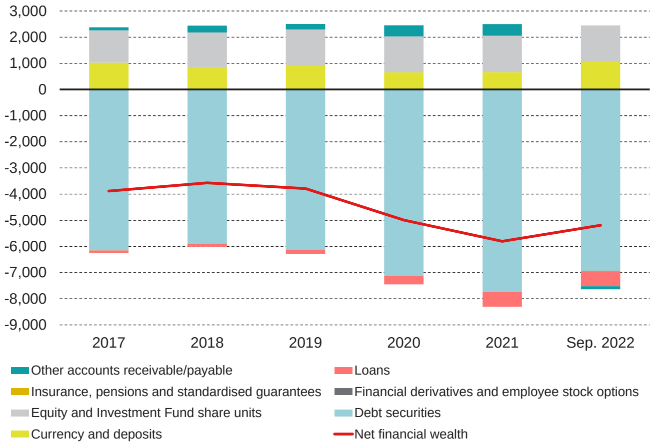


Source: Central Bank of Malta.

Financial assets and liabilities of the general government

The net financial wealth position of the general government has been persistently in negative territory. Although this negative position narrowed slightly over the period 2017 to 2019, reflecting the improvement in the Government's fiscal position, it widened in 2020 and 2021, mainly as a result of increased financing needs following the introduction of COVID-19 fiscal support measures. In September 2022, the net financial position of general government improved and stood at -€5,189.2 million, improving by €614.9 million or 10.6% when compared with December 2021. The decrease in the net liability position since the end of 2021 was driven mainly by an increase in deposits and a decrease in debt securities outstanding. This offset an increase in net liabilities in the form of other accounts payable. As shown in Chart 3, the general government remained a net asset holder of currency and deposits as well as equity, but a net liability holder of other instruments, mainly of debt securities.

Chart 3
GENERAL GOVERNMENT'S NET FINANCIAL WEALTH BY INSTRUMENT



Source: Central Bank of Malta.

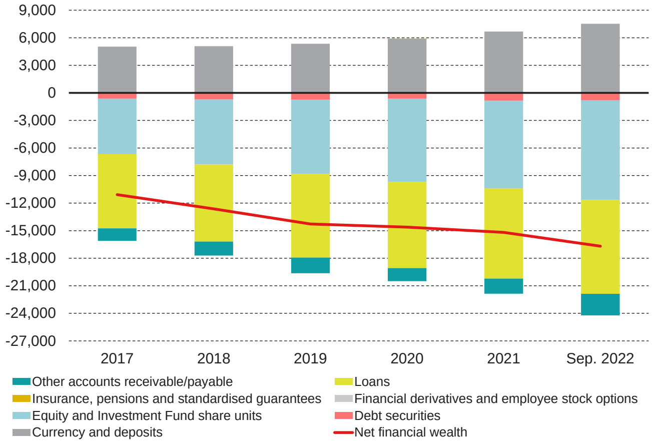
Financial assets and liabilities of NFCs

Chart 4 shows that NFCs had net financial liabilities of €16,688.7 million as at September 2022, a decrease of €1,503.1 million since December 2021. In September 2022, NFCs continued to be net asset holders of currency and deposits and net liability holders, mainly of equity, loans, other accounts payable, and debt securities. When compared with December 2021, the increase in the NFCs' net liability position was due to a rise in their financing through equity, followed by other accounts payable and loans. These offset an increase in holdings of currency and deposits.

Financial assets and liabilities of households

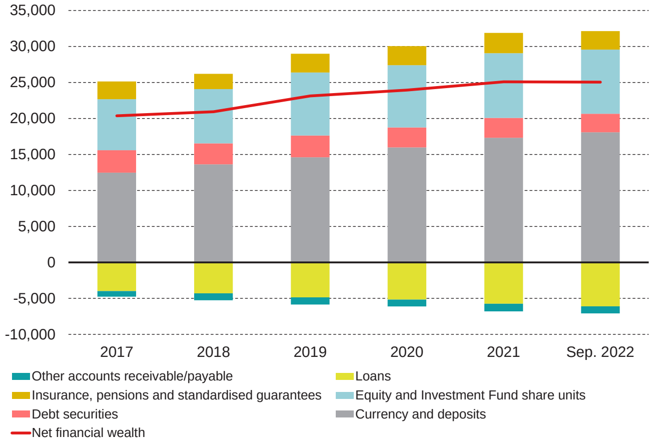
In September 2022, households' net financial wealth reached €25,050.7 million, a marginal decrease of €41.0 million or 0.2%, when compared with December 2021. This was due to an increase in liabilities surpassing the increase in holdings of financial assets. Chart 5 shows that households maintained large net assets in the form of currency and deposits, and equity and investment fund units, but also held smaller net asset positions related to insurance products as well as debt securities. By contrast, this sector was a net liability holder of loans and other accounts payable. The marginal decrease in net financial wealth position since 2021 was mostly driven by an increase in loans, and a decrease in holdings of insurance technical reserves and debt securities, which offset an increase in deposits.

Chart 4
NFCs' NET FINANCIAL WEALTH BY INSTRUMENT
(EUR millions)



Source: Central Bank of Malta.

Chart 5
HOUSEHOLDS' NET FINANCIAL WEALTH BY INSTRUMENT
(EUR millions)



Source: Central Bank of Malta.

Malta's private sector debt

Financial accounts statistics also shed light on Malta's private sector debt. In line with the methodology of the EU's MIP – which, inter alia, prescribes such indicators on an annual basis – Chart 6 shows Malta's consolidated private sector debt as a percentage of GDP by sector, and compares it to those for the euro area. In recent years, this ratio has been on average within the debt-to-GDP threshold of 133% set by the MIP.[8,9]

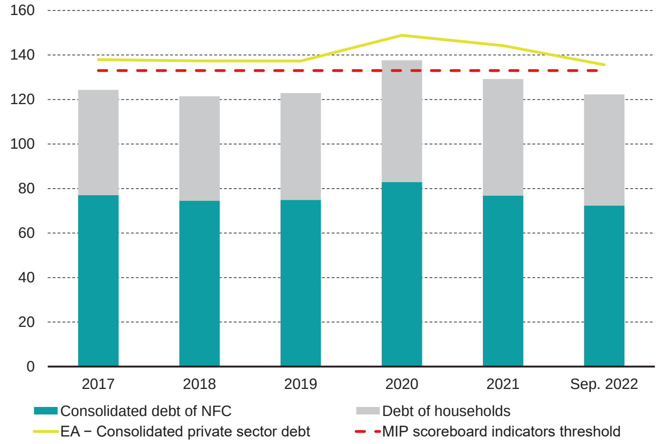
As at September 2022, the indicator stood at 122.3%, registering a drop of 6.9% when compared to December 2021. This drop was brought about by an increase in GDP which outweighed the increase of corporate and households' debt in level terms. Over the period 2017 to 2022 the indicator stood

[8] The private sector debt is the stock of liabilities in the form of loans and securities other than shares held by NFCs, Households, and NPISH. Transactions within sectors are eliminated (i.e., statistics are thus on a consolidated basis). The threshold of 133% of GDP is derived from the upper quartile of the statistical distribution of the indicator. Annual data for the period 1995-2007 were used to establish the threshold. The definition of private sector debt is in line with the EU's MIP definitions.
[9] In terms of EU Regulation No 1176/2011 of the European Parliament and of the Council of 16 November 2011 on the prevention and correction of macroeconomic imbalances.

well below the euro area average (see Chart 6).[10]

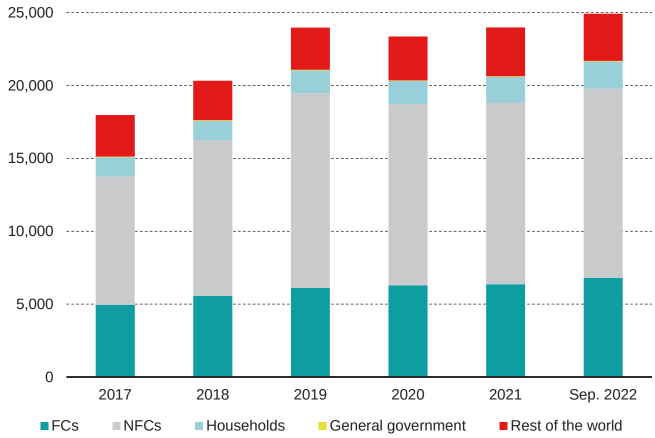
Corporate debt since 2017 constitutes, on average, 60.5% of the consolidated private sector debt. Chart 7 shows the unconsolidated debt of NFCs in the form of debt securities and loans by creditor sectors, the latter constituting FCs, households, NFCs, general government, and the rest of the world sectors. From this perspective, the largest exposures stemmed from liabilities to the NFC sector itself, followed by liabilities to FCs.

Chart 6
PRIVATE SECTOR'S DEBT AS % OF GDP (CONSOLIDATED)
(per cent)



Sources: Central Bank of Malta; Eurostat; ECB.

Chart 7
NFC DEBT BY CREDITOR SECTOR
(EUR millions)



Source: Central Bank of Malta.

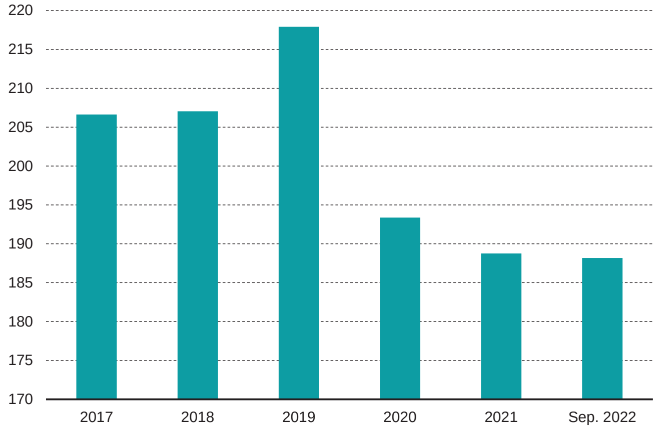
Firms in Malta rely significantly more on loans than on debt securities to finance their activities. Even though the issuance of debt securities increased over the years, this remained relatively low, amounting to 3.9% of total NFCs' debt in the third quarter of 2022. Over the years, bank credit has been one of the main sources of financing for NFCs, although the importance of this source of funding has been declining over time. In turn, non-bank financing became more significant, particularly taking the form of intra-group lending or lending from related parties.[11] In fact, as at September 2022, debt from other corporates amounted to €12,990.7 million, or 52.1% of total NFCs' unconsolidated debt. Debt from FCs, mainly bank loans, amounted to €6,796.5 million or 27.3% of total NFCs' debt. Another important source of finance for resident corporates was debt from abroad, which amounted to €3,241.1 million in September 2022, partly reflecting the number of foreign-owned subsidiaries operating in Malta. Meanwhile, debt from households (mainly loans from directors and shareholders) amounted to €1,854.3 million in September 2022. Nonetheless NFCs' leverage ratio has been decreasing since 2019; it decreased

[10] Eurostat statistics for the euro area are only available annually. On the other hand, the ECB's Statistical Data Warehouse contains quarterly data. There are discrepancies between the two sources due to different vintages. For this analysis, Eurostat's data were used until 2021, while ECB data were used for September 2022 data.

[11] See Box 2: Non-Financial Corporations' loans from other corporates – evidence from Malta's Financial Accounts Statistics, *Financial Stability Report* 2017.

marginally from 188.8% in December 2021 to 188.2% in September 2022 (see Chart 8).[12]

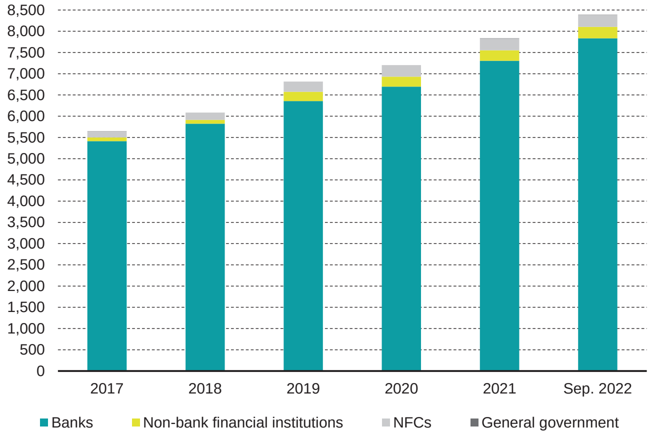
Chart 8
NFCs' LEVERAGE RATIO
(per cent)



Source: Central Bank of Malta.

Chart 9 shows that households' debt as at end-September 2022 stood at €8,391.6 million, increasing by €558.0 million since end-December 2021 – primarily due to an increased take up of loans from credit institutions. Indeed, household debt mainly comprises loans from banks which amounted to 93.3% of the sector's total debt. The remaining debt mainly consisted of directors/shareholders' loans from NFCs and non-bank financial institutions and dues to a government authority.

Chart 9
HOUSEHOLDS' DEBT
(EUR millions)



Source: Central Bank of Malta.

Financial interlinkages between resident sectors

Financial accounts identify financial linkages among economic sectors, whereby one sector is an asset holder while the counterpart sector is the borrower. Such accounts are also referred to as 'from-whom-to-whom' accounts. Chart 10 shows the interlinkages between the resident sectors as at September 2022.[13] The largest asset position of the financial sector, including banks, reflects intra-sectoral holdings, that is, holdings with other credit institutions and FCs, mainly in the form of equity and investments funds, and deposits. These amounted to 56.0% of their total domestic holdings in the third quarter of 2022, a decrease of 3.4% from 59.4% in December 2021. Chart 10 also shows that the financial sector has significant interlinkages with households and NFCs, mainly through banks' funding. Moreover, the general government holds around 45.2% of its total domestic financial assets with the financial sector, primarily in the form of deposits, increasing from 42.2% in December 2021. With regards to NFCs, most of their assets are held by other NFCs. These increased marginally to 74.5%

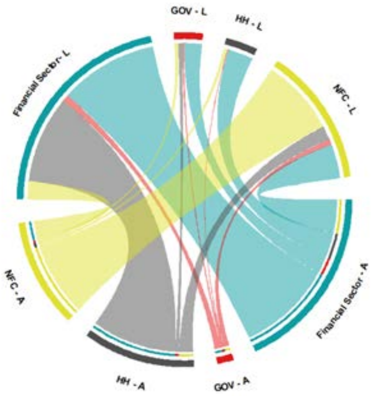
[12] Leverage ratio is defined as total debt divided by total equity. Total debt in Chart 8 includes debt securities, loans, other accounts payable and financial derivatives.

[13] The interlinkages between resident sectors as at December 2021 is not being shown graphically since there were no major changes.

of NFC's total domestic assets in September 2022, from 74.1% in December 2021. Finally, households' domestic asset holdings continued to be held mainly with the financial sector. Households' domestic financial asset holdings increased to 82.6% of their total assets in September 2022, from 82.1% in December 2021.

Further statistical information can be found on the website of the Central Bank of Malta at: https://www.centralbank-malta.org/financial-accounts.

Chart 10
FINANCIAL INTERLINKAGES BETWEEN RESIDENT SECTORS
(as at September 2022)



NFC - A: NFCs' Asset
Financial Sector - A: Financial Sector Assets
GOV - A: Central Government Assets
HH - A: Households Assets
NFC - L: NFCs' Liabilities
Financial Sector - L: Financial Sector Liabilities
GOV - L: Central Government Liabilities
HH - L: Households Liabilities

Source: Central Bank of Malta.

Note: Nodes along the circle represent the total financial assets (A) and liabilities (L) of each economic sector. Each sector is represented by a different colour and the arc's width is proportional to financial assets and liabilities with other sectors.

3. OUTPUT AND EMPLOYMENT

The Bank's Business Conditions Index (BCI) decreased to 0.7 in 2022, from 2.7 in 2021, indicating that growth in business activity has normalised following the exceptionally strong rebound of 2021. It now stands slightly above its long-term average, estimated since 2000.

Real GDP growth reached 6.9% in 2022, following an increase of 11.8% a year earlier. The expansion in economic activity was driven by domestic demand, as net exports contributed negatively to growth. Real gross value added (GVA) data show that the increase in real GDP was largely driven by the services sector, which recovered from the removal of travel restrictions and mitigation measures that had been introduced in response to the COVID-19 pandemic. The largest gains within the services sector stemmed from the sector comprising wholesale and retail trade, transportation, accommodation and related activities.

The GVA of firms within the sector comprising professional, scientific, administrative and related activities, as well as the information and communication sector, and the arts and entertainment sector, also exhibited notable positive contributions to growth. GVA also rose in the manufacturing sector, although its contribution to economic growth was modest compared to that of services. Conversely, the contribution of the construction sector turned negative in 2022, as GVA in this sector declined.

LFS data for the first three quarters of 2022 show that employment continued to benefit from the ongoing normalisation of economic activity in the context of a tight labour market. The number of foreign workers continued to rise, with inflows rising faster than outflows.

The unemployment rate remained low from a historical perspective, and was less than half of that reported for the euro area. It was also lower than the Bank's estimate of structural unemployment.

Administrative data show that in 2022, the average number of registered unemployed persons fell by 796, to 998 persons, while the job vacancy rate rose to 2.7% for the first three quarters of the year. Another indicator of labour tightness, which is the ratio of the job vacancy rate to the unemployment rate, also increased to levels that can be considered high.

Potential output and Business Conditions Index

Malta's output gap turns positive[1]

The Central Bank of Malta estimates that in 2022, potential output growth stood at 5.6%, up from 4.7% in 2021 (see Chart 3.1). As GDP growth was stronger, the output gap turned positive, standing at 0.9% in 2022 from -0.3% in 2021. This implies that there is some degree of overutilization of the economy's productive capacity.[2]

The acceleration in potential output in 2022 was driven by the contribution of labour. This was due to an influx of foreign workers joining the labour market during the year. The contribution of capital increased, reflecting

[1] Potential output measures the medium-to-long-term level of real output which is sustainable in an economy. The estimates presented here are derived using a production function approach. For further details on the methodology adopted see Micallef, B., and Ellul, R. (2017), "Medium-term Estimates of Potential Output Growth in Malta", in Grech, A. G., and Zerafa, S. (Eds.), *Challenges and Opportunities of Sustainable Economic Growth: the Case of Malta*, Central Bank of Malta.

[2] The output gap may be viewed as a gauge of over- or underutilisation of the productive capacity of the economy over the business cycle. A positive gap signals over-utilisation of resources, whereas a negative one indicates underutilised resources.

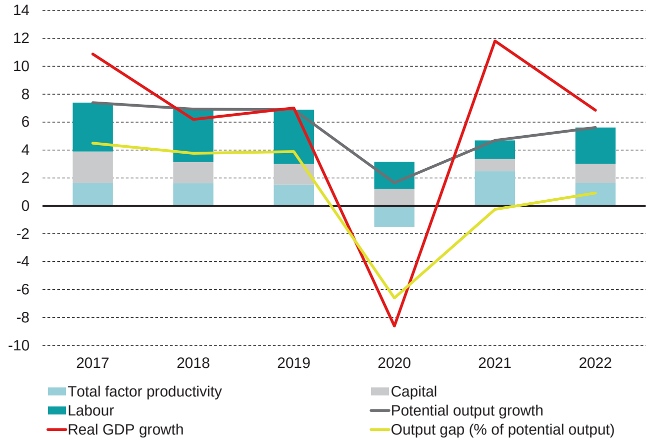
strong investment growth while that of total factor productivity eased from the previous year's high.

BCI normalises[3]

The Bank's BCI normalised from its exceptional highs registered in 2021, when business activity was still recovering from the contraction caused by the pandemic. The index averaged 0.7 during 2022, compared with 2.7 in 2021 (see Chart 3.2). The decrease in the index mainly mirrors slower growth in GDP and tax revenues, although growth in these components remains strong. At the same time, the ESI decreased compared to 2021, though remaining marginally above its long-term average.

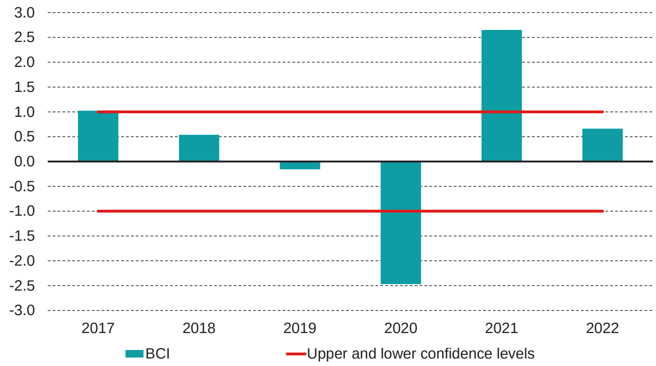
The above average BCI mainly reflected the very strong recovery in tourist arrivals, above average growth in GDP and tax revenues, as well as historical low unemployment rate. Overall, the index marks a normalisation in economic conditions.

Chart 3.1
CYCLICAL POSITION OF THE MALTESE ECONOMY
(annual percentage change; percentage of potential output; percentage points)



Sources: NSO; Central Bank of Malta estimates.

Chart 3.2
BUSINESS CONDITIONS INDEX
(standardised)



Source: Central Bank of Malta.
The red lines in the Chart represent the range enclosing one standard deviation on either side of the BCI's long-run value. Repeated readings below the lower band signal that ecomic activity is significantly below normal economic activity. Readings above the upper band indicate that activity is signficantly above normal levels.

GDP and industrial production

Real GDP growth increases, driven by domestic demand

Economic activity in Malta moderated in 2022, following a strong increase in 2021. Real GDP rose by 6.9%, after increasing by 11.8% a year earlier.[4] In 2022 as a whole, the level of economic activity exceeded its pre-pandemic level by 9.2% (see Chart 3.3).

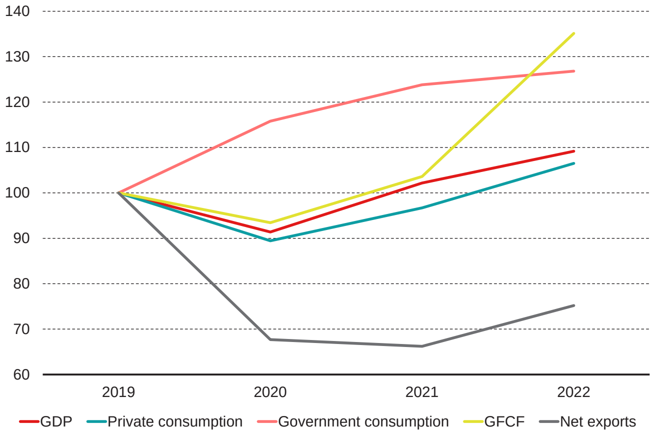
Domestic demand helped push GDP further above 2021 and pre-pandemic levels. The level of GFCF exceeded 2019 levels by over a third. Government consumption stood almost 27% above the corresponding level in 2019. Private consumption exceeded its level reached three years earlier by 6.5%. By contrast, net exports were around a fourth below the level prevailing in 2019, reflecting a surge in import-intensive investment in the aviation sector.

[3] The BCI is a synthetic indicator, which includes information from a number of economic variables such as the term-structure of interest rates, industrial production, an indicator for the services sector, economic sentiment, tax revenues and private sector credit. By construction, it has an average value of zero over the estimation period since 2000. A full time series can be found at https://www.centralbankmalta.org/business-conditions-index. For further details on the methodology underlying the BCI, see Ellul, R., (2016), "A real-time measure of business conditions in Malta," *Working Paper* 05/2016.
[4] The analysis of GDP in this Chapter is based on data published in *News Release* 036/2023 published on 28 February 2023.

Domestic demand is the main driver of economic growth

In 2022, the expansion was underpinned by developments in domestic demand, which added 10.9 percentage points to GDP growth (see Table 3.1). All domestic demand components rose on a year earlier, with the exception of changes in inventories. GFCF was the main driver behind this expansion, followed by private consumption.

Chart 3.3
REAL GDP AND SELECTED COMPONENTS
(Index, 2019=100)



Source: NSO.

Private consumption rose by 10.1%, following an 8.1% increase in 2021, and added 4.3 percentage points to GDP growth. Data on the Classification of Individual Consumption by Purpose (COICOP) show that the rise in private consumption was broad-based across all expenditure categories. The strongest increase in absolute terms was recorded in expenditure on restaurants and accommodation services. This was followed by spending on recreation and culture as well as transport. Expenditure on these items benefitted from the removal of all pandemic-related restrictions on travel and mobility during 2022.

In the national accounts, private consumption data by COICOP category are based on the domestic concept, and thus include the expenditure of non-residents in Malta. Given that tourist arrivals by far exceeded the previous year's levels, certain COICOP categories of expenditure were affected by the significant increase in

Table 3.1
GROSS DOMESTIC PRODUCT[1]

	2017	2018	2019	2020	2021	2022
	Annual percentage changes					
Private final consumption expenditure	5.5	10.0	4.0	-10.5	8.1	10.1
Government final consumption expenditure	1.5	12.4	13.2	15.8	6.9	2.4
GFCF	-2.3	5.2	11.8	-6.6	10.9	30.4
Domestic demand	**3.0**	**8.8**	**8.2**	**-3.5**	**0.7**	**2.6**
Exports of goods and services	10.4	9.2	10.1	-1.6	6.3	6.4
Imports of goods and services	5.6	11.1	11.2	2.0	3.8	9.7
GDP	**10.9**	**6.2**	**7.0**	**-8.6**	**11.8**	**6.9**
	Percentage point contributions					
Private final consumption expenditure	2.7	4.5	1.9	-4.7	3.6	4.3
Government final consumption expenditure	0.2	1.8	2.0	2.6	1.4	0.5
GFCF	-0.5	1.0	2.3	-1.3	2.2	6.2
Changes in inventories	0.2	-0.2	0.5	0.5	-0.3	-0.1
Domestic demand	**2.6**	**7.1**	**6.7**	**-2.9**	**6.9**	**10.9**
Exports of goods and services	16.4	14.5	16.5	-2.7	11.2	10.8
Imports of goods and services	-8.1	-15.4	-16.3	-3.0	-6.2	-14.8
Net exports	**8.3**	**-0.9**	**0.3**	**-5.7**	**4.9**	**-4.0**
GDP	**10.9**	**6.2**	**7.0**	**-8.6**	**11.8**	**6.9**

[1] Chain-linked volumes, reference year 2015.
Sources: NSO; Central Bank of Malta calculations.

non-residents' expenditure in Malta. Nevertheless, the remaining part of domestic consumption – the expenditure of residents of Malta – also rose on a year earlier. Meanwhile, the expenditure of Maltese residents abroad increased on its year-ago level, as trips abroad continued to gradually recover, although it was still around a fifth below its 2019 level.

In 2022, government consumption grew by 2.4%, below the 6.9% recorded in 2021. This is due to lower growth in spending on intermediate consumption and compensation of employees. In 2021, both these components were boosted by pandemic-related spending, such as outlays on treatment and additional allowances. These base effects offset a decline in revenue from sales, which is netted against consumption expenditure. Overall, government consumption added 0.5 percentage point to annual GDP growth.

Following an increase of 10.9% in 2021, GFCF rose sharply by 30.4% in 2022, adding 6.2 percentage points to GDP growth. This reflected a significant increase in machinery and transport equipment, notably in the aviation sector, which offset decreases in most remaining investment categories other than investment in intellectual property products.

Meanwhile, changes in inventories shed 0.1 percentage point from GDP growth in 2022.

During 2022, imports grew by 9.7% and exports increased by 6.4% on a year earlier. As imports grew faster than exports, net exports declined, shedding 4.0 percentage points from annual real GDP growth. The negative contribution reflected a strong widening in the goods deficit (in volume terms), compared to 2021. This offset an improvement in the services balance.

The contributions shown in Table 3.1 are consistent with the approach traditionally followed in official databases and economic publications. However, this approach does not account for the fact that the import content varies across the different expenditure components. Consequently, such contributions fail to represent the true underlying relative contribution of domestic and external demand to economic growth.

Table 3.2 presents import-adjusted contributions, which addresses this limitation by apportioning imports to the respective domestic demand components and exports. In line with the strong increase in imports in the year under review, the majority of import-adjusted contributions are smaller than those based on the traditional approach, as reported in Table 3.1. This is particularly the case for exports, and, to a lesser extent, GFCF and private consumption.

According to this method, the main driver behind the growth of real GDP in 2022 was domestic demand. In contrast with the traditional approach, private consumption contributed more to import-adjusted GDP growth than GFCF. Exports also contributed positively to import-adjusted GDP growth.

Table 3.2
IMPORT-ADJUSTED CONTRIBUTIONS TO GDP GROWTH[1]

	2017	2018	2019	2020	2021	2022
	Percentage point contributions					
Private final consumption expenditure	2.1	2.2	0.8	-3.5	2.6	2.2
Government final consumption expenditure	0.3	1.4	1.6	2.0	1.3	0.4
GFCF	0.2	0.1	0.6	-1.1	1.1	1.9
Changes in inventories	0.0	0.0	0.2	0.4	-0.3	-0.1
Domestic demand	**2.5**	**3.7**	**3.3**	**-2.2**	**4.7**	**4.4**
Exports of goods and services	**8.3**	**2.5**	**3.8**	**-6.4**	**7.2**	**2.4**
GDP	**10.9**	**6.2**	**7.0**	**-8.6**	**11.8**	**6.9**

Source: Central Bank of Malta estimates.
[1] Chain-linked volumes, reference year 2015.

Table 3.3
CONTRIBUTION OF SECTORAL GVA TO REAL GDP GROWTH
Percentage points

	2017	2018	2019	2020	2021	2022
Agriculture, forestry and fishing	-0.2	0.0	-0.2	0.3	0.3	0.1
Mining and quarrying; utilities	-0.5	0.2	0.1	-0.1	0.3	0.1
Manufacturing	0.4	0.4	0.3	0.0	0.2	0.6
Construction	0.6	0.4	1.0	0.0	0.1	-0.3
Services	9.4	4.2	6.0	-6.9	10.0	7.0
of which:						
Wholesale and retail trade; repair of motor vehicles; transportation; accommodation and related activities	2.6	0.8	0.9	-6.1	4.0	3.3
Information and communication	1.1	0.6	1.5	-0.4	1.4	0.6
Financial and insurance activities	1.0	0.4	0.5	0.2	0.6	0.3
Real estate activities	0.6	0.2	0.3	-0.2	0.5	0.2
Professional, scientific, administrative and related activities	2.8	0.7	1.6	-1.3	1.2	1.4
Public administration and defence; education; health and related activities	0.4	0.8	1.0	0.1	1.1	0.5
Arts, entertainment; household repair and related services	0.8	0.6	0.2	0.8	1.2	0.6
GVA	**9.7**	**5.1**	**7.2**	**-6.7**	**10.9**	**7.4**
Net taxation on products	**1.2**	**1.1**	**-0.2**	**-1.9**	**0.9**	**-0.5**
Annual real GDP growth (%)	**10.9**	**6.2**	**7.0**	**-8.6**	**11.8**	**6.9**

Source: NSO.

GDP data from the output approach show that real GVA grew by 8.1%, following a 12.0% increase in 2021. In 2022, GVA added 7.4 percentage points to real GDP growth (see Table 3.3).

Services were the main driver of economic activity, accounting for 7.0 percentage points of overall real GDP growth. The largest additions within the services sector stemmed from the sector comprising wholesale and retail trade, transportation, accommodation and related activities. This sector added 3.3 percentage points to real GDP growth. The sector comprising professional, scientific, administrative and related activities, as well as the information and communication sector, and the arts and entertainment sector, also contributed positively to growth, jointly adding a further 2.7 percentage points. The sectors comprising public administration, education, health and related activities, financial and insurance activities, and real estate activities lifted GDP growth by 1.0 percentage point. Compared with 2021, the contribution of these sectors more than halved, though in 2021 growth was achieved from a lower base following the pandemic shock of 2020. Meanwhile, the contribution of the manufacturing sector stood at 0.6 percentage point, up from 0.2 point a year earlier. By contrast, the construction sector contracted, shedding 0.3 point from real GDP growth, with GVA in this sector standing below 2019 levels.

Nominal GDP growth remains strong

Nominal GDP rose by 12.5% in annual terms in the year under review, after increasing by 13.9% in the previous year.

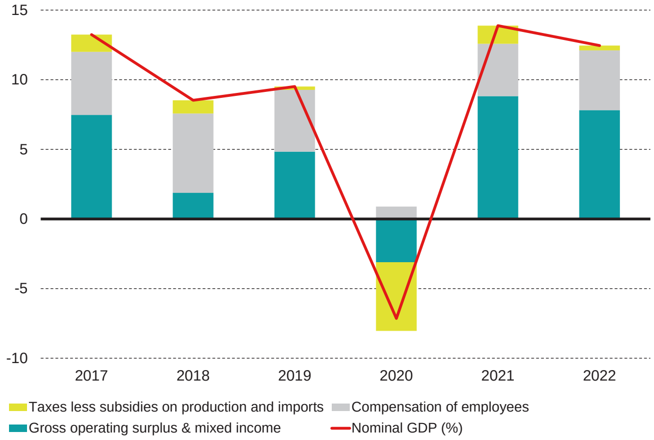
Compensation of employees grew by 9.4% in 2022, compared with 7.8% in the previous year. It added 4.3 percentage points to nominal growth. The increase was spread across both the public and private sectors.

In the private sector, the largest increases in level terms were recorded in the sector comprising wholesale and retail trade activities, the sector comprising professional, scientific and technical activities, and in the financial sector. These were followed by developments in the information and communication sector, and the arts and entertainment sector.

In addition, profitability increased significantly in 2022, albeit at a slower pace relative to 2021. Gross operating surplus rose by 16.2%, compared with 19.1% a year earlier. It added 7.8 percentage points to nominal GDP growth (see Chart 3.4).

Almost all sectors registered an increase in their gross operating surplus when compared with a year earlier. The largest increase in absolute terms was recorded in the transportation and storage sector, and in the sector comprising accommodation and food services activities. This was followed by the wholesale and retail trade sector, and the manufacturing sector.

Chart 3.4
NOMINAL GDP AND ITS MAIN COMPONENTS
(percentage point contribution)



Source: NSO.

In 2022, subsidies on production and imports increased sharply by 21.2% from a year earlier, partly reflecting efforts to mitigate energy price pressures. Meanwhile, due to the recovery in economic activity, growth in taxes on production and imports also grew strongly, at 12.7%. As a result of the surge in subsidies, 'net taxes on production and imports' increased, albeit by less than in 2021.

Industrial production[5]

Industrial production rose by 3.2% in 2022, following a decrease of 0.3% in 2021 (see Table 3.4). After recording year-on-year declines in the first half of the year, industrial production recovered in the second half, registering double digit growth in the last quarter.

The increase in production over the previous year reflected higher output in the manufacturing and energy sector – where the latter excludes energy generated abroad and imported through the interconnector. By contrast, output declined sharply in the quarrying sector.

The volume of production in the manufacturing sector, which has the largest weight in the index of industrial production, rose by 3.6% in 2022, following a decline of 0.8% in 2021.

Production rose strongly in the computer, electronic and optical sector, and in the pharmaceutical industry. Smaller, though still significant increases were reported by firms that repair and install machinery and equipment, as well as those that produce food and beverages. These increases offset falls in the production of wood and wood products, and among firms producing "other manufacturing" products – which include medical and dental instruments, toys and related products. Lower output was also reported, on average, by firms that produce textiles and wearing apparel, and by firms involved in the printing and reproduction of recorded media.

Data on manufacturing sales point to an increase in turnover of 16.1% in 2022, following a 4.6% increase in 2021.[6] This rise in turnover reflects higher sales in both the domestic and non-domestic market.

[5] Industrial production data are based on samples of firms engaged in quarrying, manufacturing and energy production. Methodological differences may account for divergences between developments in GVA in the manufacturing sector and industrial production. GVA nets input costs from output to arrive at value added. Industrial production measures the volume of output without considering input costs. The sectorial coverage also differs, as industrial production data include the output of the energy sector, as well as mining and quarrying.

[6] Data on manufacturing sales are sourced from the NSO.

Table 3.4
INDUSTRIAL PRODUCTION(1)
Percentages; annual average percentage changes

	Shares	2020	2021	2022
Industrial production	**100.0**	**-0.3**	**-0.3**	**3.2**
Manufacturing	**87.1**	**-0.9**	**-0.8**	**3.6**
Of which:				
Food products	15.4	-1.3	-11.2	13.6
Repair and installation of machinery and equipment	7.9	-16.9	-0.2	17.9
Basic pharmaceutical products and pharmaceutical preparations	7.3	33.4	5.5	23.4
Printing and reproduction of recorded media	7.3	18.2	-11.7	-8.1
Beverages	5.6	-21.2	12.6	12.6
Rubber and plastic products	5.4	-1.2	1.6	-6.5
Computer, electronic and optical products	5.0	3.4	1.4	31.4
Energy	**12.5**	**1.5**	**1.5**	**2.8**
Mining and quarrying	**0.5**	**-14.2**	**14.1**	**-35.7**

Sources: NSO; Eurostat.

(1) The annual growth rates of the industrial production index are averages for the year based on working-day adjusted data. The annual growth rates of the components are based on unadjusted data.

Construction

The number of permits for residential units issued by the Planning Authority increased significantly in 2022, after declining for three consecutive years. Still, it remained below 2019 levels. Permits issued stood at 9,599, up from 7,578 in the previous year, but lower than the 12,485 issued in 2019 (see Table 3.5). Even though the number of permits in 2022 stood below 2019 levels, they exceeded the historical average of around 7,000 permits per year.

The overall increase in the number of permits issued in 2022 was largely on account of more permits for apartments, followed by an increase in permits for maisonettes, and terraced houses. These were partly offset by a decrease in the number of permits issued for other property categories.

Similarly, the number of development permits for commercial buildings increased by 7.7% in 2022, following a rise of 3.1% in the preceding year. In 2022, 2,984 commercial permits were issued, slightly above the 2,770 permits approved in 2021. This compares with 3,474 permits issued in 2019.

During 2022, construction investment decreased by around 6.7% in real terms, following an increase of around 3.6% in the preceding year. The latest decrease was largely driven by a fall in non-residential investment, which was down by almost a tenth. This after declining by 3.7% in the previous year, with the level standing well below 2019 levels. Residential investment contracted by 3.1% in the year under review, following an increase of 13.3% in 2021, but remained above pre-pandemic levels.

Table 3.5
PERMITS ISSUED FOR THE CONSTRUCTION OF DWELLING UNITS BY TYPE

	2017	2018	2019	2020	2021	2022
Apartments	7,762	11,211	10,726	6,735	6,451	8,280
Maisonettes	852	1,166	1,226	727	738	910
Terraced houses	301	396	402	299	290	333
Other	91	112	131	76	99	76
Total	9,006	12,885	12,485	7,837	7,578	9,599

Source: Planning Authority.

Table 3.6
CONSTRUCTION ACTIVITY INDICATORS[1]

	2019	2020	2021	2022
Real GVA (EUR millions)	**552.8**	**551.9**	**559.8**	**520.3**
Share in total economy GVA (%)	4.7	5.1	4.6	4.0
Total employment	13,316	14,965	15,810	17,253
of which private employment	12,686	14,373	15,258	16,708
Share in total gainfully occupied population (%)	6.0	6.4	6.7	6.9

Source: NSO.

[1] Employment data are averages for the first nine months of the year, and are sourced from administrative records.

GVA in the construction sector decreased by 7.0%, following an increase of 1.4% in the preceding year (see Table 3.6). Its share in GVA for the total economy declined to 4.0%, from 4.6% in 2021.

Nevertheless employment in construction continued to grow, likely reflecting a degree of labour hoarding following a period of shortages. Jobsplus data for the first nine months of 2022 show that the number of persons employed on a full-time basis in this sector rose by 1,443 or 9.1%, compared with the same period a year earlier (see Table 3.6). This followed a 5.6% increase in 2021. Growth in 2022 was also above that registered in the economy as a whole. Private sector employment in construction increased by 9.5%.

The construction sector's share in the total gainfully occupied population increased to 6.9%, from 6.7% in 2021. According to national accounts data for the full year, compensation of employees in the sector increased by 9.4%, following a 9.2% increase in 2021.

The labour market[7]

Labour force grows further

On average, the labour force expanded by 4.3% in the first nine months of 2022, a faster pace than that of 1.6% registered in the same period of 2021 (see Table 3.7).

The activity rate went up by 2.0 percentage points on a year earlier, to 79.7%, exceeding the euro area average of 74.6%.[8] The increase in the activity rate primarily reflects a higher female activity rate, as the latter edged up by 3.8 percentage points to 72.4%. The male activity rate rose by 0.3 percentage point to 86.0%. Both rates stood higher than their respective euro area rate, which stood at 69.9% and 79.3%, respectively.[9]

Employment grows at a faster pace

During the first three quarters of 2022, employment expanded at an average annual rate of 5.0% (see Table 3.7). This compares with 2.4% during the corresponding period of 2021, and also exceeds the average increase of 3.3% estimated since 2003 (see Chart 3.5). This reflects the strong rebound in activity following the pandemic in the context of an already tight labour market. At the same time, growth in employment during the first three quarters of 2022 has been more moderate than that recorded during the three years preceding the pandemic, likely reflecting the recent moderation in GDP growth and binding labour constraints.

In absolute terms, the rise in the number of employed persons during the first three quarters of the year was primarily driven by full-time jobs, which went up by around 11,000. Part-time employment also increased, with the number of such jobs rising by around 2,300. Over the same period, the number of unemployed

[7] This section draws mainly on labour market statistics from two sources: the LFS, which is a household survey conducted on a quarterly basis by the NSO based on definitions set by the International Labour Organization (ILO) and Eurostat; and administrative records compiled monthly by Jobsplus, according to definitions established by domestic legislation on employment and social security benefits.

[8] The activity rate measures the number of persons in the labour force aged 15-64 years (whether employed or seeking work) as a proportion of the working-age population, which is defined as all those aged 15-64 years.

[9] The LFS defines the labour force as all persons aged 15 and over who are active in the labour market. This includes those in employment, whether full-time or part-time, and the unemployed, defined as those persons without work but who were actively seeking a job during the previous four weeks and available for work within two weeks of the reference period.

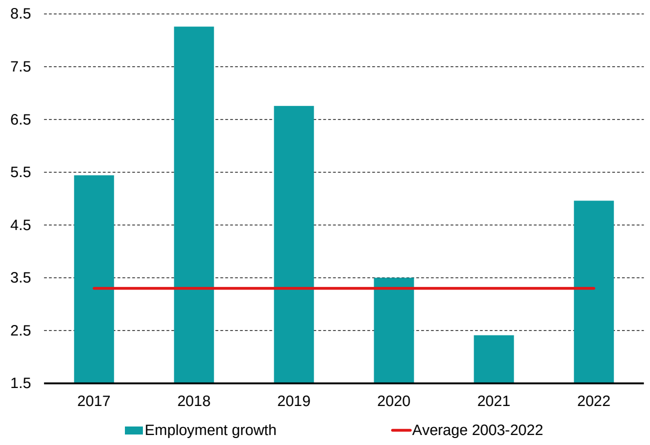
Table 3.7
LABOUR MARKET INDICATORS BASED ON THE LFS [(1)]
Persons; annual percentage changes

	2021 (revised) Jan.-Sep.	2022 Jan.-Sep.	Annual change %
Labour force	**277,200**	**289,100**	**4.3**
Employed	267,400	280,700	5.0
By type of employment:			
Full-time	235,300	246,300	4.7
Part-time	32,100	34,400	7.1
Unemployed	9,800	8,400	-13.7
Activity rate (%)	**77.7**	**79.7**	
Male	85.7	86.0	
Female	68.6	72.4	
Employment rate (%)	**74.9**	**77.3**	
Male	82.3	83.3	
Female	66.4	70.5	
Unemployment rate (%)	**3.5**	**2.9**	
Male	3.8	3.2	
Female	3.2	2.6	
Actual hours worked (per week)	**34.0**	**34.0**	

(1) Labour force figures are based on averages for the first three quarters published by Eurostat and are rounded to the nearest 100 persons. Growth rates reported in this Table are derived from Eurostat period averages.
Sources: NSO; Eurostat.

persons fell by around 1,400, to 8,400 persons according to the LFS – a decrease of almost 14%.

Chart 3.5
EMPLOYMENT GROWTH BASED ON THE LFS: JANUARY-SEPTEMBER
(annual percentage changes)



Sources: Eurostat; Central Bank of Malta calculations.

The overall employment rate rose by 2.4 percentage points to 77.3% in the first three quarters of 2022, higher than the 69.5% registered in the euro area.[10] The female employment rate registered the strongest increase, gaining 4.1 percentage points, to reach 70.5%, thus remaining above the euro area average of 64.7%. The male employment rate rose by 1.0 percentage point, to 83.3% and remained well above the average rate of 74.2% recorded for the euro area.

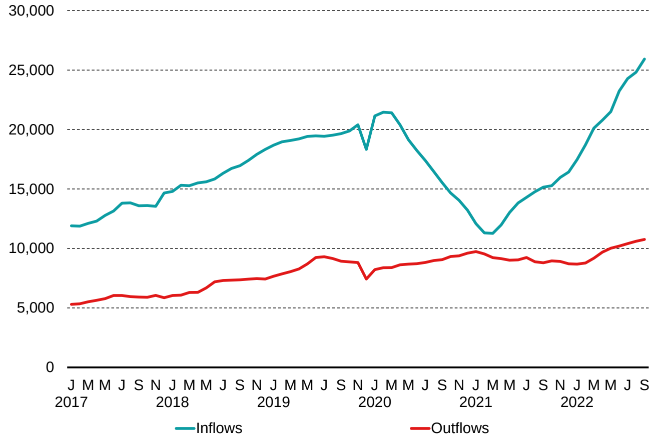
The stock of foreign workers in September 2022 stood at 89,911, up from 76,284 a year earlier. Additional administrative data indicates that the number of foreign workers arriving in Malta increased strongly during 2022, rising by almost 10,800 workers, to exceed 25,900 by September 2022 (see Chart 3.6).[11] Outflows

[10] The employment rate measures the number of persons aged 15-64 years, employed on a full-time or part-time basis as a proportion of the working-age population, which is defined as all those aged 15-64 years.
[11] Data on worker flows may not add up to the stock of workers, due to methodological differences in the administrative data.

of foreign workers increased at a milder pace of almost 2,000 persons, to reach almost 10,800 persons by September 2022.

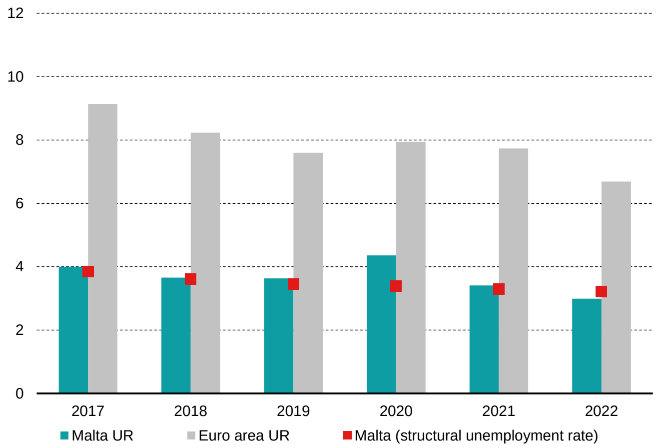
In the first three quarters of 2022, the number of actual weekly hours worked averaged 34.0, the same number of hours reported in the same period of 2021. However, hours worked are still more than 7% below pre-pandemic levels.[12]

Chart 3.6
INFLOWS AND OUTFLOWS OF FOREIGN WORKERS
(number of persons)



Source: Jobsplus.

Chart 3.7
UNEMPLOYMENT RATE
(not seasonally adjusted; per cent)



Sources: Eurostat; Central Bank of Malta calculations.

Unemployment rate edges down

The LFS unemployment rate averaged 2.9% during the first three quarters of 2022, compared to 3.5% in the same period of 2021 (see Table 3.7).

Monthly data up to December, which take into account LFS data up to the third quarter as well as more recent administrative data – show that the unemployment rate averaged 3.0% in 2022, lower than rate of 3.4% recorded in 2021 (see Chart 3.7). Apart from being one of the lowest rates on record, the unemployment rate also remained well below that of 6.7% registered in the euro area.

The unemployment rate also stood below the Bank's estimate of the structural measure of 3.8% for 2022.[13] This indicates a degree of labour market tightness, which is also confirmed by surveys.

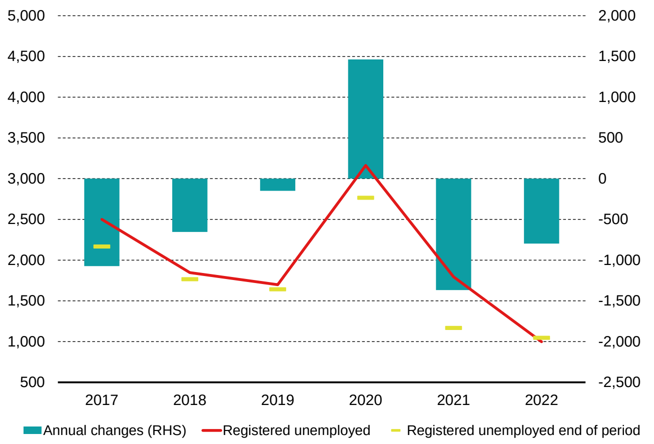
The decline in unemployment is confirmed by administrative sources. According to Jobsplus data, on average, the number of unemployed persons fell by 796 persons over 2021, to 998 (see Chart 3.8).[14]

This decrease was recorded across all age cohorts. However, the largest decrease was observed among those aged 45 years and over, which fell by 358 persons, to 469. This was followed by those aged between 30 and 44, which fell by 272 persons to 281.

[12] Actual hours refer to the number of hours actually spent at the place of work during the reference week for the main job. Data cited in this report are sourced from the NSO, which may differ from Eurostat data due to differences in the methodology.
[13] The structural unemployment rate in this chapter refers to the non-accelerating inflation rate of unemployment (NAIRU), that is, the unemployment rate that is consistent with stable inflation. This measure of the unemployment rate is based on an unobserved components model as described in Ellul, R., (2019). "An Unobserved Components Model for potential output in Malta", Article published in the *Quarterly Review* 2019:2, pp. 17-21
[14] The annual number of registered unemployed is based on the average of the total registered unemployed published by NSO on a monthly basis.

In terms of duration, the decline in the number of unemployed reflected a fall in both short-term (unemployed for less than a year) and long-term unemployed. The largest decline was among those who were unemployed for more than a year, which fell by around 280 persons. This was followed by those employed between 21 to 52 weeks, which fell by about 250 persons, and by those employed for less than 21 weeks which fell by almost 220 people.

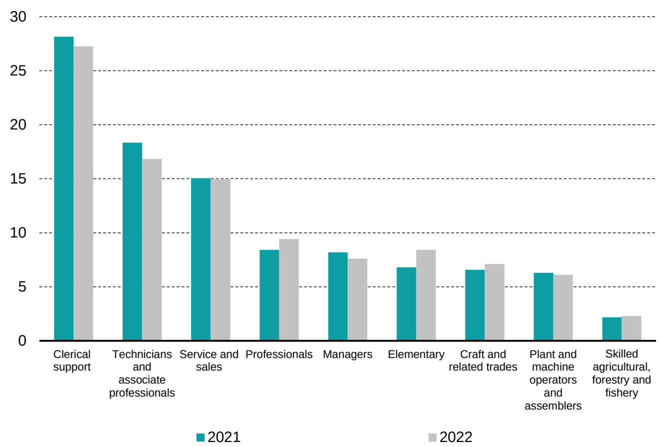
Chart 3.8
REGISTERED UNEMPLOYED
(persons; absolute changes)



Source: NSO.

During the year under review, over a fourth of those on the unemployment register were looking for clerical support work, and around a sixth registered for the post of technician or associate professional (see Chart 3.9). The third most sought-after occupation category was that of service and sales, with this category selected by almost 15% of persons on the unemployment register. Professional occupations accounted for more than 9% of requested jobs, while managerial and elementary jobs each accounted for around 8%. Occupations related to crafts and related trades, the operation and assembly of plant and machinery, and agriculture and fisheries attracted less interest.

Chart 3.9
REGISTERED UNEMPLOYED BY MAIN TYPE OF OCCUPATION
(per cent)



Source: NSO.

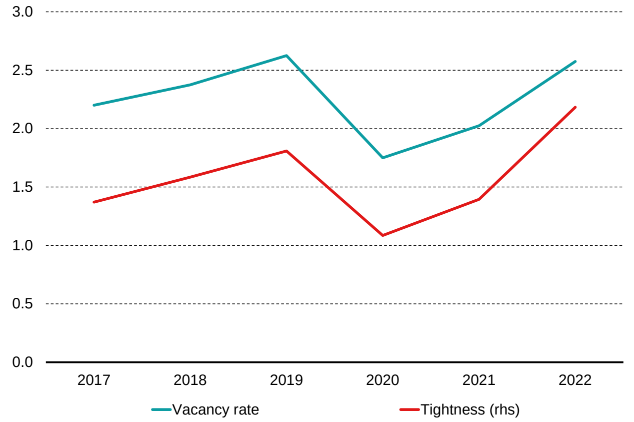
Although unemployment decreased in all occupation categories compared to 2021, the largest declines in absolute terms were recorded among unemployed persons interested in clerical support work, in the role of technician or associate professional, and in services and sales work. Persons expressing a preference for such occupations accounted for almost two-thirds of the overall decrease in registered unemployment during 2022. As a result, the share of these roles in sought after occupations decreased compared to 2021, as did that of managers and machine operators and assemblers.

By contrast, there was a larger share of unemployed persons interested in elementary and professional occupations, due to these roles seeing only a modest loss in interest compared to other occupations. The share of persons registering for jobs in craft and related trades as well as skilled agriculture, and fishing also rose, but to a much smaller degree.

The job vacancy rate for industry, construction and services stood at elevated levels in the first three quarters of 2022, on a par with 2019 rates (see Chart 3.10). It amounted to 2.7%, higher than the 2.1% recorded in the same period a year earlier.[15] The vacancy rate was highest in the arts and entertainment sector (5.8%), followed by the information and communication sector (5.4%).

The ratio of the job vacancy rate to the unemployment rate is an indicator of the imbalance between labour demand and supply and, therefore, of labour tightness. During the first three quarters of 2022, this ratio stood at 0.9, higher than the ratio registered in the same period a year earlier. This is the result of a higher vacancy rate and a lower unemployment rate compared to last year. This indicator thus stands at elevated levels from a historical perspective.

Chart 3.10
VACANCY RATE AND LABOUR MARKET TIGHTNESS INDICATOR: JANUARY-SEPTEMBER
(per cent)



Sources: Eurostat; Central Bank of Malta calculations.

Business and consumer surveys

Economic sentiment falls but remains in line with its long-term average in 2022

During 2022, the European Commission's Economic Sentiment Indicator (ESI) for Malta averaged 100.9, down from 104.9 in 2021. Following this decline, the index stood below the level of 103.0 recorded in 2019, just before the pandemic (see Table 3.8). The recent decline might in part reflect the soaring cost pressures and supply bottlenecks fuelled by China's zero-COVID policy and the war in Ukraine.[16,17]

Table 3.8
SENTIMENT INDICATOR BY SECTOR
Annual average; absolute change

	2020	2021	2022	Change	2022			
					Mar.	June	Sep.	Dec.
ESI	**82.4**	**104.9**	**100.9**	**-4.0**	**107.3**	**102.7**	**93.6**	**96.7**
Industrial confidence indicator	-24.2	2.1	-9.4	-11.5	1.4	-10.3	-11.4	-23.5
Consumer confidence indicator	-5.6	3.4	-7.3	-10.8	-2.7	-7.1	-9.7	-11.8
Construction confidence indicator	-4.5	7.3	7.0	-0.3	3.4	15.1	5.9	-4.3
Services confidence indicator	-23.1	13.7	20.4	6.8	28.1	28.2	5.4	19.6
Retail trade confidence indicator	-30.3	-8.4	6.0	14.4	8.2	-4.0	5.7	27.3
EEI	**86.7**	**103.5**	**106.4**	**2.9**	**111.4**	**113.3**	**103.7**	**110.8**
Retail	-12.1	4.4	15.8	11.4	19.9	3.6	1.2	26.7
Services	-0.7	25.1	30.2	5.1	46.2	43.5	31.1	56.8
Industry	-10.9	14.8	12.0	-2.8	2.9	34.0	10.1	-37.4
Construction	-4.1	13.2	5.4	-7.9	-1.9	21.0	-1.8	-2.0
ESI demeaned	**-17.6**	**4.9**	**0.9**	**-4.0**	**7.3**	**2.7**	**-6.4**	**-3.4**
EEI demeaned	**-13.5**	**3.4**	**6.2**	**2.8**	**10.7**	**13.4**	**3.4**	**9.1**

Source: European Commission.

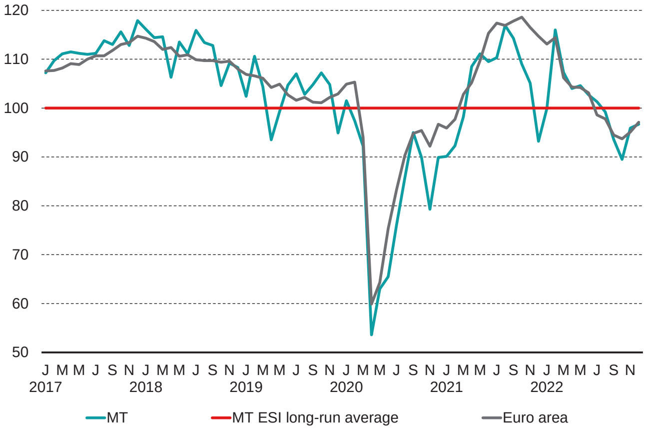
[15] The job vacancy rate measures the number of job vacancies as a percentage of total jobs (occupied and vacant). Data for Malta are available since 2017.

[16] Long-term averages are calculated over the entire period for which data are available. For the consumer and industrial confidence indicators, data became available in November 2002, while the services and construction confidence indicator data became available in May 2007 and May 2008, respectively. The long-term average of the retail confidence indicator is calculated since May 2011, when it was first published. The long-term average of the ESI is computed from November 2002.

[17] The ESI summarises developments in confidence in five surveyed sectors (industry, services, construction, retail and consumers).

The ESI reached a six-month high of 116.0 in February 2022, as COVID-19 restrictions eased further, primarily those related to quarantine and the use of masks. Sentiment remained relatively strong during the first half of the year, reflecting the ongoing recovery in economic activity from the pandemic. Nevertheless, sentiment was dented somewhat by new sources of uncertainty following the war in Ukraine. In fact, the ESI fell to 89.5 by October 2022 and although it recovered in the subsequent two months, it remained below its long-term average of 100, closing the year at 96.7 (see Chart 3.11).

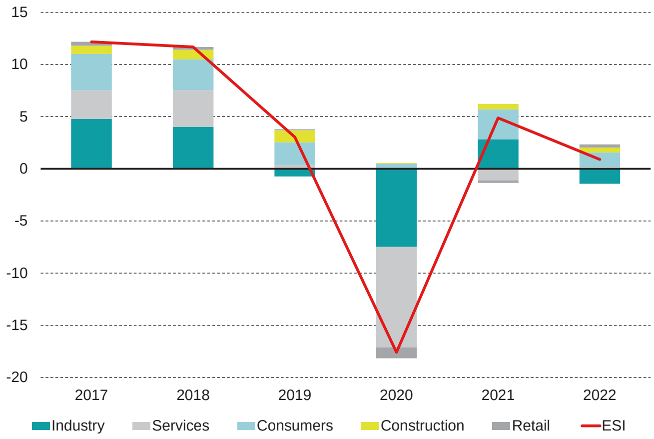
Chart 3.11
ECONOMIC SENTIMENT INDICATOR
(seasonally adjusted; percentage points)



Source: European Commission.

Malta's ESI stood slightly below that of the euro area, which averaged 101.8. This was entirely due to negative sentiment in the domestic industry, which contrasted the positive sentiment in the euro area.

Chart 3.12
ECONOMIC SENTIMENT INDICATOR
(seasonally adjusted; demeaned)



Sources: European Commission; Central Bank of Malta workings.

Table 3.8 presents the annual average reading for each sector included in the ESI and the absolute change relative to 2021. During 2022, positive sentiment was registered in the services, retail, and construction sectors. By contrast, sentiment was negative in industry and among consumers. The most positive reading was recorded in the services sector.

While the confidence indicator deteriorated across most sectors in 2022, demeaned data show that most of the decline was driven by developments in industry and among consumers. At the same time, sentiment in the construction sector stood marginally less positive compared to 2021 (see Chart 3.12).[18] Furthermore, sentiment among consumers and construction firms explain why the overall ESI stood above its long-term average during the year under review.

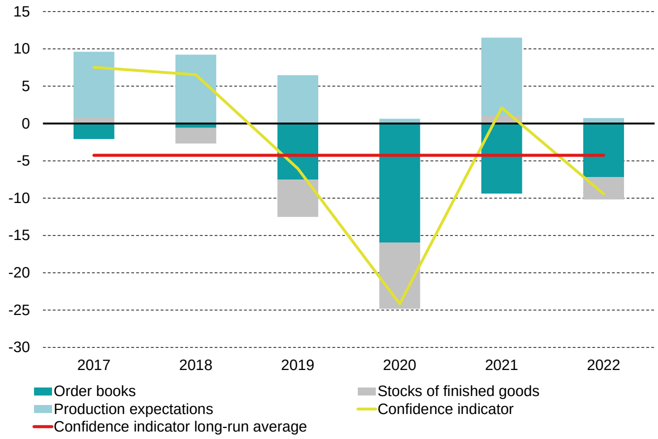
Although the ESI fell below its long-term average in the second half of the year, this reflected developments in industry and services. While the confidence indicators in construction and among consumers also decreased over that period, they remained above their long-term average and thus retained a positive contribution to the ESI. The contribution of the retail sector was also positive on average over this period.

[18] Weights are assigned as follows: industry 40%; services 30%; consumers 20%; construction 5%; and retail trade 5%.

Industrial confidence turns negative, falling below its long-term mean[19]

Sentiment among manufacturing firms decreased to -9.4, from 2.1 in 2021, thus falling below its long-term mean of -4.3 (see Chart 3.13). The deterioration in sentiment largely reflected a decline in production expectations. Furthermore, and by contrast to 2021, firms assessed their stocks of finished goods to be well above normal levels.[20] At the same time, a smaller share of respondents deemed order book levels to be below normal.

Chart 3.13
INDUSTRIAL CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



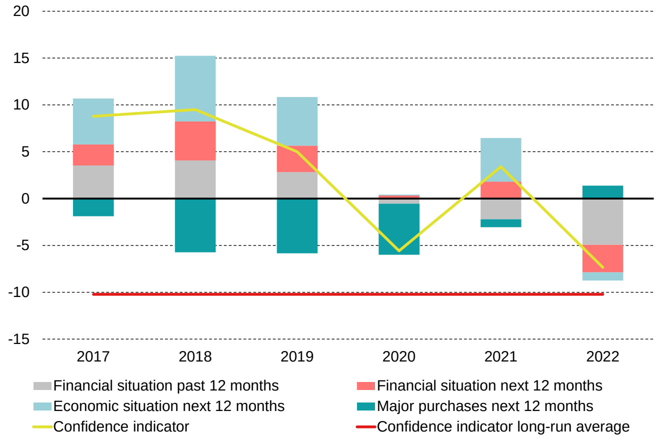
Source: European Commission.

After reaching a six-month high of 25.1 in February 2022, sentiment in industry fell below its long-term average in May, decreasing to -23.5 in December.

Consumer confidence turns negative, but remains above its long-term average[21]

Consumer confidence declined to -7.3, from 3.4 in 2021. Notwithstanding this decrease, sentiment has continued to stand above its long-term average of -10.2 (see Chart 3.14).

Chart 3.14
CONSUMER CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



Source: European Commission.

The fall in sentiment was notably driven by a deterioration in consumers' expectations of the general economic situation and of the financial situation over the next 12 months. Consumers' assessment of their financial situation over the last 12 months stood more negative compared to 2021. On the other hand, households on balance, signalled that they intended to undertake additional major purchases in subsequent months. This contrasts with 2021, when expectations of major purchases stood negative.

Additional survey information suggests that on balance, fewer respondents expected unemployment to decline in the following 12 months. Meanwhile, savings expectations also decreased compared to a year earlier, but remained positive. The survey also reveals that both inflation perceptions and expectations rose significantly, with the former reaching unprecedented levels.

[19] The industrial confidence indicator is the arithmetic average of the seasonally-adjusted balances (in percentage points) of replies to a subset of survey questions relating to expectations about production over the subsequent three months, current levels of order books and stocks of finished goods (the last with inverted sign).

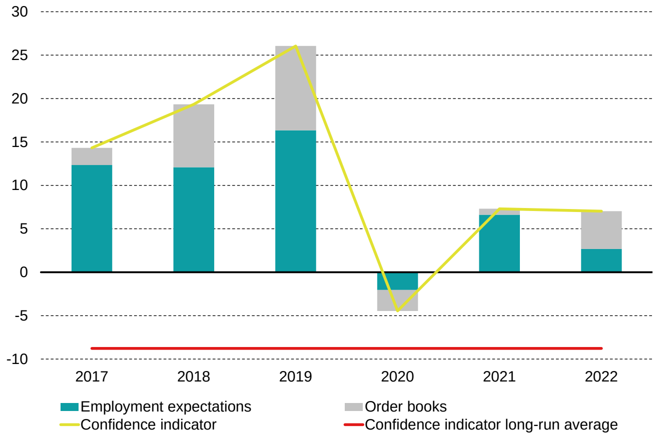
[20] A rise in the stock levels indicates lower turnover and affects the overall indicator in a negative way. Such decreases are thus represented by bars below the 0 mark in Chart 3.14.

[21] The consumer confidence indicator is the arithmetic average of the seasonally-adjusted balances (in percentage points) of replies to a subset of survey questions relating to households' assessment and expectations of their financial situation, their expectations about the general economic situation and their intention to make major purchases over the subsequent 12 months. The computation of this indicator was changed as reflected in the January 2019 release of the European Commission.

Confidence in construction eases slightly[22]

The sentiment indicator for the construction sector averaged 7.0 during 2022, down from 7.3 in the preceding year. Notwithstanding this decrease, confidence remained firmly above its long-term average of -8.8 (see Chart 3.15). Weaker employment expectations in the coming months contributed to the decline in sentiment during the year. By contrast, respondents' assessment of order book levels stood more positive relative to 2021.

Chart 3.15
CONSTRUCTION CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



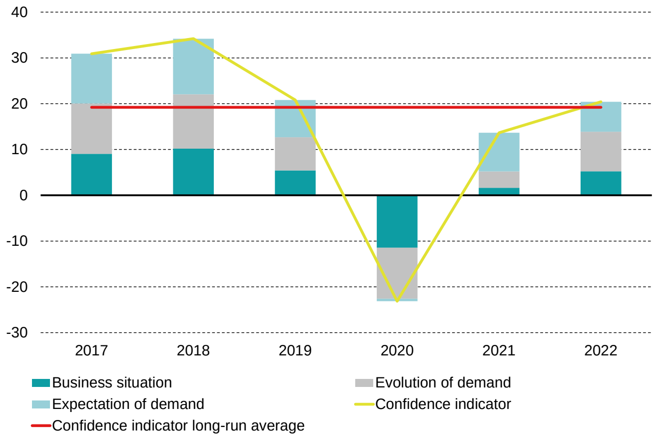
Source: European Commission.

Additional survey data show that financial constraints were the most important impediment to production signalled by respondents during the year under review, followed by labour shortages.

Confidence in the services sector improves further[23]

The confidence indicator within the services sector reached 20.4, up from 13.7 in the preceding year (see Chart 3.16). This increase reflected a more positive assessment of demand and of the business situation over the past three months. By contrast, respondents' demand expectations edged down but remained positive. Following this increase, confidence in the services sector stood somewhat above its long-term average of 19.2.

Chart 3.16
SERVICES CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



Source: European Commission.

Sentiment in services was positive during most of 2022, with the highest readings recorded in May and August.

Confidence in the retail sector turns positive[24]

The retail confidence indicator stood at 6.0 in 2022, up from -8.4 a year earlier. Following this increase, sentiment increased above its long-term average of -0.7 (see Chart 3.17). The amelioration in sentiment was largely driven by assessment of business activity in recent months. At the same time, in contrast to 2021,

[22] The construction confidence indicator is the arithmetic average of the seasonally-adjusted balances (in percentage points) of replies to two survey questions, namely those relating to order books and employment expectations over the subsequent three months.

[23] The services confidence indicator is the arithmetic average of the seasonally-adjusted balances (in percentage points) of replies to survey questions relating to the business climate, the evolution of demand in the previous three months and demand expectations for the subsequent three months.

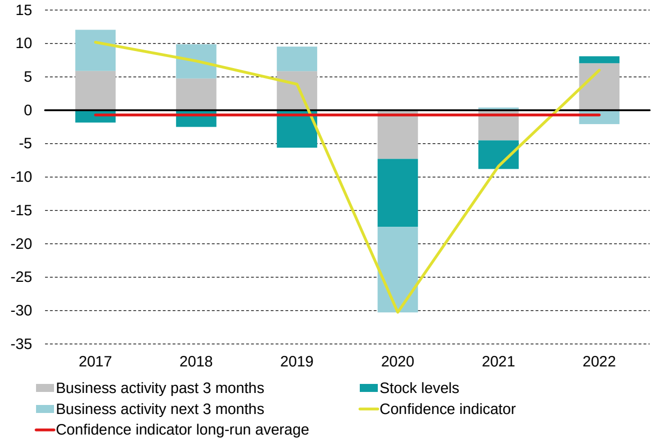
[24] The retail confidence indicator is the arithmetic average of the seasonally-adjusted balances (in percentage points) of replies to survey questions relating to the present and future business situation and stock levels.

respondents assessed stock levels to be below normal. However, expectations of business activity fell in negative territory.

Sentiment in this sector was positive for most of the year, with the best monthly reading reached in December, when the index stood at 27.3.

Additional survey data indicate that, on balance, retailers anticipated order book levels to stand above normal levels in 2022 – a significant improvement over 2021 when order books were assessed to be below normal.

Chart 3.17
RETAIL CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



Source: European Commission.

Selling price expectations remain elevated

In 2022, selling price expectations increased significantly in most sectors, with a smaller increase recorded in the construction sector (see Chart 3.18). Differences across sectors remained significant – while the net share of firms signalling price increases exceeded 80% on average in the retail sector, that in other sectors ranged between 25% and 48%.

Chart 3.18
SECTORAL SELLING PRICE EXPECTATIONS
(seasonally adjusted)

Source: European Commission.

When assessed from a longer-term perspective, price expectations attained new highs in all productive sectors other than construction. In this case, as was also the case among consumers, price expectations were within the range of values observed since the start of the respective survey.

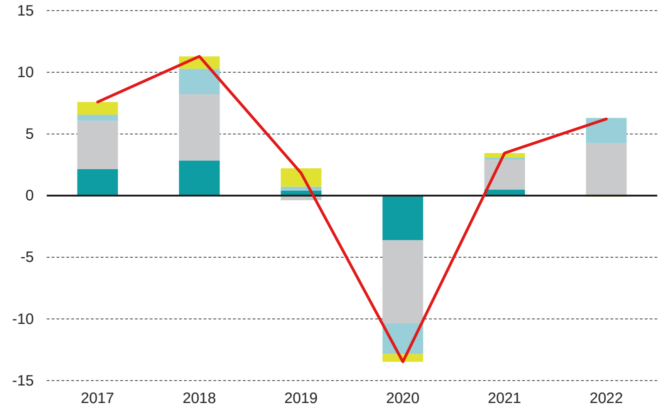
Employment Expectations Indicator increased somewhat

The EEI – which is a composite indicator of employment expectations in industry, services, retail trade and construction – increased.[25] It averaged 106.4, compared with 103.5 a year earlier, and stood above its long-term average of around 100.0.

Employment expectations were positive across all sectors, with the most positive reading recorded in the services sector. When accounting for the variation in the weights assigned to each sector in the overall index, it appears that the increase in expectations relative to 2021 was driven by developments in the services and retail sectors (see Chart 3.19). Industry also contributed to the increase in the EEI, but in a more limited

[25] The EEI is based on question 7 of the industry survey, question 5 of the services and retail trade surveys and question 4 of the construction survey, which gauge the respondent firms' expectations as regards changes in their total employment over the next three months. Before being summarised in one composite indicator, each balance series is weighted on the basis of the respective sector's importance in overall employment. The weights are applied to the four balance series expressed in standardised form. Further information on the compilation of the EEI is available in European Commission (2020). *The Joint Harmonised EU Programme of Business and Consumer Surveys User Guide.*

way. At the same time, the contribution of the construction sector was slightly negative.



Economic uncertainty increases

The European Commission's Economic Uncertainty Indicator (EUI) for Malta reached 28.1 in 2022, up from 21.3 in the previous year, and stood above the euro area average of 25.1.[26] During this period, uncertainty was above that in the euro area among consumers and in the retail sector (see Table 3.9).

Malta's EUI stood at 25.1 in January, but reached 38.3 in October. This was the highest reading recorded so far. The index moderated to 24.4 by the end of the year.[27,28]

During 2022, on balance, uncertainty increased most in industry and among consumers, but was highest among retailers. By contrast, lower uncertainty was recorded in the services and construction sectors. The lowest uncertainty score was recorded among consumers, despite the significant increase.

Table 3.9
ECONOMIC UNCERTAINTY INDICATOR BY SECTOR
Period average; absolute change

	2021 May-Dec.[1]	2022	Change	2022 Mar.	June	Sep.	Dec.
Euro area	**15.7**	**25.1**	**9.5**	**26.8**	**24.8**	**29.3**	**27.5**
Industry	28.1	40.3	12.2	43.3	41.9	46.1	42.3
Services	17.6	21.0	3.5	23.8	17.6	22.9	22.1
Consumers	-15.8	-2.9	12.9	-3.8	-2.4	1.7	2.2
Construction	14.1	24.8	10.7	20.9	25.7	29.7	28.8
Retail	32.6	40.7	8.1	40.6	39.1	43.7	41.6
Malta	**21.3**	**28.1**	**6.8**	**27.8**	**33.0**	**21.3**	**24.4**
Industry	21.0	39.4	18.4	59.1	49.3	33.3	32.0
Services	32.2	20.3	-11.9	-1.3	17.2	1.5	17.2
Consumers	-3.5	13.7	17.2	1.9	19.1	19.7	13.5
Construction	30.1	19.5	-10.7	27.4	37.2	17.1	35.2
Retail	48.8	50.8	1.9	56.4	48.5	54.8	40.4

Source: European Commission.

(1) Data for 2021 are estimated for the period May-Dec. 2021, as data for Malta is only available from May 2021.

[26] The EUI is made up of five balances (in percentage points) which summarise managers'/consumers' answers to a question asking them to indicate how difficult it is to make predictions about their future business/financial situation. The series are not seasonally adjusted. The five balance series are summarised in one composite indicator using the same weights used to construct the ESI. The questions asked correspond to Q51 of the industry survey, Q31 of the services survey, Q41 of the retail trade and construction surveys and Q21 of the consumer survey.

[27] Data on consumer uncertainty in Malta became available in October 2020, while data for industry, services, retail and construction became available in May 2021.

[28] In January 2023, the EUI fell to 14.0, largely reflecting lower uncertainty among retailers, followed by industry, and to a lesser extent, the construction sector.

BOX 3: ECONOMIC PROJECTIONS

Economic outlook

The Bank's latest economic projections were finalised on 7 February 2023 and thus pre-date the latest release of the national accounts on 28 February 2023. According to these projections, Malta's GDP growth is projected to moderate from almost 7% 2022, to 3.7% in 2023, and to ease slightly further to 3.6% and 3.5% in 2024 and 2025, respectively (see Table 1).

Private consumption growth is projected to moderate to 4.9% in 2023, as growth normalises following the strong recovery last year. However, inflation is also expected to have an adverse impact on household income, which in turn impacts consumption. Private consumption is set to moderate further in the following years but should still outpace the Bank's estimate of real disposable income growth. The saving ratio is thus envisaged to retreat from recent peaks over the projection horizon, as some households may seek to smoothen consumption during a period of high inflation.

With regards to investment, this is projected to grow by 1.7% in 2023, fall by 0.3% in 2024, and grow by 2.5% in 2025. The growth in 2023 partly reflects the profile of construction activity, which is expected to pick-up gradually from the decline in 2022. Moreover, government investment is also expected to increase this year. The latter is then set to decline strongly in 2024 (by 14.4%), and by a further 1.1% in 2025. This profile is partly driven by the expected take up of EU funds, notably the full

Table 1
PROJECTIONS FOR THE MAIN MACROECONOMIC AGGREGATES FOR MALTA[1]

	2022[2]	2023	2024	2025
Real economic activity (% change)				
GDP	6.9	3.7	3.6	3.5
Private consumption expenditure	10.1	4.9	4.8	4.1
Government consumption expenditure	2.4	4.3	3.8	3.7
GFCF	30.4	1.7	-0.3	2.5
Exports of goods and services	6.4	2.8	3.2	3.0
Imports of goods and services	9.7	2.9	3.1	3.1
Contribution to real GDP growth (in percentage pts)				
Final domestic demand	10.9	3.3	2.8	3.0
Net exports	-4.0	0.4	0.8	0.5
Changes in inventories	-0.1	0.0	0.0	0.0
Labour market (% change)[2]				
Total employment	6.0	3.3	2.0	2.0
Unemployment rate (% of labour supply)	3.0	3.0	3.2	3.2
Prices and costs (% change)				
Overall HICP	6.1	4.4	2.3	2.2
Public Finances(% of GDP)[3]				
General government balance	-5.2	-4.9	-3.8	-2.9
General government debt	54.8	56.8	57.9	57.9

[1] Data on GDP were sourced from NSO *News Release* 036/2023 published on 28 February 2023, while HICP was sourced from *News Release* 008/2023 published on 18 January 2023. Inflation projections presented here differ from those published by the Bank in February 2023, due to new information available after the cut-off date for that exercise.
[2] Data on the number of employed are consistent with national accounts data. The unemployment rate is based on the number of unemployed and employed as reported in the LFS.
[3] Central Bank of Malta projections.

absorption of funds from the 2014-2020 financing framework by 2023, and the take up of Recovery and Resilience Facility grants in 2023 and 2024. It also reflects a shift from domestically-funded projects to EU-funded investment over this period.

Net exports are expected to decelerate in 2023. In view of the envisaged weakness in the international economic environment, export growth is set to moderate to 2.8% in 2023, and expand at around 3.0% in the following two years. With regard to imports, growth is set to moderate to 2.9% in 2023 due to a lower rise in overall demand, and to pick up marginally to 3.1% over the remainder of the forecast horizon.

The labour market is expected to remain robust, but to slow down from 2023. Employment growth is set to moderate to 3.3% in 2023, which partly reflects the envisaged slowdown in economic activity towards potential growth. Over the rest of the projection horizon, employment is set to expand by 2.0%. The unemployment rate is expected to stand at 3.0% in 2023, and to remain at a relatively low level of 3.2% in 2024 and 2025.

Annual HICP inflation is projected to moderate to 4.4% in 2023, as international supply bottlenecks are expected to ease further. However, lingering indirect effects from recent increases in input costs are set to keep inflation high from a historical perspective. The fall in inflation in 2023 reflects a broad-based decrease across all sub-components of HICP, except for energy inflation, which remained unchanged in 2022 as a result of government support measures. Services is envisaged to be the main contributor to HICP inflation, but NEIG and processed food are also projected to contribute somewhat to annual HICP inflation in 2023. Services inflation is expected to ease from 6.0% in 2022, to 4.0% in 2023, and to 2.9% in 2024 and 2025. This moderation is expected to be primarily driven by weaker spillovers from other subcomponents, such as food, where inflation is also expected to moderate over the projection horizon. Food prices are projected to rise by 5.9% in 2023, down from 9.1% in 2022. Indeed, both processed and unprocessed food inflation are expected to decrease in 2023, although the largest decline is expected to be in unprocessed food inflation, which is projected to fall to 4.4%, from 12.1% in 2022. This reflects the indirect impact of lower import prices for most commodities and falling international freight costs. Food inflation is set to moderate to 2.2% by 2025, in line with expected developments in international commodity prices. NEIG inflation is expected to remain rather persistent and decline only slightly from 5.3% in 2022 to 4.6% in 2023. This reflects the lagged pass-through from high import price pressures to goods inflation. As import prices are expected to ease slightly this year, NEIG inflation is projected to moderate over the rest of the projection horizon, standing at 1.4% in 2025.

Despite the decline in international energy commodity prices, these remain elevated. Nevertheless, domestic energy prices are expected to remain unchanged during the whole projection horizon, in line with the Government’s commitment of keeping energy prices stable. HICP inflation is set to ease steadily in the following years. Thus, overall HICP is set to stand at 2.3% and 2.2% in 2024 and 2025.

The headline budget balance is expected to remain in deficit throughout the forecast horizon but should narrow over time, driven by resilient economic activity and the profile of price mitigation measures. It is set to decline to 4.9% of GDP in 2023 and to continue declining over the rest of the forecast horizon, reaching 2.9% of GDP by 2025. Meanwhile, the general government debt-to-GDP ratio is projected to rise to 56.8% in 2023, but is set to stabilise at just under 58.0% by the end of the projection horizon.

On balance, risks to economic activity are slightly tilted to the downside for 2023, and more balanced thereafter. The main downside risks relate to the possibility of stronger than envisaged weakness in the international economic environment, which could lead to lower exports. Foreign demand may also be weaker than expected, especially if monetary policy in advanced economies tightens by more than assumed in this projection exercise. Some of these downside risks could be mitigated in the short term by stronger than expected wage growth, which could offer additional support to household consumption.

Risks to inflation are considered as balanced for the entire projection horizon. Indeed, while upward price pressures to salaries in Malta, and an incomplete lagged pass-through of past increases in energy costs in the euro area could increase commodity prices further, the re-opening of China could be seen as a partial reversal of the supply shock. Also, a stronger pass-through of the recent appreciation of the euro, monetary tightening as well as lower international energy and transport costs could result in lower inflationary pressures.

On the fiscal side, risks are on the downside (deficit-increasing) from 2023 onwards. These mainly reflect the likelihood of additional State Aid to the national airline, though possible weaker economic growth in 2023 would also have an impact. These risks may be partly offset by the profile of outlays on price mitigation measures, which could be less than projected should oil and gas prices stabilise at lower levels.

4. PRICES, COSTS AND COMPETITIVENESS

Annual inflation, based on the HICP, rose strongly to 6.1% in 2022, from 0.7% in 2021. The rise in inflation comes at a time of high international price pressures, which were amplified by new supply and trade disruptions following the start of the Russia-Ukraine conflict. Indeed, HICP inflation rose from 4.1% in January 2022 to 7.3% by the end of the year. While at a record high since such data began being collected in 1996, HICP inflation remained below that in the euro area, mainly due to government measures which kept energy prices in Malta unchanged despite higher international prices for energy commodities.

Similarly, the annual rate of inflation based on the RPI, rose in 2022, reaching 6.2%, from 1.5% a year earlier.

Furthermore, the annual average rate of change in the producer price index rose to 5.6% in 2022, from 3.2% in the previous year. Malta's real Harmonised Competitiveness Indicators (HCIs) point to an improvement in international price competitiveness, on account of both favourable price and exchange rate movements vis-à-vis Malta's main trading partners. Malta's unit labour cost (ULC) index (per person) rose by 1.9% in 2022, following a decline of 3.7% in 2021.

Inflation

Average rate of HICP inflation increases strongly in 2022

The average rate of consumer price inflation, as measured by the HICP, stood at 6.1% during 2022 (see Table 4.1).[1] This was well above the rate of 0.7% registered in the previous year, and the highest reading since HICP data for Malta started being compiled.

The rise in inflation occurred in an environment of elevated international price pressures, amid lingering supply bottlenecks and renewed trade disruptions following the outbreak of the war in Ukraine. Indeed, inflation has continued on its upward path evident since May 2021 (see Chart 4.1). HICP inflation rose from 4.1% in January, to a peak of 7.4% in September and October 2022, before falling marginally to 7.2% in November and 7.3% in December.

Table 4.1
HICP INFLATION RATES
Average annual rate of change

	2017	2018	2019	2020	2021	2022
Unprocessed food	0.9	1.1	3.5	2.9	5.5	12.1
Processed food including alcohol and tobacco	2.2	2.2	2.3	1.8	0.8	8.2
Energy	1.1	1.3	2.5	-0.6	-1.6	0.0
NEIG	0.3	0.3	0.0	-0.4	1.5	5.3
Services (overall index excluding goods)	1.3	2.2	1.8	1.0	0.7	6.0
HICP (annual average inflation rate)	**1.3**	**1.7**	**1.5**	**0.8**	**0.7**	**6.1**

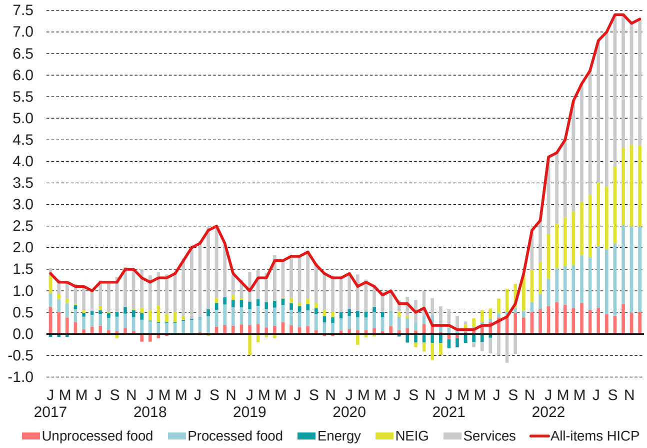
Source: Eurostat.

[1] The HICP weights are revised on an annual basis to reflect changes in overall consumption patterns. In 2022, the weight allocated to services stood at 43.3%, while that of NEIG was 28.3%. Food accounted for 21.8% of the index, while the share allocated to energy stood at 6.7%.

The rise in inflation over the course of 2022 was broad based across non-energy components. By contrast, energy prices remained unchanged, as a result of Government measures aimed at containing the effects from international price pressures.

Both processed and unprocessed food inflation increased strongly in 2022. Indeed, processed food inflation reached 8.2%, from 0.8% in 2021, while unprocessed food prices grew at an average annual rate of 12.1% in 2022, from 5.5% in the previous year. Similarly, prices of services grew at an annual rate of 6.0% in 2022, up from 0.7% in 2021, while NEIG inflation reached 5.3%. Following these developments, HICP excluding food and energy stood at 5.8%, up from 0.7% in 2021.

Chart 4.1
CONTRIBUTIONS TO YEAR-ON-YEAR HICP INFLATION
(percentage points; annual percentage change)



Source: Eurostat.

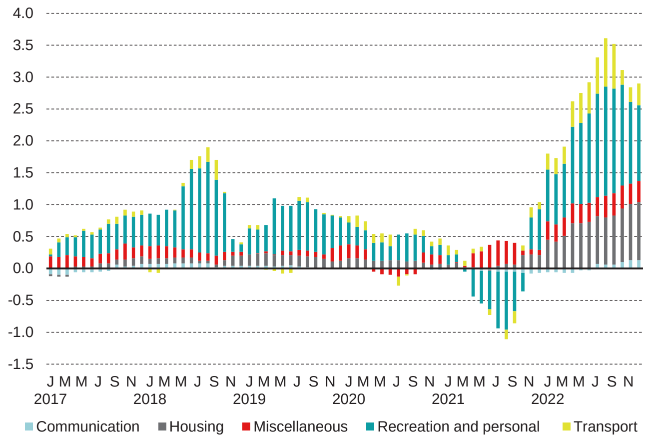
Services inflation was the main contributor to overall HICP during 2022, contributing an average of 2.7 percentage points to overall HICP inflation, up from 0.0 percentage point in 2021. The increase in services inflation during 2022 was mainly driven by recreation and personal care services, where the average contribution to overall HICP inflation reached 1.28 percentage points, from -0.24 percentage point in 2021 (see Chart 4.2).

Movements in the prices of other services categories generally also contributed to the rise in services inflation, although to a lesser extent than recreation and personal care services. In particular, prices related to housing and transport services grew at a significantly faster rate, and contributed an average of 0.7 and 0.4 percentage point respectively to HICP inflation. Similarly, charges for the repair of transport equipment – included in miscellaneous services – as well as communication services increased at a faster rate during 2022.

Food inflation contributed 1.9 percentage points to overall HICP inflation in 2022, up from 0.4 percentage point a year earlier. Indeed, food inflation reached 9.1% from 1.9% in 2021, reflecting increases in both processed and unprocessed food inflation.

Unprocessed food inflation reached 12.1%, contributing 0.6 percentage point to overall HICP inflation. This mainly reflected a significantly faster rate of increase in meat prices (see Chart 4.3). These rose by 12.1% on average during 2022, contributing 0.4 percentage point to overall HICP inflation, up from 0.0 percentage point in the previous

Chart 4.2
CONTRIBUTIONS OF SERVICES TO HICP INFLATION
(percentage points)

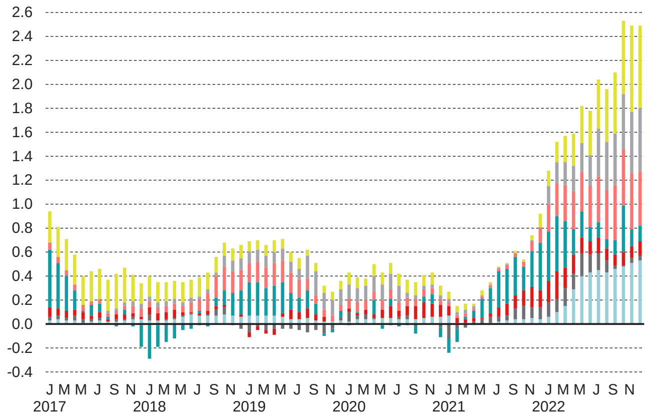


Source: Eurostat.

year. The contribution from fish, fruit and vegetables also increased.

Processed food inflation also increased strongly on average, reaching 8.2% in 2022. Stronger dynamics were observed in all subcomponents. However, the most significant change was recorded in the oils and fats subcomponent, where inflation reached 16.4% during 2022, up from -2.0% in the previous year. Furthermore, whereas prices of processed meat, bread and dairy had grown by less than 1.5% on average in 2021, during 2022, the prices of these components recorded double digit growth.

Chart 4.3
CONTRIBUTIONS FROM FOOD TO HICP INFLATION
(percentage points)



Source: SDW.

Food inflation was affected by higher imported inflation as the prices of fertiliser, animal feed and plastic materials used in agriculture increased strongly during the year. Also, the conflict between Russia and Ukraine created new supply bottlenecks especially with regards to wheat and sunflower oil. The effects of the war on food prices eased somewhat from July 2022 onwards, when an agreement brokered by Turkey and the United Nations was reached for the safe transportation of grains and other foodstuffs through Ukrainian ports.

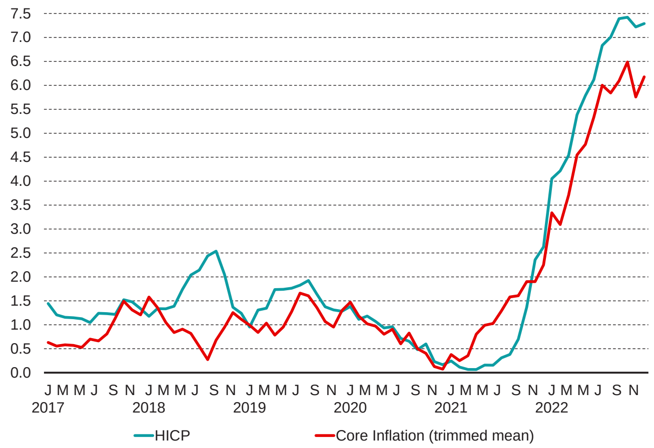
NEIG inflation also rose strongly in 2022, when compared to a year earlier. It contributed 1.5 percentage points to overall HICP inflation, from 0.4 percentage point a year earlier. NEIG inflation in 2022 reflected growth in all subcomponents, with the highest price increases registered in non-durable goods, where inflation reached 6.2%. The latter in turn reflects developments in most subcomponents, although the largest increases in prices were registered in those of materials for the maintenance and repair of dwellings, as well as pet products. Furthermore, stronger inflation in NEIG reflected higher import prices, largely driven by cost pressures.

Energy inflation was 0.0% in 2022, as electricity, gas and transport fuel prices were kept unchanged from their level a year earlier, through government support measures shielding the economy from rising international energy prices.

Core HICP inflation accelerates

The core measure of HICP inflation, which is based on the Bank's 'trimmed mean' approach, accelerated to 5.1% during 2022, from 1.2% in 2021 (see Chart 4.4).[2] By December, core inflation reached 6.2%. Nevertheless, core inflation stood below overall inflation throughout

Chart 4.4
HICP IN MALTA: OVERALL AND CORE MEASURE
(annual percentage changes)

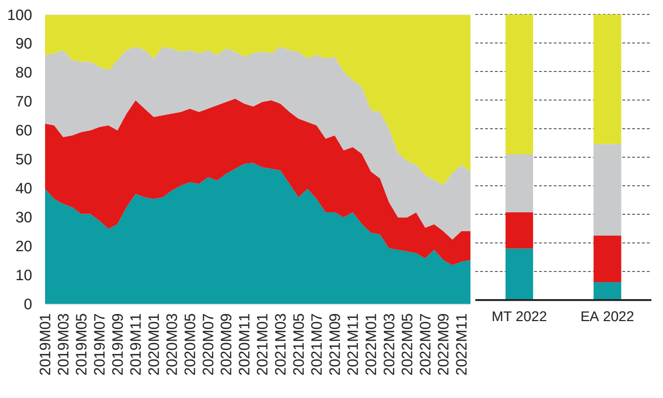


Sources: Eurostat; Central Bank of Malta estimates.

[2] The Central Bank of Malta uses a 'trimmed mean' approach to measure core inflation, whereby the more volatile components of the index are removed from the basket of consumer goods so as to exclude extreme movements from the headline inflation rate. See Gatt, W. (2014), "An Evaluation of Core Inflation Measures for Malta", *Quarterly Review* 2014(3), pp. 39-45, Central Bank of Malta.

the year under review. The sharp rise in core inflation indicates that upward price pressures have been broad-based and not limited to items with annual rates of change in the tails of the distribution.

Chart 4.5
PROPORTION OF HICP BASKET BY INFLATION PACE
(percentage points)



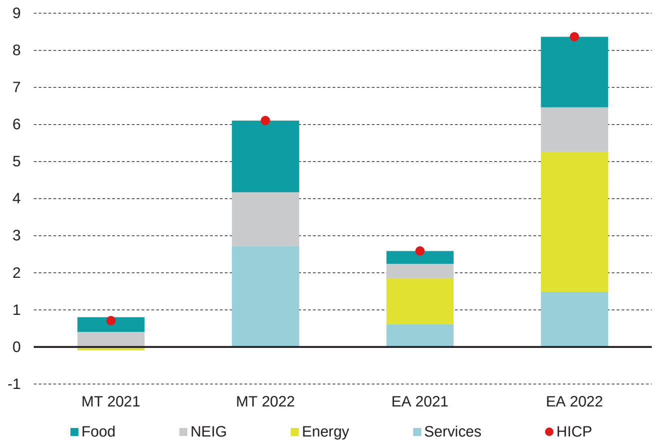
Source: Central Bank of Malta calculations.

Chart 4.5 shows a distribution of price changes whereby subcomponents of HICP are categorised into four classes of inflation rates: i) annual rates below or equal to 0%; ii) between 0 and 2%; iii) between 2% and 5% and iv) over 5%.[3] This disaggregation indicates whether the recent surge in inflation is broad-based across HICP items or if it is driven only by selected components of the consumption basket.

In recent months, the share of subcomponents registering inflation rates in the lowest two inflation bands has declined in both Malta and the euro area. As a result, there has been a substantial rise in the share of subcomponents with year-on-year price increases of more than 5%. Indeed in 2022, the share of items with inflation rates of more than 5% stood at 49.0% and 45.4% in Malta and the euro area respectively, up from 15.6% and 8.5% in 2021. Similarly, the share of items with inflation rates between 2% and 5% in the euro area has increased from 26.3% to 32.0%. On the other hand, the share of this interval for Malta decreased from 22.7% to 20.3% in 2022.

Furthermore, Malta's inflation rate was below that of the euro area, in part due to certain subcomponents that are of an administrative nature, i.e., where prices are determined or partially determined by government. This is reflected in the share of items with stable or falling prices, shown by the teal shaded area of Chart 4.5. The share of such items in Malta exceeds that of the euro area. Indeed, this stood at 18.0% for Malta, while it was 6.3% in the euro area. Apart from energy, the items falling in this interval include post-secondary and tertiary education as well as passenger transport by bus.

Chart 4.6
HICP AND MAIN CONTRIBUTIONS
(annual percentage changes; contributions)



Sources: Eurostat; Central Bank of Malta calculations.

Comparison with the euro area

HICP in Malta stood below the 8.4% rate registered in the euro area, though nevertheless still significantly higher than the ECB's price stability objective of 2% (see Chart 4.6). The divergence

[3] The calculation of the shares in this chart do not take into account the weights of individual HICP sub-components. This analysis includes 170 sub-indices of the HICP for Malta and 288 sub-indices for the euro area. On average since 1997, 27.6% of items in Malta's basket fell in the 0% or negative inflation rates interval, while this figure stood at 20.4% for the euro area. Around 67.2% of the euro area basket fell in the 0-2% and 2-5% intervals – in almost equal parts. These shares stand at 26.1% and 27.5%, respectively in Malta. While 18.8% of the Maltese basket fell in the over 5% interval, only 12.4% of the euro area basket falls in this interval.

between HICP inflation in Malta and the euro area mainly stems from the energy sub-component. Indeed, while energy prices did not contribute directly to the Maltese overall HICP inflation, it contributed an average of 3.8 percentage points to overall HICP inflation in the euro area. This reflected the fact that electricity, gas and transport fuel prices in Malta were kept unchanged from their level a year earlier, through government support measures.

On the other hand, prices of services and, to a lesser extent NEIG inflation, had a higher impact on the inflation rate in Malta than on that in the euro area. While services inflation contributed 2.7 percentage points to HICP inflation in Malta, it contributed 1.5 percentage points to euro area inflation. NEIG inflation in Malta accounted for 1.5 percentage points of overall inflation, while it in the euro area it contributed 1.2 percentage points. The contribution from food inflation stood at 1.9 percentage points in both Malta and the euro area.

RPI inflation increases

Similar to HICP inflation, annual inflation based on the RPI increased strongly during 2022. The latter averaged 6.2%, up from 1.5% a year earlier. All subcomponents contributed to the increase in RPI inflation, except for clothing and footwear as well as energy, where the contributions were broadly unchanged when compared to 2021.

Food inflation remained the main contributor to overall RPI inflation in 2022, with the contribution standing at 2.2 percentage points, up from 0.5 percentage point in 2021 (see Table 4.2). Indeed, food prices increased at a high rate of 10.5% on average during 2022.

This is followed by housing services, which contributed 1.2 percentage points to overall RPI inflation during 2022, as prices rose by 14.7% during the year under review. The contribution of transport and communication also increased strongly during 2022, reaching 0.7 percentage point, up from 0.0 percentage point in 2021.

Developments in the overall HICP and RPI inflation rates could differ due to differences in the composition of the consumption basket, and the frequency of basket weight updates.[4] Nevertheless, the gap between these two inflation measures which was registered in 2021 due to the COVID-related adjustment in HICP weights that year narrowed in 2022. Although HICP weights were still diverged from pre-pandemic levels, the

Table 4.2
CONTRIBUTIONS TO RPI INFLATION(1)
Percentage points (annual averages)

	2017	2018	2019	2020	2021	2022
Food	0.7	0.6	0.8	0.4	0.5	2.2
Beverages and tobacco	0.2	0.1	0.1	0.1	0.0	0.2
Clothing and footwear	-0.2	-0.2	0.0	0.0	0.1	0.1
Housing	0.0	0.1	0.2	0.2	0.1	1.2
Water, electricity, gas and fuels	0.0	0.0	0.0	0.0	0.0	0.0
Household equipment and maintenance	0.2	0.1	0.0	-0.1	0.1	0.4
Transport and communications	0.1	0.2	0.3	-0.1	0.0	0.7
Personal care and health	0.1	0.1	0.1	0.2	0.1	0.3
Recreation and culture	0.2	0.0	0.2	-0.1	0.3	0.4
Other goods and services	0.0	0.0	0.1	0.1	0.1	0.4
RPI (annual average inflation rate)	**1.4**	**1.2**	**1.6**	**0.6**	**1.5**	**6.2**

Source: NSO.
(1) Totals may not add up due to rounding.

4 The RPI index differs from the HICP index in that RPI weights are based on expenditure by Maltese households, while HICP weights also reflect expenditure patterns by tourists in Malta, such as accommodation services. See Darmanin, J. (2018), "Household Expenditure in Malta and the RPI Inflation Basket", *Quarterly Review* 2018(3), pp. 33-40, Central Bank of Malta.

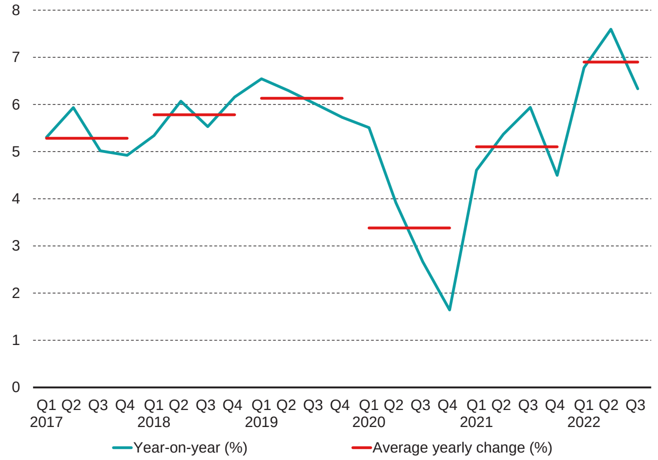
acceleration in prices was significant and broad-based affecting both indices in a similar way. As a result, in 2022, both the RPI and the HICP showed a similar trajectory, as well as a similar inflation rate.

Residential property prices

Residential property prices grow at a faster pace

Residential property prices continued to increase during the first three quarters of 2022. The NSO's Property Price Index (PPI) – which is based on actual transactions involving apartments, maisonettes and terraced houses – increased at an average annual rate of 6.9% during the first three quarters of the year, following a 5.1% increase recorded in 2021 as a whole (see Chart 4.7).[5] House price inflation in Malta was lower than that in the euro area, where it averaged 8.6% in the first nine months of 2022. Residential property prices continued to be supported by several factors, including the low interest rate environment and limited pass through of recent ECB rate hikes to retail lending rates, as well as various government schemes supporting the property market.

Chart 4.7
MOVEMENTS IN NSO RESIDENTIAL PPI

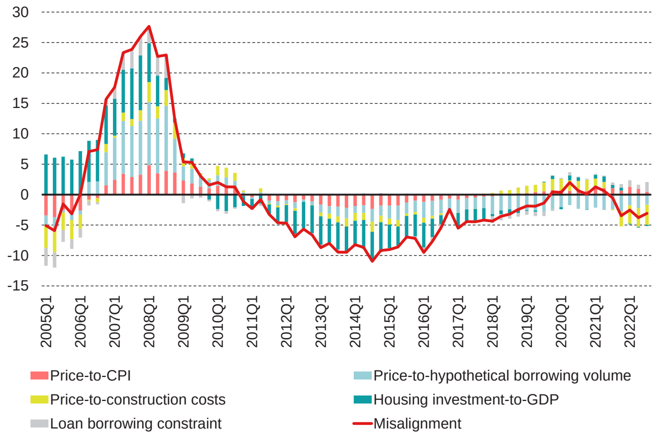


Source: Eurostat.

Misalignment index suggests house prices were below the fundamentals in 2022

As part of its ongoing macroeconomic analysis, the Bank calculates a house price misalignment index to provide an indication of the evolution of house prices against fundamentals.[6,7] This indicator consists of five sub-indices that capture household, investor, and system-wide factors, with the weights being derived using principal component analysis.

Chart 4.8
HOUSE PRICE MISALIGNMENT INDEX
(percentage points; based on transaction prices)



Source: Central Bank of Malta estimates.

House prices, as measured by the NSO's PPI, were below the level consistent with fundamentals in the first three quarters of 2022 (see Chart 4.8).[8] The undervaluation throughout 2022 was driven mainly

[5] 'Apartments are defined as dwellings with self-contained rooms or a suite of rooms that have a separate entrance accessible from a common passageway, landing or stairway. This category includes penthouses. 'Maisonettes' have a separate entrance that is accessible from the street and are either at ground-floor level with overlying habitation, or at first-floor level with underlying habitation. 'Terraced houses are dwellings with at least two floors, own access at street level and airspace and with no underlying structures that are not part of the house itself. They are attached to other structures on both sides. Further information is available in *NSO News Release* 117/2022.

[6] See Micallef, B. (2018), "Constructing an index to examine house price misalignment with fundamentals in Malta", *International Journal of Housing Markets and Analysis*, 11(2), pp. 315-334.

[7] The actual numerical results presented in this section should not be overstated given the limitations in the construction of this index. For example, relevant variables such as foreign capital inflows are not included and the unavailability of an official rental index precludes the use of the price-to-rent ratio in the index.

[8] A separate assessment based on advertised house prices can be found in Gatt, W., Micallef, B. and Rapa, N. (2018), "A macro-econometric model of the housing market in Malta", *Annual Research Bulletin*, Central Bank of Malta, pp. 11-18.

by the house price-to-construction ratio. Although house prices have increased markedly, construction costs have risen at a faster rate, pushing down this ratio. This was followed by the house price-to-hypothetical borrowing ratio, which is an indicator of affordability. Both indicators stood below their long-term averages. The housing investment-to-GDP ratio also contributed to the undervaluation, but marginally. Conversely, the loan borrowing constraint and the house price-to-inflation partly contributed positively to the misalignment index, as these indicators stood above their long-term average.

Final deeds for residential property decline marginally[9]

NSO data on residential property transactions show that 14,331 final deeds of sale were concluded in 2022, around 0.3% less than a year earlier. This follows a rise of 27.6% in 2021 (see Table 4.3). Despite the marginal decline in the volume of residential property transactions, the number of final deeds of sale in 2022 stood significantly above that recorded in 2019. Over 90% of these transactions involved purchases by individuals.

Moreover, at 12,177, the number of promise-of-sale agreements was 22.1% less than the amount registered in 2021. This followed a rise of 41.4% in 2021. This may reflect the extension of the time window during which promise of sale agreements had to be deposited with the Commissioner for Inland Revenue to be eligible for a reduction on stamp duty on the first €400,000 of a property transaction. Initially, a deadline of 30 April 2021 was announced, but in the course of 2021 this deadline was extended to 31 December 2021. This development was an important factor behind the drop in promise of sale agreements in 2022.

The value of final deeds reached €3,261.90 million, an increase of €100.0 million, or 3.2%, compared to the previous year.

Mortgage transactions declined slightly[10]

The number of mortgage contracts declined by 0.9% in 2022 (see Chart 4.9). This follows a significant increase in the number of mortgage contracts in 2021. Most

Chart 4.9
MORTGAGE CONTRACTS
(annual percentage change; contribution)

Source: Central Bank of Malta.

Table 4.3
NSO RESIDENTIAL PROPERTY TRANSACTIONS

	2019	2020	2021	2022	Annual change Abs.	%
Residential transactions						
Promise of sale	11,614	11,057	15,639	12,177	-3,462.0	-22.1
Final deeds of sale	14,019	11,259	14,368	14,331	-37.0	-0.3
Transaction value (millions)	2,705.4	2,126.6	3,161.9	3,261.9	100.0	3.2

Source: National Statistics Office.

[9] This section is based on NSO *News Release* 006/2023. The data presented cover the following property types: airspace, boathouse, bungalow, farmhouse, flat/apartment, garage, garden, house, maisonette, penthouse, plot of land, semi-detached villa, terraced house, 'terran', urban tenement and villa.

[10] The data used in the section are collected by the Central Bank of Malta from four commercial banks and relate only to properties which have been purchased with a mortgage. These data exclude properties that have either been transacted using other means of financing, as well as mortgages that have been refinanced. The property types included are: flats, penthouses, maisonettes, terraced houses, town houses, house of character, farmhouses, bungalow, and villa. Other property types included in the previous section, such as garage, plot of land, etc. are excluded.

dwelling types contributed to this decrease, being partly offset by a higher number of mortgage contracts in the 'other' category.

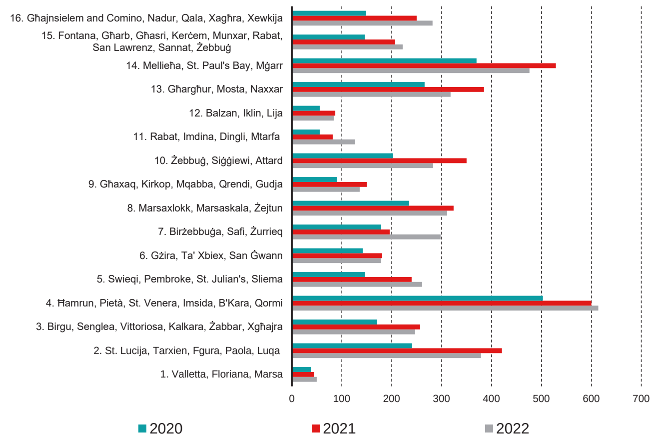
In 2022, the highest number of mortgage transactions related to properties were located in region 4, followed by region 14. On the other hand, the lowest number of mortgage transactions involved properties located in region 1. While in 2021 mortgage transactions increased across all regions, developments were more mixed in 2022, with decreases recorded in slightly more than half of the regions (see Chart 4.10). The largest decrease in absolute terms occurred in regions 10 and 13. On the hand, in absolute terms, the largest increase in contracts was observed in region 7.

Region 5 has been the most expensive in terms of median prices in recent years. However, during the year under review, the median prices for region 12 were higher than region 5 (see Chart 4.11). In 2022, almost all regions have approached the median prices transacted in region 5, which indicates that the price dispersion across Malta has declined.

Advertised rents exceed pre-pandemic levels

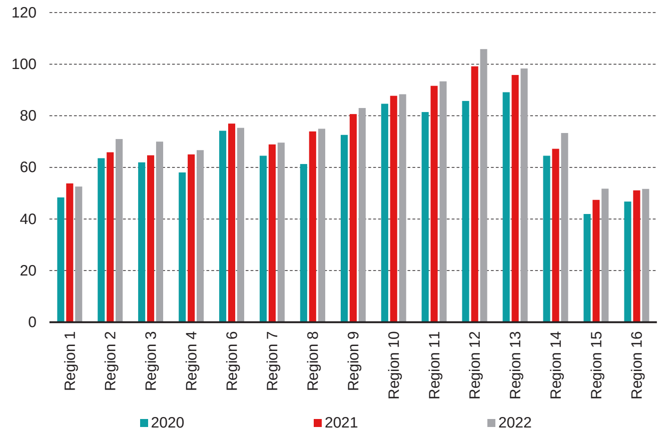
The annual rate of change in advertised rents collected from internet sources continued to increase in 2022, despite a temporary slowdown in the third quarter of the year, and exceeded pre-pandemic rate of growth.[11] The average range of estimates from various methods indicate that rents have increased at annual rates of between 12.2% and 14.0% in the year under review (see Chart 4.12).

Chart 4.10
MORTGAGE TRANSACTIONS BY REGION
(number of transactions – level terms)



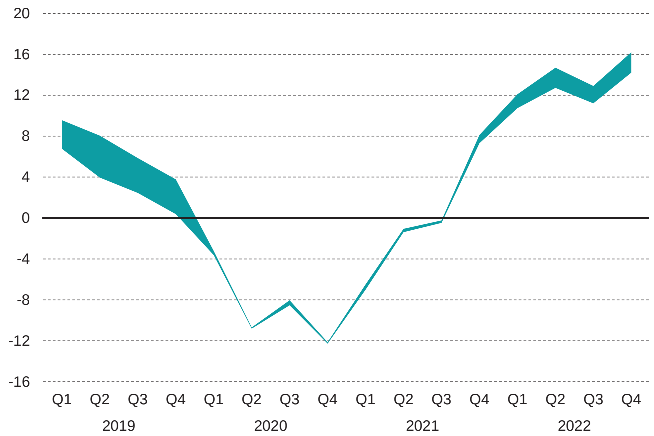
Source: Central Bank of Malta.

Chart 4.11
MEDIAN PRICES – REGIONAL DISPERSION
(percentage of Region 5 in respective year)



Source: Central Bank of Malta.

Chart 4.12
ADVERTISED RENTAL PRICES
(annual percentage change)



Source: Central Bank of Malta.

[11] The empirical analysis is based on hedonic regression models as described in Debono et al., (2020) and different indices are constructed using alternative methodologies, namely the time dummy method, the rolling time dummy method with a window length of two periods (Q=2) and the average characteristics method chained using the Laspeyres, Paasche and Fisher methods. The properties considered in this analysis include apartments, maisonettes, and penthouses.

By the end of 2022, the level of rents was approximately 9% higher than its level at the end of 2019, before the pandemic.

Costs and competitiveness

Producer price inflation picks up further

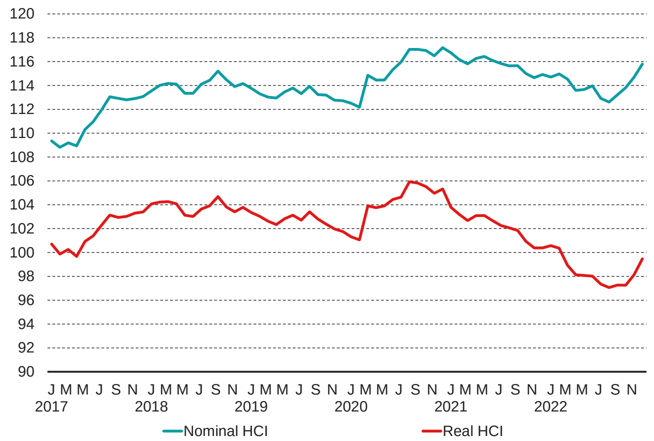
Growth in producers' output prices, as measured by the producer price index, increased to 5.6% during 2022, from 3.2% a year earlier.[12] All components had a positive contribution, except energy, where inflation remained at zero. Indeed, intermediate and consumer goods had the highest contribution to producer price index growth, standing at 2.5 and 2.3 percentage points, respectively. Furthermore, the rise in producer price inflation mostly reflects a higher contribution from consumer goods, where the contribution reached 2.3 percentage points, from 0.9 percentage point in 2021. The contribution from both intermediate and capital goods inflation also increased in 2022, although to a lesser extent.

Real HCI points to an improvement in external competitiveness

In 2022, the nominal HCI, which is conditioned by developments in trade-weighted nominal exchange rates, was down by 1.5%, compared with its average reading for 2021 (see Chart 4.13).[13] The nominal HCI was on a downward path during most of the year, as the euro weakened against currencies of Malta's main trading partners. However, the nominal HCI began to increase in the fourth quarter, as the euro appreciated in effective terms.

The real HCI, which also takes into account changes in price inflation relative to trading partners, was down by 3.7% over its 2021 average level, pointing to an improvement in Malta's international competitiveness. This partly reflects the fact that unlike in other trading partners, energy prices in Malta were cushioned from the recent increase in international oil and gas prices. Although the index was affected by the appreciation of the euro in the last months of the year, it remained below its level in January 2022, as domestic inflation remained below that in trading partners.

Chart 4.13
HARMONISED COMPETITIVENESS INDICATORS
(May 2004 = 100)



Source: ECB.

ULCs increased, exceeding further 2019 levels[14]

Malta's ULC index, measured as the ratio of compensation per employee (CPE) to labour productivity, increased in 2022, compared to 2021.[15] When

[12] The producer price index measures the prices of goods at the factory gate and is commonly used to monitor inflationary pressures at the production stage.

[13] HCIs act as an effective exchange rate (EER) measure for countries operating within the euro area monetary union. The nominal HCI tracks movements in the euro exchange rate against the currencies of Malta's main trading partners, weighted according to the direction of trade in manufactured goods. The real HCI also takes into account the relative inflation rate of Malta vis-à-vis its main trading partners. A higher (or lower) score in the HCI indicates a deterioration (or improvement) in Malta's international price competitiveness.

[14] This section shows productivity and compensation averaged over the number of persons in employment and on the basis of hours worked. Conceptually measures based on hours worked provide a more reliable assessment of developments in productivity, compensation and ULCs. They also better reflect the impact of the pandemic in view of the sharp correction in hours worked.

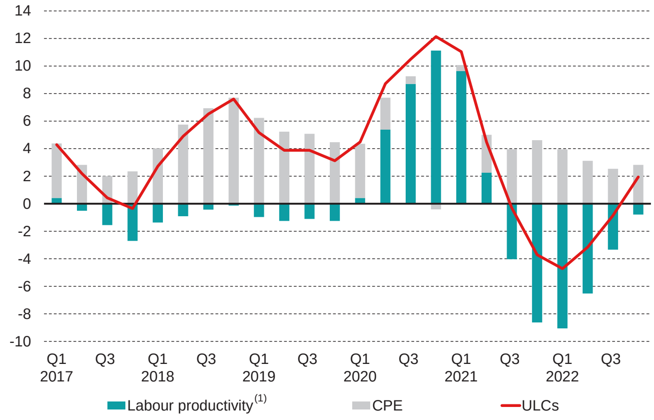
[15] Annual growth in ULCs, CPE, and labour productivity is measured on a four-quarter moving average basis. A degree of caution is required in the interpretation of ULCs in view of contemporaneous structural shifts in the composition and factor intensity of production, notably the shift to labour-intensive services. See Micallef, B. (2015), "Unit labour costs, wages and productivity in Malta: a sectoral and cross-country analysis", *Policy Note* August 2015, Central Bank of Malta, available at https://www.centralbankmalta.org/en/policy-notes-2015, and Rapa, N. (2016), "Measuring international competitiveness", *Quarterly Review* 2016(1), pp. 53-63, Central Bank of Malta.

measured in headcount terms, ULCs in Malta rose by 1.9% in 2022, following a decline of 3.7% in the previous year (see Chart 4.14).

The rise in ULCs during 2022 occurred as CPE increased at a stronger rate than productivity. Furthermore, when compared to 2021, the moderation in labour productivity was stronger than that in CPE.

Annual growth in CPE eased to 2.8%, from 4.6% in 2021, as the number of employees increased at a faster pace compared to total compensation.

Chart 4.14
DECOMPOSITION OF ULCs (PER PERSON) IN MALTA
(annual percentage change; four-quarter moving average)



Sources: NSO; Central Bank of Malta estimates.
(1) A rise (drop) in productivity contributes negatively (positively) to ULC growth.

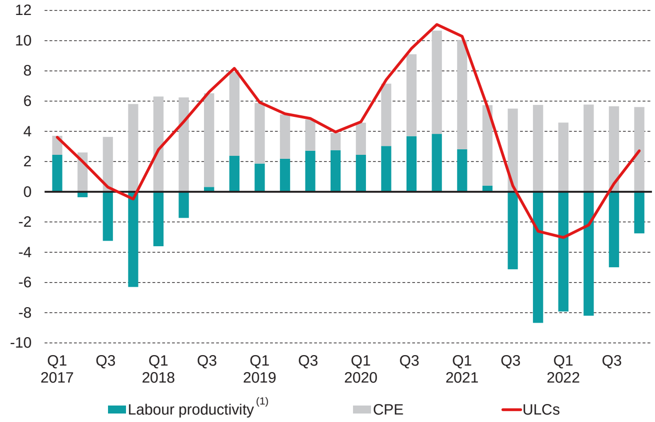
Meanwhile, labour productivity rose by 0.8% in 2022, following a rise of 8.6% in the previous year, when activity was starting to rebound from the pandemic shock. While both GDP and employment grew in level terms, the two show contrasting dynamics. GDP growth decelerated, while employment growth picked up during the year under review, resulting in weaker productivity growth.

Following developments in 2022, ULCs rose further above their level in 2019, standing around 10 per cent higher than the pre-pandemic level.

National accounts data show that total hours worked rose by 3.6% in 2022, up from 1.9% a year earlier.[16] The wage bill increased strongly by 9.4%, up from 7.8% in 2021. As the acceleration in hours worked was slightly stronger than that in the wage bill, compensation per hour increased by 5.6% in 2022, marginally down from the rate of 5.7% recorded in 2021. Meanwhile, productivity per hour increased by 2.8%, after rising by 8.7% in 2021. As a result, ULCs per hour increased by 2.7% in 2022, following a 2.6% decrease in the previous year (see Chart 4.15).

Similar to ULCs in headcount terms, ULCs per hour stood above their pre-pandemic level. In per hour terms, ULC exceeded their 2019 level by around 11%.

Chart 4.15
DECOMPOSITION OF ULCs (PER HOUR) IN MALTA
(annual percentage change; four-quarter moving average)



(1) A rise (drop) in productivity contributes negatively (positively) to ULC growth.
Sources: NSO; Central Bank of Malta estimates.

16 Hours worked refer to employee hours.

BOX 4: SECTORAL CONTRIBUTIONS TO AGGREGATE LABOUR PRODUCTIVITY AND ULC GROWTH[1]

This box looks at sectoral contributions to total labour productivity and real ULC growth during 2022, using national accounts data. To ensure the additivity of sectoral contributions, the analysis utilises the generalised exactly additive decomposition (GEAD) of productivity growth, first developed by Tang and Wang (2004).[2] This method was also applied in a separate analysis of labour productivity growth in Malta over the past two decades.[3]

In the GEAD approach, aggregate labour productivity can be decomposed into three effects. The first is the *pure productivity effect,* which is the sector's contribution to aggregate productivity growth that is solely due to changes in its labour productivity, weighted by its share in nominal aggregate output.

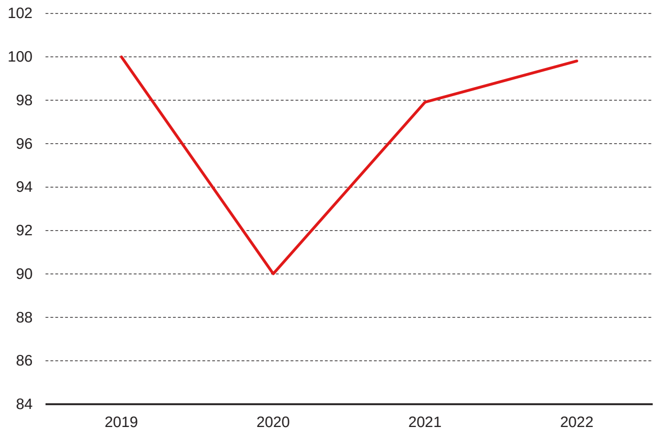
There is also a *reallocation effect,* which measures a sector's contribution to aggregate productivity growth due to changes in its relative size. This reallocation effect is split into a static (level) effect and a dynamic (growth) effect. The *static reallocation level effect* measures the impact of absolute changes in labour shares and/or relative prices, scaled by the ratio of the respective sector's labour productivity level to the economy-wide productivity level. The *dynamic reallocation growth effect* takes into account whether these changes are occurring within a growing or a declining productivity industry.

Sectoral contributions to aggregate labour productivity growth

Economic activity continued to grow robustly in 2022, though at a much slower rate than in 2021. Growth in economic activity partly reflected the continued recovery from the contraction experienced in 2020, as all pandemic-related stringency measures were lifted in 2022. Labour productivity increased as output growth in some sectors was faster than that in employment. Indeed, chain-linked GVA rose by 8.1% in 2022, and according to national accounts data, employment rose by 6.0% in 2022. As a result, labour productivity – measured as chain-linked GVA per person employed – rose by 1.9% in 2022 following an increase of 8.8% in 2021.[4]

In 2022, labour productivity for the whole economy has broadly reached that in 2019 (see Chart 1). Both output and employment stood around 12% above the level prevailing in 2019.

Chart 1
PRODUCTIVITY LEVELS
(2019=100)



Source: NSO.

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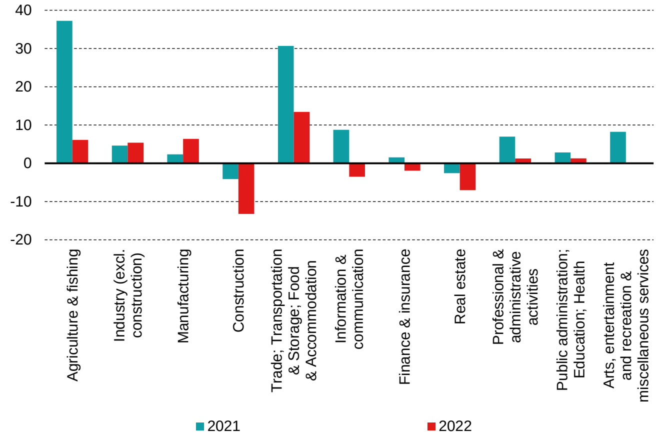
[1] Prepared by Martina Cassar, Economist within the Economic Projections and Conjunctural Analysis Office.
[2] Tang, J., & Wang, W. (2004), "Sources of aggregate labour productivity growth in Canada and the United States", *Canadian Journal of Economics*, 37(2), 421-444.
[3] Montebello R., & Darmanin J. (2021), *"Labour Productivity Growth in Malta: a sectoral decomposition analysis"*, WP/04/2021, Central Bank of Malta.
[4] This analysis is based on GVA per person employed rather than GDP per person employed, as sectoral data are only available for GVA. Aggregate productivity and ULCs may thus deviate from those reported in the chapter of this Report on costs and competitiveness where aggregate productivity and ULCs are derived using GDP.

Developments in sectoral productivity were mixed in 2022. Sectors comprising construction, information and communication, finance and insurance, as well as real estate registered lower productivity (see Chart 2). With regards to the construction sector, the loss in productivity mainly reflected a drop in its GVA, even though employment levels also rose. On the other hand, the drop in productivity in the other three sectors mirrored higher growth in employment than in GVA. The relatively low growth in output in these sectors, compared with employment, is indicative of a very tight labour market, partly due to the lack of high skilled workers. Meanwhile, the arts and entertainment sector registered no growth in productivity, as the growth in its output matched that in employment.

Chart 2
SECTORAL PRODUCTIVITY GROWTH
(percentages)



Sources: NSO; Central Bank of Malta estimates.

Conversely, productivity rose in the remaining sectors. The strongest gain is estimated for the sector comprising trade, transportation, accommodation and food services. Indeed, GVA in this sector continued to grow very strongly in 2022 (22.8%), partly due to the complete removal of pandemic-related restrictions. Meanwhile, employment growth was also very robust in this sector (8.3%), but was lower than that in output. Hence, productivity growth was robust, albeit markedly lower than that in 2021, when output in the preceding year was at very low levels due to the pandemic.

The next largest productivity growth rate in 2022 was recorded for industry (excluding construction). This reflects the fact that whilst growth in this sector's activity was dynamic, employment levels rose only marginally.

Productivity growth in the other remaining sectors slowed down when compared to 2021. This reflects relatively dynamic growth in both output and employment in these sectors, which also suggests a degree of labour market tightness.

Table 1 shows the sectoral contributions to aggregate labour productivity growth derived using the GEAD decomposition. With the exception of the manufacturing sector, all sectors have contributed to the marked moderation in productivity growth between 2021 and 2022.

In line with its rise in productivity, the sector comprising trade, transportation, accommodation and food services had the largest positive contribution to aggregate productivity growth in 2022, contributing 2.8 percentage points. This was, however, lower than the 3.8 percentage points contribution in 2021, due to base effects as a result of the effects of the pandemic. The professional and administrative sector had the second largest contribution to aggregate labour productivity growth in 2022. Industry and manufacturing also had a positive impact, though a more modest one.

On the other hand, public administration and defence had the most negative contribution to aggregate labour productivity growth. In addition, the sectors comprising construction, arts and entertainment,

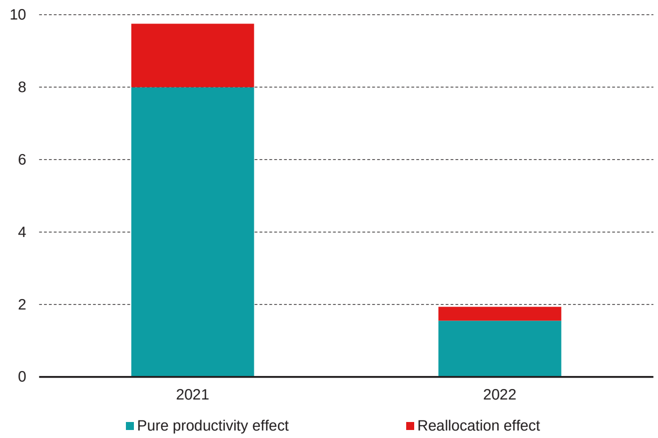
Table 1
SECTORAL CONTRIBUTIONS TO AGGREGATE LABOUR PRODUCTIVITY GROWTH
Percentage points; chainlinked

	2016	2017	2018	2019	2020	2021	2022
Agriculture, forestry & fishing	0.0	-0.3	0.0	-0.2	0.2	0.2	0.1
Industry (excl. construction)	0.0	-0.7	0.0	-0.1	-0.5	0.3	0.2
of which: Manufacturing	-0.4	-0.2	-0.1	-0.1	-0.3	0.1	0.3
Construction	-0.1	0.3	0.2	0.8	-0.2	0.0	-0.3
Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities	-1.6	1.1	-0.8	-0.4	-7.3	3.8	2.8
Information & communication	0.9	0.3	0.0	1.0	-0.5	1.2	0.0
Finance & insurance activities	0.4	0.2	0.2	0.2	-0.2	0.1	-0.1
Real estate activities	0.4	0.2	-0.1	0.1	-0.3	0.1	-0.1
Professional, scientific and technical activities; administrative and support service activities	1.7	1.8	-0.1	1.0	-1.8	0.8	0.5
Public administration and defence; education, health and social work activities	0.2	-0.6	0.2	0.4	-0.1	1.3	-0.9
Arts, entertainment and recreation, repair of household goods and other services	-3.0	0.4	0.3	-0.5	0.6	1.0	-0.3
Aggregate labour productivity growth (%; GVA-based)	**-1.2**	**2.7**	**-0.3**	**2.3**	**-10.0**	**8.8**	**1.9**

Sources: NSO; Central Bank of Malta estimates.

finance and insurance, as well as real estate, also contributed negatively to overall growth in productivity.

Chart 3
DECOMPOSITION OF PRODUCTIVITY GROWTH
(percentage contributions)



Source: Central Bank of Malta estimates.

Using the GEAD approach, Chart 3 decomposes overall productivity growth into the pure productivity effect and the reallocation effect. As in 2021, the pure productivity effect – which captures the change in productivity within sectors – was the dominant contributor to the increase in overall productivity in 2022. Moreover, in 2022, the reallocation effect – which represents the reallocation of resources among sectors – contributed only marginally towards the growth in productivity, with the relevance of this effect smaller than that in 2021.

The dominance of the pure effect suggests a continued increase in efficiency, albeit at a lower rate than registered last year. As the economy moved on from the post-pandemic rebound, productivity growth slowed down, with some sectors also experiencing decline. This caused pure productivity growth to decline. The reallocation effect remains low, signalling minimal reallocation of resources following the pandemic. This might reflect the effect of the wage supplement and other fiscal support measures which encouraged employee retention, and may have thus amplified inherent labour market tightness in certain sectors.

Table 2
SECTORAL CONTRIBUTIONS TO PRODUCTIVITY GROWTH DECOMPOSED
Percentage points; chainlinked

	2022				
	Total contribution	Pure productivity effect	Total reallocation effect	Reallocation effect	
				Reallocation level effect	Reallocation growth effect
Agriculture, forestry & fishing	0.1	0.1	0.0	0.0	0.0
Industry (excl. construction)	0.2	0.5	-0.3	-0.3	0.0
of which: Manufacturing	0.3	0.5	-0.2	-0.1	0.0
Construction	-0.3	-0.6	0.3	0.4	-0.1
Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities	2.8	2.1	0.7	0.6	0.1
Information & communication	0.0	-0.3	0.3	0.3	0.0
Finance & insurance activities	-0.1	-0.2	0.1	0.1	0.0
Real estate activities	-0.1	-0.4	0.3	0.3	0.0
Professional, scientific and technical activities; administrative and support service activities	0.5	0.2	0.3	0.3	0.0
Public administration and defence; education, health and social work activities	-0.9	0.2	-1.2	-1.1	0.0
Arts, entertainment and recreation, repair of household goods and other services	-0.3	0.0	-0.3	-0.3	0.0
Total economy	**1.9**	**1.6**	**0.4**	**0.4**	**0.0**

Sources: NSO; Central Bank of Malta estimates.

Table 2 elaborates further, by decomposing the contribution of each sector into the pure productivity effect, the reallocation level effect as well as the reallocation growth effect. The sector comprising trade, transportation, accommodation and food services was the main driver of the increase in overall productivity in 2022, similarly to 2021. Its contribution was dominated by a significant rise in the pure productivity effect, which reflects the continued recovery in its output level following the pandemic. Although in 2022 the contribution from this sector's reallocation effect was significant, as it reflected an increase in its share of employment, it was still smaller than the pure productivity effect.

Reallocation level effects were also positive in the sectors comprising construction, information and communication, finance and insurance, real estate, as well as in the professional and administrative sector. The sectors mentioned above also experienced an increase in the share of total employment.

Conversely, the reallocation level effect was strongly negative in the sector comprising public administration. This reflects its falling share in total employment. The reallocation effect was also negative in the arts and entertainment, industry, and manufacturing sectors, though to a much lesser extent.

Sectoral contributions to growth in real CPE and real ULCs[5]

Real CPE fell by 2.4% in 2022, following an increase of 3.3%% in 2021 (see Table 3).[6] Almost all sectors contributed to the decline in real CPE, except the finance and insurance sector. The overall decrease in real wages was mainly brought on by the high inflation recorded in 2022, which brought wages down in real terms, despite nominal increases.

The largest contributor to the decrease was the sector comprising public administration and related activities. This was followed by the sector comprising the professional and administrative services, as well as construction. These sectors experienced relatively low growth in nominal average wages, resulting in negative contributions to real compensation per person. Conversely, the finance and insurance sector had the only positive contribution.

[5] Using the GEAD decomposition of productivity, it is possible to calculate approximate sectoral contributions to real ULC growth as the log difference of sectoral contributions to CPE growth and aggregate productivity growth.
[6] In this box, real CPE is calculated as total CPE divided by the private consumption deflator.

Table 3
SECTORAL CONTRIBUTIONS TO GROWTH IN REAL COMPENSATION PER EMPLOYEE[(1)]
Percentage points

	2016	2017	2018	2019	2020	2021	2022
Agriculture, forestry & fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industry (excl. construction)	0.1	0.2	0.8	0.2	-0.2	0.4	-0.1
of which: Manufacturing	0.1	0.2	0.8	0.1	-0.2	0.4	-0.1
Construction	0.2	-0.1	0.3	-0.3	-0.3	-0.1	-0.4
Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities	1.1	-0.9	0.6	0.1	-1.6	0.7	-0.2
Information & communication	0.2	0.4	0.8	0.3	0.1	0.0	-0.2
Finance & insurance activities	0.5	-0.1	0.6	0.8	0.2	0.2	0.2
Real estate activities	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1
Professional, scientific and technical activities; administrative and support service activities	0.6	-0.5	1.5	-0.2	-0.7	0.2	-0.7
Public administration and defence; education, health and social work activities	1.3	0.6	1.7	1.5	0.7	1.9	-1.0
Arts, entertainment and recreation, repair of household goods and other services	0.3	1.7	0.8	0.4	0.2	0.1	-0.2
Aggregate CPE growth (%)	**4.2**	**1.3**	**6.9**	**2.6**	**-1.5**	**3.3**	**-2.4**

Sources: NSO; Central Bank of Malta estimates.

[(1)] Sum of sectoral contributions may not exactly match aggregate CPE growth due to chainlinking.

Similar to the decrease in real wages, real ULCs also declined during 2022, falling by 4.3%. This follows a decline of 5.0% in the previous year (see Table 4). The drop in overall real ULCs was due to the decrease in real wages in combination with the increase in productivity.

Table 4
SECTORAL CONTRIBUTIONS TO GROWTH IN REAL UNIT LABOUR COSTS[(1)]
Percentage points

	2016	2017	2018	2019	2020	2021	2022
Agriculture, forestry & fishing	0.0	0.3	0.0	0.2	-0.3	-0.2	-0.1
Industry (excl. construction)	0.1	0.9	0.9	0.3	0.3	0.1	-0.4
of which: Manufacturing	0.5	0.3	0.9	0.2	0.1	0.3	-0.4
Construction	0.3	-0.4	0.1	-1.2	-0.1	-0.1	-0.1
Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities	2.7	-1.9	1.4	0.5	5.6	-3.1	-3.0
Information & communication	-0.7	0.0	0.9	-0.7	0.6	-1.2	-0.2
Finance & insurance activities	0.1	-0.3	0.4	0.7	0.4	0.1	0.3
Real estate activities	-0.4	-0.2	0.2	-0.2	0.3	-0.2	0.0
Professional, scientific and technical activities; administrative and support service activities	-1.0	-2.3	1.7	-1.1	1.2	-0.6	-1.2
Public administration and defence; education, health and social work activities	1.2	1.2	1.5	1.1	0.8	0.7	-0.1
Arts, entertainment and recreation, repair of household goods and other services	3.3	1.3	0.5	0.8	-0.3	-0.8	0.2
Annual ULC growth (%)	**5.4**	**-1.4**	**7.1**	**0.3**	**9.4**	**-5.0**	**-4.3**

Sources: NSO; Central Bank of Malta estimates.

[(1)] Sum of sectoral contributions may not exactly match aggregate ULC growth due to chainlinking.

As was the case for the increase in productivity in 2022, the main driver behind the drop in ULCs was the sector comprising trade, transportation, accommodation and food services activities. This was followed by the professional and administration sector. These sectors experienced both a decline in real wages as well as an increase in productivity. All sectors, except for the finance and insurance sector, contributed negatively to overall ULC growth but to a lower extent, on account of these sectors' negative contribution to real wage growth. The finance and insurance sector's positive contribution to ULC growth in 2022 was mainly driven by its positive contribution to real CPE.

A number of observations can be drawn from the above developments. Firstly, productivity growth seems to have slowed down following the large increase recorded in 2021, as business activity normalised and productivity levels climbed back to pre-pandemic levels. Nevertheless, some sectors have experienced a decrease in their productivity levels, which might trigger the need for future reallocation of resources. This might be difficult in the short run, due to difficulties within some industries to source labour. Secondly, the effects of the recent increase in inflation can be seen in the decline of real CPE, as inflation outpaced the nominal increase in wages.

5. BALANCE OF PAYMENTS

During the first three quarters of 2022, the current account surplus on the balance of payments (BoP) narrowed when compared to the corresponding period of 2021. This decrease was on account of a significant rise in the merchandise trade deficit and higher net primary and secondary income outflows. These outweighed an increase in net services receipts. These developments are based on the 2022Q3 vintage of the BoP that the NSO issued in December 2022, and therefore may not be consistent with the most recent trade data reported for 2022 in other chapters, which are based on the GDP release covering the full year.

Between January and September net inflows on the capital account increased compared to the corresponding period of 2021. On the financial account, net borrowing was recorded as opposed to net lending during the same period of 2021. Net errors and omissions remained negative and increased substantially.[1]

When measured over the four quarters to September 2022, the current account balance registered a surplus, equivalent to 2.2% of GDP. This contrasts with a current account deficit of 0.7% of GDP in the euro area.[2] *The cyclically-adjusted current account balance was estimated to have recorded a surplus of 1.3% during the third quarter of 2022.*

The current account

Between January and September 2022, the current account recorded a surplus of €165.1 million, down from €441.9 million a year earlier (see Table 5.1). This was driven by an increase in the merchandise trade deficit as well as higher net outflows on the primary and secondary income accounts. Together these offset an increase in net services receipts.

Table 5.1
BALANCE OF PAYMENTS
EUR millions

	2019	2020	2021	2021 Q1-Q3	2022 Q1-Q3
Current account	**698.3**	**606.2**	**640.4**	**441.9**	**165.1**
Goods	-1,653.3	-1,222.5	-1,930.7	-1,464.4	-2,127.8
Services	3,618.0	3,464.6	4,106.6	3,038.3	3,690.4
Primary income	-1,101.2	-1,443.1	-1,393.7	-1,022.9	-1,101.7
Secondary income	-165.2	-192.7	-141.8	-109.0	-295.8
Capital account	**107.2**	**82.6**	**152.2**	**87.1**	**112.2**
Financial account(1)	**253.8**	**-178.3**	**734.2**	**493.4**	**-1,201.7**
Errors and omissions	-551.7	-867.2	-58.4	-35.6	-1,479.1

Source: NSO.
(1) Net lending (+) / net borrowing (-).

1 Negative net errors and omissions indicate an overestimation of net inflows on the capital and current accounts and/or an underestimation of net lending on the financial account.
2 BoP data for 2020-2022 for Malta and the euro area should be interpreted in the context of the unprecedented developments related to COVID-19 and the war in Ukraine.

When measured as a four-quarter moving sum, the balance on the current account showed a surplus of €363.6 million, less than half the €773.9 million surplus recorded a year earlier. The current account-to-GDP ratio stood at 2.2% in the third quarter of 2022, down from 5.4% in the corresponding quarter a year earlier (see Charts 5.1 and 5.2).

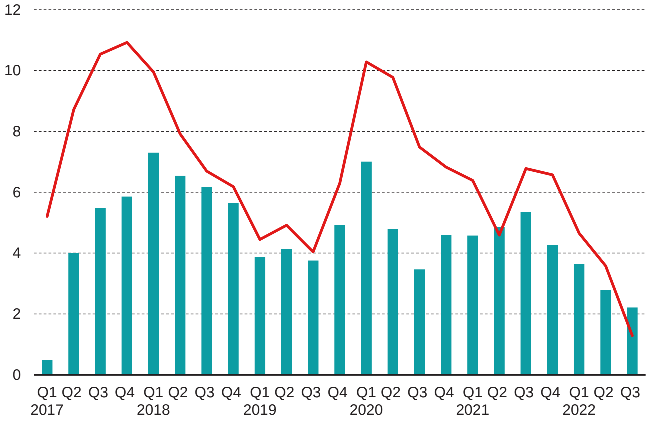
Malta's cyclically-adjusted current account balance is estimated to have stood at 1.3% of GDP in the year to September 2022. The cyclically-adjusted measure broadly exhibits similar developments to the unadjusted measure (see Chart 5.1). However, in the third quarter it stood below the headline measure.[3]

Goods deficit widens

In the first three quarters of 2022, the merchandise trade gap widened by €663.4 million when compared with the corresponding period of 2021, and stood at €2,127.8 million. This was mainly the result of a €1,111.9 million rise in imports, which was almost two and a half times larger than the increase in exports. Almost 60% of the rise in imports was due to a higher fuel import bill and higher imports of machinery and transport equipment.

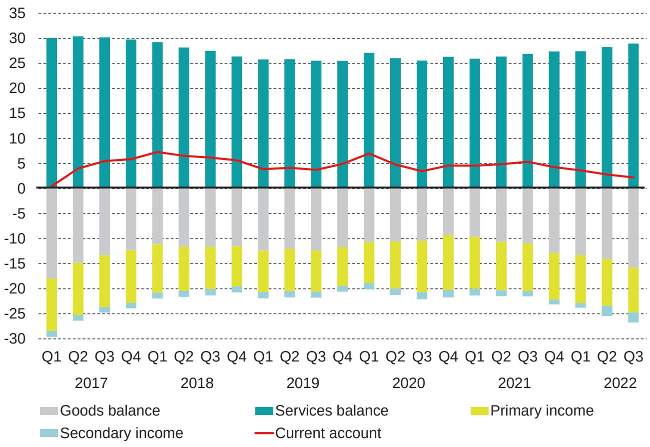
When measured on a four-quarter cumulative basis, the visible trade gap widened to €2,594.0 million, €1,011.3 million more than the deficit recorded a year earlier. This stemmed from a €1,433.9 million rise in goods imports, which outweighed a €422.6 million rise in goods exports. As a result, the share of the goods deficit in GDP rose to 15.8% in the year to September 2022, from 10.9% a year earlier (see Chart 5.3).

Chart 5.1
CURRENT ACCOUNT
(four-quarter moving sums as a percentage of GDP)



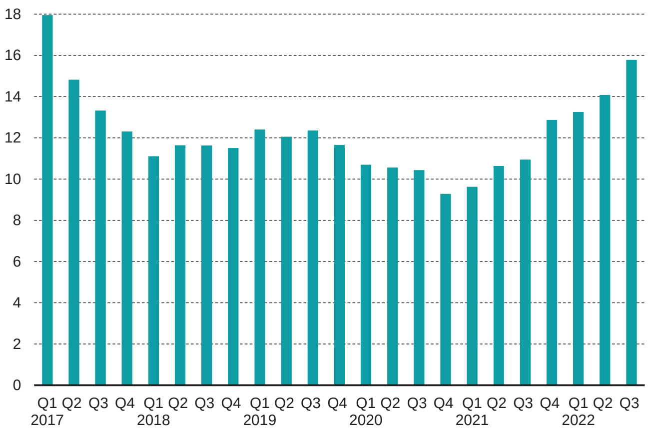
Source: NSO.

Chart 5.2
COMPOSITION OF CURRENT ACCOUNT
(four-quarter moving sums as a percentage of GDP)



Source: NSO.

Chart 5.3
GOODS DEFICIT
(four-quarter moving sums as a percentage of GDP)



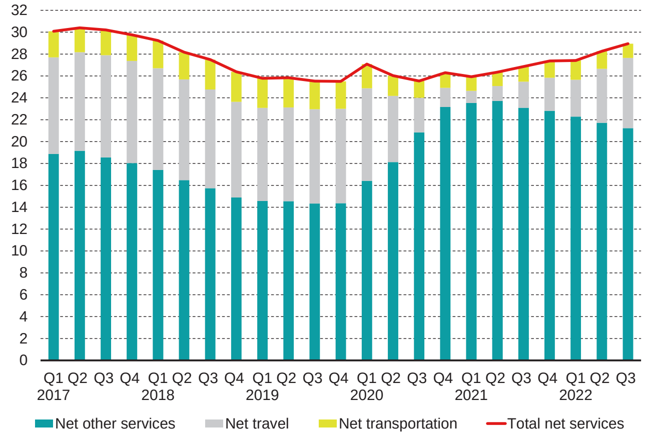
Source: NSO.

[3] For more information on Malta's cyclically-adjusted current account see Grech, A. G., & Rapa, N., "An evaluation of recent shifts in Malta's current account position", in Grech, A.G., & Zerafa, S. (eds.), *Challenges and Opportunities of Sustainable Economic Growth: the Case of Malta*, Central Bank of Malta, 2017.

The surplus on services also widens

Between January and September 2022, the surplus on services increased by €652.1 million on a year earlier, reaching €3,690.4 million, as the increase in services receipts was stronger than that in services payments.

Chart 5.4
SERVICES BALANCE
(four-quarter moving sums as a percentage of GDP)



Source: NSO.

In particular, net travel receipts increased by €601.0 million, as the increase in tourism exports outweighed a rise in expenditure by Maltese residents on travel abroad.

Additionally, net receipts on "other" services increased by €67.8 million when compared to a year earlier. This increase stemmed from a rise in net receipts related to personal, cultural and recreational services, which include remote gaming. These offset higher net payments related to professional and management consulting services as well as technical, trade-related, and other business services. Conversely, net receipts on the transport account fell by €16.7 million when compared to the corresponding period of last year, as imports outpaced exports.

When measured over the year to September 2022, the overall surplus from services stood at €4,758.6 million, an increase of €874.7 million when compared with the corresponding period of 2021. The main contributor to this increase in surplus was by far the travel component. The share of net services receipts in GDP rose to 28.9%, from 26.9% over the same period last year (see Chart 5.4).

Net outflows related to primary income increase[4]

Between January and September 2022, net outflows related to primary income rose to €1,101.7 million, €78.8 million more than in the first three quarters of 2021. This was due to higher net outflows classified as direct investment, as well as lower net inflows related to 'other investment'. These outweighed higher net interest and dividend income earned on portfolio investment. Movements on the primary income account continued to be strongly influenced by internationally oriented firms, including subsidiaries of foreign banks, which transact predominantly with non-residents.

When measured on a four-quarter cumulative basis, net outflows on this component also increased. However, at 9.0%, their share in GDP stood 0.5 percentage point less than in the four quarters to September 2021, due to the denominator effect (stronger GDP growth).

Net outflows from secondary income increase[5]

During the first nine months of 2022, net outflows on the secondary income account amounted to €295.8 million, up by €186.8 million on the corresponding period of 2021.

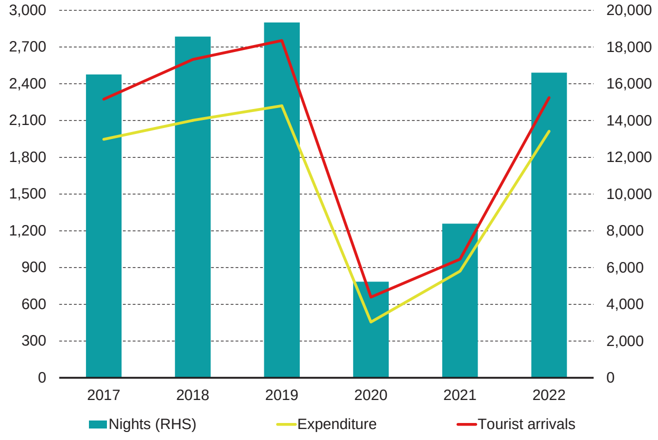
Such outflows also increased when measured over four quarters, reaching €328.5 million. These were equivalent to 2.0% of GDP, 0.9 percentage point more than in the four quarters to September 2021.

[4] The primary income account shows income flows related mainly to cross-border investment and compensation of employees.
[5] The secondary income account shows current transfers between residents and non-residents.

Tourism

During 2022, the tourism sector continued to recover from the re-opening of the economy after the restrictions related to the pandemic were lifted. The number of inbound tourists, nights stayed, and tourist expenditure in Malta rose significantly compared with 2021, but were still below the levels reached in 2019. However, by November the level of expenditure exceeded its pre-pandemic level.

Chart 5.5
TOURISM INDICATORS
(nights stayed and tourist arrivals in thousands; expenditure in EUR millions)



Source: NSO.

The number of tourists visiting Malta more than doubled during 2022, reaching 2,286,597, up from 968,136 in 2021 (see Chart 5.5). Nonetheless, tourist arrivals were still 16.9% below the number of inbound tourists in 2019, before the pandemic, with a shortfall recorded for most countries of origin. Exceptions were visitors from Poland, Austria, France and Italy.

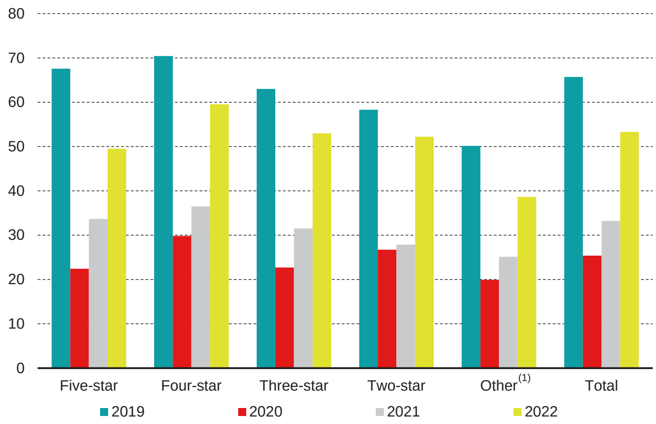
Tourists visiting Malta for leisure purposes accounted for most of the increase in arrivals in absolute terms. This segment recorded 2,040,154 visitors, a significant increase over the 861,268 arrivals in 2021. Those coming over for business and other reasons also increased, but these segments accounted for just over a tenth of the total increase.

Increases in arrivals were reported from all major source markets, with the United Kingdom and Italy registering the largest increases in absolute terms. These two countries were the most important markets in 2022, accounting for 18.7% and 17.4% of total tourist arrivals, respectively. They were followed by France and Germany which made up 11.3% and 7.4% of arrivals, respectively.

The number of nights that tourists spent in Malta increased to 16.6 million in 2022, nearly double the number of nights stayed in 2021. This was mainly attributable to a rise in nights stayed in collective accommodation, followed by other rented accommodation. The increase in nights stayed in non-rented accommodation was much more muted. Nights stayed, however, remained below pre-pandemic levels by around 14%, though this gap mostly reflected developments in the first half of the year.

The total average occupancy rate in collective accommodation establishments rose to 53.3% in 2022, up from 33.2% a year earlier, but it remained short of that recorded in 2019 when it reached 65.7% (see Chart 5.6). Higher occupancy rates were registered across all accommodation categories compared to 2021.

Chart 5.6
AVERAGE OCCUPANCY RATES
(per cent)



Source: NSO.
(1) Includes guest houses, hostels and holiday complexes.

During 2022, the share of non-residents in the total number of guests using collective accommodation increased relative to a year earlier, to reach 86.0%, though it remained below that of 90.1% recorded in 2019.

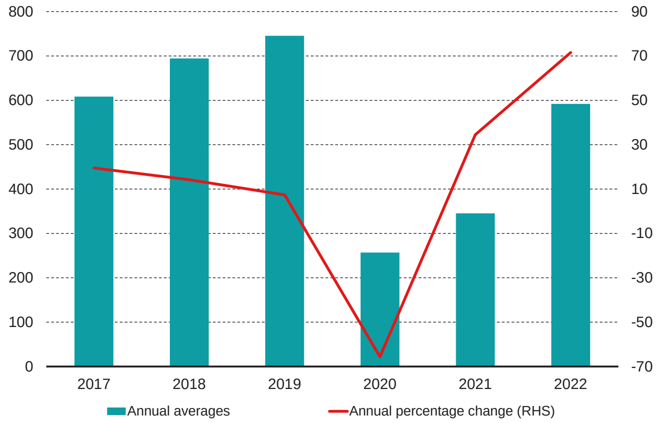
Tourist expenditure more than doubled over 2021, to reach €2,012.5 million. The largest increase in absolute terms was in the non-package expenditure category, followed by 'other' expenditure, and package expenditure.

Since tourism expenditure increased at a slower pace compared with arrivals, expenditure per capita fell to €880.1, from €899.4 in 2021. It however stood around 9% higher than the €806.6 reported for 2019, with a full recovery to 2019 levels visible across all the main countries of origin.

For 2022 as a whole, overall tourist expenditure was 90.6% of the level registered in 2019. The gap in relation to 2019 narrowed as the year progressed, rising from just over 55% at the beginning of the year to exceed pre-pandemic levels by November.

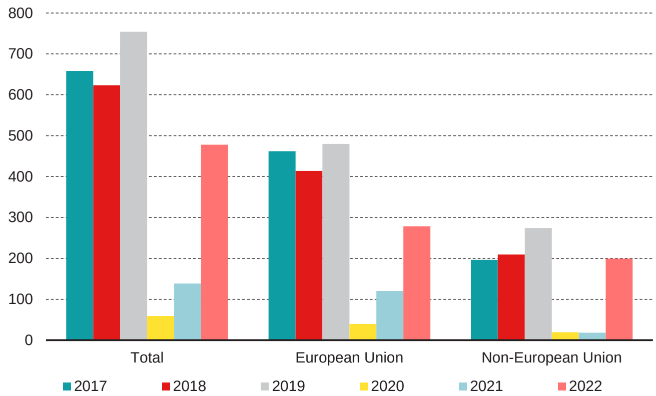
According to Malta International Airport (MIA) data, seat capacity increased by 71.6% in 2022, reaching an average 591,122 seats per month (see Chart 5.7). This was almost four fifths of its 2019 level.

Chart 5.7
AVERAGE MONTHLY SEAT CAPACITY[1]
(thousands; annual percentage change)



Source: MIA.
[1] Data includes schedule and charter seats.

Chart 5.8
CRUISE LINER PASSENGERS[1]
(thousands)



Source: NSO.
[1] Passengers from the United Kingdom are included as passengers from the European Union up till 2019, thereafter they are treated as non-EU passengers.

A total of 283 cruise liners visited Malta during 2022, up from 106 a year earlier, but still less than in 2019, when the number of cruise liners calls totalled 359. Foreign passengers reached 477,906 persons, more than three times the number that visited in 2021, but only 63.4% of the number recorded in 2019 (see Chart 5.8). Visitors from the United Kingdom comprised the largest share of cruise passengers during 2022, followed closely by visitors from Germany and Italy, with these nationalities jointly accounting for over 60% of all passengers.

The capital and financial accounts

The capital account recorded net inflows of €112.2 million in the first three quarters of 2022, an increase of €25.1 million on a year earlier (see Table 5.1). Similar developments were observed on a four-quarter moving sum basis, although in this case the increase was somewhat larger at €86.6 million.

Meanwhile, the financial account showed net borrowing of €1,201.7 million in the first nine months of 2022. This contrasts with net lending of €493.4 million in the same period of 2021. The shift to net borrowing reflected a reduction in net lending by the banking sector on the 'other investment' account as well as an increase in net acquisitions of direct investment liabilities. Similar movements were observed when financial accounts flows are measured on a four-quarter sum basis.

6. GOVERNMENT FINANCE

In the first three quarters of 2022, the general government deficit narrowed in level terms when compared to that recorded in the corresponding period of 2021. When measured on a four-quarter moving sum basis, the deficit-to-GDP ratio narrowed from 7.5% as at end-2021 to 5.4% in the third quarter of 2022.

Meanwhile, general government debt as a share of GDP declined, from 55.1% at end-2021 to 53.1% as at end-September 2022. The general government net financial worth improved in the period under review as financial assets increased while financial liabilities decreased. Meanwhile, the cyclically-adjusted deficit narrowed in the four quarters up to September 2022.

Quarterly developments

General government deficit improves

In the first three quarters of 2022, the general government registered a deficit of €631.0 million, an improvement of €234.4 million when compared to the deficit recorded in the corresponding period of 2021 (see Table 6.1). This was due to a significant increase in government revenue, which offset a rise in government expenditure. As a result, the primary deficit narrowed from €737.9 million in the first three quarters of 2021 to €509.7 million in the corresponding period of 2022.

Table 6.1
REVENUE, EXPENDITURE AND DEBT
EUR millions

						Q1 - Q3		Change Q1-Q3	
	2017	2018	2019	2020	2021	2021	2022	Amount	%
Revenue	**4,505.2**	**4,908.1**	**5,147.9**	**4,790.4**	**5,412.4**	**3,843.9**	**4,256.3**	**412.4**	**10.7**
Taxes on production and imports	1,401.4	1,572.4	1,613.0	1,395.1	1,578.3	1,164.1	1,319.6	155.4	13.4
Current taxes on income and wealth	1,569.8	1,650.4	1,827.0	1,684.8	2,027.7	1,441.6	1,608.3	166.7	11.6
Social contributions	702.9	764.8	800.1	838.2	914.8	626.3	725.4	99.2	15.8
Capital and current transfers receivable	159.2	271.3	280.1	330.7	285.1	196.7	144.9	-51.8	-26.3
Other(1)	671.9	649.2	627.7	541.6	606.5	415.3	458.1	42.8	10.3
Expenditure	**4,112.5**	**4,639.6**	**5,065.7**	**6,015.1**	**6,542.4**	**4,709.3**	**4,887.3**	**178.0**	**3.8**
Compensation of employees	1,301.1	1,395.9	1,510.5	1,589.1	1,766.3	1,321.3	1,356.4	35.0	2.7
Intermediate consumption	717.1	830.4	974.2	1,190.5	1,291.9	862.5	994.9	132.4	15.4
Social benefits	1,133.7	1,181.0	1,244.9	1,342.6	1,389.1	1,069.3	1,100.5	31.2	2.9
Subsidies	139.9	179.0	195.1	674.7	696.0	504.3	539.7	35.4	7.0
Interest	210.6	194.0	183.7	171.5	170.1	127.4	121.3	-6.1	-4.8
Other current transfers payable	211.3	266.3	291.8	307.3	491.0	370.6	284.2	-86.3	-23.3
GFCF	287.6	420.8	539.1	566.7	573.5	380.9	391.3	10.4	2.7
Capital transfers payable	104.9	175.8	115.9	153.4	143.6	55.3	89.8	34.5	62.4
Other(2)	6.2	-3.6	10.5	19.3	21.0	17.7	9.2	-8.5	-
Primary balance	**603.3**	**462.5**	**266.0**	**-1,053.2**	**-960.0**	**-737.9**	**-509.7**	**228.3**	**-**
General government balance	**392.7**	**268.5**	**82.2**	**-1,224.7**	**-1,130.1**	**-865.4**	**-631.0**	**234.4**	**-**
General Government debt	**5,705.4**	**5,662.1**	**5,720.2**	**6,974.6**	**8,267.8**	**7,975.9**	**8,737.8**		

Source: NSO.

(1) "Other" revenue includes market output as well as income derived from property and investments.

(2) "Other" expenditure principally reflects changes in the value of inventories and in the net acquisition of valuables and other assets.

Higher tax receipts underpin revenue growth
During the period under review, general government revenue increased by €412.4 million, or 10.7% in annual terms. This was largely due to higher inflows from current taxes on income and wealth, and from taxes on production and imports. The former increased by €166.7 million, mainly on the back of higher income tax receipts from individuals, while the latter increased by €155.4 million, primarily due to higher value added tax (VAT) receipts. This rise was complemented – albeit to a lower extent – by higher inflows from customs and excise duties. Furthermore, social contributions went up by €99.2 million, reflecting favourable labour market conditions.

Overall, developments in non-tax revenue had a small negative impact on general government finances during the period under review. In particular, capital and current transfers receivable decreased by €51.8 million, reflecting lower grants from the EU, offsetting a €42.8 million increase in the “other” component of government revenue, which includes sales.

Current outlays underpins expenditure growth
During the period under consideration, government expenditure remained elevated. This was partly on account of COVID-related economic support measures, and health-related outlays on testing, treatment, and vaccination early in the year. However, as the health risks diminished, these costs decreased and government expenditure shifted towards several inflation mitigation measures, exacerbated by the fallout from Russia’s invasion of Ukraine. In fact, government expenditure increased by €178.0 million, or 3.8% when compared to the corresponding period a year earlier, with both recurrent and capital expenditure contributing to the increase.

Intermediate consumption grew by €132.4 million, partly on the back of higher expenditure related to public administration. Spending on compensation of employees increased by €35.0 million, driven by higher wages in the public administration and, to a lower extent, in the health care sector. Outlays on social benefits increased by €31.2 million, mainly due to higher outlays on retirement pensions. Moreover, spending on subsidies rose by €35.4 million, due to the aforementioned COVID-19 and price mitigation measures.

Among the main current expenditure items, other current transfers payable and interest payments declined in the period under review. The former declined by €86.3 million, mainly due to a base effect stemming from the higher pandemic-related support measures offered a year earlier, while the latter declined by €6.1 million due to lower financing needs. Moreover, “other” government expenditure fell by €8.5 million.

Meanwhile, capital expenditure rose in the period under consideration, largely due to a €34.5 million increase in capital transfers incurred by various extra-budgetary units. Higher GFCF also contributed to the rise in capital expenditure. This rose by €10.4 million, mainly due to a rise in locally financed projects.

Debt increases in level terms
In September 2022, the stock of general government debt stood at €8,737.8 million, an increase of €470.0 million from its level as at end-2021. The stock of short-term securities outstanding (composed of Treasury bills) increased by €391.1 million, with their share in total debt increasing by 4.1 percentage points, to reach 11.1%. Furthermore, the stock of long-term debt securities (composed of MGS) also increased, albeit by a lower amount of €170.0 million, on the back of new MGS issues. Notwithstanding this increase, in level terms, the share of long-term securities in total government debt declined by 2.1 percentage points, to 73.6%.

Meanwhile, the stock of loans outstanding increased by €3.1 million, attributable to an increase in long-term loans. Notwithstanding this slight increase, the share of long-term loans in total debt fell by 0.5 percentage point, to 9.6%. Meanwhile, the level of currency and deposits outstanding declined by €94.1 million, bringing down their share in total debt by 1.4 percentage points to 5.4%. This reflects a lower level of outstanding 62+ Malta Government Savings Bonds, which are classified as deposits according to European System of Accounts (ESA) methodology.

Headline and cyclically-adjusted developments

Headline balance ratio improves, while debt ratio declines

When measured on a four-quarter moving sum basis, the general government deficit-to-GDP ratio narrowed from 7.5% at end-2021, to 5.4% in the third quarter of 2022.

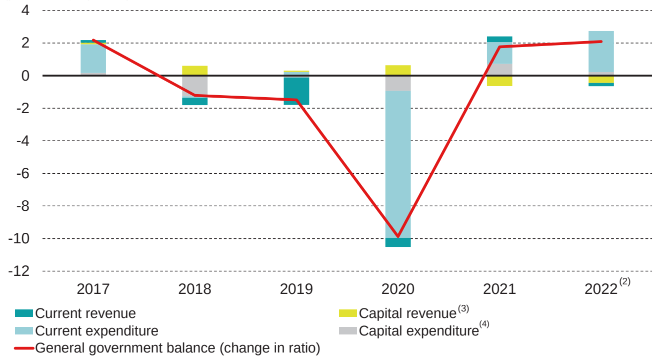
During this period, the ratio of total revenue in GDP fell by 0.6 percentage point (see Chart 6.1). This was mainly due to a 0.5 percentage point decrease in the share of capital revenue in GDP. However, the ratio of total expenditure in GDP declined more strongly, by 2.7 percentage points, with this fall being mostly attributable to a lower share of current expenditure.

Despite the improvement in the headline balance, the deficit incurred in the first three quarters of the year remained well-above the 3% European Union's, albeit suspended, Stability and Growth Pact rules. Financing needs also reflected debt-decreasing deficit-debt adjustments. As a result, the government debt-to-GDP ratio declined by the third quarter of 2022. Overall, it fell by 2.0 percentage points when compared to December 2021, reaching 53.1% of GDP (see Chart 6.2). As in 2021, when GDP had risen substantially, the interest-growth differential exerted a debt-decreasing effect in the period reviewed.

Net financial worth improves

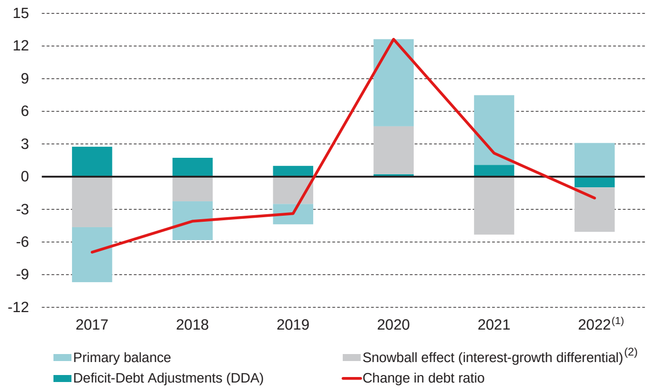
The market value of financial assets as at end-September 2022 stood at €5,096.1 million, an increase of €444.6 million when compared with December 2021.[1] This was mainly due to higher deposits held at banks and, to a lower extent, due

Chart 6.1
IMPACT ON GENERAL GOVERNMENT BALANCE(1)
(percentage points)



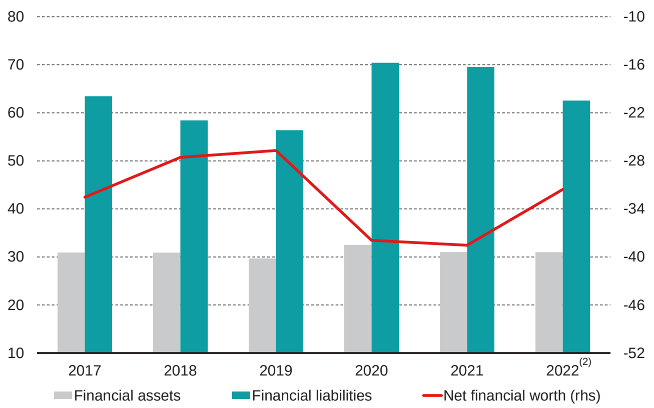
Sources: NSO; Central Bank of Malta.
(1) Revenue items: +ve sign represents higher revenue and vice versa. Expenditure items: +ve sign represents lower expenditure and vice versa.
(2) Four-quarter moving sums up to Q3.
(3) The term 'current revenue' represents most tax revenue as well as income from investments and sales. 'Capital revenue' mainly represents capital taxes and grants received.
(4) The term 'current expenditure' mainly represents spending on wages, social benefits and operational and maintenance expenses. 'Capital expenditure' mainly represents spending on investment and capital transfers.

Chart 6.2
CONTRIBUTION TO CHANGE IN DEBT
(percentage points)



Sources: NSO; Central Bank of Malta.
(1) Period ending September 2022.
(2) Difference between effective interest rate (interest payments at year t relative to debt outstanding at year (t-1) and GDP growth.

Chart 6.3
GENERAL GOVERNMENT NET FINANCIAL WORTH
(% of GDP)(1)



Sources: EUROSTAT; NSO.
(1) GDP data are four-quarter moving sums.
(2) Period ending September 2022.

[1] According to the ESA 2010 methodology the stock of financial assets and liabilities are measured at market value. For further details see: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Net_financial_worth&stable=1

to higher accounts receivable. However, the share of financial assets in GDP did not change, standing at 31.0% as at end-September 2022 (see Chart 6.3).

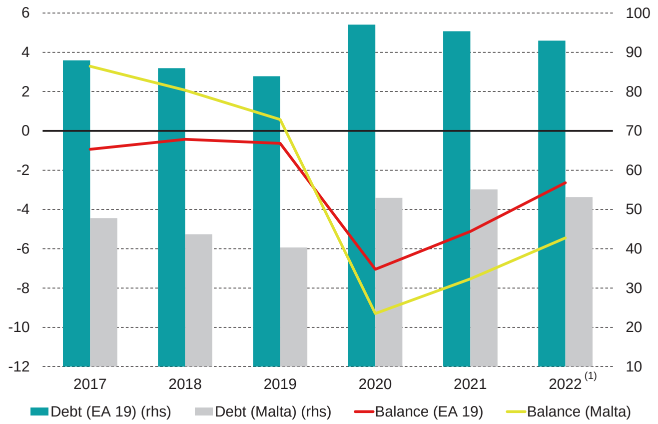
On the other hand, the market value of financial liabilities decreased by €147.5 million, ending the third quarter of 2022 at €10,285.3 million. This is mainly due to a strong decline in debt securities and, albeit to a lower extent, in deposit holdings. These offset an increase in accounts payable. As a result, the share of financial liabilities in GDP declined by 7.0 percentage points, to 62.6%.

The resulting net financial worth of general government as a share of GDP rose by 7.0 percentage points, and closed the third quarter of the year at -31.6%, from -38.5% as at end 2021. Following these developments, the net financial worth of the Maltese Government continued to compare favourably with the euro area average. The latter stood at -57.6% of GDP in September 2022, up from -70.4% registered in December 2021.

Debt ratio continues to compare favourably with that of the euro area despite a higher deficit

In September, the euro area general government deficit stood at 2.6% of GDP when measured on a four-quarter moving sum basis, broadly half the deficit recorded in 2021 (see Chart 6.4). Moreover, over the same period, the euro area debt ratio decreased from 95.4% to 93.0% of GDP. Consequently, the improvement in the Maltese general government deficit and debt ratios mirrors a general trend in the euro area. Notwithstanding the higher headline balance, the Maltese government debt-to-GDP ratio remained well below that in the euro area.

Chart 6.4
GENERAL GOVERNMENT BALANCE AND DEBT
(% of GDP)

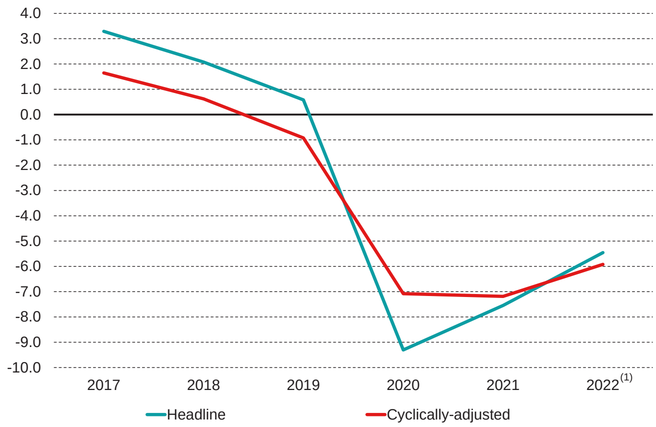


Sources: NSO; EUROSTAT.
(1) Period ending September 2022.

Cyclically-adjusted balance improves[2]

On a four-quarter moving sum basis, the cyclically-adjusted deficit stood at 5.9% of GDP in September 2022, 1.3 percentage points lower than the deficit posted at the end of 2021 (see Chart 6.5). This improvement is less pronounced than the change in the headline balance during the same period and reflects the estimated improvement in the output gap.

Chart 6.5
GENERAL GOVERNMENT BALANCE
(% of GDP)



Sources: NSO; Central Bank of Malta estimates.
(1) Period ending September 2022.

[2] The cyclically-adjusted balance is corrected for the impact of the economic cycle on government tax revenue and unemployment assistance. This methodology is in line with the approach used by the European Commission but is based on own estimates for fiscal items' elasticities and the output gap. For an overview of the method used by the Commission, see Mourre, G., C. Astarita, and S. Princen (2014): "Adjusting the budget balance for the business cycle: the EU methodology," European Economy – Economic Papers 536, (DG ECFIN), European Commission.

The improvement in the cyclically-adjusted balance since December 2021 partly reflects a fall of 2.0 percentage points in the share of cyclically-adjusted expenditure in GDP (see Table 6.2). This reflects a lower share of both current and capital expenditure in GDP. The decline in the former is mainly due to the share of compensation of employees and social benefits, which fell by 0.7 and 0.4 percentage points, respectively. Although these categories of expenditure rose in level terms in the period under review, cylically-adjusted output increased at a higher rate. The share of cyclically-adjusted 'other expenditure' also declined, mainly due to the abovementioned decline in current transfers.

The share of cyclically-adjusted revenue fell by 0.8 percentage point. This was mainly due to a 0.5 percentage point fall in the share of tax revenue in GDP, almost wholly attributed to a drop in taxes on production and imports. Furthermore, cyclically-adjusted inflows from other revenue in GDP fell by 0.3 percentage point, mainly due to the abovementioned decline in EU grants.

Table 6.2
YEAR-ON-YEAR CHANGES IN CYCLICALLY-ADJUSTED FISCAL COMPONENTS
Percentage points of GDP

	2017	2018	2019	2020	2021	2022[1]
Revenue	**0.6**	**0.0**	**-1.6**	**-0.8**	**0.6**	**-0.8**
Taxes on production and imports	-0.4	-0.3	0.1	1.3	-0.1	-0.4
Current taxes on income and wealth	-0.2	0.4	-0.8	-0.8	0.0	0.0
Social contributions	0.0	-0.1	-0.3	0.4	0.2	-0.1
Other[2]	1.2	0.0	-0.7	-1.7	0.5	-0.3
Expenditure	**-0.5**	**1.1**	**0.0**	**5.4**	**0.7**	**-2.0**
Compensation of employees	-0.1	-0.2	-0.1	0.2	0.4	-0.7
Intermediate consumption	0.3	0.4	0.5	1.3	0.1	0.2
Social benefits	-0.4	-0.5	-0.3	0.1	-0.2	-0.4
Interest payments	-0.3	-0.3	-0.2	-0.1	-0.1	-0.1
GFCF	-0.1	0.9	0.6	0.1	-0.2	-0.2
Other[3]	0.0	0.9	-0.5	3.7	0.7	-0.8
Primary balance	**0.9**	**-1.3**	**-1.8**	**-6.3**	**-0.2**	**1.1**
General government balance	**1.1**	**-1.0**	**-1.5**	**-6.2**	**-0.1**	**1.3**

Sources: NSO; Central Bank of Malta estimates.

(1) Four-quarter period up to September 2022.

(2) Includes market output, income derived from property and investments and current and capital transfers received.

(3) Mainly includes subsidies, current and capital transfers.

BOX 5: THE SUSTAINABILITY OF MALTESE GOVERNMENT DEBT[1]

This box assesses the sustainability of Maltese general government debt over different time horizons and evaluates risks stemming from macro-financial linkages. It updates previous debt sustainability analysis (DSA) published by the Bank.[2,3] The term 'sustainability' as used throughout this analysis is in line with the IMF's definition that 'sovereign debt is sustainable if the country is able to finance its policy objectives and service the resulting debt, without resorting to unduly large adjustments which could otherwise compromise its stability'.

Main messages

The main messages can be summed up as follows:

- According to a heatmap of relevant indicators, in 2022 risks related to the structure and financing of debt, and risks related to contingent liabilities have abated somewhat compared with 2021.
- This box presents two scenarios which explore the impact on the debt-to-GDP ratio arising from different fiscal policies in the medium term. In most simulations, the debt ratio is not expected to embark on an explosive path. However, the debt ratio can be explosive in periods of prolonged large fiscal deficits, coupled with a shock in GDP growth. In all simulations, the debt ratio is expected to remain above pre-pandemic levels. The extent to which the debt ratio can be brought down depends on the extent and speed of the economic recovery and the pace of fiscal consolidation.
- There exist risks which could not be quantified and incorporated in the scenario analysis. In the immediate term, these mainly reflect the likelihood of state aid to Air Malta. Medium-to-long term risks include the impact of the Government's open-ended commitment to retain fixed energy prices, the pre-1995 rent reform on government finances, the reform in the international corporate tax framework and the introduction of new EU-wide revenue raising measures. While these risks may be substantial, the resulting changing structure of the Maltese economy, including those as a result of reforms implemented in the context of the national Recovery and Resilience Plan, may bring both a positive impact on debt sustainability as well as a negative impact.

Scenario analyses

In the coming years, Government is expected to reduce the deficit from the level it incurred in 2021 and 2022, driven by a subdued expenditure profile and resilient economic activity. At the same time, Government is committed to subsidise energy prices such that they remain at a fixed level. The following two scenarios explore the impact on the debt-to-GDP ratio arising from different fiscal policies in the medium term.

Up until 2025, assumptions for GDP growth, inflation and Government's borrowing costs in both scenarios are in line with the Bank's latest forecast exercise.[4] Thereafter, a series of common assumptions govern the path of macro variables, prices and interest rates (see section at the end of this box). The scenarios differ mainly in the forecast path of fiscal consolidation which is assumed to take place.

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[1] Prepared by John Farrugia, Manager Fiscal Issues and Reports Office within the Economic Analysis Department of the Central Bank of Malta. The views expressed are those of the author and do not necessarily reflect the views of the Central Bank of Malta. Any errors are the author's own.

[2] For further details on government debt dynamics and fiscal sustainability, see Farrugia, J. and Grech, O., "The Sustainability of Maltese Government Debt Revisited", in Grech, A.G., and Zerafa, S. (eds.), *Challenges and Opportunities of Sustainable Economic Growth: the Case of Malta*, Central Bank of Malta, 2017.

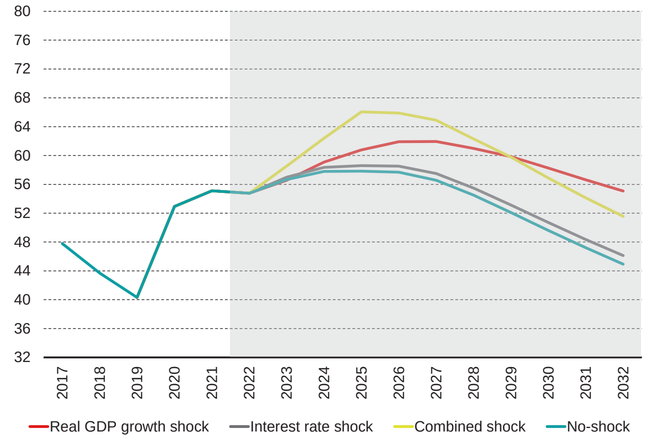
[3] This study uses the national accounts vintage up to the fourth quarter of 2022, published in February 2023 and the general government data vintage up to the third quarter of 2022, published in January 2023. The cut-off date for projections is 16 February 2023.

[4] This exercise is available here: https://www.centralbankmalta.org/economic-projections

Scenario 1 – Baseline Scenario

In this scenario, fiscal deficit targets until 2025 are in line with the Bank's latest projections. Thereafter, it is assumed that Government reverts to a budget surplus in structural terms. Consequently, additional fiscal consolidation measures are assumed to take place between 2026 and 2028. In this scenario, a balanced structural budget is achieved by 2028 and a small surplus is posted in subsequent years.

Chart 1
DEBT-TO-GDP RATIO IN BASELINE SCENARIO
(% of GDP)



Source: Author's calculations.

On the basis of these assumptions and excluding the impact of any shocks, the general government debt is expected to peak in 2025 before declining to around 45.0% of GDP by 2032 (see Chart 1).

Owing to the relatively low effective interest rate on government debt at the start of the forecast period, a mechanical permanent interest rate shock is expected to exert a small impact on public debt. On the other hand, owing to the denominator effect, a mechanical permanent shock to GDP growth would have a significant impact on the debt ratio. In the event of a combined shock, where fiscal policy is more supportive in periods of shocks to GDP growth but reverts to a contractionary stance thereafter, the debt-to-GDP ratio stands at around 52.0% by 2032.

In this scenario, the debt ratio is not explosive even during periods of shock. In fact, it remains on a downward trajectory even in the combined shock scenario, which reflects a more plausible outcome compared with the pure GDP and interest rate mechanical shocks. These estimates hinge on the assumption that Government remains committed to adhere to fiscal consolidation targets. That said, by the end of the simulation horizon, the debt ratio is expected to remain above its pre-pandemic level. Indeed, in the event of a combined shock, the debt ratio would decline below 2020 levels only by 2032.

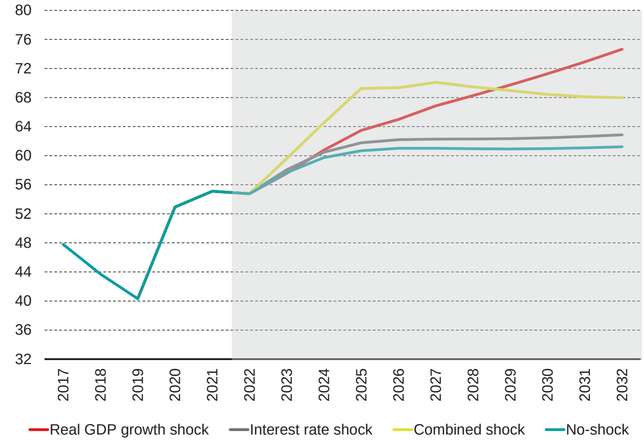
Scenario 2 – Alternative Scenario

In this scenario, it is assumed that fiscal consolidation is not pursued as aggressively as in the baseline scenario. Between 2022 and 2025, the general government deficit-to-GDP ratio is wider by around one percentage point compared with the baseline scenario. Thereafter, Government is assumed to target a headline deficit-to-GDP target of just under 3.0%. Consequently, the structural balance remains in deficit throughout the simulation horizon.

Excluding the impact of any shocks, general government debt is expected to continue increasing, albeit at a slow pace. It is set to stand just over 61.0% of GDP by 2032 (see Chart 2).

A mechanical and permanent interest rate shock is not expected to significantly affect the debt-to-GDP path. However, owing to the continuous projected large deficits, a mechanical and permanent shock to GDP growth puts the debt ratio on an upward and explosive path. In a more credible scenario as envisaged by the combined shock simulation, the debt-to-GDP ratio is set to gradually decline once the supportive fiscal stance is scaled down. However, since Government is still assumed to retain a deficit throughout this simulation, the debt ratio is set to decline at a very slow pace and to remain around 68% of GDP by 2032.

Chart 2
DEBT-TO-GDP RATIO IN ALTERNATIVE SCENARIO
(% of GDP)



Source: Author's calculations.

In this scenario, government adopts a looser fiscal stance compared with the baseline scenario. Consequently, in a mechanical shock simulation, debt may embark on an explosive path. In the combined shock simulation, which offers a more plausible path for GDP and fiscal policy in the event of a shock, debt is not explosive. That said, the debt ratio remains significantly above the debt ratio in the baseline scenario. When compared with the baseline scenario, therefore, the alternative scenario highlights the significance of short-to-medium term consolidation measures in bringing down the debt burden.

Heat map of indicators

This section assesses a number of indicators which, according to the literature, are highly relevant for debt sustainability in the short and long term. The thresholds used to grade these indicators are mainly sourced from the European Commission's *Debt Sustainability Monitor* and *Fiscal Sustainability Report* series. The threat that each indicator poses to the debt ratio is colour coded – red indicates a high threat, yellow indicates a medium threat and green signals a low threat to sustainability. The heat map is presented in Table 1.

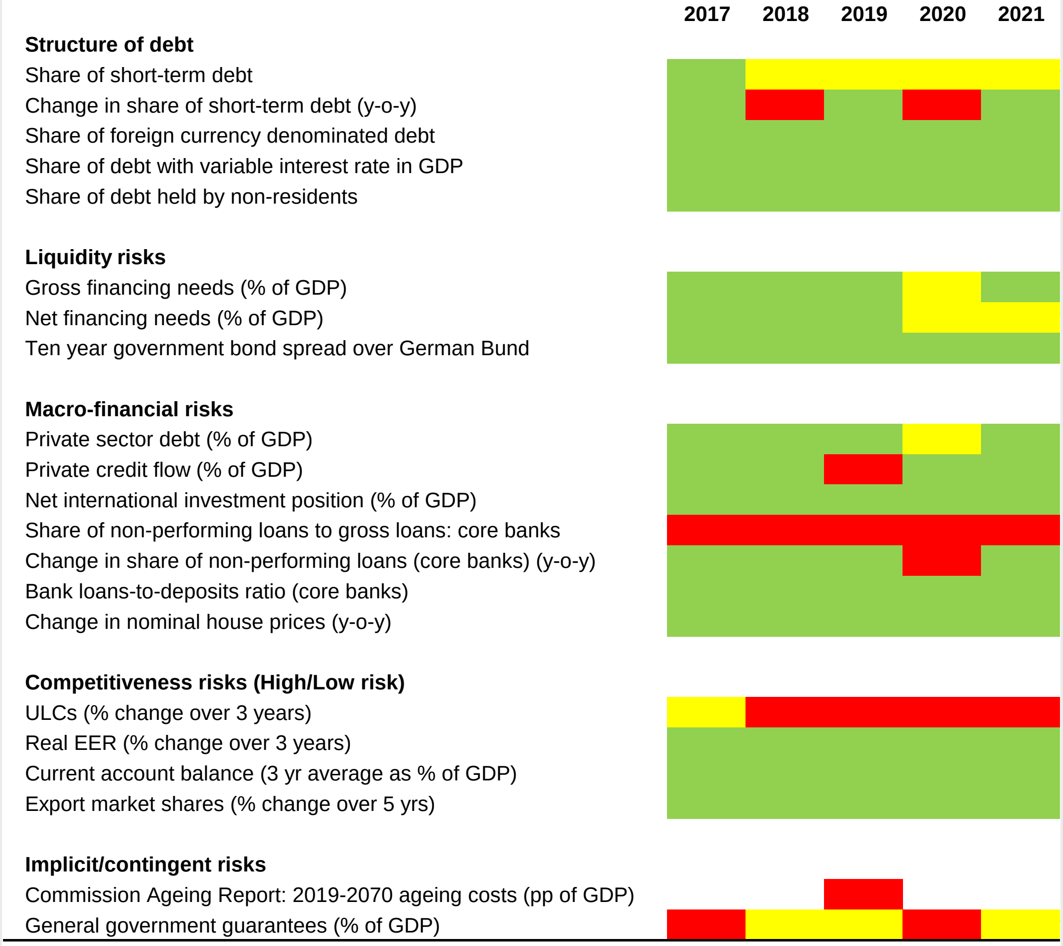
This is a backward looking analysis using information up to 2021. At the time this exercise was completed, data at end-2022 was not available for most indicators.

Risks surrounding the structure of debt and availability of liquidity are considered as relatively low, and have abated somewhat compared with 2020. Although the share of short-term debt in total debt declined in 2021 from a year earlier (to 14.1% from 15.6% in 2020) it is still considered to be a medium threat. This is due to a higher level of Treasury bills outstanding, compared with pre-pandemic levels, as well as holdings of Malta Government Retail Savings Bonds, which are classified as deposits in the ESA methodology.

Gross financing needs have decreased compared with 2020, as the general government deficit declined. Consequently, they are now considered as low risk. However, net financing needs after accounting for government deposits remain substantial and continue to be classified as medium risk. From a macro-financial perspective, the main risks to debt sustainability stem from the elevated share of non-performing loans in the total loans extended by the core domestic banks compared with the applicable threshold.[5] This metric however improved compared with 2020, and reached historic lows later on in 2022.

[5] The high-risk threshold applied in this study has a value of 2.3%. This metric amounted to 3.4% by end-2021 and reached 2.9% by the third quarter of 2022.

Table 1
HEAT MAP



Source: Author's calculations.

Regarding implicit liabilities, ageing costs (pensions, healthcare and long-term care) as a share in GDP form another significant risk to sustainability. According to the Commission's 2021 *Ageing Report* projections, at 8.0 points, Malta is set to have the fourth highest increase in age-related spending in the euro area between 2019 and 2070. Compared with the previous Ageing Report publication, costs are expected to increase at a faster rate. However, whereas in the previous Report costs were set to reach the euro area average by 2070, they are now set to remain below it.

Government-guaranteed debt as a share of GDP declined from its level in 2020, when pandemic-related support schemes were first introduced. At 8.0% of GDP, this ratio stood lower than the euro area average and remains lower than the recent peaks observed in 2012 and 2014. It also declined further during 2022, reaching 6.9% by the third quarter of the year. Consequently, the risk of guarantees being called is now considered as medium, rather than high. However, pandemic-related guarantees remain substantial, and form the third largest source of guarantees after those in the energy and logistics sectors.[6]

[6] See National Audit Office Malta (2022). "Annual Audit Report: Public Accounts 2021" for further details.

Non-quantifiable risks

This section outlines other debt sustainability risks which are likely to materialise but cannot be quantified at present.

In the immediate term, the main risks to debt sustainability concerns the likelihood of state support to Air Malta. The company is in the midst of a restructuring exercise in which around two-thirds of its original staff complement have either opted for an early retirement scheme or else applied to be transferred to new jobs within the public sector. Apart from financing this transition, Government remains in talks with the European Commission over the possibility of additional State aid.

In the short-to-medium term, sustainability risks reflect the Government's open-ended commitment to retain fixed energy prices. By February 2023, oil and natural gas prices had declined from the peaks observed following the outbreak of war in Ukraine. However, commodity prices remain higher than their levels at end-2021, before the war caused prices to spike and Government to intervene. In future, prices might well regain their former high levels in response to adverse developments in the war or stronger than expected global demand. Should this risk materialise, subsidies on energy prices would need to increase by more than forecast. In its 2022 Article IV consultation, the IMF called for the Maltese Government to prepare an exit strategy from the fixed-energy-price policy while protecting vulnerable groups.

Other short-to-medium term risks reflect the impact of a reform in rental costs for properties bound under pre-1995 leases. Under the reform, which came into effect in June 2021, landlords can increase the annual rent up to two per cent of the property's market value. However, tenants in gainful employment will not spend more than 25% of their income on rent, while pensioners and social welfare beneficiaries will not experience an increase in rent. Instead, the difference in rent will be borne by the State. This reform may affect up to 10,000 families. Since any increases in rent need to be determined on a case-by-case basis by the Rent Regulation Board, the full impact of this measure on the public finances cannot be ascertained at present.

Medium-to-long term sustainability risks reflect the impact of a reform in the international corporate tax framework, as agreed by members of the Organization for Economic Co-operation and Development (OECD)/G20 Inclusive Framework. The reforms affect large multinational companies and seek the partial re-allocation of taxing rights from their home countries to markets where they also earn turnover. The reforms are also set to introduce a 15% global minimum effective corporate tax rate. In December 2022 the Council of the EU reached unanimous agreement to implement the EU Minimum Tax Directive (Directive 2022/2523); Member States are required to transpose the rules into domestic law by 31 December 2023. The impact of these proposals on Government finances is hard to quantify at this stage but could prove to be material.

Other medium-to-long terms risks reflect the likelihood of new EU-wide revenue raising measures, which Member States in principle agreed to introduce in order to repay financing of the Next Generation EU rescue package. These include a revision of the EU Emissions Trading System, the introduction of a carbon border adjustment mechanism and an own resource requirement from the above mentioned international corporate taxation framework.[7] If implemented, such measures have the potential to significantly affect the Maltese economy and public debt sustainability. On the one hand, the introduction of new taxation systems may disrupt existing industries and negatively affect inflows from corporate taxes. On the other hand, the shift towards new industries may boost competitiveness and productivity, leading to increased investment. The long-run impact of structural reforms implemented as part of the national Recovery and Resilience Plan – which ought to reduce sustainability risks – is also difficult to gauge.

[7] See https://ec.europa.eu/commission/presscorner/detail/en/ip_21_7025

Assumptions and technical information

Scenario analyses: common assumptions (from 2026 onwards)

Potential output growth is determined exogenously in this framework. Real GDP growth is set to grow in line with the forecast structural primary balance and potential output growth. The growth is therefore determined by the fiscal multiplier – i.e. the degree to which fiscal policy affects economic growth – and the output gap, which eventually closes. For further details, refer to the 2018 Annual Report Box.

Inflation, which in this box is measured by growth in the GDP deflator, is assumed to revert to around 2.0%, in line with the ECB's target for inflation over the medium term.

Meanwhile, the level of the deficit-debt adjustment is assumed to revert to its long-run average. No temporary fiscal measures are assumed to take place.

Government debt is forecast on the basis of different types of maturity. The share of each category of debt is assumed to revert to its long-run average. Interest payment projections are based on separate interest rate estimates applied to each maturity category.

The forecast path of interest rates is based on ECB assumptions for the EURIBOR (used to determine interest payments on short-term debt) and the ten-year yield on Malta Government Bonds (used to determine interest payments on rolled-over, long-term debt).[8] Interest rates on non-maturing debt are based on the maturity profile of outstanding Malta Government Bonds.

The forecast path for the main determinants of debt is shown in Table 2.

Scenario analyses: shocks (applied from 2023 onwards)

Permanent mechanical shocks to GDP growth and interest rates are based on the standard deviation of historic data, similar to the approach used by the IMF in its Article IV Mission. On average, compared with the no-shock scenarios, there is a 2.1 percentage points decrease in the yearly, real GDP growth and a 1.0 percentage point increase in the interest rate.

Combined shock simulations assume a 1.0 percentage point decline in real GDP growth for three years, and a permanent 1.0 percentage point increase in interest rates. At the same time, the pace of fiscal consolidation is relaxed in the years when GDP growth is negatively affected, but is then pursued more vigorously compared with the no-shock simulation.

Table 2
SCENARIO ASSUMPTIONS: MAIN DETERMINANTS OF DEBT
Percent; averages over simulation period

	Baseline scenario				Alternative scenario			
	2026-2032 average	Mechanical GDP shock	Mechanical interest rate shock	Combined shock	2026-2032 average	Mechanical GDP shock	Mechanical interest rate shock	Combined shock
Real GDP growth rate	3.7	1.6	3.7	3.7	3.7	1.6	3.7	3.7
Inflation (GDP deflator growth rate)	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1
Interest rate applied to								
Short-term debt	3.1	3.2	4.1	4.2	3.1	3.2	4.1	4.2
Long-term debt maturing within a year	3.3	3.3	4.3	4.3	3.3	3.3	4.3	4.3
Non-maturing long-term debt	2.6	2.5	2.5	2.5	2.6	2.5	2.5	2.5
Deficit-debt adjustments (% of GDP)	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.4
Headline balance (% of GDP)	-0.6	-1.6	-1.7	-2.5	-2.9	-3.8	-3.7	-4.5

Source: Authors' calculations.

[8] The euro area interest rate projections were sourced from the ECB's technical assumptions.

II. Bank Policies, Operations and Activities

1. THE CONDUCT OF MONETARY POLICY AND FINANCIAL MARKET OPERATIONS

Monetary policy operations

As part of the Eurosystem, the Central Bank of Malta implements the monetary policy decisions of the ECB in Malta.[1] Thus, the Central Bank of Malta regularly conducts open market operations with credit institutions established in Malta. It also offers standing facilities, administers the minimum reserve requirement system and participates in the APP and in the PEPP.

Open market operations

Standard monetary policy measures include open market operations, aimed at managing the level of liquidity in the financial market, steering short-term market interest rates close to the official ECB rates and signalling the stance of monetary policy. The Eurosystem has various types of open market operations at its disposal.

The MROs are short-term liquidity-providing reverse transactions, which are executed according to a pre-specified calendar. They take place on a weekly basis with a maturity of one week. The Eurosystem also conducts longer-term refinancing operations (LTROs), which consist of reverse transactions at a monthly frequency and with a maturity of three months.

During 2022, the Eurosystem continued to offer liquidity to eligible credit institutions via fixed-rate tender procedures with full allotment, through both MROs and LTROs.

More specifically, during 2022, the ECB conducted 52 MROs. Credit institutions established in Malta participated in these operations with a total cumulative amount of €185.0 million, €101.0 million higher when compared to 2021 (see Table 1.1).

The ECB also conducted 12 regular three-month LTROs with full allotment and at a fixed rate equal to the average MRO rate during the life of the operations. Credit institutions established in Malta participated with an aggregate amount of €159.0 million in such operations, €149.0 million higher when compared to 2021 (see Table 1.1).

Table 1.1
PARTICIPATION OF ELIGIBLE MALTESE CREDIT INSTITUTIONS IN EUROSYSTEM OPEN MARKET OPERATIONS
EUR millions

Type of operation[(1)]	2021	2022
MROs	84.0	185.0
Three-month LTROs	10.0	159.0
US dollar collateralised operations (USD millions)		
- Seven-day	5,811.9	8,027.6

Source: Central Bank of Malta.
[(1)] In these Eurosystem operations, the amounts shown are the amounts allotted. These are equivalent to the amounts bid, owing to the full allotment policy.

[1] For a description of the monetary policy decisions taken by the Governing Council, please refer to the Chapter titled "The euro area and the external environment", which can be found in Part 1 of this *Report*.

As from September 2021 and one year after the settlement of each TLTRO-III operations, credit institutions, on a quarterly basis, have the possibility to partially or fully repay the amounts allotted in such operations. Furthermore, on 27 October 2022, the Governing Council recalibrated the TLTRO-III operations to ensure consistency with the broader monetary policy normalisation process. The recalibration aims to address unexpected and extraordinary inflation increases by reinforcing transmission of policy rates to bank lending conditions. Accordingly, from 23 November 2022, the interest rate on all remaining TLTRO-III operations is indexed to the average applicable key ECB interest rates from that date onward. Furthermore, three additional voluntary early repayment dates were introduced for banks wishing to terminate or reduce borrowings before maturity. During 2022, an amount of €513.5 million from the TLTRO-III operations was early repaid by credit institutions established in Malta.

During 2022, the ECB continued the weekly liquidity-providing operations of US dollars with a one-week tenor through collateralised lending, in conjunction with the US Federal Reserve. During the year under review, credit institutions established in Malta participated regularly, for a total cumulative amount of USD 8,027.6 million, higher than the USD 5,811.9 million taken up in the previous year.[2]

Standing facilities

Eligible counterparties may utilise two standing facilities on their own initiative, either to obtain overnight liquidity against eligible collateral or to place overnight deposits with the Eurosystem.

Recourse to the overnight deposit facility by Maltese credit institutions amounted to a daily average of €1,698.0 million, an increase of €1,679.4 million compared to the 2021 average. Similar to 2021, Maltese credit institutions did not utilise the marginal lending facility in 2022.

The interest rates on the MROs, the marginal lending facility and the overnight deposit facility increased four times throughout the year, standing at 2.50%, 2.75% and 2.00% respectively as at end-2022.

Reserve requirements

The ECB requires credit institutions established in the euro area to hold reserve deposits with their respective national central bank. The objective of the Eurosystem's minimum reserve system is to contribute to the stability of money market interest rates and to help ensure the efficient operation of the Eurosystem as a liquidity supplier. Each credit institution established in Malta is accordingly obliged to hold minimum reserve deposits with the Central Bank of Malta, equivalent to a fraction of certain liabilities, mainly deposits. During 2022, the reserve requirement ratio remained unchanged at 1.0%. The average balance required as minimum reserve deposits by credit institutions established in Malta amounted to €305.9 million in 2022, compared to €289.2 million in 2021. The average daily balances held in the current accounts with the Central Bank of Malta amounted to €5,074.7 million in 2022, compared to €6,115.1 million in 2021.

Following the rise of the deposit facility rate to above zero, the two-tier system for the remuneration of excess reserves which was introduced by the Governing Council as from 30 October 2019, is no longer necessary. The Governing Council therefore decided to suspend the two-tier system by setting the multiplier to zero.

On 27 October 2022, the Governing Council decided to set the remuneration of minimum reserves at the Eurosystem deposit facility rate effective as of the beginning of the reserve maintenance period starting on 21 December 2022.

[2] Until 1 July 2021, the ECB also conducted the 84-day USD liquidity-providing operations, with credit institutions established in Malta participating with a cumulative amount of USD 61.0 million during 2021.

Asset purchase programme

Throughout the year, the Central Bank of Malta continued to participate in the PSPP, which is part of the APP.[1,2]

During 2022, the Central Bank of Malta purchased €109.0 million worth of Maltese sovereign bonds under the PSPP. Since inception, the total securities purchased by the Central Bank of Malta for its PSPP portfolio amounted to €1,515.6 million at the end of 2022.[3] The Central Bank of Malta's PSPP holdings had a weighted average remaining maturity of 10.85 years as at the last trading day for December 2022.

During the year, the Central Bank of Malta also purchased €17.5 million worth of Maltese sovereign bonds that were transferred to the ECB's own PSPP portfolio, with total securities bought since inception in this portfolio amounting to €276.2 million.[4]

The Central Bank of Malta did not participate in the private-sector programmes, which also form part of the APP, owing to the lack of eligible securities in the domestic markets.

Pandemic emergency purchase programme

The Central Bank of Malta also continued its participation in the PEPP, announced on 18 March 2020 by the Governing Council as one of the ECB's responses to the economic and financial market fallout from the COVID-19 pandemic.[5]

During 2022, the Central Bank of Malta purchased €77.5 million worth of Maltese sovereign securities under the PEPP. Since the inception of this programme, the Central Bank of Malta bought €548.6 million worth of Maltese sovereign securities.[6] The Central Bank of Malta's PEPP holdings had a weighted average remaining maturity of 10.90 years as at the last trading day for December 2022.

During the same period, the Central Bank of Malta also purchased €14.5 million worth of Maltese sovereign bonds that were transferred to the ECB's own PEPP portfolio, with total securities bought since inception in this portfolio amounting to €79.2 million.[7]

Similar to the APP, the Central Bank of Malta participated only in the public sector purchases under the PEPP.

Transmission Protection Instrument

On 21 July 2022, the ECB approved the TPI to support the effective transmission of monetary policy. TPI is an addition to the ECB's toolkit and can be activated to counter unwarranted, disorderly market dynamics that pose a serious threat to the transmission of monetary policy across the euro area. By safeguarding the transmission mechanism, the TPI will allow the Governing Council to deliver on its price stability mandate more effectively. Subject to fulfilling established criteria, the Eurosystem will be able to make secondary market purchases of securities issued in jurisdictions experiencing a deterioration in financing conditions not warranted by country-specific fundamentals to counter risks to the transmission mechanism to the extent

[1] On 9 June 2022, the Governing Council decided to end the net asset purchases under the APP as of 1 July 2022. Accordingly, from 1 July 2022 onwards, the APP consist exclusively of the reinvestment phase.

[2] On 15 December 2022, the Governing Council announced that it will continue reinvesting in full, the principal payments from maturing securities purchased under the APP 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 €15.0 billion per month on average, until the end of the second quarter of 2023 and its subsequent pace will be determined over time.

[3] This figure does not reflect the amortisation of securities held under the PSPP portfolio. Purchases of securities which matured until 2022 are also included in this figure.

[4] See footnote 3.

[5] On 10 March 2022, the Governing Council decided to discontinue the net asset purchases under the PEPP at the end of March 2022. The Governing Council announced that it intends to reinvest the principal payments from maturing securities purchased under the PEPP at least until the end of 2024 and will continue applying flexibility in reinvesting redemptions from this portfolio, with a view to countering risks to the monetary policy transmission mechanism related to the pandemic.

[6] This figure does not reflect the amortisation of securities held under the PEPP portfolio. Purchases of securities which matured until 2022 are also included in this figure.

[7] This figure does not reflect the amortisation of securities held under the PEPP portfolio. There were no maturities in this portfolio.

necessary. The scale of TPI purchases would depend on the severity of the risks facing monetary policy transmission.

Collateral management

All Eurosystem credit operations take place against eligible collateral. The Central Bank of Malta is responsible for assessing the eligibility of domestic marketable securities which can be used as collateral in Eurosystem monetary operations and for reporting them to the ECB. As at end-December 2022, the nominal outstanding value of eligible domestic marketable securities amounted to €8,153.9 million, compared with €7,237.2 million a year earlier.

At the end of the year, the market value after haircuts of securities pledged with the Central Bank of Malta by credit institutions established in Malta stood at €1,382.9 million. This consisted of both domestic and foreign assets, with the share of debt instruments issued by the Maltese government accounting for around 72.7% of the securities pledged.

On 24 March 2022, the Governing Council decided to gradually phase out the package of pandemic collateral easing measures in place since April 2020. The phasing out of these measures will be done in three steps between July 2022 and March 2024. From 8 July 2022, the temporary reduction in collateral valuation haircuts across all assets was changed from the 20% adjustment to 10%. Furthermore, marketable assets that fulfilled the minimum credit quality requirements on 7 April 2020 but whose credit ratings subsequently deteriorated below the minimum rating threshold lost eligibility. The limit with respect to unsecured debt instruments issued by any single other banking group in a credit institution's collateral pool was restored to 2.5% from 10%, as was the case before April 2020. Finally, the temporary easing of certain technical requirements for the eligibility of additional credit claims were phased out.

In June 2023 the Governing Council will implement a new valuation haircut schedule based on its pre-pandemic risk tolerance level for credit operations, phasing out the remaining general 10% reduction in collateral valuation haircuts. Finally, in March 2024 the ECB will in principle phase out the remaining pandemic collateral easing measures, following a comprehensive review of the Additional Credit Claims frameworks that will take into account counterparties' collateral needs for their continued participation in the outstanding TLTRO-III operations until December 2024.

Additionally, on the 2 December 2022, the Governing Council decided to reschedule the launch of the Eurosystem Collateral Management System (ECMS) from 20 November 2023 to 8 April 2024. The ECMS will be a unified system for managing assets used as collateral in Eurosystem credit operations.

Liquidity management

The Central Bank of Malta continued to provide the ECB with daily forecasts of items on its balance sheet that are unrelated to monetary policy instruments, such as banknotes in circulation, government deposits, net foreign assets and net assets denominated in euro. This information enables the Eurosystem to determine liquidity needs even if the current full allotment policy ensures ample liquidity.

Liquidity lines with non-euro area central banks

On 10 March 2022, in view of the highly uncertain environment caused by the Russian invasion of Ukraine and the risk of regional spill overs that could adversely affect euro area financial markets, the ECB decided to extend the Eurosystem repo facility for central banks until 15 January 2023. Furthermore, the Governing Council extended several existing temporary bilateral swap and repo lines with non-euro area central banks.[8]

Remuneration of government deposits

On 8 September 2022, the ECB decided to temporarily remove the 0% interest rate ceiling for remunerating government deposits held with national central banks. As from 14 September 2022, the ceiling is the lower of either the Eurosystem's deposit facility rate or the €STR, also under a positive deposit facility rate. The

[8] In December 2022, the Governing Council further extended the bilateral repo and swap lines with non-euro area central banks and the EUREP facility until 15 January 2024.

measure is intended to remain in effect until 30 April 2023 and aims to preserve effectiveness of monetary policy transmission and safeguard orderly market functioning.

Non-monetary policy operations

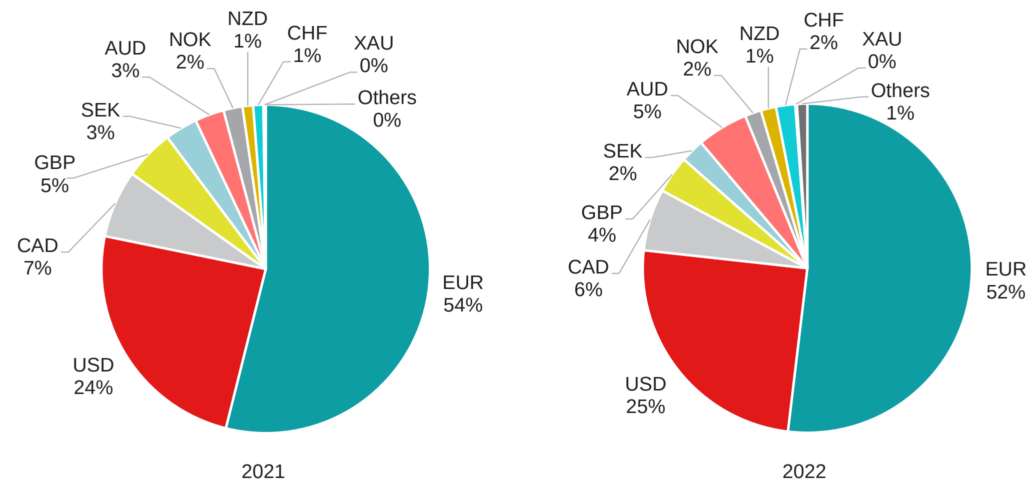
Management of the Bank's financial assets

The Central Bank of Malta's own investment portfolio amounts to circa €2,400 million[9] and holds financial assets denominated in both euro and foreign currency. There were no significant changes in the currency composition compared to 2021, with the EUR portfolio representing approximately 52.0% of assets under management in 2022 (see Chart 1.1), while the remaining 48.0% are predominantly invested in the other G10 currencies, with the largest allocation to the USD. The Bank seeks to limit its foreign exchange risk by hedging the foreign currency holdings in the internally and externally managed portfolios and giving preference, where possible, to funds that hedge the foreign currency exposure back to euro.

The Bank's asset holdings are determined through a Strategic Asset Allocation exercise which is carried out annually and approved by the Board of Directors. During 2022, the investment portfolio continued to be spread across several asset classes including fixed income securities, equities, derivatives and gold (see Chart 1.2). The fixed income asset classes include sovereign bonds, securities issued by supranational and national government agencies, bank covered bonds and senior debt. The majority of the Bank's assets are internally managed through held-to-maturity fixed income portfolios as well as fixed income portfolios that are actively managed against internally constructed benchmarks. A relatively smaller part of the Bank's financial assets is managed by external asset managers either through a mandate or investments in funds.

The Bank's Investment Policy Committee (IPC) is chaired by the Governor and includes the Deputy Governors and senior officials from the Bank's Financial Markets Division, and the Financial Control and Risk Division. Its mandate is to set the investment strategy upon which the management of the Bank's financial assets will be based, as well to monitor the performance of such assets. When defining its investment policy, the Bank aims at optimising returns, preserving capital and ensuring sufficient liquidity in line with pre-set financial risk parameters which stipulate acceptable interest rate, credit, and market risks, amongst others. The IPC subsequently evaluates the implementation of investment strategies, reviews reserve-management practices and assesses the overall investment policy. The Committee is also responsible to set the Tactical

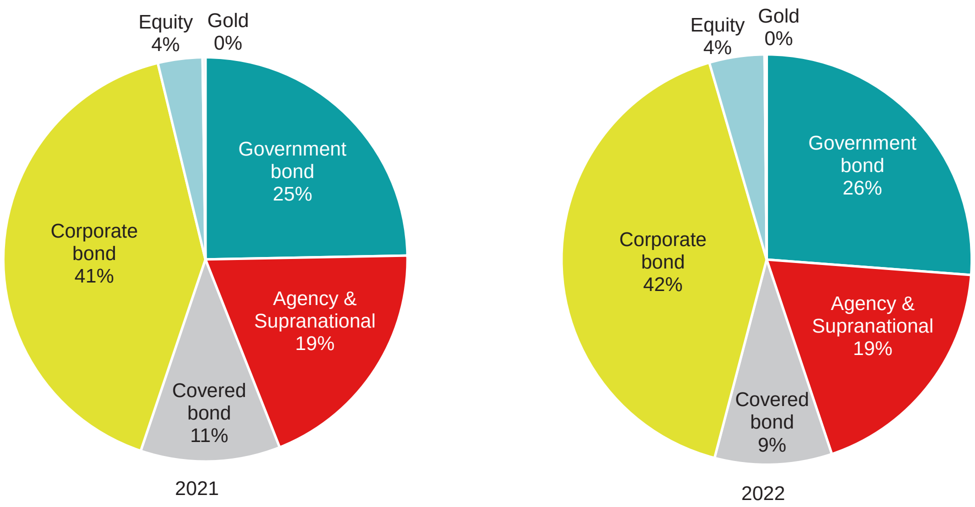
Chart 1.1
HOLDINGS BY CURRENCY



Source: Central Bank of Malta.

9 Amount shown in nominal terms as at end of December 2022. These exclude monetary policy portfolios.

Chart 1.2
HOLDINGS BY ASSET CLASS



Source: Central Bank of Malta.

Benchmark for the internally active managed funds monthly. During 2022, the Committee continued to meet monthly, with additional meetings held to address the strategic asset allocation as well as climate-related financial considerations and disclosures where the recommendations of the Financial Stability Board's Task Force for Climate-related Financial Disclosures were discussed.

This year was a challenging one in terms of investments, as several headwinds tested the financial markets. These included supply chain disruptions from China's COVID zero policy, the war in Ukraine and ultra-hawkish policy shift by central banks as they sought to address the inflation shock. Additionally, the correlation between asset classes increased in 2022, which meant that the portfolios did not benefit from diversification and experienced negative returns. Indeed, for the first time since 1871, both US stocks and bonds lost more than 10% during the year. During 2022, given the significant rise in global bond yields, the Bank increased the size of its internally managed euro and foreign currency fixed income held-to-maturity portfolios, with the latter also contributing to an increase in official reserves. The Bank liquidated part of its externally managed corporate bond portfolio as well as one of the unconstrained fixed income funds in anticipation of a further rise in yields, whilst increasing the strategic exposure to inflation-linked bonds and equities at better valuations. The Bank continued to diversify its fixed income component geographically, whilst ensuring that such investments remain predominantly invested in high-quality financial assets.

In its bid to comply with the Eurosystem's common stance for climate change-related SRI principles for euro-denominated non-monetary policy portfolios (NMPPs), as well as with the Network for Greening the Financial System (NGFS)[10] recommendation to integrate sustainability factors in the management of own portfolios, the Bank has continued incorporating climate change considerations in these portfolios alongside liquidity, capital preservation and return. In this regard, the Bank has adopted several SRI practices in its investment decisions, whilst looking into ways to improve the quality of analysis and disclosures related to climate change related risks and opportunities.

The Bank will continue to gradually invest in several asset classes approved by the Board of Directors to maintain an adequate level of diversification and thus risk adjusted returns. The diversified investment strategy is expected to strengthen the Bank's capital over the longer term, which, in turn, would contribute to the Bank's ability to maintain financial independence. Sustainability and climate considerations would increasingly become an integral part of the Bank's investment decisions. As part of the Eurosystem, the Bank will

[10] The Central Bank of Malta has been a member of the NGFS since July 2019.

keep on complying with the common stance adopted for climate-related disclosures of the NMPPs and thus will be also guided by any developments at Eurosystem level in this regard.

Joint management of the ECB's Foreign Reserves

Upon the introduction of the euro in 2008, the Bank transferred its share in the ECB's foreign reserves according to the country's capital key in line with Article 30 of the Treaty on the Functioning of the European Union. The ECB foreign reserves ensure an adequate level of liquidity for the Eurosystem foreign currency interventions. The Bank has a pooling arrangement with the Central Bank of Ireland to manage the foreign reserves on behalf of the ECB. During the year, the International Asset Management Office worked closely with the Central Bank of Ireland to review the investment strategy, discuss trades and analyse the portfolio's performance.

Foreign Exchange

The Bank continued to enter spot/outright foreign currency transactions with the activity being higher during 2022 compared to the previous year. Activity in foreign exchange swap purchases and sales as part of the management of its own foreign exchange positions, also increased compared to the previous year. The Central Bank of Malta remains a participant in the European Exchange Rate Mechanism. The Central Bank of Malta pursued the repoing out of fixed income holdings in general collateral pooling market and the special repo market. This activity was higher in 2022 when compared to the previous year due to an increase in eligible papers. This translated into higher returns from this activity.

Third-party portfolios

The Bank continued to manage the Investor Compensation Scheme and Depositor Compensation Scheme on behalf of the single Management Committee of the Schemes appointed by the MFSA. During the year, the Bank continued to fulfil its obligations related to the administration of part of the National Development and Social Fund financial assets. In addition to the portfolio that has been administered by the Bank since 2018, this year two additional portfolios, namely an international equity and a local multi-asset portfolio, were added to the Bank's responsibility. These portfolios also faced headwinds and registered negative returns due to the same factors affecting the Bank's own portfolios, as explained above.

Treasury Management System

The MAPS went live in November 2022. MAPS is the Treasury Management System for Central Banks which was developed by *Banque de France* and *Banco de España*. It has been developed using the software base solution of Adenza, who are the global leaders in treasury management systems. MAPS integrates with the main trading platforms, offering a straight through process spanning from front to back-office, risk management, accounting, and financial reporting functions. The participation of the Central Bank of Malta has broadened further the MAPS user community, putting MAPS as a common treasury management solution within the community of Eurosystem central banks.

Government securities market-making operations

Throughout the year, the Central Bank of Malta continued to fulfil its duty as a market-maker by quoting daily indicative bid and offer prices and providing a two-way trading for all listed Malta Government Securities (MGSs) on the MSE. Additionally, the Bank also acted as an agent on behalf of public institutional clients.

During 2022, the Bank's market making function was accountable for 73.8% of the total on-exchange deals. This percentage rose significantly when compared with the 46.5% recorded in the previous year. The Bank bought a total of €64.4 million and sold €7.8 million, amounting to a total Bank turnover of €72.2 million. The purchases for the year are almost threefold the amount purchased by the Bank in 2021, whilst the amount sold on the market is significantly lower than that registered last year, with the overall turnover surpassing that of 2021 by €19.7 million. The MGSs issuances for the retail sector together with the end of the net purchase phase of the PSPP and PEPP could account for the higher purchases.

In the secondary market for Malta Government Bonds, the total turnover activity in 2022 stood at €97.7 million in nominal terms, down from €114.1 million registered last year. For the third consecutive year, the total turnover has declined even though the amount of government debt outstanding rose. The Treasury of Malta tapped the bond market five times during 2022, with two issuances also targeting the retail investors apart from institutional investors. A potential factor contributing to a lower secondary market turnover could be attributed to the fact that retail investors only hold a small percentage of the debt issued during the past three years. Furthermore, the tendency of the wholesale sector to hold instruments until maturity also dampened total turnover in the secondary market. In addition, figures show that inter-broker activity pursued its downward trend, falling from 53.5% in 2021 to 26.2% during the year under review.

During 2022, the Bank purchased €44.0 million worth of Treasury bills in the secondary market, which is almost double the amount bought the previous year.

As the Government of Malta funding needs remained high in 2022, issuances of MGSs amounted to €1.0 billion. The impact of the COVID-19 pandemic, albeit diminishing, was still on the agenda of the Treasury's annual debt management plan. The onset of the Ukraine war also had an impact on the financing requirements for the year, inducing the government to subsidize energy prices. The Bank continued to assist the Treasury in selecting the appropriate maturities and coupons to be offered in the primary market, to attract sufficient demand by the retail and institutional investors.

During the year under review, the Government Securities Office embarked on the first phase of a new system which will enable the Bank to perform the unique market-making role more efficiently and effectively.

Furthermore, in 2022, the Bank published on its website a paper titled *Green Finance in The Local Capital Markets*. Accordingly, the Bank conducted a survey investigating the local market's perspective towards the issuance of green bonds and awareness related to the topic. Local investors' perspectives were also sought to provide a holistic view and thereby, evaluate potential demand for these securities in the event of future issuances.

2. FINANCIAL STABILITY

In its capacity as the Macroprudential Authority in Malta, the Central Bank of Malta is entrusted with maintaining the stability of the financial system. The Financial Stability Surveillance & Research (FSSR) Department and the Policy, Crisis Management & Stress Testing (PCMST) Department are responsible for discharging the Bank's mandate to safeguard the stability of the financial system. This is primarily achieved through the continuous monitoring of potential financial stability risks, and the subsequent design and application of macroprudential policy tools to build resilience against emerging systemic risks. The assessments are supplemented by stress tests and sensitivity analyses to evaluate the impact of plausible tail-risk events which could challenge the resilience of the domestic financial system.

Main developments

During 2022, the Bank published the *Financial Stability Report (FSR) 2021* and its *Interim*, which covers financial stability developments for the first half of 2022, in a bid to keep the public and stakeholders informed of the main financial stability conditions amidst the heightened uncertainty and challenging macroeconomic environment. Towards the end of September, the Central Bank of Malta hosted its first-ever FSR launch event entitled *Financial Stability Report 2021 – Resilience in Uncertain Times.*

Staff also contributed to the Bank's publications in the form of two working papers documenting a stress testing framework for Maltese households and the estimation of one of the Bank's macroeconomic models, respectively. The latter also featured as an article in the fifth edition of the Bank's Research Bulletin. The Bank participated in the discussions on the 2022 European Commission (EC) Macroprudential Review, expressing its views and proposing targeted amendments to the current European macroprudential toolkit.

The newly set up Financial Stability Research Office launched its internal Research Seminar Series with a presentation to staff in November on a new systemic risk indicator for Malta. This indicator complements existing indicators developed earlier in the year. Its construction is part of a research project aimed at strengthening the Bank's analysis of cyclical risks. Economists from this office are also working on the development of other methods that further strengthen this toolkit.

In September, the Bank hosted a joint European Investment Bank and Central Bank of Malta Conference, entitled *Financing the Transition to a Carbon Neutral Economy* in which staff members from the Financial Stability Surveillance & Research and the Policy, Crisis Management and Stress Testing Departments took part. They presented a first assessment of the Maltese financial sector's direct exposure to economic sectors that may be affected by the transition to a less polluting economy.

Later in October, the Bank also hosted a series of ECB and ESRB meetings on matters relating to macroprudential policy, including a meeting for members of the ECB Macroprudential Policy Group (MPPG). The Bank and the ECB also jointly hosted the fifth annual MPPG research workshop, entitled *Macroprudential policy and real estate markets: objectives, effectiveness and new challenges*. The workshop's special focus was on real-estate oriented macroprudential policies, with contributions from the Bank's staff.

The Bank continued to monitor developments in AML related matters of different stakeholders, including the government, national authorities and market operators which continued their work in addressing the recommendations made by MONEYVAL and the Financial Action Task Force (FATF). In this regard, following the significant progress made in improving the AML/Combating the Financing of Terrorism (CFT) regime, and after meeting the commitments identified in the action plan regarding the strategic deficiencies that the FATF highlighted in June 2021, Malta was officially removed from the FATF list of jurisdictions under increased monitoring in June 2022.

Policy developments

In line with the ESRB recommendation (ESRB/2015/1), on recognising and setting CCyB rates for exposures to third countries, in 2022 the Bank carried out its annual exercise with the aim of identifying the material third countries to which the domestic banking sector is exposed.[1] The material third countries identified in 2021, which comprise the United States of America, United Kingdom and United Arab Emirates, were all also confirmed for the period Q2 2022 – Q2 2023.

As per the ESRB recommendation on the assessment of cross-border effects of, and voluntary reciprocity for macroprudential measures, the Bank reviews macroprudential policy measures recommended for reciprocation by other Member States.[2] During 2022, four countries recommended measures for reciprocation: Lithuania, The Netherlands, Belgium and Germany. After analysing the recommended policy measures, it was decided not to reciprocate on the basis of the immateriality of exposures in the local banking sector and/or inapplicability of the policy measure to the domestic financial system. The Bank also maintained its non-reciprocation stance unchanged, in relation to the previously activated measures recommended for reciprocation by other Member States.[3]

In consideration of the fact that 2021 was the third year of application of Directive No. 16 on BBMs, credit institutions were required to submit their external audit reports covering the 2021 financial year. Overall, the banks were found to be compliant with the provisions of Directive No. 16.

During 2022, the CCyB was kept unchanged at 0%, with the credit-to-GDP gap narrowing slightly on account of the faster recovery in GDP than growth in bank credit. Drawing also from an assessment of supplementary indicators, the Bank did not deem necessary to activate the CCyB, which is considered to be a broad-based policy tool. Meanwhile, the capital conservation buffer remained in force, with banks required to hold an additional capital of 2.5% of risk-weighted assets.

In addition, the Bank carried out quarterly rounds of the BLS in 2022 among four large core domestic banks, with the aim to gather qualitative information on developments in lending standards and credit demand of households and NFCs. The BLS results were published in a dedicated box in the Bank's *FSR 2021*, highlighting domestic developments and a comparison of these with the euro area.

The Bank together with the MFSA carries out a yearly exercise on the identification of the O-SIIs and the related applicable capital buffer. The same four credit institutions identified as O-SIIs in 2021 have been reconfirmed in 2022.

Committee meetings at domestic and European levels

The Bank's Financial Stability Committee met four times in 2022 to discuss ongoing topics related to financial stability as well as the content of the *FSR*. In addition, other important topics discussed were the assessment of cyclical risks in Malta, a progress update on the design of the climate-related adverse scenario, the Bank's views on the revamp of the MFSA's banking rule BR/09 which relates to measures addressing non-performing and forborne exposures, and the results of the 2022 O-SII buffer exercise.

The Bank remained also active in the Joint Financial Stability Board as well as the Domestic Standing Committee and its Crisis Management Task Force.

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[1] ESRB/2015/1: Recommendation of the ESRB of 11 December 2015 on recognising and setting countercyclical buffer rates for exposures to third countries.

[2] ESRB/2015/2: Recommendation of the ESRB of 15 December 2015 on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures (europa.eu)

[3] The latest information on the reciprocation stance taken by the Central Bank of Malta is available on the website at this link.

The Forum for Financial Stability was held in February 2022 where cyclical and residential real estate risks, capital buffer usability and climate risks were discussed.

At a European level, senior Bank officials participated in a number of meetings of the ESRB, the European Banking Authority (EBA), the EFC, the ECB SSM, and the ECB meetings and their sub-structures. Furthermore, several meetings on financial stability issues were held with the IMF in terms of its Article IV Mission, the EC and with credit rating agencies.

Future developments

In 2023, the Bank will continue updating its risk quantification and assessment toolkit to be in a better position to assess potential financial stability risks at an early stage. This should be complimented by further research initiatives especially in the field of cyclical risks. Similarly, the stress testing frameworks will be reviewed and refined as necessary to better capture any new or emerging risks, as well as the quantification of their impact.

The macro stress testing framework is being reviewed with the aim of incorporating balance sheet dynamics under prescribed paths in response to a stress test scenario. Research plans for 2023 include an assessment of the introduction of BBMs through Directive No. 16 in 2019, as well as the start of the development of a network model that captures financial interlinkages across Malta's financial sector. From the policy side the Bank will recommending the introduction of a sectoral systemic risk buffer to mitigate against concentration risk and rising cyclical vulnerabilities in the mortgage lending sector.

3. ECONOMIC ANALYSIS AND RESEARCH

The Central Bank of Malta monitors and assesses economic developments and prospects in support of its key policy-making function. The Bank also carries out economic research and develops and maintains a suite of econometric models.

Four projection exercises were conducted, two of which were undertaken as part of the Eurosystem's Broad Macroeconomic Projection Exercise. Staff carried out further work to enhance the various tools used in the forecasting processes. Modifications were made to better account for the impact of the war in Ukraine and price mitigation measures taken by the Maltese Government on inflation and fiscal projections. Steps were also taken to improve the collection of information on fiscal measures with relevance to climate change. The commentary on the Bank's projections continued to feature boxes on specific aspects related to forecasting. In 2022, these boxes explored various topics, including the energy block within the inflation projections framework, pandemic-related excess savings, projections for food inflation and their relationship with certain components of services inflation, and an assessment of the macroeconomic effects of EU-funded investment, including projects financed through the Recovery and Resilience Facility. As in previous years, meetings were held with officials from the European Commission, the IMF and major credit rating agencies to discuss the local economic situation and outlook.

The Bank maintained its regular dialogue with business firms' representatives and public sector institutions to obtain a timelier gauge of economic conditions and prospects. The Bank published the main results of this exercise on a quarterly basis in the Bank's Business Dialogue publication.

The Bank also communicated its analysis of domestic and foreign economic and financial developments in its *Quarterly Review* and *Annual Report*. Moreover, the Bank continued to publish a monthly *Economic Update*. Apart from commenting on official statistics, these publications include commentaries on several internally developed indicators, including the Bank's estimate of potential output and structural unemployment, a Business Condition Index, the FCI, and cyclically adjusted fiscal and current account balances. As the economy re-opened and the last remaining pandemic-related restrictions were lifted, an indicator of COVID-19 stringency measures was discontinued, while information on pandemic-related loan moratoria and guarantee schemes was streamlined. In view of the high inflation environment, the regular economic publications began to report more detailed assessments of price developments. For example, the *Economic Update* started to include a short commentary on sectoral selling price expectations and the *Quarterly Review* featured additional details on the main contributors of HICP inflation. The *Quarterly Review's* analysis was also extended in other ways. For instance, the section on the housing market was augmented with details on mortgage contracts, and advertised rental prices collected from the internet.

The Economic Analysis Department continued to collaborate with statistical compilers in other institutions and participated in the work of the ECB's Statistics Committee in relation to government finance statistics and general macroeconomic statistics. Further interactions took place with the NSO and the ECB in relation to the validation of the fourth wave of the HFCS.[1] The first results for Malta were presented in the Bank's Annual Research Workshop. In the meantime, the Bank's Economic Analysis and Statistics Department began to collaborate with the ECB on an experimental set of distributional wealth statistics. This dataset, still under development, links micro data collected from the HFCS at three-year intervals with quarterly financial

[1] HFCS results were transmitted to the ECB in 2021.

accounts data. It reflects the distributional information from the survey in the latter dataset with the advantage of being available at a more frequent (quarterly) interval. Once available, this dataset could be used to better assess the heterogenous effects of economic and policy shocks on different households.

Bank staff undertook specialised research which resulted in six working papers, seven policy notes and 29 boxes, featuring in the Bank's regular publications. Three working papers covered the spillovers of euro area shocks on the Maltese economy, a stress testing framework for Maltese households and a microsimulation study to assess the impact of the COVID-19 wage supplement scheme. The other working papers focused on monetary policy, the estimation of the Bank's DSGE model,[2] and the development of a nowcasting model for the Maltese economy.

The policy notes dealt with a variety of topics, including the excess demand for banknotes, saving patterns, house prices, Brexit, climate change, oil prices and shipping disruptions, and the impact of COVID-19 on long careers. Research was also presented externally, both locally and abroad. Three studies were published in foreign peer-reviewed journals. Staff continued to participate in the Rental Observatory, set up by the Housing Authority to scrutinize the developments in the private rental market and contributed to two articles of the second edition of the Annual Residential Rental Study. In addition, the Economic Research Department also provided input to several ECB working groups and task forces and presented research results in local and external virtual conferences or webinars on a diverse range of topics.

In 2022, the Bank organised its fifth Annual Research Workshop. The keynote speech by Dr Elisa Lanzi from the OECD focused on the cost of environmental inaction and economic resilience. It was followed by a discussion from two economists from the Research Department on the Bank's latest modelling efforts regarding climate and energy. The final presentation focused on the main findings from the fourth wave of the HFCS for Malta. During the virtual workshop, the Bank launched the fifth edition of its Research Bulletin. The four articles in the Research Bulletin dealt with the main findings from the HFCS on household finances and consumption patterns, the differences between advertised and registered rents, the direct macroeconomic effects of the RRF fund on the Maltese economy and the estimation of the Bank's structural model with state-of-the-art Bayesian methods.

The Modelling Office continued working on the upkeep of existing models as well as on the development of new modelling tools to be used in future policy and research work. In the last two years, staff from Modelling Office have been working in close collaboration with researchers from the University of Macerata to develop a new Computable General Equilibrium model for the Maltese economy. During the last part of 2022, Dr Francesca Severini, and Dr Stefano Deriu from the University of Macerata, visited the Bank for a week-long visit. During this visit, staff from the Modelling Office worked closely with the Macerata team to fine-tune the simulation capabilities of the newly developed model. This two-year project is expected to be finalized by the first quarter of 2023.

The Bank continued to organise regular internal seminars to stimulate economic discussion and debate on its studies prior to their publication. Staff members kept regular contact with academia, both locally and abroad. In addition, assistance from external institutions was sought for the peer-review of the Bank's technical studies. The Bank remained active in domestic fora, such as the National Productivity Board, the Building Industry Consultative Council, and the Rental Observatory. An economist from the Economics Division also presented his research on the effects of oil price swings on the Maltese economy during a workshop with Mediterranean countries organised jointly by the World Bank and the *Banque de France.*

Research plans for 2023 relate to studies on long-term structural trends in the Maltese economy, including demographic changes and climate change. Fiscal policies, inflationary pressures and monetary policy transmission topics are also expected to feature in future work, together with analysis on sectoral linkages, labour skills shortages and other issues affecting the labour market. In addition, the Economics Division will

[2] The Central Bank of Malta has developed a Dynamic Stochastic General Equilibrium Model (DSGE) for Malta following a three-year technical cooperation with the *Banca d'Italia.*

continue to assess the impact of the recent commodity price shock on the economy. Efforts to augment the research capacity of the Bank's econometric and structural models will also be pursued. The Division will also examine ways in which information collected from its household and industry surveys can be presented in a more accessible format by means of dashboards.

4. STATISTICS

The Bank is primarily responsible for the collection and compilation of a wide range of financial statistics in banking, payments, securities, financial accounts, financial soundness, financial markets and financial institutions. The Bank also collects various other statistics for internal research and policy-making purposes, such as prudential, supervisory and macroeconomic statistics. These statistics are also used by other national and international authorities and organisations, market participants, the media and the general public. The Bank also contributes to the compilation BoP/international investment position (IIP) statistics of the NSO.

The Bank fulfils various international statistical reporting obligations, mainly to the ECB and the IMF. The Bank participates in the Fund's SDDS and the General Data Dissemination System (GDDS).

Participation in Eurosystem-related work was pursued. A new statutory return was implemented to collect data in line with ECB Regulation (ECB/2020/59) and the related ECB Guideline on payments statistics (ECB/2021/13). The collected statistics were subsequently transmitted to the ECB. Concurrently, the credit institutions' data, including related statistics published on the Bank's website, were amended to cater for the new reporting requirements imposed by Regulation ECB/2021/2 (recast) and Guideline (ECB/2021/1), which came into force as from January 2022. In addition, the Statistics Department participated in the investigation phase of the proposed amendment to the ECB's investment funds regulation. Meetings were organised with the investment funds and their association to discuss these new requirements.

Staff from the Statistics Department participated in the ECB expert group on climate change statistical indicators. Work proceeded on the operational phase of the Anacredit database, aimed at providing a harmonised set of credit and credit risk data across participating euro-area countries. Moreover, the Bank kept enhancing the quality of the Maltese securities data held within the ECB's Centralised Securities Database, while collecting a range of securities holding statistics by institutional sector. Data on third party holdings, consisting of securities held by households with non-resident nominees, will be included for the first time in the compilation of the BOP/IIP statistics.

The Bank actively participated in the ESCB Integrated Reporting Framework (IReF) project, primarily intended to integrate in the medium-term several ECB statistical regulations into one common framework. The project aims at increasing the efficiency and robustness of data reporting at the euro area level while reducing the reporting burden on credit institutions. Meetings with the local banking industry were held and in 2023, the latter will be invited to participate in further cost-benefit assessments. Meanwhile, the ECB's Register of Institutions and Affiliates Database (RIAD) continued to be populated with reference data of all newly licenced institutions. RIAD is nowadays considered as the primary reference database for various statistical and supervisory processes.

During the year, the Bank became fully compliant with the ESRB's *Recommendation on closing real estate data gaps* (ESRB/2016/4) as amended by Recommendation (ESRB/2019/3). The data being collected also enables the Bank to monitor developments as per Directive No. 16 on the BBMs and fulfils the Bank's requirements on the hedonic PPI and bank lending standards.

The Bank continued to collaborate with the NSO to enhance the quality of the BOP, IIP and other external statistics and to follow-up on the recommendations of the ECB and Eurostat on this dataset within the framework of the Macroeconomic Imbalances Procedure. Bank officials proceeded with their collaboration with NSO counterparts to facilitate the migration of the whole BOP database from the legacy platform to the new solution. In the area of financial accounts statistics, work progressed well to meet the amended ECB Guideline in this area of statistics targeted for 2022 and 2023. The Department worked closely with the NSO to reconcile the non-financial accounts with financial accounts statistics. In cooperation with other officials from the Bank, the Statistics Department is working on the compilation of a new set of experimental data on households' distributional wealth accounts which is being developed by the ECB. The methodology and first results were presented in both internal and external fora. The Bank and the NSO registered considerable progress in the preparation for Malta's to adherence to the IMF's SDDS Plus initiative.[1]

Statistics from various other financial institutions' (OFI) sector continued to be collected, namely from the pension funds, insurance corporations, investment services providers and the investment funds. Work commenced to create a consolidated OFI survey as part of the IMF's SDDS Plus requirements. In January, the Bank published for the first time an aggregated statement of assets and liabilities of pension funds as part of the Bank's commitment to broaden the range of statistical data available on its website. Moreover, to improve the statistical communication with the reporting institutions, the Statistics Department began publishing periodic statistical newsletters.

Collaboration with *Banca d'Italia* on the Bank's statistical platform – INFOSTAT – progressed into new joint initiatives such as the EBA's and European Insurance and Occupational Pensions Authority's latest taxonomies on supervisory reporting of credit institutions and the insurance corporations, respectively, while work is underway for the implementation of the databank project. The credential management function continued to manage the authorisation process and the helpdesk to support users. Moreover, in its efforts to improve data and statistical robustness, various tools were used. Research was conducted on the use of machine learning techniques for outlier detection. The first results were presented to the Bank's *Big Data and Machine Learning Network* and during the joint workshop with *Banca d'Italia* entitled *IT Strategies, Artificial Intelligence and Machine Learning Techniques*, held in early December.

The Bank continued to operate its CCR to provide borrowers' credit risk information to both credit institutions as well as natural and legal borrowers. This is in line with Directive No. 14, which empowers the Bank to operate the Register in pursuit of its objectives regarding financial system stability, monetary policy analysis and the processing of statistical information. The availability of such a register allows credit institutions and the MDB to access data for assessing risks when granting credit. The searches on prospective and existing clients by credit institutions continued to expand in 2022, reaching 41,610 from 41,050 in 2021.

Meanwhile, the Bank, as the supervisory authority on credit reference agencies in Malta, received in June 2022 a second application from a prospective agency for the license to operate as a credit reference agency.

Cooperation with the MFSA continued to evolve through the *Joint Data Coordination Group*, intended to recommend policy actions on common data management. The *Forum for Central Bank of Malta Statistics* was held together with financial institutions. Concurrently, Bank officials participated in the Statistics Committee in both ESCB and in SSM composition and in its various sub-structures. The Bank's internal *Statistics Committee* continued to meet regularly to define and implement the policy on statistical information within the Bank.

[1] The IMF's SDDS Plus initiative is the Fund's most advanced standard of statistics and which entails the production and strict compliance with quality, frequency and timeliness of statistics.

5. CURRENCY, PAYMENT SYSTEMS AND BANKING SERVICES

The Central Bank of Malta is responsible for the issue and circulation of euro banknotes in accordance with the legal framework of the ESCB, the ECB and of the Central Bank of Malta Act. The Bank also issues coins on behalf of the Government of Malta through a Memorandum of Understanding. Moreover, the Bank is responsible for the regulation and oversight of the payment and securities settlement systems in Malta.

Currency operations

The Central Bank of Malta provides an adequate supply of euro banknotes and coins to meet the demand of the banking system. The Bank ensures the high quality and authenticity of the currency in circulation. All currency returned to the Bank is processed by ECB accredited machines. Counterfeit banknotes and coins are withdrawn, while those found to be unfit for circulation are destroyed. Data on stocks and flows of banknotes and coins are reported on a daily and monthly basis to the ECB through the Currency Information System.

In terms of the obligations laid down under Central Bank of Malta Directive No. 10, the Currency Operations Office monitors recycling activities performed by credit institutions and other professional cash handlers. Annual monitoring tests are performed on banknote handling machines and coin processing machines. Other monitoring checks are undertaken on an ad hoc basis at branches of commercial banks.

The Counterfeit Surveillance Unit within the Currency Operations Office analyses banknotes and coins suspected to be counterfeit and provides expert evidence related to counterfeit currency in terms of the obligations laid down under Article 54 of the Central Bank of Malta Act (Cap. 204).

Circulation of notes and coins

During 2022, the number of notes inspected by the Bank totalled 53.4 million compared with 76.3 million in 2021. The inspected notes had a value of approximately €1,356.2 million, €511.5 million lower than in 2021. When compared to 2021, there was a decrease of 30.0% in volume of notes inspected by the Bank. This can be attributed to the significant increase in re-circulation activities by commercial banks during 2022. A total of 45.8 million banknotes with a value of €1,106.6 million were found suitable for re-issue, while 7.6 million banknotes with a value of €279.3 million were destroyed. The share of destroyed banknotes decreased by 11.6% in volume terms but increased by 13.4% in value terms due to the destruction of €200 and €100 from the old series.

In 2022 the value of euro banknotes in circulation grew by 8.0%. At the end of the year the total value of banknotes in circulation was €2,301.6 million (see Table 5.1). No new series of notes were issued during 2022.

In 2022, the outstanding volume of euro coins rose by 5.7%. By the end of the year, there were 402.6 million coins issued and outstanding, equivalent to €105.9 million (see Table 5.2).

Table 5.1
BANKNOTES ISSUED AND OUTSTANDING BY THE CENTRAL BANK OF MALTA
EUR millions

Total	Issued	Withdrawn	Net issue	Issued and outstanding
2021	2,130.8	1,831.6	299.2	2,131.5
2022	1,503.0	1,332.9	170.1	2,301.6

Source: Central Bank of Malta.

Table 5.2
COINS ISSUED AND OUTSTANDING BY THE CENTRAL BANK OF MALTA
EUR millions

Total	Issued	Withdrawn	Net issue	Issued and outstanding
2021	24.4	20.3	4.1	100.2
2022	26.9	21.2	5.7	105.9

Source: Central Bank of Malta.

During 2022, the Bank processed 36.2 million coins, equivalent to €22.3 million. Between 2021 and 2022, the number of coins examined increased from 35.8 million to 36.2 million, an increase of 1.1%. No coins were demonetised or ceased to be exchangeable during 2022.

During 2022, the Bank continued using the Cash Single Shared Platform system for stock management of banknotes and coins. Staff tested extensively an upgrade of this system which will be released during 2023. Moreover, the Central Bank of Malta Directive No. 10 on the authentication fitness checking and recirculation of euro banknotes and coins was amended to further expand the list of items which cash handlers need to report to the Bank.

During 2022, Currency Operations Office continued with the certification of professional cash handlers using its dedicated online platform. Various employees involved in cash handling from credit institutions renewed their certificates by taking online tests in *Anti-Money Laundering and Know Your Banknotes* modules. By the end of 2022, there were 1,579 certified professional cash handlers enrolled.

During 2022, Currency Operations Office held 70 information sessions on banknotes and coins at retailers. Several other information sessions were delivered to primary school children. Sessions took place online, at the Bank's premises and in retail outlets. The Bank also participated in the European Money Week organised by the Malta Bankers' Association, which focused on financial education and raised awareness amongst students about money and personal finances.

Anti-counterfeit measures

During 2022, the Central Bank of Malta continued to monitor credit institutions and other professional cash handlers, ensuring that all cash handlers were appropriately certified and trained. In addition, Bank staff performed monitoring tests on each type of banknote handling device and coin processing machines. A total of 41 unannounced inspections at branches of credit institutions, seven inspections at Cash-in-transit companies and 17 monitoring tests on banknote handling machines were undertaken to ensure compliance with the Bank's Directive No. 10 on the Authentication, Fitness Checking and Recirculation of Euro Banknotes and Coins. Data on recirculation were collected from cash handlers during the year, analysed, and sent to the ECB.

Quarterly meetings on currency matters and counterfeit developments with credit institutions continued to be held to keep members updated. Assistance was also provided to cash handlers with the upgrading of their banknote handling machines.

During 2022, 927 banknotes and 487 coins were examined, and findings were uploaded into the ECB's Counterfeit Monitoring System. Following analysis, 389 banknotes and 406 coins were confirmed to be counterfeit and removed from circulation. When compared to the previous year, the number of counterfeits detected increased by 27.5%. At 389 pieces, the number of counterfeits is still considered to be negligible. The quality of the counterfeits continues to be low and they can be detected very quickly and easily by applying the *feel-look-tilt* test.

Currency Operations Office personnel were also asked to provide expert evidence during court cases. During 2022, Currency Operations issued one press release to inform the public on the status of counterfeit notes in the Eurosystem in general and more specifically, on the local situation. As from the last quarter of 2022, the Bank started publishing weekly informative posts regarding the euro on social media.

BOX 6: NUMISMATIC RELEASES 2022

500th Anniversary of the Magellan-Elcano Circumnavigation of the Globe

An issue of gold and silver coins commemorated the 500th Anniversary of the first circumnavigation of the globe by Ferdinand Magellan and Sebastian Elcano. Captained by Ferdinand Magellan, a flotilla of five Spanish ships set sail in August 1519 on a quest to establish a route to the fabled Spice Islands and claim them for the King of Spain. The voyage was completed by a single surviving ship under the command of Sebastian Elcano which reached San Lucar de Barrameda on 6 September 1522. This epic maritime feat widened the existing knowledge of the world and proved that the earth could be circumnavigated. It was also the first step towards globalism.

The coins were designed and engraved by Maria Anna Frisone and were minted at the Royal Dutch Mint. The coin obverse features the coat of arms of Malta. The reverse shows a representation of the two sea captains set against a representation of the globe as known in the 16th century.

The Birth of Agostino Levanzin – 150th Anniversary

A silver coin was issued to mark the 150th anniversary of the birth of Agostino Levanzin. A chemist and a legal practitioner by profession, Levanzin is best remembered for his newspaper *In-Naħla* and his historical novel *Is-Saħħar Falzun*. Levanzin promoted the Maltese language at a time when it lacked recognition and status. He was also a pioneer of Esperanto in Malta. As a social activist, he was concerned with workers' rights, compulsory education and female suffrage.

The coin was designed by Noel Galea Bason and was minted at the Royal Dutch Mint. The coin obverse features the coat of arms of Malta. The reverse carries a portrait of Levanzin.

The Birth of Louis Pasteur – 200th Anniversary

A silver coin was issued to mark the 200th anniversary of the birth of Louis Pasteur. Pasteur, a French chemist is best remembered for the process of pasteurisation and for developing the principle of vaccination. The development of a vaccine for rabies sealed Pasteur's fame and opened the way for the development of vaccines against different diseases, contributing to the saving of millions of lives.

The coin was designed by Maria Anna Frisone and was minted by the Royal Dutch Mint. The coin obverse features the coat of arms of Malta. The reverse carries a representation of Louis Pasteur together with some of the tools he used in the conduct of experiments.

The Centenary of the First Performance of Innu Malti

The Central Bank of Malta marked the centenary since the first public performance of *Innu Malti* with an issue of silver and gold coins. *Innu Malti*, Malta's national anthem, came into being shortly after that Malta, then a British colony, was granted a measure of self-government in 1921. *Innu Malti* combines verses written by Dun Karm Psaila and the music of Robert Samut, a well-known and respected medical doctor. Innu Malti was first performed in public on 27 December 1922 but it was only when Malta attained independence, in 1964, that *Innu Malti* was formally recognised as the National Anthem of Malta.

The coins were designed by Noel Galea Bason and were minted at the Royal Dutch Mint. The coin obverse features the coat of arms of Malta. The reverse shows a profile portrait of Robert Samut and Dun Karm Psaila.

Ħal Saflieni Hypogeum

During the year, the Central Bank of Malta also issued three commemorative €2 coins. One of the coins depicts the *Ħal Saflieni* Hypogeum a prehistoric site which is inscribed as a UNESCO World Heritage Site. This coin concluded a series of seven coins dedicated to Malta's prehistoric heritage. The coin was designed by Noel Galea Bason and was minted at the Royal Dutch Mint.

Women, Peace and Security

The second coin issue commemorates the 22nd anniversary of the United Nations Security Council Resolution 1320 on Women, Peace and Security. The coin was designed by Antonella Napolione and was minted at the Royal Dutch Mint.

The 35th Anniversary of the Erasmus Programme

The third coin issue formed part of a euro area joint issue commemorating the 35th anniversary of the Erasmus Programme. These coins featured a common design on the national side showing a portrait of Desiderius Erasmus, set against a geometric background.

The common design was created by Joaquin Jimenez. The Maltese coins were minted at the Royal Dutch Mint.

The Numismatics and Historical Publications Advisory Board (NHPAB) was set up in 2017 to propose themes for the Central Bank of Malta commemorative coins programme and to act as editorial board for historical publications. It took over this role from the Currency Advisory Board.

During 2022, the NHPAB was chaired by the Governor of the Central Bank of Malta, with Chief Officer Banking Operations Jesmond Gatt, Prof. John Chircop, Dr Lillian Sciberras and Dr Mario Brincat as members. Board secretary is Kevin Cassar, Curator of the Central Bank's Museum.

Payment and securities settlement systems

The Bank's responsibility to carry out regulation and oversight activities stems from Articles 34 and 34A of the Central Bank of Malta Act whereby the Bank is responsible for the promotion and provision of a stable and sustainable payments landscape in Malta. To fulfil this responsibility, the Bank oversees and regulates the operations of, and the participation in, domestic payment systems. Moreover, the Bank oversees and regulates the provision of payment services, payment applications, payment card schemes and payment transactions operated and effected by credit and financial institutions. In doing so, the Central Bank of Malta, is involved in various regulatory developments and enforcement processes, as well as the carrying out of multiple oversight assessments on relevant entities to promote an effective and efficient payments landscape in Malta.

Third Annual Review of the Malta Stock Exchange under the Central Securities Depository Regulation

As outlined in the Central Securities Depository Regulation (CSDR), both the Competent Authority (i.e., MFSA) and the Relevant Authority (i.e., Central Bank of Malta) are required to perform an annual review and evaluation process on Central Securities Depositories (CSDs) to confirm that the provisions outlined in the regulation are implemented. The third annual assessment on the MSE was carried out in 2022 and the assessment report was approved by the Eurosystem decision-making bodies. Furthermore, an abridged version of the approved report was provided to the MFSA.

Annex 3 of Bank's Directive No. 1

In line with Central Bank of Malta Directive No. 1, credit and financial institutions submitted an annual report on the Information and Communication Technology and security risk management of their operations. During 2022, the Bank received and reviewed 60 reports from such institutions.

Implementation of Digital Operational Resilience Act (DORA)

Given the increasing risk of cyber-attacks, the European Union felt the need to strengthen Information Technology security of financial entities. To this effect, DORA was drafted during 2022 mainly to facilitate and maintain resilient operations of relevant entities. In preparation for the implementation of this legislation, the Bank and the MFSA held regular meetings to discuss different aspects within DORA, highlighting obligations for the yet to be designated competent authority.

Implementation of an access interface for third party providers

As from 14 September 2019, credit and financial institutions offering a payment account which is accessible online, had an obligation to provide an access interface to third party providers. Such interface could either be in the form of a dedicated interface or the modification of the interface used by payment service users to access their account online. Those institutions, which opted for the dedicated interface, had an obligation to implement a fall-back mechanism if the dedicated interface is down. However, subject to certain criteria being met, institutions could be exempted from the provision of the fall-back mechanism. During 2022, nine institutions have met the criteria required and were granted an exemption.

Furthermore, following the publication of the European Banking Association Opinion on Obstacles, the regulatory function conducted an exercise to determine which customer journeys of Account Servicing Payment Service Providers (ASPSPs) contained obstacles. Several meetings with ASPSPs were held to ensure that such obstacles were removed.

Legislative proposal on instant payments

In October 2022, the European Commission published a new legislative proposal on instant payments. The objective of such proposal is to increase the uptake of instant payments by ensuring their affordability, security, and seamless processing across the European Union. It is expected that this proposal becomes law during 2023.

Malta Clearing House

Members of the Malta Clearing House (MCH) meet every morning at the Bank's premises to physically exchange the cheques negotiated during the previous working day. The number of cheques issued

Table 5.3
NUMBER AND VALUE OF CHEQUES PROCESSED BY THE MCH, 2021 AND 2022

	Number of cheques	Value (EUR millions)
2021	2,843,666	7,280.6
2022	2,774,534	7,563.9
Change	-69,132	283.3
Percentage change	-2.4	3.9

Source: Central Bank of Malta.

continued to decrease in 2022 (see Table 5.3). This may be attributed to the objectives of the new Central Bank of Malta Directive No. 19 on the use of cheques and bank drafts which came into effect on 1 January 2022, and the aim to increase the use of alternative payment methods following the COVID-19 pandemic.

As at the end of 2022, the MCH comprised 11 members, including the Central Bank of Malta.

TARGET2-Malta

During 2022, the number of direct participants in the Trans-European Automated Real-Time Gross Settlement Express Transfer System (TARGET2)-Malta remained unchanged. The total volume of payments processed during 2022 was 82,234 for a total value of €934.2 billion. The TARGET2-Malta payments traffic in 2022 registered a 4.7% decrease in terms of volume and an increase of 54.8% in terms of value when compared to 2021. The volume of customer payments was 56,449 for a total value of €10.3 billion, leading to a decrease in volume of 9.6% and an increase in value of 9.6% when compared to 2021. The volume of inter-bank payments was 25,785 for a total value of €923.9 billion, indicating an increase of 8.1% in terms of volume and an increase of 55.6% in terms of value (see Table 5.4).

Banker to the public sector

The Bank continued to provide a range of banking services to the Government. These included the opening and maintenance of various euro and foreign denominated accounts, the encashment of cheques drawn on the Bank and issued by government departments, the deposit of cash and cheques, the provision of safe deposit and safe custody facilities, the processing of Single Euro Payments Area (SEPA) Credit Transfers (SCTs) and SEPA Direct Debits (SDDs), and the processing of payments through TARGET2 and the Society for Worldwide Interbank Financial Telecommunication (SWIFT).

In 2022, the Bank processed 3.3 million SCTs for a total value of €8.0 billion on behalf of its customers. When compared to the previous year, there was an increase of 2.7% in the volume whilst registering a decrease of 2.1% in the value of SCTs.

Table 5.4
TARGET2 PAYMENTS

	Total volume of payments	Total value of payments (EUR billions)	Total volume of customer payments	Total value of customer payments (EUR billions)	Total volume of inter-bank payments	Total value of inter-bank payments (EUR billions)
2021	86,274.0	603.4	62,419.0	9.4	23,855.0	593.9
2022	82,234.0	934.2	56,449.0	10.3	25,785.0	923.9
Change	-4,040.0	330.8	-5,970.0	0.9	1,930.0	330.0
Percentage change	-4.7	54.8	-9.6	9.6	8.1	55.6

Source: Central Bank of Malta.

Table 5.5

NUMBER AND VALUE OF CHEQUES DRAWN ON THE CENTRAL BANK OF MALTA BY THE PUBLIC SECTOR

	Number of cheques	Value (EUR millions)
2021	427,040	205.2
2022	706,972	200.0
Change	279,932	-5.2
Percentage change	65.6	-2.5

Source: Central Bank of Malta.

The increase of cheques drawn on the Central Bank of Malta and issued during 2022 when compared to the previous year (see Table 5.5) can be primarily attributed to the budgetary measures introduced by the Maltese Government. Such measures included benefits in relation to the in-work benefit scheme, tax refunds, inflation and Cost of Living Allowance for low-income earners.

During 2022, the Bank continued servicing the Government's external debt through periodic payments. As in 2021, where €125,192 worth of capital repayments were settled, in 2022 such settlements stood at €128,025. The associated interest paid in 2022 was €6,471 which is 85.6% of last year's amount of €7,557. The Bank also paid €945,120 as interest during 2022 on SURE loans.

The total value of funds transferred to external debt sinking funds by debit of the Government account during 2022 amounted to €50,000.

Banker to the banking system

The Central Bank of Malta continued to act as banker to the rest of the banking system by providing deposit facilities to credit institutions. These institutions maintain balances at the Bank mainly to meet their reserve deposit requirements. They generally hold reserve accounts, margin call accounts and accounts pledged in favour of the Investor Compensation Scheme and Depositor Compensation Scheme.

Other financial services

Throughout 2022, the Bank continued to increase the number of participants and payment traffic in its retail payment system MTEUROPAY. A total of four institutions were onboarded in 2022 bringing the overall number of participants to 10. This is evidenced by the substantial increase in payments processed across all payment streams. Outgoing SCTs registered a 203.1% and 231.7% increase in value and volume respectively, while Incoming SCTs increased by 38% in value and 515.4% in volume when compared to 2021. Additionally, SDDs increased by 547.9% in value and 136.6% in volume when compared to 2021.

The traffic through the Bank's payment system MTEUROPAY is listed in Table 5.6.

Table 5.6

MTEUROPAY PROCESSED PAYMENTS

	SEPA OUT – SCTs		SEPA IN – SCTs		SEPA OUT – SDDs	
	Value (EUR millions)	Volume	Value (EUR millions)	Volume	Value (EUR millions)	Volume
2021	1,642.1	80,720	17,388.1	37,574	21.9	32,299
2022	4,976.5	267,758	23,991.2	231,231	141.9	76,433
Change	3,334.4	187,038	6,603.1	193,657	120.0	44,134
Percentage change	203.1	231.7	38.0	515.4	547.9	136.6

Source: Central Bank of Malta.

Digital euro

The Bank continued to participate in a high-level task force on Central Bank Digital Currency to assess the designs and distribution methods of a digital currency, together with the possible impact on the market. This analysis should be completed by the third quarter of 2023.

Survey amongst local merchants on the use of payment instruments

In the course of 2022, a survey was carried out amongst local merchants on the use and acceptance of payment instruments. The survey results were analysed and subsequently shared with the local banking community.

The survey showed that firms were becoming more receptive to alternative means of payment other than cash, whereas most retailers preferred card payments, followed by credit transfers. Furthermore, a majority of merchants considered the move to a cashless system as an opportunity for their business.

Information campaign on the use of direct debits

The Bank embarked on an educational campaign where several initiatives, including participation on several TV programmes and newspaper articles, were undertaken to raise awareness about the benefits of using direct debits.

Exchange of Hryvnia banknotes

The Bank, through an agreement with the National Bank of Ukraine and in line with the EU recommendations to assist displaced persons presenting evidence of being entitled to temporary protection as provided for in Directive 2001/55/EC on adequate protection under national law as referred to in Implementing Decision (EU) 2022/382, referred to in the communication from the Commission 2022/C 126 I/01, enabled the conversion of hryvnia banknotes into euro. Between 1 August and 7 December 2022, a total of UAH161,000, equivalent to €3,959.56, were exchanged.

6. CORPORATE GOVERNANCE

Governance

Board of directors

The Board of Directors of the Central Bank of Malta is responsible for the policy making and the general administration of the Bank, except for functions relating to the Treaty on the Functioning of the ECB, or the protocol of the ESCB, or functions which are conferred exclusively on the Governor in terms of the Central Bank of Malta Act (Cap. 204).

During 2022, the Board of Directors was composed of Professor Edward Scicluna as Governor and Chairman, Mr Alexander Demarco and Mr Oliver Bonello as Deputy Governors responsible for Monetary Policy and Financial Stability respectively, and Professor Peter J. Baldacchino, Professor Frank Bezzina, Dr Romina Cuschieri and Dr Lauren Ellul as non-executive Directors.

Mr Oliver Bonello was reappointed as Deputy Governor responsible for Financial Stability upon the expiry of his term with effect from 1 July 2022. The term of office of Ms Philomena Meli as non-executive Director came to an end on 23 January 2022. The Prime Minister acting on the advice of the Cabinet of Ministers, in accordance with the provisions of the Central Bank of Malta Act (Cap. 204), appointed Dr Lauren Ellul as non-executive Director of the Central Bank of Malta for a period of five years with effect from 2 February 2022. All members of the Board are appointed for a statutory term of five years and are eligible for reappointment.

In terms of the Central Bank of Malta Act (Cap. 204), the Governor and the Deputy Governors are appointed by the President of Malta acting on the advice of the Cabinet of Ministers while the other non-executive Directors of the Board are appointed by the Prime Minister acting on the advice of the Cabinet of Ministers. Mr Francis Bugeja continued to act as Secretary to the Board. During 2022, the Board of Directors convened 11 times.

Management and internal organisation

In March, the Board of Directors of the Central Bank of Malta approved the inclusion of Dr Lauren Ellul in the Audit Committee such that the four non-executive Directors of the Board would be members of the said Committee. The Board further endorsed the appointment of Dr Romina Cuschieri as the new chair of the Compliance Committee in lieu of Ms Philomena Meli. In March, the Board approved the establishment of a policy regulating the Provision for Financial Risk. During the same month, the Board approved a new tripar-tite agreement between the Bank, the University of Malta and the University of Malta Research, Innovation and Development Trust, whereby the University establishes a Central Bank of Malta Chair in Economics and related studies within one of its faculties. In May, the Central Bank of Malta became signatory to the new ESCB & SSM EDI Charter. In September, the Board approved the setting up of an SRI Desk within its International Asset Management Office. In December, the Board approved the 2023 Corporate Strategic Plan and Projects Report. During the year, the Board approved the setting up of a new department, Financial Crime Compliance Department led by the Money Laundering Reporting Officer.

Governor's activities

During the year 2022, the Governor, Professor Edward Scicluna, attended the regular ECB Governing Council and General Council meetings, as a member of the Governing Council and the General Council of the ECB. He also attended meetings of several international institutions, including the European Commission, the IMF, the World Bank and the EBRD.

In addition, the Governor, welcomed local and overseas distinguished guests, including Ministers, foreign diplomatic representatives and academics. In 2022, the Governor was also invited as a keynote speaker at several high-level conferences. He was also interviewed by various media houses both locally and overseas.

- Address during a conference of the European Savings and Retail Banking Group, online, 27 January.
- Participation in the Eurofi and Informal ECOFIN meetings, Paris, 25 February.
- Address during the launch of the Central Bank of Malta Corporate Strategic Plan, online, 14 March.
- Opening address during a webinar entitled *20 Years of Euro Banknotes and Coins*, online, 17 March.
- Participation in the IMF/WBG Spring Meetings, Washington DC, 20-23 April.
- Speech during the presentation of the Annual Report, Saint Julian's, 27 April.
- Courtesy visit by the Ambassador of the Hellenic Republic, H.E. Thasia Anastasiou, Valletta, 6 May.
- Endorsement of the ESCBs and SSM EDI Charter, Valletta, 6 May.
- Address during the EBRD Plenary, Marrakech, 10-12 May.
- Address during the 120th Information Technology Committee Meeting in Malta, Valletta, 18-20 May.
- Presentation of *La Vallette* Bronze Medal Collector's Edition Set as Central Bank of Malta donation to *Dar tal-Providenza*, Valletta, 24 May.
- Launch of the Central Bank of Malta tree planting initiative, Paola, 25 May.
- MNI Interview, online, 30 May.
- Statement on Businessnow.mt, online, 9 June.
- Speech at the European Economics and Financial Centre of the University of London, online, 15 June.
- Meeting with the IMF Delegation at the Central Bank of Malta during the IMF Article IV preparatory mission meetings, Valletta, 12 July.
- Endorsement of an agreement with the University of Malta and the University Research, Innovation and Development Trust for the re-establishment of a Central Bank of Malta Chair in Economics and related studies within the Faculty of Economics, Management and Accountancy at the University of Malta, Valletta, 25 July.
- Meeting with employees on their 25 years of service, Valletta, 29 July.
- Signature of a Currency Exchange Agreement with the National Bank of Ukraine, Valletta, 1 August.
- Presentation of the 14th Financial Stability Report to the Minister for Finance and Employment, Valletta, 10 August.
- Courtesy visit by the Central Bank of Libya Governor, Mr Saddek Elkaber, Valletta, 31 August.
- Address at a joint Central Bank of Malta and European Investment Bank Conference, Valletta, 5 September.
- Participation in the ECOFIN meetings and EUROFI Financial Forum, Prague, 9 September.

- Interview by journalist Silvia Amaro, CNBC, online, 12 September.
- '*We had to be firm this time round*' – *Central Bank governor Edward Scicluna on ECB interest rate hike*, Business.now.mt, online, 12 September.
- *Watch: Poor people should get more financial aid – Edward Scicluna*, Times of Malta, 14 September.
- Speech during the first ever Financial Stability Report launch, Valletta, 29 September.
- Keynote speech at the third edition of the Malta Maritime Summit 2022, online, 6 October.
- Participation in the ECB Governing Council retreat, Cyprus, 7 October.
- Participation in the 2022 Annual IMF and World Bank Meetings, Washington DC, 10-16 October.
- Address at the 5th ECB Macro-Prudential Policy Group Research Workshop, Valletta, 21 October.
- Address at the Annual Conference of Mediterranean Central Banks, Istanbul, 31 October.
- Interview by CNBC, online, 10 November.
- Speech at the Institute for Financial Services Annual Seminar, St Julian's, 11 November.
- Central Bank's Annual Research Workshop, online, 18 November.
- Address at the Institute of Financial Services Malta's Annual Dinner, Attard, 2 December.
- Meeting with Albania Financial Supervision Authority Delegation at the Central Bank of Malta, Valletta, 7 December.

Audit Committee
The Bank's Audit Committee, which is chaired by Professor Peter J. Baldacchino and includes Professor Frank Bezzina, Dr Lauren Ellul and Dr Romina Cuschieri, convened 12 times during the year. During such meetings, the Chief Officer Internal Audit continued to brief Committee members on matters relating to governance, risk management, and the adequacy and effectiveness of the design and deployment of controls across the Bank. Progress on the completion of the Annual Audit Plan was also provided, which by the year-end was fully completed. Furthermore, Committee members were kept informed, through regular status reports, on progress in addressing outstanding audit findings, whilst regular bank-wide, divisional and individual business area audit opinions were also tendered. During the August meeting, the Chief Officer Internal Audit once again tabled an updated report on the Department's annual review of its five-year rolling strategic plan which provided a detailed account of the Department's achievements in working towards full attainment of its strategic focus. The Bank's external auditors, KPMG, were also invited to attend several Audit Committee meetings.

External auditors
The Bank's external auditors, KPMG, carried out the statutory audit for the financial year ending 31 December 2022, expressing their opinion on the financial statements and presenting their Management Letter to the Board.

Internal Audit Department
The Internal Audit Department continued to provide assurance through the conduct of risk-based audits in line with the approved 2022 Annual Audit Plan. Seventeen local audit engagements were completed, the

vast majority of which assessed the effectiveness of governance, risk management and control processes implemented across several business areas. In line with methodological developments previously introduced, an opinion on the level of efficiency demonstrated in the use and deployment of resources in the processes reviewed was also provided for each of these audits. The Department also conducted a smaller number of audits focusing specifically on areas inherently deemed more susceptible to fraud. Furthermore, a number of asset spot checks were also conducted throughout the year.

As a member of the ESCB Internal Auditors Committee (IAC) in the Eurosystem, ESCB and SSM compositions, the Internal Audit Department provided the necessary assurances to the ESCB decision-making bodies through the conduct of four IAC audits and on-going participation in IAC meetings. The Department, through its representation on this IAC substructure, also actively engaged in the Audit Task Force on Monetary Policy, Financial Stability and Market Operations.

During the year, the Internal Audit function reconducted an independent assessment of the Bank's SWIFT architecture to assess its level of compliance with the controls listed in SWIFT's Customer Security Control Framework, a requisite that has now become mandatory on an annual basis.

Throughout the year, the internal audit function was involved in the review of several of the Bank's Policies and Procedures. The internal auditors continued to be involved in the work of the Compliance Committee, mostly in the capacity of observers, to preserve their independence and objectivity.

Risk Management

The Risk Committee met eight times during 2022. The Committee members focussed on risks related to the Bank's operations and financial assets on the Bank's balance sheet. The various risks identified together with any arising incidents were thoroughly discussed, mitigation measures agreed upon and their implementation monitored.

The operational risk status of the various business areas was reported on a regular basis to the Risk Committee. The fourth cycle of the Operational Risk Management (ORM) exercise was finalised during the year and presented to the Board of Directors. Work also began on the fifth cycle and should be concluded by mid-2023.

During 2022, business areas updated their existing Business Impact Analysis and developed new ones where necessary. Each business area continued reviewing the Business Continuity Plans (BCPs) of critical and important business processes. Regular resilience testing was also carried out. The results of the third Business Continuity Management (BCM) cycle were presented to the Board of Directors after completion. Work also began on the BCM fourth cycle which is expected to be concluded by mid-2023.

The consolidation exercise carried out in 2021 was repeated to ensure that all policies and processes are covered in the ORM and BCM cycles. The Department provided training to all business areas in terms of risk management.

As part of its information security responsibilities, the ORM office carried out several risk assessments on various Bank initiatives. The Bank adopted a new methodology to carry out such assessments. Work on a new policy in this area was initiated. The latter is expected to be presented for approval by the Board of Directors during 2023.

In relation to its Financial Risk Management (FRM) responsibilities, the Risk Management Department participated in the Monthly Investment Policy meetings, during which various investment decisions were taken. In addition, performance measurement of assets under management was analysed and compared against the tactical benchmark and the strategic benchmark. The office also closely monitored the performance of the investments managed by the Bank's external asset managers. The Board of Directors approved the 2023 Strategic Asset Allocation exercise.

As from March 2023, the Bank will be publishing annual climate related disclosures for its NMPPs. Disclosures will focus on governance, strategy, risk management aspects and the calculation of various metrics and setting of targets. Together with the International Asset Management Office, the FRM Office estimated the various climate-related metrics on all the Bank's individual holdings. These metrics include Weighted Average Carbon Intensity, Total Carbon Emissions, and Carbon Footprint amongst others.

Legal issues

The Legal Department was involved in issuing and amending the following Central Bank of Malta Directives:

1. Central Bank of Malta Directive No. 6 on Harmonised Conditions for Opening and Operating Payments Module (PM) Accounts, T2S Dedicated Cash Accounts in TARGET2-Malta, and TIPS Dedicated Cash Accounts in TARGET2-Malta was amended to be aligned with the rules governing the remuneration of government deposits within the meaning of the ECB Guideline (EU) 2019/671 on domestic asset and liability management operations by the national central banks, as held on PM accounts and TIPS Dedicated Cash Accounts.

2. Central Bank of Malta Directive No. 8 on Monetary Policy Instruments and Procedures was amended following the annual update of the Eurosystem monetary policy framework.

3. Central Bank of Malta Directive No. 10 on Authentication, Fitness Checking and Recirculation of Euro Banknotes and Coins was amended to ensure that the ECB and the Bank can monitor the relative activities of cash handlers and to oversee developments in the cash cycle.

The Bank's Legal Department continued to advise on diverse legal, contractual, and operational matters. Business areas obtained regular assistance. Legislative developments impacting the Bank were also thoroughly assessed.

The Legal Department was also involved in drafting other legislative measures as follows:

1. Central Bank of Malta Act (Appointment of Relevant National Authority on Benchmarks) Regulations, 2022 were issued in November 2022. The scope of the regulations was to appoint the Bank, together with the MFSA, as the relevant national authorities in terms of paragraph 5(a) of article 23(b) of Regulation (EU) 2021/168 of the European Parliament and of the Council of 10 February 2021 amending Regulation (EU) 2016/1011 on the exemption of certain third-country spot foreign exchange benchmarks and the designation of replacements for certain benchmarks in cessation, and amending Regulation (EU) No. 648/2012 on Over The Counter derivatives, central counterparties and trade repositories.

2. Central Bank of Malta Act (Appointment of Designate Authority to implement Macro-Prudential Instruments) Regulations were amended to appoint the Bank as the designated authority for the purposes of implementing a number of macro-prudential instruments as stipulated in Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms and Regulation (EU) 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms.

3. Depositor Compensation Scheme Regulations were amended to temporarily reduce the total share of payment commitments by Maltese banks to the Scheme to 1.1% in 2022 and gradually increase them to 1.2% in 2023 and restore them to 1.3% in 2024.

The Legal Department's responsibilities in compliance include the conduct of periodical exercises, such as the annual Bank-wide data protection stocktake exercise, assistance in customer due diligence to counter AML and terrorist financing risks, and the bi-annual prevention of abuse of insider information compliance exercise.

The legal function participated in various Central Bank of Malta committees, ESCB's Legal Committee and its sub-structures.

7. RESOURCES MANAGEMENT

Human resources

The Central Bank of Malta's staff complement as at the end of 2022 stood at 384, including seven employees on a part-time basis. The full-time equivalent as at end 2022 numbered 348.79 employees.

During 2022, the Bank recruited 36 employees, among which, one Head of Department, one Senior Executive, one Executive, nine Assistant Executives, 20 Officers II, one Officer I and three Maintenance Assistants. There were 34 resignations during 2022, including a part-time employee.

In 2022, 11 employees were seconded to offices within the public sector. Four University students were offered temporary summer work experience between mid-July and mid-September, two of whom were offered part-time work placements at the Bank on a nine-month internship programme starting in October 2022 while completing their final year of studies.

Furthermore, in 2022, eight Central Bank of Malta employees celebrated their 25 years of service at the Bank. The Governor, Professor Edward Scicluna, together with the Deputy Governor for Monetary Policy, Mr Alexander Demarco, and the Deputy Governor for Financial Stability, Mr Oliver Bonello, congratulated them.

Central Bank of Malta Governor, Professor Edward Scicluna, together with Deputy Governors, Mr Alexander Demarco and Mr Oliver Bonello, and Chief Human Resources Officer, Mr Paul Farrugia, congratulated Central Bank of Malta employees on the occasion of their 25 years of service at the Bank – (f.l.t.r.) Ms Antoinette Bonello, Ms Frances Camilleri and Ms Maria Attard.

Central Bank of Malta Governor, Professor Edward Scicluna presents Ms Mariella Camilleri with a memento on the occasion of her 25 years of service at the Bank.

Central Bank of Malta Governor congratulates employees on their 25 years of service – Mr Ryan Attard, Mr Marco Grech, Ms Shirley Xerri and Ms Roberta Gauci. Mr Raymond Filletti, Chief Officer – Financial Control and Risk Division and Mr Antoine Scicluna, Head Innovation, Technology and Knowledge Services were also present.

Table 7.1
STAFF ACADEMIC QUALIFICATIONS

Qualification	Male employees	Female employees	Number of employees	Per cent of total employees[1]
MQF 8	7	4	11	3.1
MQF 7	72	55	127	36.2
MQF 6	45	32	77	21.9
MQF 5	12	16	28	8.0

Source: Central Bank of Malta.
(1) Excluding Governors and support staff.

Table 7.1 shows the number of Bank employees who hold an academic qualification at Malta Qualifications Framework (MQF) level 5 and above as at the end of 2022.

Equality, Diversity and Inclusion Committee

The Central Bank of Malta sees the importance of upholding its commitment to issues of EDI. The Bank is committed to ensure that the latter three pillars are enhanced through dedicated policy measures and even more so, by nurturing a culture that respects different values, cultures, beliefs and free from any discrimination.

The Bank set up an EDI Committee to better focus and act upon these issues. The committee has been working alongside the Bank's Human Resources Department and other respective business areas to initiate and, where needed, update policies and embark on awareness campaigns.

To visibly celebrate the Bank's commitment to diversity and inclusion, in 2022, the Committee organised several initiatives specifically to celebrate and support Malta Pride Week 2022. The Bank's main premises were lit up in rainbow colours for a week. The committee also designed and distributed to staff new Bank lanyards inclusive of Pride colours.

Together with the Human Resources Department, the committee plans to provide EDI training to staff on voluntary basis specifically on issues of tackling discrimination and harassment at the workplace.

Future plans include the commitment to obtain the Equality Mark Certification together with developing an EDI Strategy Plan intended to create an even more equal, diverse and inclusive working environment.

Gender Balance

The Central Bank of Malta continued to make progress with respect to gender balance at the top levels of its executive structure. In 2012, there were six female members of staff among the 39 employees in the top three grades – comprising Senior Executives, Heads and Chief Officers. However, there were no women in the positions of Head and Chief Officer.

By the beginning of January 2023, there were 15 females in these 56 top grade posts, as well as two female Board members. In January 2023, there were six females in the 16 Head positions, though still none in the Chief Officer positions. The gender distribution of staff below the Senior Executive grade is more balanced, with half of all staff in these grades being females as at end 2022, when compared to 47% in 2012.

Nationality statistics

The Central Bank of Malta is an inclusive employer and as such, it employs local and foreign staff (see Table 7.2).

Table 7.2
NATIONALITY STATISTICS, 2022 VERSUS 2012

Nationality	Number of employees		Per cent of all Staff	
	2022	2012	2022	2012
EU countries	16	4	4.2%	1.2%
Non-EU countries	6	0	1.6%	0.0%
Malta	362	337	94.3%	98.8%

Source: Central Bank of Malta.

Training and development

As in previous years, the Bank allocated resources to staff training, within the Bank and through courses organised by local and foreign providers, both through physical and online participation.

A total of 730 participants attended 27 in-house courses. These were mainly induction programmes, the functioning of the ESCB, courses on Power BI, operational risk management and business continuity plans, management courses, and employee assistance programmes organised in collaboration with Caritas. During 2022, another online training programme was developed on the Bank's EDI Policy.

As shown in Table 7.3, a total of 386 participants attended external training programmes in 2022, offered by local and foreign institutions. These courses, mostly facilitated online, were provided by training organisations and professional institutions which included the ECB, other central banks and financial institutions. The areas covered included legal aspects, AML and financial crime compliance, economics, taxation, risk management, data protection, accounting, cybersecurity, environmental, social and governance (ESG) issues, equality and diversity, and management development.

Several employees attended online training programmes organised by the ECB in the areas of leadership, management development, digital transformation, and innovation training.

During 2022, several employees completed or continued their studies: 11 staff members completed their postgraduate education[1] while 40 employees continued their enrolment in postgraduate degree programmes. Another four employees were reading qualifications at undergraduate level.

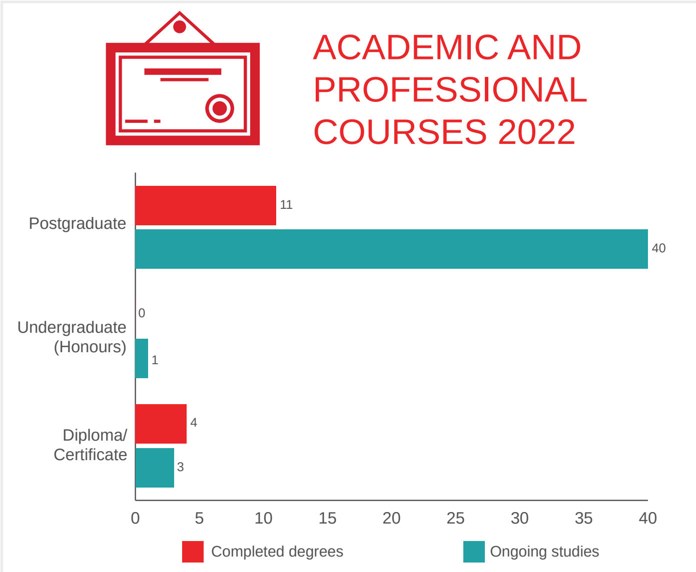
Table 7.3
STAFF TRAINING DURING 2022

Type of training	Number of courses/seminars	Number of participants
Internal	**27**	**730**
Internal physical	20	264
Internal online	7	466
External	**91**	**187**
Local physical	24	60
Local online	67	127
Foreign	**122**	**199**
Foreign physical	19	37
Foreign online	103	162

Source: Central Bank of Malta.

[1] Three of the 11 staff members who completed their postgraduate education were fully supported by the Bank to read a full-time postgraduate course under the Learning, Research and Development Study Programme at the University of Nottingham and at the *Vrije Universiteit Amsterdam*.

During 2022, one employee embarked on a full-time postgraduate study programme at the Barcelona School of Economics where he is reading the Master's degree in Economics and Finance. This course is fully supported by the Bank under the Learning Research and Development Study Programme. Another employee, also supported by the Bank's development scheme, continued the doctorate studies in social policy on a part-time basis with the University of Bristol, while another employee continued the doctorate studies with the Institute of European Studies at the University of Malta on a part-time basis.



Three staff members continued their studies to read for the Higher Diploma in Computer Studies offered by the Malta College of Arts, Science and Technology specifically designed to meet the Bank's needs.

Innovation, Technology and Knowledge Services

Innovation and technology

In 2022, the Bank performed security enhancements for services hosted on the public cloud, whilst introducing new services to enable end-users to work securely in a modern workplace, even remotely.

The Cybersecurity Office contributed to the ESCB and other international fora towards improved operational cybersecurity and collaboration in the financial sector. Most notably, the office worked on the development and sharing of cyber incident response playbooks and threat detection use cases. Moreover, the Malware Information Sharing Platform was introduced to improve the management and sharing of indicators of compromise. In 2023, the Bank plans to upgrade and improve the cybersecurity programme in line with the technology roadmap. Furthermore, planned contribution at ESCB level would focus on the revision of secure development practices and the coordination of cyber incident tabletop exercises. In terms of projects, the office will focus on upgrading the Bank's network security architecture, integrating the security monitoring under one centralised platform, improving threat hunting using new cyber threat intelligence services, improving the monitoring of external cyber threats through dedicated services and increasing cyber-attack resilience testing, through third party threat-led penetration testing.

The Core Applications Office (CAO) was involved in various projects during 2022. The implementation of new payment services progressed with additional initiatives. CAO participated in the implementation of the new Treasury Management System deployed during the year while the SWIFT system was successfully upgraded. During 2022, the CAO team represented the Bank in the Market Infrastructure Risk Forum within the ESCB community.

In 2022, the End User Technology and Infrastructure (EUTI) Office focused on several projects that enhanced both internal IT infrastructure and cloud-based deployments. The year started off with the implementation of a new telephony solution across all the Bank and continued with the deployment of a new malware solution for all endpoints and servers. In addition, the Bank introduced a new technological infrastructure complementing a new statistical system and an upgrade of the Bank's email solution. The EUTI team supported the installation of the new treasury management solution and ancillary systems connected to the Bank's accounting system. A new service model was introduced for the Bank's Help Desk team in a bid to streamline and improve the management of service requests.

The Application, Development and Project Delivery Office (ADPDO) team delivered a new payment acquisition platform which will enable external clients to independently manage and automate instructions for SEPA payments. Significant work was done on a new statistical system which will enable new services, and the team also supported several releases on ESCB systems which have an impact on several inhouse applications. Furthermore, ADPDO took part in the integration of the new HR system. The team participated also in the Architecture Taskforce and the Business Portfolio Management Working Group which falls under the Information Technology Committee of the ESCB community.

Library

The Central Bank of Malta Library is one of Malta's principal facilitators of financial, economic, and social research while supporting and promoting scholarly debate and dissemination of scientific knowledge in these fields. Since the Library's establishment in 1968, a substantial collection of standard works on economics and finance has been accumulated. The Library presently contains more than 13,000 volumes.

The Library increased the number of electronic subscriptions to include several specialised academic journals. Moreover, it continues using the database Business Source Complete which provides premium full-text content and peer-reviewed business journals. The Business Book Summaries is another useful tool which offers concise yet comprehensive summaries of the best business books.

The Library's Knowledge Vault serves as the virtual platform for staff to access the various electronic information sources available on the platform, including the *Financial Times*, *Business Source Complete* and *Central Banking*. Various training sessions were organised to familiarise staff with the use of these tools. In addition, dissemination services continued to be provided including local and foreign media daily digest, daily selection of scholarly journal articles called Librarian's Choice, and monthly acquisitions' list. Staff was also kept up to date with the bills, acts and legal notices issued in the month before.

In addition, staff from the Central Bank of Malta's Library participated in the 13th Central ESCB/SSM meeting on Information Management.

Publications

The Knowledge Services Office is also responsible for the Bank's publications. Accordingly, it disseminates news issued by the Bank and compiles, produces and promotes the Bank's publications on social media. It is also responsible for uploading content and updating the Bank's website.

During 2022, the Office increased its efforts in its role of creating content with strong brand recognition for multimedia use. It continued offering its support to the various business units by producing videos relating to various events and initiatives.

The Central Bank of Malta flagship publications, in particular the *Annual Report*, the *Quarterly Review* and the *Financial Stability Report*, were enhanced with new features and additional information. The introduction of visuals for publications such as the *Business Dialogue*, *Economic Update* and *Economic Projections*, helped increasing the general public's interest in the Bank's publications.

The Bank continued to decrease the number of the printed copies of the few Bank's publications that are still published in hard copy format, migrating them to a digital format. This is a part of an organisational wide effort to reduce the ecological footprint of the Bank.

In addition, staff participated in the ESCB/SSM Working Group on Translation and Production.

Social media
The advent of social media more than a decade ago has given institutions powerful tools to inform and engage with the public. Many central banks currently see social media as an effective and important means of communication with their target audiences – with experts, who have been the focus of central bank communication for long, but also, and increasingly so, with a broader audience.

The Central Bank of Malta has a strong presence on social media, with active accounts on Facebook, Twitter, LinkedIn and YouTube. The number of users and traffic has been on the increase.

The Bank uses Facebook to share updates on events, publications and other news, as well as educational content on topics like financial literacy. Twitter is used to share real-time updates and engage with followers, while LinkedIn is focused on professional content and recruitment. The Bank also has a YouTube channel and an Instagram page where it shares videos on a range of topics, including economic reports, press conferences, and educational videos.

In addition, staff participated in the ESCB/SSM Working Group on Digital Communications.

Knowledge Services
The mission of the Knowledge Services team is to capture, manage, preserve, store and deliver the right information to the right people at the right time.

During 2022, Knowledge Services staff pursued work on the migration of the Bank's records into the new knowledge management system while the Bank's intranet was enhanced. The scanning, uploading, and cataloguing of policy documents on new knowledge management system continued.

Corporate Strategic Planning
The Corporate Strategic Planning Department (CSPD) carried out the Strategic Planning Process during 2022, which consisted of five steps: strategy definition; identification of objectives and key performance indicators; creation of a project portfolio; budgeting; and prioritisation and plan approval. The projects were prioritised according to approved criteria. This ensured that the selection of projects was based on the best financial and social returns. The planning process was executed through several workshops, with the participation of the Governors, Chief Officers, Heads of Departments and Office Managers.

The main objective of the Corporate Strategic Plan is to provide a strategic direction for the Bank's mission and objectives and to continuously seek out improvements. The Plan ensures that the strategic goals are translated into divisional, departmental, and office goals in accordance with the Bank's organisational structure. The eight building blocks of the Bank's strategic objectives are:

1. To ensure active contribution to the ESCB, support its primary objective of price stability, while participating in its fora and activities;
2. To foster financial stability by strengthening the resilience of the domestic financial sector;
3. To ensure a smooth functioning payment system and a secure provision of cash;
4. To continue to be a reference for economic and financial analysis, research and statistics in Malta;
5. To optimise return on the Bank's financial assets;
6. To enhance risk mitigation and security measures, especially to fully safeguard the systems' integrity;
7. To maintain strong internal governance in full compliance with the law;
8. To enhance overall efficiency and effectiveness, while actively promoting environmental awareness, corporate social responsibility (CSR), inclusiveness and diversity.

The updated plan is focused on the delivery of value from the project portfolio. This should lead to lower costs, higher revenue, mitigated risks and automated business processes.

During 2022, the Bank monitored closely the progress of the agreed objectives and the implementation of the project portfolio. CSPD reported to the Bank's decision-making bodies on a monthly basis as regards projects and quarterly on the attainment of objectives. The latter allowed the Bank to take remedial action at an early stage whenever necessary, thus ensuring that the Plan could remain on track and the Bank could achieve its main objectives.

In December 2022, the Board of Directors approved the 2023 Corporate Strategic Plan and Projects Portfolio Report.

Property and procurement

The Bank's Property and Procurement Department (PPD) supports the Bank's business areas through the commitment to a safe, effective, and efficient management and maintenance of the Bank's premises, project administration and the procurement of goods, services and insurance coverage, with an emphasis on transparency, accountability and cost optimisation in the use of public funds. In the beginning of 2022, the Bank retained strict measures to mitigate the effects of the COVID-19 pandemic with an emphasis on cleaning and disinfection activities and the procurement of sanitary services and items. In the latter part of the year, office layouts were returned to their pre-pandemic formats, always following the directions issued by the public health authorities.

Despite the pandemic, the Bank pursued its programme of maintenance, upgrading and embellishment works. Accordingly, it implemented upgrades to the buildings' drainage systems as well as waterproofing works to the roofs. In addition, several areas within the Bank's buildings were restructured to create new workspaces or were extensively refurbished to fulfil new functions. In view of the higher reliance on virtual meetings, the Bank invested in more advanced audio visual and video conferencing equipment for use in its conference centre and meeting rooms. The Bank upgraded its lifts to comply with the latest legislative requirements.

The Bank continued to actively participate in initiatives coordinated by the Eurosystem Procurement Coordination Office, which enables national central banks within the Eurosystem and the ESCB to benefit from efficiencies in joint procurement exercises, primarily in the areas of hardware, software, rating agency services and market data provision. The Bank also issued 13 calls for quotations and four calls for tenders. The tenders were related to the procurement of coin services, compliance monitoring, independent audit services and the provision of cheque encashment and foreign exchange services.

Moreover, during the year, the PPD signed or renewed a significant number of maintenance agreements to ensure that the Bank's premises and equipment are always serviced and maintained to the highest standards.

During 2022, the Bank took part in several online meetings of the ESCB Heads of Administration Conference, where participants exchanged best practices and experiences on procurement, property management, energy saving and pandemic mitigation measures.

8. CORPORATE, ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

Climate change and sustainability

Climate change considerations in the monetary policy implementation framework

During 2022, the Governing Council of the ECB decided to take further steps to include climate change considerations in the Eurosystem's monetary policy framework. The first steps included an adjustment of corporate bond holdings in the Eurosystem's monetary policy portfolios and its collateral framework, an introduction of climate-related disclosure requirements and an enhancement of its risk management practices.

The Eurosystem aims to gradually decarbonise its corporate bond holdings on a path aligned with the goals of the Paris Agreement. Accordingly, the Eurosystem will tilt these holdings towards issuers with a better climate performance[1] through the reinvestment of the sizeable redemptions expected over the coming years.

The Eurosystem will limit the share of assets issued by entities with a high carbon footprint in the collateral pledged by individual borrowing counterparties from the Eurosystem. The new limits regime aims to reduce climate-related financial risks in Eurosystem credit operations. Initially, the Eurosystem will apply such limits only to marketable debt instruments issued by NFCs.

Furthermore, as from 2022, the Eurosystem took into consideration climate change risks when reviewing haircuts applied to corporate bonds used as collateral.

The Eurosystem will only accept marketable assets and credit claims as collateral in Eurosystem credit operations from companies and debtors compliant with the Corporate Sustainability Reporting Directive (CSRD). Given that the implementation of the CSRD is delayed, the new eligibility criteria are expected to apply as of 2026. This requirement will apply to all companies within the scope of the CSRD and will help improve disclosures and generate better data for financial institutions, investors and civil society.

Finally, the Eurosystem will further enhance its risk assessment tools and capabilities to better include climate-related risks. To improve the external assessment of climate-related risks, the Eurosystem will urge rating agencies to be more transparent in the incorporation of climate risks in their ratings and to be more ambitious in the disclosure requirements on climate risks. Additionally, the Eurosystem agreed on a set of common minimum standards for how national central banks' in-house credit assessment systems should include climate-related risks in their ratings. These standards will enter into force by the end of 2024.

Climate change and sustainability considerations in non-monetary policy portfolios

It is widely acknowledged that climate change is one of the biggest existential risks to our economies, financial systems, ecosystems and communities. The Bank recognises climate change as a financial risk and is cognisant of the negative impact that physical and transition risks can have on its financial assets. However, several investment opportunities may also materialise as countries seek to transition to carbon neutral economies. The Eurosystem has adopted a common stance for climate-change related sustainable investments in NMPPs. On 4 February 2021, the ECB also announced that the Eurosystem would start making climate-related financial disclosures for their euro-denominated NMPPs within two years.

[1] A better climate performance will be measured with reference to lower greenhouse gas emissions, more ambitious carbon reduction targets and improved climate-related disclosures. This measure applies from October 2022 and the ECB will start publishing climate-related information on corporate bond holdings regularly as of the first quarter of 2023.

Such work continued unabated throughout 2022. The Central Bank of Malta published its first climate-related financial disclosure report on 27 March 2023 in line with the Eurosystem's commitment.

Accordingly, the Central Bank of Malta intends to increasingly address climate risks and explore opportunities in its NMPPs whilst leading by example. Climate risks and opportunities have been discussed in the Bank's relevant governance structures including the Investments Policy Committee, the Risk Committee and the Board of Directors.

Several SRI practices have been adopted to date.

- **Negative Screening**

The Bank applies a norm-based negative screening approach for the investments under its direct control. Since 2021, a norm-based negative screening approach has been applied to the externally managed corporate bond portfolio through a change in the mandate, based on the exclusion list of one of the world's largest pension funds, managed by Norges Bank Investment Management. This has resulted in divestment from companies involved in the tobacco industry and/or linked to the production of nuclear weapons. The Bank does not have any exposure to issuers listed in the Norges Bank negative list in its internally managed fixed income portfolios.

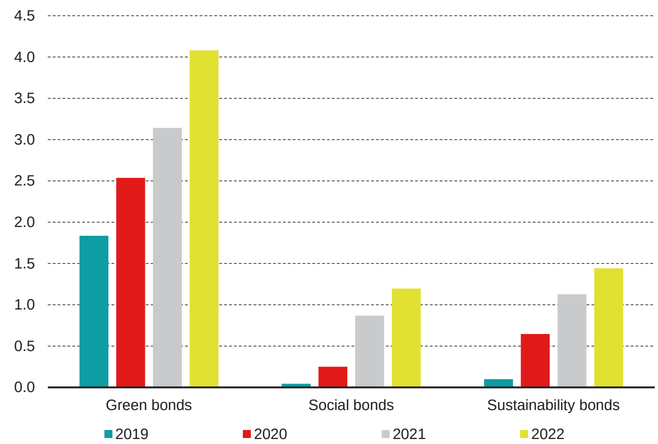
Given that part of the Bank's assets is held through an externally managed segregated mandate or funds, the Bank ensures that the respective asset managers are United Nations Principles for Responsible Investments (UN PRI) signatories and thus are committed to include ESG factors in all their investment decisions and report accordingly. Moreover, the Bank engages in frequent discussions with the external asset managers with the aim of better understanding how such considerations are being implemented.

- **Impact investing**

The Bank has been progressively increasing the share of green, social and sustainable bonds in its internally managed portfolios (see Chart 8.1).[2] The issuers of such bonds use the proceeds collected to finance projects which have a positive environmental and/or social impact.

In addition to financing the energy and ecological transition through investments in green and sustainable bonds, during 2022, the Bank started to invest in equity funds that focus on the long-term growth of companies that engage in activities that will assist in the transition to low carbon economies.[3] The funds are, therefore, predominantly invested in companies engaged in alternative energy and energy technologies, waste management, or offer solutions with active positive contribution to the improvement of the supply, efficiency or quality of a low-carbon economy.

Chart 8.1
THEMATIC BOND HOLDINGS
(per cent)



Source: Central Bank of Malta.

[2] The Bank also holds some other thematic bond holdings through the externally managed segregated mandate, as well as through fixed income ETFs and mutual funds. However, given that the Bank does not have direct control over such holdings, these were not included in this calculation.

[3] SFDR Article 8 or 9.

- **Positive screening**

The Bank has opted to also have equity exposure through passive exchange-traded funds (ETFs) that are consistent with international norms and climate change-based criteria or have low carbon exposure than the broad market whilst also having a high minimum level of ESG performance. The Bank also invests in an equity mutual fund where at least 90% of the underlying assets are evaluated using an SRI rating, and where the focus is on companies with a strong record of both financial and ESG performance. Moreover, when attempting to diversify further its fixed income exposure geographically, the Bank has opted for funds tracking indices which apply an ESG scoring and screening methodology aimed at tilting towards issuers that rank higher on ESG criteria and green bond issues, and underweighting or removing issuers that rank lower.

The share of assets under management which include ESG considerations has thus increased from 12.3% in 2021 to 17.7% in 2022.

Climate change considerations in financial stability

Climate risk is evolving over time with irreversible aspects acting as permanent shocks to the financial sector. The financial impact of climate change is typically classified as either physical or transition risk. The former relates to the loss in value of financial instruments because of environmental degradation while the latter relates to costs incurred as a result of changing policies to reduce reliance on carbon and impact on the climate. Thus, key features to quantify the impact of climate risk onto the financial sector range across various aspects, such as data, modelling frameworks, and scenario design.

Following the publication of a Special Feature in the *Interim FSR* 2021, the Financial Stability Surveillance Office continued to monitor the exposures of the financial sector to climate-sensitive sectors. This assessment was first presented during the meeting of the Forum of Financial Stability, held in February 2022. This was a first assessment of the Maltese financial sector's direct exposure to economic sectors that were most likely affected by the transition to a less polluting economy. However, further granular analysis is required at company level to better gauge the extent of exposures.

The Bank's Macro Stress Testing Framework was adapted in 2022 to model the impact of transition risk in the form of an internationally implemented carbon tax to disincentivise the reliance on fossil fuels and stop carbon dioxide emissions to reach the target under the Paris Agreement to limit climate change to 1.5 degrees Celsius. The magnitude of the carbon tax is aligned to the increase in oil prices under one of the scenarios published by the NGFS (the Divergent Net Zero) which, paired with shocks to world demand, propagate to affect both global and domestic demand which together led to further pressures and disruptions to the domestic economic recovery. The banking sector's exposure to fossil fuels is further explored by dedicated assessments of the reliance on fossil fuels in both the financing of non-financial corporates as well as bond holdings. Moreover, the climate-related adverse scenario builds upon the inflationary pressures and supply chain disruptions due to Russia's invasion of Ukraine and Asia's COVID restriction measures characterising the baseline.

The scenario raises awareness on the extent of banks' exposures to potentially vulnerable sectors whereby banks in scope would experience a substantial impact. However, such banks were deemed able to satisfy their capital requirements. The methodology and results were also presented in launch event of the FSR to encourage the financial sector to direct its resources towards ESG considerations. This methodology was also discussed with the IMF during its Article IV consultation and was very well received. As part of its effort to contribute in the transition to a greener economy, the Bank participated in a panel discussion on *Greening Malta's Financial Ecosystem* in a seminar organised by the Ministry for the Environment, Energy and Enterprise. Discussions focused on the Central Bank's increased focus in its analytical research capabilities to increase the level of knowledge and research both at the financial sector level and beyond, as well as on the ways how domestic banks could contribute to addressing the challenges of climate change.

Environmental initiatives

ECB

During 2022, the ECB continued to assess the potential environmental impacts of the second series of euro banknotes over the lifecycle. The relevant Eurosystem Committee conducted research and, based on the results achieved, euro area central banks implemented policies to minimise the environmental impact of euro banknotes. These policies included the use of sustainable cotton for banknote paper, the extension of banknotes' life in circulation by adding a coating to the banknotes and the use of more sustainable methods to dispose of unfit banknotes.

Network of Central Banks and Supervisors for Greening the Financial System

The Bank continued its participation in the NGFS.[4]

Central Bank of Malta joins the Eurosystem Climate Change Forum

In July 2022, the ECB's Governing Council approved the establishment of a Eurosystem Climate Change Forum. The mandate of the Forum is to improve cooperation in this field by fostering knowledge-sharing, whilst leveraging on existing knowledge within the Eurosystem with the aim of jointly advancing the ECB's climate agenda. Two senior officials represent the Central Bank of Malta on this Forum.

Central Bank of Malta

The Bank further reduced its own ecological footprint. In 2022, the Bank separated for recycling 12.6 tonnes of paper, 1.6 tonnes of plastic and 2.2 tonnes of glass and metal. The Bank also continued to streamline several processes to achieve further efficiencies. Accordingly, the Bank introduced an online requisition order system which eliminated the use of extensive paper documentation. During the year, the Bank also expanded its hybrid electric car fleet through the leasing of additional vehicles following a call for tenders issued in 2021 and began a transition towards the use of fully electric vehicles. The Central Bank of Malta proceeded with the installation of LED lighting throughout its premises and aerators on water faucets. It also deployed more efficient computers to replace old energy-intensive machines. Further progress was also registered in relation to the planned installation of solar panels and more efficient standby generators. As part of its constant efforts to offset its carbon footprint, the Bank, in conjunction with Parks Malta, planted 250 trees in *Ġnien il-Mediterran* in Paola, including amongst others, almond trees, carob trees, olive trees and pomegranate trees.

Tree planting in *Ġnien il-Mediterran* in Paola

(f.l.t.r.) Mr Ivan Farrugia Director (Parks Malta – Embellishment), Mr Alan Markham (Central Bank of Malta – Operations Division), Mr Daniele Romano (Central Bank of Malta – Chief Operating Officer), Central Bank of Malta Governor, Professor Edward Scicluna, Mr Adrian Attard (Parks Malta – Director General) and Mr Paul Debono (Parks Malta – Operations)

Corporate Social Responsibility

The Central Bank of Malta has embedded CSR in all aspects of its central banking tasks which include a broad spectrum of stakeholders, ranging from its employees to the wider community.

In this regard, the Bank's CSR efforts reflect the ever-increasing emphasis on the Bank's activities, all of which receive the highest levels of support across management and employees.

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[4] It is a group of central banks and supervisors which on a voluntary basis, exchange experiences, share best practices and contribute to the development of environment and climate risk management in the financial sector. It also conducts analytical work on green finance to which the bank participates actively.

Staff

During 2022, the Central Bank of Malta's staff Social Club restarted the organisation of social events for all staff and pensioners after a two-year pause owing to the COVID-19 pandemic.

The Social Club contributed to the better well-being of staff by organising several events, which included a quiz night, a summer party, a karaoke night, a bowling event, the Christmas staff gathering and the children's Christmas Party. Staff members also had the opportunity to try out different sports disciplines such as Archery and Padel. Staff also participated in the Euro Football, Chess, Cross Country Running, Hiking and Badminton sport events.

Archery event

Philanthropy and outreach

The Social Club also organised several campaigns throughout the year where staff helped *Fondazzjoni Sebh*, the Multiple Sclerosis Society of Malta, the Missionaries of Charity (Mother Teresa Nuns) and the Marigold Foundation through the Pink October and the Movember Campaigns.

The Club also organised two dress-down days to collect funds for Hospice Malta and the Inspire Foundation. The Social Club sponsored staff members to participate in the President's Solidarity Fun Run.

hospicemalta
care | compassion | dignity

As in previous years, the Bank donated profits from the sale of coins to the Malta Community Chest Fund Foundation. The sum was topped up by the Bank's Social Club. The sum was presented during *L-Istrina* telethon.

In addition, the Bank's Social Club also organised two blood drive events in collaboration with the National Blood Transfusion Service with an encouraging number of staff donating blood.

Engaging with the wider public and the professional public

Webinar on the 20 years of euro banknotes and coins

During 2022, the Eurosystem celebrated 20 years of euro banknotes and coins. As a Eurosystem member, the Central Bank of Malta commemorated this important event in the European integration process. As part of its activities the Bank organized a webinar about the 20 years of the Euro Banknotes and Coins.

The webinar was opened by the Governor, Professor Edward Scicluna. The keynote speech was delivered by Mr Gilles Noblet, Principal Adviser Directorate General International and European Relations, ECB.

Direct Debit campaign

The Bank embarked on an educational campaign on the use of direct debits due to their limited take-up in Malta. The campaign took place between June and August 2022. It targeted individuals and merchants, mainly focusing on the rights and obligations of both parties when making use of such a payment instrument.

The campaign was conducted on various platforms such as television interviews on the three main local TV stations, publication of posts and carousels on social media, and the publication of an article in three local newspapers. The TV interviews took place on different dates and time slots while the article in the newspapers was published both in English and Maltese to ensure that the campaign reaches a wider audience. The article was also featured on the Malta Business Weekly.

Brenda Galea, Regulation and Oversight Office, Payments and Banking Department, Central Bank of Malta on Net TV.

Financial Literacy
In its efforts to reach wider audiences, the Bank started publishing on social media, weekly informative posts about euro banknotes and also promoted the Bank's Educational Campaign. A tab was created on the Bank's website, giving the possibility to cash handlers and the public to apply for training on handling euro currency. The Currency Operations Office held 70 information sessions to 237 cash handlers on banknotes and coins at retailers. The Bank also delivered sessions to the elderly at various active ageing centres around Malta.

Moreover, with the collaboration of the Ministry for Education and Sports, the Bank offered information sessions on euro currency to all schools in Malta, including during the summer holidays to students attending the Skola Sajf program. With the end of COVID-19 related restrictions, the Bank started organising tours for students at the Coin Museum. Such tours were then accompanied by an information session on the Bank, the Eurosystem and the Euro currency. During 2022, there were 1,879 children who participated in such sessions.

The Bank also participated in the European Money Week organised by the Malta Bankers' Association, which focused on financial education and raised awareness amongst students about money and personal finances.

Notte Bianca
The Bank opened its doors to the public during *Notte Bianca*, when thousands of guests had the opportunity to visit the Bank's main premises, as well as its gardens. Several informational activities were held to entertain the public.

Young musicians from the Malta Youth Orchestra

Visitors also had the opportunity to visit the Bank's Currency Museum and tour its selection of coins and banknotes in circulation in Malta over the years, and to purchase a variety of numismatic and collector coins from the Malta Coin Centre.

Musicians from the Malta Youth Orchestra entertained the public with their music at the Bank's Castille premises.

Moreover, in collaboration with the Customs Department, the Bank had Żekkin, the black Labrador it had sponsored, demonstrating how banknotes are detected in simulation exercises at the Upper Garden, together with another sniffer dog.

In addition, a bonsai exhibition was also organised in collaboration with the Bonsai Culture Group while live music was provided by the local Pomelia's Band.

Works of art by staff were exhibited at Polverista, the former gun-powder store magazine, whilst a virtual tour of the Bank's library was available. Visitors had the opportunity to virtually visit the vast and prestigious collection of books, journals, and publications in front of Binja Laparelli.

Central Bank of Malta Fund

The Central Bank of Malta Fund's Advisory Board is mandated by the Board of Directors to identify projects of a national stature with lasting visibility worthy of support by the Bank, through funds set aside for non-business-related purposes. The areas pursued by the Fund relate to education, culture, scientific research, preservation of Maltese national heritage and social causes.

The members of the Fund's Advisory Board are Mr Narcy Calamatta, who acts as Chair, Prof. Yosanne Vella, Prof. Marvin Formosa, Marquis Nicholas de Piro and Dr Pauline Lanzon.

(f.l.t.r)
First row: Mr Alexander Demarco (Deputy Governor Monetary Policy), Mr Narcy Calamatta (Chair), Prof. Edward Scicluna (Governor) and Mr Oliver Bonello (Deputy Governor Financial Stability)
Second row: Prof. Marvin Formosa, Prof. Yosanne Vella, Marquis Nicholas de Piro and Dr Pauline Lanzon (Board Members)
Third row: Mr Raymond Filletti (Chief Officer Financial Control and Risk) and Dr Jeremy Buttigieg (Secretary)

Mr Calamatta's appointment follows that of Fr Marius Zerafa, Founding Chairperson of the Fund (previously Foundation), who sadly passed away in October 2022.

Amongst the projects pursued during 2022, was the production of a one-hour docudrama on the 1984 robbery of the St Jerome Caravaggio masterpiece from St John's Co-Cathedral in Valletta. Some of the beneficiaries who received financial support were: ALS Malta for purchase of medical equipment at Dar Bjorn; the University of Malta Rowing Club for two C2X boats and oars to host the ANZAC Day Regatta event in April 2023; the St John's Co-Cathedral Foundation in bringing a Reliquary of Saint Pope Pius V from the Vatican to Malta in October 2022; the *Soċjetà Filarmonika* Pinto Banda San Sebastjan towards the production of the Oratorio Sebastianus Christianus at the Metropolitan Cathedral in Mdina in January 2023; and the Senglea Historical Society towards a publication on the history of Senglea.

Other meritorious projects to which the Bank pledged support upon their completion included the purchase of equipment to be placed in a new rehabilitation centre for Inspire Foundation, restoration works on the medieval chapel of Saint Catherine in Zejtun, as pursued by *Wirt iż-Żejtun* and the setting up by *Fondazzjoni Wirt Artna* of a new room at the Lascaris War Rooms in Valletta recreating the signing of the Italian Fleet surrender in Malta on 11 September 1943.

9. INTERNATIONAL RELATIONS

During 2022, the Central Bank of Malta maintained active relations with European institutions and international financial institutions to which it is affiliated.

Eurosystem and European System of Central Banks

The Governor is a member of the Governing Council of the ECB, which is the highest decision-making body of the ECB. The Governing Council consists of the members of the ECB's Executive Board and the national central bank (NCB) governors of the euro area Member States. The Governing Council is responsible for monetary policy in the euro area and decides on the implementation of tasks entrusted to the Eurosystem, which comprises the ECB and the euro area NCBs.

During 2022, the Governing Council held 22 meetings, with eight being focused on monetary policy. As restrictions related to the COVID-19 pandemic were eased, physical monetary policy meetings resumed in March. The non-monetary policy meetings were conducted by videoconference. Furthermore, the Governing Council took a significant number of decisions through written procedures. In addition, in connection with the ECB's responsibilities in bank supervision, the Governing Council approved numerous draft supervisory decisions prepared by the ECB's Supervisory Board. Two retreats for the Governing Council also took place in February and October, allowing the members to discuss policy issues in an informal setting.

Following decisions taken by the Governing Council during 2022, the Governor signed several agreements on behalf of the Bank. More specifically, these agreements covered the participation and obligations in TARGET, the ECMS, Net Financial Assets, a multilateral agreement between the ECB and NCBs on the correspondent central banking model and euro banknotes production. In some cases, these were directly related to Croatia's accession to the euro area.

The Governor is also a member of the General Council of the ECB. The General Council, which is composed of the President and Vice-President of the ECB, and the NCB governors of all Member States of the European Union, mainly performs an advisory role. There were four General Council meetings in 2022.

The Governor or, in his absence, the Deputy Governor for Financial Stability, also participated in the two sessions dedicated to the Macroprudential Forum held jointly by the Governing Council and the ECB's Supervisory Board during 2022.

Furthermore, the Deputy Governor for Financial Stability sits on the ECB's Supervisory Board, together with a senior official of the MFSA.

The Governing Council and the General Council are supported by several committees, working groups and other structures, in which various Bank officials participated actively throughout the year. These officials play a key role in briefing the Governor on issues to be discussed ahead of meetings of both the Governing and the General Council. They also give feedback on written procedures addressed to the Governing Council and the General Council.

Group photo of the Governing Council of the ECB, Frankfurt, 1 February 2023.

(f.l.t.r.) Gediminas Šimkus, Frank Elderson, Madis Müller, Boštjan Vasle, Peter Kažimír, Robert Holzmann, Klaas Knot, Joachim Nagel, Mário Centeno, Pierre Wunsch, Gaston Reinesch, Constantinos Herodotou, Olli Rehn, Boris Vujčić, Edward Scicluna, Isabel Schnabel, François Villeroy de Galhau, Pablo Hernández de Cos, Philip R. Lane, Gabriel Makhlouf, Luis de Guindos, Christine Lagarde, Fabio Panetta, Mārtiņš Kazāks, Ignazio Visco, Yannis Stournaras.

European Systemic Risk Board

The Bank is also a participant in the ESRB where the Governor is a voting member of the General Board. In 2022, the Governor and the Deputy Governor for Financial Stability took part in the meetings of the ESRB's General Board where various issues on potential vulnerabilities and risks within the EU financial system and potential policy measures were discussed. Senior officials of the Bank also participated in the meetings of the ESRB's Advisory Technical Committee and its substructures.

Other EU institutions

During 2022, the Deputy Governor for Monetary Policy regularly participated in meetings of the Economic and Financial Committee (EFC) when issues relevant to central banks were discussed. The Deputy Governor for Financial Stability also participated in the EFC-Alternates meetings.

Throughout the year, the Bank engaged in EFC discussions on various matters related to the developments in financial markets and the regular monitoring of risks to financial stability in the EU prior to the formulation of appropriate policy responses. The most prominent topic concerned measures designed to mitigate the financial impact of Russia's war in Ukraine. Additional items of interest focused on the strengthening of the banking union, discussions pertaining to the capital markets union, the assessment of the EU's Recovery and Resilience Facility and measures concerning AML and countering the financing of terrorism.

The EFC continued to play a crucial role in the preparation of common European positions at the G20 meetings and other international fora, such as the IMF and the Financial Stability Board.

Other Bank officials also participated in meetings of several EFC sub-committees, where matters of relevance to central banks, such as the economic and financial impacts of the war in Ukraine, sovereign debt and the recovery from the COVID-19 pandemic, were discussed.

Apart from participating in the EFC and its sub-structures, Bank staff took part in several other EU committee structures related to central banking functions. The Deputy Governor for Financial Stability also participated as a representative member of the Bank together with Officials of the MFSA at meetings of the EBA and the ECB Supervisory Board of the SSM. The Bank also continued to contribute extensively, through consultations on matters of an economic and financial nature, to the participation of Malta's representatives within various European Union decision making bodies.

International Monetary Fund

In the IMF, Malta forms part of a constituency headed by Italy and which also includes Albania, Greece, Portugal and San Marino. With the Governor of the Central Bank of Malta occupying the position of Malta's Governor on the Board of Governors of the Fund, the Bank upheld its leading role in maintaining Malta's relationship with the Fund. The Governor, accompanied by the Deputy Governor for Monetary Policy, participated in the Spring IMF and World Bank Group (WBG) Meetings in April and the Annual Meetings in October. During the year, the Governor voted on several resolutions proposed by the Fund's Executive Board.

In October, the Central Bank of Malta pledged a contribution to the Fund's new Resilience and Sustainability Trust (RST) via the channelling of Special Drawing Rights. The trust, which was officially established in May 2022, is designed to complement the IMF's existing lending toolkit by focusing on urgent longer-term structural challenges that are not covered by the Poverty Reduction and Growth Trust. For the moment, the Fund has identified pandemic- and climate-related challenges as the RST's main intended areas of operation.

Following an Article IV mission earlier in the year, including a visit by Fund staff, in December, the IMF published the main results of the consultation. The Fund's mission held meetings with senior officials of the Central Bank of Malta, the Government and the MFSA, among other authorities and stakeholders.

World Bank Group

Although Malta is represented in the WBG by the Minister for Finance and Employment, throughout the year, the Bank continued to assist the Ministry in monitoring developments and providing advice on initiatives from the Group. During 2022, the Bank provided the Ministry with background documentation and recommendations on resolutions that had to be voted upon.

European Bank for Reconstruction and Development

In view that the Governor of the Central Bank of Malta was Governor for Malta on the Board of Governors of the European Bank for Reconstruction and Development (EBRD) in 2022, the Bank continued to take the lead on issues related to Malta's membership in this institution. In particular, the Governor voted on several EBRD resolutions. During the year, the EBRD offered unwavering support for Ukraine to help it overcome the financial challenges created by the war. Moreover, the EBRD has also managed to pass a green milestone by fully aligning its activities with the mitigation and adaptation goals of the Paris Agreement.

Asian Infrastructure Investment Bank

During 2022, Malta was represented on the Asian Infrastructure Investment Bank's (AIIB) Board of Governors by the Governor of the Central Bank of Malta, with the Minister for Finance and Employment as the Alternate Governor. Malta forms part of the euro area constituency which also includes Austria, Belgium, Croatia, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain. During the year, the Governor also voted on several AIIB resolutions.

The Bank, together with the Ministry for Finance and Employment, continued monitoring developments in the AIIB. In 2022, officials from the Ministry for Finance and Employment represented Malta during several constituency meetings with the support of the Bank. At the seventh Annual Meeting of the AIIB – hosted virtually between 26 and 27 October 2022 – Malta was represented by the Deputy Governor for Financial Stability.

Commonwealth

The Commonwealth is a voluntary association of 54 independent countries, including Malta. The Commonwealth Secretariat organises the Commonwealth Central Bank Governors and Ministers of Finance meetings alongside the IMF/World Bank Annual Meetings. The 2022 Commonwealth Finance Ministers Meeting and the Commonwealth Central Bank Governors Meeting both focused on the recovery trajectory for Commonwealth member states, particularly pertaining to challenges with debt and rising inflation.

The Bank continued to support efforts to establish a trade finance facility for the small states of the Commonwealth, by providing banking services. The Commonwealth Small States Trade Finance Facility was set up to enhance trade and investment finance particularly for small and vulnerable Commonwealth States with limited access to international trade finance. No transactions involving the Bank took place during 2022.

Other international relations developments

Following Russia's invasion of Ukraine, international financial institutions were quick to react and condemn the actions taken by Russia and Belarus. These institutions took measures to halt all activities within those countries and to approve financial packages aimed at providing aid to Ukraine. Officials from the Central Bank of Malta have closely monitored the economic impact of the war and its ripple effect on the global economy. The Bank has continuously supported the common EU position in this respect. Following an agreement with the Central Bank of Ukraine, in 2022, the Central Bank of Malta started providing exchange facilities of Hryvnia banknotes for Ukrainians benefitting from protection in Malta.

In addition, the Bank prepared presentations regarding trade in goods and services between Malta and the United Kingdom. These presentations focused on the quarterly and annual trade flows between these two countries in 2022. This included a box on merchandise trade flows between selected Middle Eastern and North African countries and Malta.[1]

[1] Article published in the *Quarterly Review* 2022:3, pp. 42-47.

10. MEET OUR PEOPLE

Staff from the different business areas of the Bank were instrumental in the realization of the Bank's goals. The following stories by some staff members are meant to give an insight into their own lives and work.

Valentina Antonaroli
Senior Economist
Economic Projections and Conjectural Analysis Office
Economic Analysis Department

I joined the Central Bank of Malta because I like the idea of being part of the ESCB. Doing so from a small institution has its advantages, namely the possibility to show your worth and make a difference. I am a Senior Economist in the Economic Projections and Conjunctural Analysis Office, and the Bank's reference person for the HFCS project. My research interests lie in household finance, property market, growth theory and labour economics. The modern economist requires a variety of skills, from data analysing to notes drafting, keeping in mind that the latter must be adapted accordingly to the type of public. Moreover, you need to prove efficient when interacting with people in other departments and institutions, which in some cases is more important than any other ability.

Christine Balzan
Manager
Stress Testing and the Macroprudential Policy & Crisis Management Offices
Policy, Crisis Management and Stress Testing Department

I joined the Financial Stability Department in 2006, and now manage the Stress Testing and the Macroprudential Policy & Crisis Management Offices. During this time, I was also seconded to the ECB where I was in charge of quality assuring results for a number of EU banks for the EU-wide stress test exercise. Forming part of the financial sector community during this time, I have witnessed challenging and interesting times: the beginning and aftermath of the global financial crisis, the unfolding of the coronavirus pandemic and the Russia-Ukraine war. Given the Bank's pro-active and timely approach, having the right mindset of an apt team, the Bank has managed to overcome significant obstacles. I was heavily involved in the drafting of the Bank's Directive No.18 on moratoria, the refinement of Directive No. 16, and the publishing of yearly Financial Stability Reports, including research work. The past challenges have contributed to my professional growth and steepened my learning curve. My Department's accomplishments can be attributed to having a team-oriented environment, and a culture where people are supported to expand their potential.

Jeremy Buttigieg
Senior Legal Officer
Legal Department

I joined the Central Bank of Malta's Legal Department in 2019 and the journey since then has been challenging, yet fruitful, both from an academic and professional point of view. This, through the Bank's drive to invest in its employees. Since joining, I attended two overseas professional training courses, in Florence and Frankfurt, focusing on EU Banking Law. Thanks to the Bank, I established myself as a point of reference on tax matters by attending various local tax courses and also completing a Diploma in Tax Compliance. The primary ongoing challenge as Senior Legal Officer in the Department is the constant developments in regulation and legislation, which are a challenge that keep me abreast and knowledgeable to best advise the Bank on an ongoing basis. Nowadays, I consider myself wealthier in knowledge and experience, and this, with gratitude to the Central Bank of Malta.

John Farrugia
Manager
Fiscal Affairs and Reports Office
Economic Analysis Department

I have been working at the Economics Department ever since I joined the Bank in 2009. Along the years I had the opportunity to conduct various studies into the Maltese public finances, with the help of a number of colleagues. As a manager of an office within this Department, I now work more closely with these colleagues, not just on issues in which I developed a specialization but across all areas of the Maltese economy. I admit it's a great source of satisfaction to see our analyses being disseminated to the public through the Bank's publications. Apart from carrying out my own tasks, I am also responsible for the successful realization of all my colleagues' projects and ambitions. It's not always easy to reconcile staff development and career goals with the Bank's strategic goals and operational budget. However, through compromise and my colleagues' tireless efforts, we always completed the tasks at hand.

Stephanie Gatt
Manager
Legal Department

As Manager within the Legal Department, I am entrusted with an extensive legal portfolio which includes assisting and guiding the Governors, Board of Directors and business areas on ongoing legal issues, in particular those involving the Central Bank of Malta and the Eurosystem. The main advantage derived from my employment with the Central Bank of Malta is that of encountering and addressing challenging legal issues daily, which in turn allow me to gain the necessary expertise in areas that are alien to most financial services lawyers. In 2019, the Bank offered me the opportunity, and supported my journey to pursue and successfully complete a Master of Arts in Financial Services course with a dissertation entitled Central Bank Digital Currency: Paving the Way to a new Era in Payments. This led to my appointment as one of the members of Eurosystem/ESCB Legal Committee's Taskforce on the Central Bank Digital Currency within the ECB which is tasked with responsibility of drafting the legal framework for the issuance of a digital currency within the EU.

William Gatt Fenech

Manager Financial Stability Research Office

Financial Stability Department

As Manager of the recently set up Financial Stability Research Office, I coordinate and conduct research on financial stability and macroprudential policy. As a student, I was always intrigued by the mathematical and econometric modelling of decision making and its use in guiding economic policy using the scientific method. Research departments within central banks use these methods to guide the conduct of monetary and macroprudential policies. This is what spurred me to join the Bank in 2009, and I have been conducting and publishing research on a range of topics ever since. Keeping up with advances in macroeconomic research and tools of analysis is a challenging, but highly rewarding, endeavour. I have a PhD in economics from the University of Nottingham, in which I specialised on borrower-based macroprudential policy, and I am also affiliated with the Centre for Finance, Credit and Macroeconomics as an External Research Fellow.

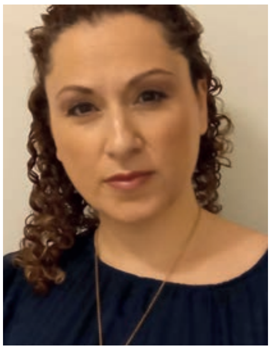
Bernardette Micallef

Senior Expert

International Asset Management Office

Financial Asset Management Department

I joined the Bank when I was just 19 years old. In my early years at the Bank, I worked at Payments and Banking Office and subsequently, moved to the Financial Markets Division, an area which is close to my heart. My educational background includes an MSc in Finance with a major in Economic Policy from the University of London and a BSc in Financial Services from the University of Manchester. Over the years, I have been involved in almost all functions within the International Asset Management Office. Together with my team, I manage a substantial part of the Bank's financial assets which consist of different fixed income portfolios and other asset classes including equities, and gold. Whilst this carries with it a lot of responsibility, I like the challenge and the possibility to contribute towards increasing the Bank's profitability. In the past two years, I have taken a leading role in assessing the ESG and climate profile of the Bank's NMPPs. The Bank has this year approved sustainability as its fourth investment pillar. To this effect, I am also responsible to propose actions and strategies to the Bank's management to address risks and opportunities emanating from climate change so that the Bank, with the rest of the Eurosystem, continues to lead by example in this very important area.



Vince Pace

Managing FX & MM desk/MAPS Local Service desk/Project Management

International Asset Management Office

Financial Asset Management Department

My focus during my career at the Bank was mostly related to the Financial Market activities, where I have been in touch with all functions in this area: from supporting traders in my early years to heading the Foreign Exchange and Money Market desk during challenging times. The latter gave me exposure to interact with my peers both within the Bank and externally where I have worked to develop further ethics and compliance standards. During the last four years I have been assigned by the Bank's management to oversee several projects aimed at enhancing, aligning, and automating core Bank operations. In the Payments Hub project, I was responsible for implementing four out of five major modules which contributed to the Bank's direct participation in SEPA. The other major project was the implementation of a Treasury Management System, with front-to-back functionality involving three different divisions within the Bank. I have been managing this project over the past two years, which gave me the opportunity to collaborate closely with dedicated officials from two of the major European central banks, as well as with our external IT consultants, several departments of the Bank and around another six different external suppliers. This project was successfully launched in November 2022 according to plan.

Sonia Sammut

Senior Operational Risk Officer

Operational Risk Management Office

Risk Management Department

Having worked in various business areas throughout my career at the Bank is particularly useful in my current role. Annually, the operational risk management cycle is kicked-off by delivering training to the Operational Risk Coordinators (ORCs) of the Bank. I deliver the operational risk management training explaining the methodology to be used during the risk assessments. This serves as a refresher course to established ORCs and foundation training to new ORCs. The training also strives to continuously improve the risk culture across the Bank. During the Cycle, a facilitated risk assessment approach is taken with business areas after which I present the assessment results to senior management and the Board of Directors. I am also an active member of the Eurosystem Banks/ESCB/SSM ORM Task Force and since the pandemic, work mostly virtually with my peers at other central banks and within the ECB, especially whilst working on the Annual Resilience and Risk Update.

Andrew Spiteri

Manager

Financial Stability Surveillance Office

Financial Stability Surveillance and Research Department

Working at the Bank was always considered a great starting point to complement one's knowledge with on-the-job experience, while providing opportunities to further one's education while maintain an adequate work-life balance. Indeed, soon after joining the Bank in 2007, I obtained my Masters' Degree in economics from the University of Malta, graduating in 2009. I joined the Financial Stability Department at the early stages of the Global Financial Crisis, and since then, the importance of financial stability has intensified. As the manager of the Financial Stability Surveillance Office since June 2020, I am proud to lead a great team involved in assessing systemic risks to or from within the financial system. Our assessments span across the banking sector, insurance firms and investment funds, as well as other non-bank entities. We work in tandem with other offices to ensure macroprudential financial stability, while contributing actively to the Bank's flagship *Financial Stability Report* and its Interim.

Justin Taliana
Senior System Analyst
Application Development and Project Delivery Office
Innovation, Technology and Knowledge Services Department

My name is Justin Taliana and I work in the software development industry. I would describe myself as a passionate foodie with a love for exploring new restaurants and trying new cuisines. What first attracted me to the bank was a change of atmosphere and to expose myself to an environment that I had never worked in before. Moreover, the bank is a well-established organisation that offers stability and security to their employees. I would say that a challenge that I frequently encounter while working at the Bank is balancing technical and business requirements. As a software developer in the Bank, my job often requires balancing technical requirements with the needs of departments and regulatory requirements. Furthermore, ensuring security and data privacy is also another challenge as we often deal with sensitive information, so ensuring the security and privacy of this information is of utmost importance.

Andrea Giorgio Tosato
Senior Expert
Monetary Policy, Eurosystem and International Relations Department

The Bank offers a superb work-life balance: away from large urban agglomerations, yet at the heart of Europe. An intellectually stimulating job, Malta's distinctive cultural traits and its unique position in the Mediterranean weave together an exciting place to live and work.

The book that prompted me to study economics was probably S. Levitt and S. Dubner's Freakonomics (2005). I recall reading it avidly while thinking what a powerful tool economics can be. Over the years, I developed a keen interest in monetary matters, which eventually led me to join the Central Bank of Malta. One of the essential institutions of modernity, money is tremendously challenging to manage. The hardest conundrum of my profession does not relate to its technical complexity, however. Rather, it is the awareness that decisions taken here can significantly alter, for better or for worse, the prospects and wellbeing of families and firms.

III. Financial Statements

Directors' report

The Directors present their report and the audited financial statements of the Central Bank of Malta (the Bank) for the year ended 31 December 2022.

Presentation of the financial statements

These financial statements have been prepared so as to give a true and fair view of the state of affairs of the Bank as at 31 December 2022, and of its profit and loss account for the year then ended. The financial statements have been prepared in accordance with the provisions established by the Governing Council of the European Central Bank under Article 26.4 of the Statute of the European System of Central Banks and of the European Central Bank and in accordance with the requirements of the Central Bank of Malta Act (Cap. 204). The provisions established by the Governing Council of the European Central Bank are outlined in the Guideline 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 by the Guideline of 28 November 2019 (ECB/2019/34) and Guideline of 11 November 2021 (ECB/2021/51).

Financial results

The Bank's financial statements for the year ended 31 December 2022 are set out on pages A-4 to A-38. During the year under review, the Bank registered a zero financial result, this consequent to a transfer of €20.91 million from the provision for financial risks to the profit and loss account. For the year ended 31 December 2021, the Bank had registered a profit for the year of €22.17 million which was payable to the Government of Malta.

Board of Directors

The members of the Board of Directors during the year ended 31 December 2022 and up to the date of authorisation for issue of the financial statements were:

Professor Edward Scicluna – Governor
Mr Alexander Demarco – Deputy Governor Monetary Policy
Mr Oliver Bonello – Deputy Governor Financial Stability
Professor Peter J. Baldacchino
Dr Romina Cuschieri
Professor Frank Bezzina
Dr Lauren Ellul (appointed on 2 February 2022)
Ms Philomena Meli (up to 22 January 2022)

During the financial year, Mr Francis Bugeja was secretary to the Board.

Statement of Directors' responsibilities in respect of the financial statements

The Board of Directors is responsible for ensuring that the financial statements are drawn up in accordance with the requirements of the Central Bank of Malta Act (Cap. 204). The Bank is required to prepare financial statements in accordance with the requirements of the Guideline 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 by the Guideline of 28 November 2019 (ECB/2019/34) and Guideline of 11 November 2021 (ECB/2021/51).

The Board of Directors is responsible for ensuring that these financial statements give a true and fair view of the state of affairs of the Bank as at 31 December 2022 and of the profit and loss account for the year then ended.

In preparing the financial statements, the Directors are responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

The Directors are also responsible for designing, implementing and maintaining internal controls relevant to the preparation and the fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error, and that comply with the requirements set out above. They are also responsible for safeguarding the assets of the Bank and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The financial statements of the Central Bank of Malta for the year ended 31 December 2022 are included in the Annual Report 2022, which is published in printed form and is made available on the Bank's website*. The Directors are responsible for the maintenance and integrity of the Annual Report on the website in view of their responsibility for the controls over, and the security of, the website. Access to information published on the Bank's website is available in other countries and jurisdictions, where legislation governing the preparation and dissemination of financial statements may differ from requirements or practice in Malta.

Auditors

KPMG were appointed as the auditors of the Bank with effect from the financial year ended 31 December 2019 until this financial year. The Bank will appoint new auditors for the financial year ending 31 December 2023.

By order of the Board.

Professor Edward Scicluna
Governor

Mr Alexander Demarco
Deputy Governor

Mr Oliver Bonello
Deputy Governor

Central Bank of Malta
Pjazza Kastilja
Valletta VLT 1060
Malta

20 March 2023

* www.centralbankmalta.org/annual-reports

Balance Sheet as at 31 December 2022

		2022	2021
	Assets	**€'000**	€'000
A 1	**Gold and gold receivables**	**3,412**	**4,668**
A 2	**Claims on non-euro area residents denominated in foreign currency**	**1,149,501**	**1,009,609**
A 2.1	Receivables from the IMF	368,789	357,395
A 2.2	Balances with banks and security investments, external loans and other external assets	780,712	652,214
A 3	**Claims on euro area residents denominated in foreign currency**	**226,005**	**204,992**
A 4	**Claims on non-euro area residents denominated in euro**	**683,118**	**607,378**
A 4.1	Balances with banks, security investments and loans	683,118	607,378
A 4.2	Claims arising from the credit facility under ERM II	-	-
A 5	**Lending to euro area credit institutions related to monetary policy operations denominated in euro**	**130,000**	**712,900**
A 5.1	Main refinancing operations	-	14,000
A 5.2	Longer-term refinancing operations	130,000	698,900
A 5.3	Fine-tuning reverse operations	-	-
A 5.4	Structural reverse operations	-	-
A 5.5	Marginal lending facility	-	-
A 5.6	Credits related to margin calls	-	-
A 6	**Other claims on euro area credit institutions denominated in euro**	**5,121**	**774**
A 7	**Securities of euro area residents denominated in euro**	**2,339,793**	**2,148,853**
A 7.1	Securities held for monetary policy purposes	1,577,180	1,476,129
A 7.2	Other securities	762,613	672,724
A 8	**General government debt denominated in euro**	**-**	**-**
A 9	**Intra-Eurosystem claims**	**5,520,588**	**7,386,303**
A 9.1	Participating interest in ECB	22,234	21,594
A 9.2	Claims equivalent to the transfer of foreign reserves	42,314	42,314
A 9.3	Claims related to the issuance of ECB debt certificates*	-	-
A 9.4	Net claims related to the allocation of euro banknotes within the Eurosystem	-	-
A 9.5	Other claims within the Eurosystem (net)	5,456,040	7,322,395
A 10	**Items in course of settlement**	**6,303**	**8,009**
A 11	**Other assets**	**406,010**	**316,569**
A 11.1	Coins of euro area	10	54
A 11.2	Tangible and intangible fixed assets	42,069	40,363
A 11.3	Other financial assets	227,503	237,222
A 11.4	Off-balance sheet instruments revaluation differences	4,630	642
A 11.5	Accruals and prepaid expenses	33,936	19,385
A 11.6	Sundry	97,862	18,903
Total Assets		**10,469,851**	**12,400,055**

* Only an ECB balance sheet item

		2022	2021
	Liabilities	**€'000**	€'000
L 1	**Banknotes in circulation**	**1,517,012**	**1,490,332**
L 2	**Liabilities to euro area credit institutions related to monetary policy operations denominated in euro**	**5,844,345**	**7,707,110**
L 2.1	Current accounts (covering the minimum reserve system)	867,727	7,707,110
L 2.2	Deposit facility	4,976,618	-
L 2.3	Fixed-term deposits	-	-
L 2.4	Fine-tuning reverse operations	-	-
L 2.5	Deposits related to margin calls	-	-
L 3	**Other liabilities to euro area credit institutions denominated in euro**	**6,795**	**77,506**
L 4	**Debt certificates issued***	**-**	**-**
L 5	**Liabilities to other euro area residents denominated in euro**	**1,100,478**	**1,240,693**
L 5.1	General government	573,062	807,140
L 5.2	Other liabilities	527,416	433,553
L 6	**Liabilities to non-euro area residents denominated in euro**	**67,616**	**31,079**
L 7	**Liabilities to euro area residents denominated in foreign currency**	**310,609**	**310,996**
L 8	**Liabilities to non-euro area residents denominated in foreign currency**	**-**	**-**
L 8.1	Deposits, balances and other liabilities	-	-
L 8.2	Liabilities arising from the credit facility under ERM II	-	-
L 9	**Counterpart of special drawing rights allocated by the IMF**	**321,324**	**317,268**
L 10	**Intra-Eurosystem liabilities**	**784,634**	**641,133**
L 10.1	Liabilities equivalent to the transfer of foreign reserves*	-	-
L 10.2	Liabilities related to the issuance of ECB debt certificates	-	-
L 10.3	Net liabilities related to the allocation of euro banknotes within the Eurosystem	784,634	641,133
L 10.4	Other liabilities within the Eurosystem (net)	-	-
L 11	**Items in course of settlement**	**-**	**-**
L 12	**Other liabilities**	**26,376**	**44,619**
L 12.1	Off-balance sheet instruments revaluation differences	715	1,213
L 12.2	Accruals and income collected in advance	12,458	7,325
L 12.3	Sundry	13,203	36,081
L 13	**Provisions**	**107,901**	**128,809**
L 14	**Revaluation accounts**	**665**	**11,554**
L 15	**Capital and reserves**	**382,096**	**376,783**
L 15.1	Capital	20,000	20,000
L 15.2	Reserves	362,096	356,783
L 16	**Profit for the year**	**-**	**22,173**
Total Liabilities		**10,469,851**	**12,400,055**

* Only an ECB balance sheet item

Profit and Loss account for the year ended 31 December 2022

		2022	2021
		€'000	€'000
1.1	Interest income	98,099	59,635
1.2	Interest expense	(33,180)	1,950
1	**Net interest income**	**64,919**	**61,585**
2.1	Realised gains/losses arising from financial operations	4,499	14,779
2.2	Write-downs on financial assets and positions	(37,388)	(7,753)
2.3	Transfer to/from provisions for financial risks	20,908	(3,913)
2	**Net result of financial operations, write-downs and risk provisions**	**(11,981)**	**3,113**
3.1	Fees and commissions income	686	818
3.2	Fees and commissions expense	(1,661)	(1,580)
3	**Net income/expense from fees and commissions**	**(975)**	**(762)**
4	**Income from equity shares and participating interests**	**44**	**559**
5	**Net result of pooling of monetary income**	**(26,806)**	**(17,382)**
6	**Other income**	**3,088**	**1,638**
	Total net income	**28,289**	**48,751**
7	**Staff costs**	**(14,933)**	**(14,598)**
8	**Administrative expenses**	**(10,582)**	**(9,497)**
9	**Depreciation of tangible and intangible fixed assets**	**(2,394)**	**(2,112)**
10	**Banknote production services**	**(376)**	**(367)**
11	**Other expenses**	**(4)**	**(4)**
	Profit for the year	**-**	**22,173**
	Transfer to reserves for risks and contingencies	**-**	**-**
	Payable to the Government of Malta in terms of article 22(2) of the Central Bank of Malta Act (Cap. 204)	**-**	**22,173**

The financial statements on pages A-4 to A-38 were approved for issue by the Board of Directors on 20 March 2023 and are signed on its behalf by:

Professor Edward Scicluna
Governor

Mr Alexander Demarco
Deputy Governor

Mr Oliver Bonello
Deputy Governor

Mr Raymond Filletti
Chief Officer
Financial Control and Risk

Ms Maryanne Attard
Head
Financial Control

Notes to the financial statements for the year ended 31 December 2022

General notes to the financial statements

1 The Eurosystem

The Central Bank of Malta (the Bank) is a participating member of the Eurosystem and has joint responsibility for monetary policy and for exercising the common strategic goals of the European System of Central Banks (ESCB).[1]

2 Basis of preparation

As established by the Central Bank of Malta Act (Chapter 204, Laws of Malta) (the Act), the Bank is required to prepare its financial statements in accordance with the guideline on the legal framework for accounting and financial reporting in the European System of Central Banks (recast) ECB/2016/34 issued on 3 November 2016 as amended by subsequent ECB guidelines[2] (the Guideline).

In line with the requirements of the Guideline, in cases where the latter does not provide specific direction, the requirements of generally accepted accounting principles are applied. In the case of the Bank, reference is made to International Financial Reporting Standards (IFRS) as adopted by the EU.

These financial statements have been drawn up so as to give a true and fair view of the state of affairs of the Bank as at 31 December 2022 and of its profit and loss account for the year then ended. The accounts have been prepared on a historical cost basis, modified to include the revaluation of gold, foreign currency instruments, securities (other than securities classified as held-to-maturity and securities held for monetary policy purposes that are accounted for at amortised cost), as well as other financial instruments, both on-balance sheet and off-balance sheet, at mid-market rates and prices.

3 Accounting policies

Basic accounting principles

The basic accounting principles applied by the Bank in the preparation of these financial statements are:

- economic reality and transparency;
- prudence;
- materiality;
- consistency and comparability;
- going concern;
- accruals principle;
- post-balance sheet events.

Recognition of assets and liabilities

An asset or liability is only recognised in the balance sheet when it is probable that any associated future economic benefit will flow to or from the Bank, substantially all of the associated risks and rewards have been transferred to or from the Bank, and the cost or value of the asset or liability can be measured reliably.

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[1] The European Central Bank (ECB), together with national central banks (NCBs), shall constitute the ESCB. The ECB together with the NCBs of the Member States whose currency is the euro, constitute the Eurosystem and shall conduct the monetary policy of the Union, as per Article 282.1 of the Treaty of the Functioning of the European Union. The Eurosystem and the ESCB will co-exist as long as there are European Union (EU) Member States outside the euro area.

[2] Guideline ECB/2019/34 entered into force on 31 December 2019 and Guideline ECB/2021/51 entered into force on 31 December 2021.

Foreign currency transactions

Foreign exchange transactions, comprising spot and forward deals in gold and foreign currencies, are recorded as off-balance sheet commitments on trade date at the prevailing spot exchange rate of the forward transaction. All security transactions in foreign currencies are recorded on-balance sheet on settlement date at the applicable exchange rate. All other transactions are recorded in the balance sheet at market exchange rates prevailing on the day of the transaction.

The average cost method is used on a daily basis for calculating the acquisition cost of assets and liabilities that are subject to price and/or exchange rate movements.

Financial assets and liabilities denominated in foreign currency, including off-balance sheet positions, are revalued at the prevailing mid-market exchange rates at the balance sheet date. Gold balances are revalued at market prices prevailing at the year end. No distinction is made between price and currency revaluation differences for gold, but a single gold revaluation difference is accounted for on the basis of the euro price per defined unit of weight of gold derived from the euro/US dollar exchange rate at the balance sheet date.

Foreign currency positions (including off-balance sheet transactions) are revalued on a currency-by-currency basis. In the case of securities, revaluation is carried out on a code-by-code basis (same ISIN number/type) and is treated separately from exchange rate revaluation.

In the case of foreign currency or gold positions, inflows and outflows are compared against each other to determine any realised gains or losses. Where a long position exists, net inflows of currencies and gold made during the day shall be added, at the average rate or the average price of gold, to the previous day's holding, to produce a new weighted average cost. In the case of net outflows, the calculation of a second realised gain or loss shall be based on the average cost of the respective currency or gold holding for the preceding day so that the average cost remains unchanged. For short positions, the reverse accounting treatment is applied.

Securities and marketable investment funds

All securities are initially recorded at transaction price. The average cost method is used on a daily basis for the purpose of calculating the acquisition cost of a security that is sold.

Debt securities held for monetary policy purposes and marketable debt securities classified as held-to-maturity are measured at amortised cost and subject to impairment.

Held-to-maturity securities have fixed or determinable payments and a fixed maturity date, which the Bank intends to hold until maturity. Securities classified as held-to-maturity may be sold before their maturity in any of the following instances:[3]

- if the quantity sold is considered not significant in comparison with the total amount of the held-to-maturity securities portfolio;
- if the securities are sold during the month of the maturity date;
- under exceptional circumstances, such as a significant deterioration of the issuer's creditworthiness.

Marketable securities (other than those held-to-maturity) are valued at the mid-market prices at the balance sheet date, on a security-by-security basis.

Marketable investment fund units held for investment purposes without the Bank intervening in the decisions on the purchase or sale of the underlying assets, are valued at market prices on a net fund basis at year

[3] Refer to article 9(6) of the Guideline of 3 November 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (recast) (ECB/2016/34), OJ L 347, 20.12.2016, p. 37.

end. Gains and losses arising on measurement of these investment funds are accounted for in accordance with the Guideline (see 'Recognition of income and expenses' in 3 'Accounting policies' in the general notes to the financial statements).

Malta Government Stocks (MGS) and Treasury bills purchased on the secondary market in the Bank's role as a market maker, are designated as part of an earmarked portfolio. Financial instruments forming part of this earmarked portfolio are measured at mid-market prices prevailing at the balance sheet date. Unrealised gains are reflected on-balance sheet under L 12.3 'Sundry', while unrealised losses are recognised under A 11.6 'Sundry'.

Off-balance sheet instruments

Spot and forward foreign exchange contracts and daily changes in the variation margins of future contracts are included in the net foreign currency position for the purpose of calculating the average cost of currencies and determining realised foreign exchange gains and losses. Futures are accounted for and revalued on an item-by-item basis. Daily changes in the variation margins of open futures contracts, representing realised gains and losses, are recognised in the profit and loss account.

Gains and losses arising from off-balance sheet instruments are recognised and treated in a similar manner to on-balance sheet instruments. Realised and unrealised gains and losses are measured and accounted as outlined in 'Recognition of income and expenses' in 3 'Accounting policies' in the general notes to the financial statements.

Unrealised valuation gains or losses on spot and forward foreign exchange contracts are recorded from the trade date to the settlement date under A 11.4 'Off-balance sheet instruments revaluation differences' and L 12.1 'Off-balance sheet instruments revaluation differences' as applicable.

Sale and repurchase agreements and lending of securities

Securities sold subject to repurchase agreements (repos) are retained in the financial statements in the appropriate classification on the assets side of the balance sheet while the counterparty liability is included as a collateralised inward deposit on the liabilities side of the balance sheet, as appropriate. Securities purchased under agreements to resell (reverse repos) are recorded as a collateralised outward loan on the assets side of the balance sheet, as appropriate. The difference between the sale and repurchase price is treated as interest and is accrued in the profit and loss account over the term of the agreement on a straight-line basis. Securities lent to counterparties are also retained in the financial statements.

Recognition of income and expenses

Income and expenses are recognised in the period in which they are earned or incurred.

Interest income and expense

Interest income and expense are recognised in the profit and loss account for all interest-bearing assets and liabilities.

Interest income and interest expense arising from monetary policy operations are reported on a net basis on a balance sheet sub-item level, under either 'Interest income' or 'Interest expense' depending on whether the net amount generated or incurred is positive or negative.

Premiums or discounts arising from the difference between the average acquisition cost and the redemption price of all securities are presented as part of interest income and are amortised over the remaining term of the security on a discounted basis.

Interest accruals on foreign currency assets and liabilities are converted at the mid-market rate on each business day and are included in the respective foreign currency position to determine the average book value, as applicable. Accordingly, interest income includes coupons earned and amortised premiums or discounts on securities and other instruments. In respect of forward exchange contracts, the difference between the deemed spot exchange rate of the forward contract and the deal rate is considered as interest income or expense and is amortised on a straight-line basis from the trade date to settlement date.

Gains and losses arising from foreign exchange, gold and securities

Realised gains and realised losses can only arise in the case of transactions leading to a reduction in foreign currency positions or on the sale of securities.

In the case of securities, realised gains or losses are derived by comparing the transaction value with the average cost of the respective security. All realised gains and losses are taken to the profit and loss account.

Unrealised revaluation gains and losses arise as a result of the revaluation of assets and liabilities by comparing the market value with the average book value. Unrealised gains are not recognised as income but are transferred directly to a revaluation account. Unrealised losses, with the exception of those relating to the MGS and Treasury bills earmarked portfolio, are taken to the profit and loss account when they exceed previous unrealised gains registered in the corresponding revaluation account. Unrealised losses recorded in the profit and loss account in previous years are not reversed against unrealised gains in subsequent years. Unrealised losses in any one security or in any foreign currency, including gold, are not netted against unrealised gains in other securities or other foreign currencies.

Claims on the International Monetary Fund (IMF)

The IMF reserve tranche position, SDR and other claims on the IMF are translated into euro at the year end ECB euro to SDR exchange rate.

The IMF reserve tranche position is presented on a net basis representing the difference between the national quota and the holdings in euro at the disposal of the IMF. The IMF euro holdings are revalued against the SDR at the prevailing representative rate for the euro as quoted by the IMF on its last working day of the year. The euro account for administrative expenses is included under L 6 ‘Liabilities to non-euro area residents denominated in euro’.

Euro coins

Subsequent to the agency agreement between the Bank and the Government of Malta, euro coins issued by the Bank give rise to a reserve in the form of a capital contribution by the Government. Deposits of euro coins with the Bank constitute a reversal of the capital contribution.

Tangible and intangible fixed assets

Tangible and intangible fixed assets are stated at historical cost less depreciation and amortisation respectively, with the exception of land and works of art which are stated at historical cost and not depreciated. Historical cost includes expenditure that is directly attributable to the acquisition of the asset. Subsequent costs are included in the carrying amount of the asset or are recognised as a separate asset, as appropriate, only when they are a present economic resource controlled by the Bank as a result of past events. All repairs and maintenance costs are charged to the profit and loss account during the financial period in which they are incurred.

Depreciation is calculated using the straight-line method to allocate the cost of the assets to their residual values over their estimated useful lives as follows:

Freehold buildings	2%
Leasehold property	over the remaining term of the lease
Computer hardware and software, equipment and other fixed assets	10% to 25%

Tangible and intangible fixed assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The carrying amount of an asset is written down to its recoverable amount if that carrying amount is greater than its estimated recoverable amount.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Gains and losses arising on derecognition are determined by comparing sale proceeds with the carrying amount. These are included in the profit and loss account in the year when the asset is derecognised.

Leases

For lease agreements, the related right-of-use asset and lease liability are recognised in the balance sheet at the lease commencement date under A 11.2 'Tangible and intangible fixed assets' and L 12.3 'Sundry' respectively.

The right-of-use asset is valued at cost less depreciation and impairment (see 'Tangible and intangible fixed assets' in 3 'Accounting policies' in the general notes to the financial statements). Depreciation is calculated on a straight-line basis from the commencement date to either the end of the useful life of the right-of-use asset or the end of the lease term, whichever is earlier.

The lease liability is initially measured at the present value of the future lease payments, discounted at the Bank's incremental borrowing rate. Subsequently, the lease liability is measured at amortised cost using the effective interest method.

Short-term leases with duration of twelve months or less and leases of low-value assets are recorded in the profit and loss account under 8 'Administrative expenses'.

Provisions

Provisions are recognised by the Bank in accordance with the Guideline. The general risk provision covers all financial risks, defined as market, liquidity and credit risks. Taking into due consideration the nature of its activities, the Bank has established a provision for all financial risks within its balance sheet. The Bank decides on the size and use of the provision on the basis of a reasoned estimate of its risk exposure.

4 Investments

During 2022, the Bank decided to transfer euro and US dollar debt securities from the marketable debt securities other than held to maturity portfolio to the held to maturity portfolio. Under the held to maturity portfolio, debt securities are accounted for at amortised cost subject to impairment in line with the requirements of the Guideline. Depending on the currency and country of issue of the securities, these are reported under asset items A 2.2 'Balances with banks and security investments, external loans and other external assets', A 3 'Claims on euro area residents denominated in foreign currency', A 4.1 ' Balances with banks, security investments and loans' and A 7.2 'Other securities'.

5 Post-balance sheet events

The values of assets and liabilities are adjusted for events that occur between the annual balance sheet date and the date on which the financial statements are approved by the relevant bodies if they affect the condition of assets or liabilities at the balance sheet date. No adjustment shall be made for assets and liabilities, but disclosure shall be made of those events occurring after the balance sheet date if they do not affect the condition of assets and liabilities at the balance sheet date, but which are of such importance that non-disclosure would affect the ability of the users of the financial statements to make proper evaluations and decisions.

Pursuant to Council Decision 2022/1211/EU of 12 July 2022, taken in accordance with Article 140(2) of the Treaty on the Functioning of the European Union, Croatia adopted the single currency on January 1, 2023. In accordance with Article 48.1 of the Statute of the ESCB and the legal acts adopted by the Governing Council on 30 December 2022,[4] 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, Hrvatska Narodna Banka transferred foreign reserve assets to the ECB in an amount corresponding to its subscribed capital share.

6 Capital key

The capital key determines the allocation of the ECB's share capital to the NCBs on the basis of population and gross domestic product in equal share. It is adjusted every five years and whenever there is a change in the composition of the EU in accordance with the requirements of the Statute. The capital key of the Bank as at 31 December 2021 and 2022 was 0.0853%. Following Hrvatska Narodna Banka's entry in to the Eurosystem, the Bank's capital key remained unchanged from that prevailing until the end of year 2022.

The Eurosystem capital key, which is the respective NCB's share of the total share capital held by euro area NCBs, is used as the basis for the allocation of monetary income and the financial results of the ECB among the Eurosystem NCBs. The Bank's Eurosystem capital key as at 31 December 2021 and 2022 stood at 0.1049%. Consequent to the entry of Hrvatska Narodna Banka into the Eurosystem, the Bank's Eurosystem capital key declined to 0.1040%.

7 Banknotes in circulation

The ECB and the euro area NCBs, which together comprise the Eurosystem, issue euro banknotes. The total value of euro banknotes in circulation is allocated to the Eurosystem central banks on the last working day of each month in accordance with the banknote allocation key. The ECB has been allocated an 8% share of the total value of euro banknotes in circulation, whereas the remaining 92% has been allocated to the NCBs according to their weightings in the capital key of the ECB.[5] The share of banknotes allocated to each NCB is disclosed in the balance sheet under L 1 'Banknotes in circulation'.

During the financial years ended 31 December 2021 and 2022, the Bank's share in euro banknotes remained unchanged at 0.0965%. Following the entry of Hrvatska Narodna Banka into the Eurosystem, the Bank's share in euro banknotes decreased to 0.0960% as from 1 January 2023.

The difference between the value of the euro banknotes allocated to each NCB in accordance with the banknote allocation key and the value of the euro banknotes that it actually puts into circulation, as reduced by banknotes withdrawn from circulation, gives rise to intra-Eurosystem balances remunerated[6] on a daily

[4] Decision ECB/2022/51 of 30 December 2022 on the paying-up of capital, transfer of foreign reserve assets and contributions by Hrvatska Narodna Banka to the European Central Bank's reserves and provisions, OJ L 17,19 January 2023 p. 94.

[5] ECB decision of 13 December 2010 on the issue of euro banknotes (recast) (ECB/2010/29), OJ L 35, 9.2.2011, p. 26 as amended by ECB Decision of 22 January 2020 (ECB/2020/7), OJ L 271, 1.2.2020, p. 21 as amended by ECB Decision of 16 December 2022 (ECB/2022/46), OJ L 328, 22.12.2022, p. 136.

[6] ECB Decision of 3 November 2016 on the allocation of monetary income of the national central banks of Member States whose currency is the euro (recast) (ECB/2016/36), OJ L 347, 20.12.2016, p. 26 as amended by ECB Decision of 12 November 2020 (ECB/2020/55), OJ L 390, 20.11.2020, p. 60.

basis at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations (MROs). If the value of the euro banknotes actually issued is greater than the value according to the banknote allocation key, the excess is recognised as a liability in the balance sheet under L 10.3 'Net liabilities related to the allocation of euro banknotes within the Eurosystem'. If the value of the euro banknotes actually issued is less than the value according to the banknote allocation key, the shortfall is recognised as an asset in the balance sheet under A 9.4 'Net claims related to the allocation of euro banknotes within the Eurosystem'.

In the cash changeover year[7] and in the subsequent five years, the intra-Eurosystem balances arising from the allocation of euro banknotes are adjusted in order to avoid significant changes in the NCB's relative income positions as compared to previous years. The adjustments are affected by taking into account the differences between the average value of the banknotes which the NCB had in circulation in the reference period,[8] and the average value of banknotes which would have been allocated to it during that period in accordance with its capital key. The adjustments are reduced in annual stages until the first day of the sixth year after the cash changeover year, when income on banknotes are allocated fully in proportion to the NCB's paid-up shares in the ECB's capital. In the year under review, the adjustments that resulted from the accession of Hrvatska Narodna Banka will commence in 2023 and will terminate at the end of 2028.

Any interest income or expense on these balances is cleared through the accounts of the ECB and is recognised in the profit and loss account under 1 'Net interest income'.

8 ECB profit distribution

The Governing Council of the European Central Bank (the Governing Council) 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 income arising from the securities held 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) is distributed in January of the following year by means of an interim profit distribution, unless otherwise decided by the Governing Council.[9] 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 a provision for financial risks. Furthermore, the Governing Council may also 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.

The amount distributed to the Bank is recognised in the profit and loss account under 4 'Income from equity shares and participating interests'.

9 Intra-Eurosystem balances/Intra-ESCB balances

Intra-Eurosystem balances result mostly from cross-border payments in the EU that are settled in central bank money in euro. They are primarily settled in the Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET2) 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. Intra-Eurosystem balances of the Bank 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 and monetary income results), are presented on the balance

[7] Cash changeover year refers to the year in which the euro banknotes are introduced as legal tender in the respective Member State.
[8] The reference period refers to a 24-month period commencing 30 months prior to the day on which euro banknotes become legal tender in the respective Member State.
[9] ECB Decision of 15 December 2014 on the interim distribution of the income of the European Central Bank (recast) (ECB/2014/57), OJ L 53, 25.2.2015, p. 24 as amended by ECB Decision of 2 July 2015 (ECB/2015/25), OJ L 193, 21.7.2015, p. 133, ECB decision of 28 November 2019 (ECB/2019/36) OJ L 332, 23.12.2019, p. 183 and ECB decision of 12 November 2020 (ECB/2020/56) OJ L 390, 20.11.2020, p. 63.

sheet of the Bank as a single net asset or liability position under A 9.5 'Other claims within the Eurosystem (net)' or L 10.4 'Other liabilities within the Eurosystem (net)'. Intra-ESCB balances versus non-euro area NCBs not arising from TARGET2 are disclosed either under A 4 'Claims on non-euro area residents denominated in euro' or L 6 'Liabilities to non-euro area residents denominated in euro'.

Intra-Eurosystem claims arising from the Bank's participating interest in the ECB are reported under A 9.1 'Participating interest in ECB'. In particular, this balance sheet item includes: (i) the NCBs' paid-up share in the ECB's subscribed capital, (ii) any net amount paid by the NCBs due to the increase in their shares in the ECB's equity value[10] resulting from all previous ECB's capital key adjustments, and (iii) contributions in accordance with Article 48.2 of the Statute of the ESCB with respect to central banks of Member States whose derogations have been abrogated.

Intra-Eurosystem claims arising from the transfer of foreign reserve assets by the Bank to the ECB are denominated in euro and reported under A 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 as a single net asset or liability under A 9.5 'Other claims within the Eurosystem (net)' or L 10.4 'Other liabilities within the Eurosystem (net)' as appropriate (see 7 'Banknotes in circulation' in the general notes to the financial statements).

[10] Equity value consists of the total ECB's reserves, revaluation accounts and provisions equivalent to reserves, less any losses carried forward from previous periods. In the event of capital key changes the equity value also includes the ECB's accumulated net profit or net loss until the date of the adjustment.

Notes to the balance sheet

Assets

A 1 Gold and gold receivables

The Bank's gold balances consist of correspondent accounts with foreign banks and holdings with counterparties. On 31 December 2022, gold was revalued at €1,706.075 (2021: €1,609.483) per fine troy ounce and realised valuation losses as at that date amounted to €81,800. As at 31 December 2021, unrealised gains amounted to €332,752 with a corresponding amount disclosed under L 14 'Revaluation accounts'.

	€'000	Fine troy ounces
Balance as at 31 December 2021	4,668	2,900
Net effect of transactions during the year	(841)	(900)
Valuation movements during the year	(415)	-
Balance as at 31 December 2022	**3,412**	**2,000**

A 2 Claims on non-euro area residents denominated in foreign currency

These claims consist of receivables from the IMF and other claims on counterparties resident outside the euro area denominated in foreign currency as follows:

	2022	2021	Change
	€'000	€'000	€'000
Special drawing rights	**368,802**	357,395	11,407
US dollar	**332,772**	286,795	45,977
Canadian dollar	**124,482**	119,605	4,877
Australian dollar	**105,797**	50,333	55,464
Swedish krona	**52,409**	58,065	(5,656)
Great Britain pound	**52,016**	68,359	(16,343)
Swiss Frank	**44,345**	14,074	30,271
Norwegian krone	**35,627**	34,651	976
New Zealand dollar	**33,159**	20,216	12,943
Others	**92**	116	(24)
Total	**1,149,501**	1,009,609	139,892

A 2.1 Receivables from the IMF

	2022	2021	Change
	€'000	€'000	€'000
Reserve tranche position (net)	**55,894**	50,245	5,649
SDR holdings	**312,895**	307,150	5,745
Total	**368,789**	357,395	11,394

Malta's quota as a membership subscription to the IMF as at 31 December 2021 and 2022 was SDR168,300,000. Up to 25% of the quota is paid in SDR (IMF's unit of account) or foreign currencies acceptable to the IMF, while the remainder of the membership subscription is paid in the member's own currency. The former portion constitutes the reserve tranche as a claim on the IMF, while the residual represents balances in euro at the disposal of the Fund. Hence, the net reserve tranche position represents the difference between the quota of SDR168,300,000 and the balance in euro at the disposal of the IMF. As at 31 December 2022, the net reserve tranche position amounted to SDR44,654,776 (2021: SDR40,654,776) equivalent to €55,894,459.

A member's SDR holdings initially amount to the SDR allocated. Afterwards, SDR holdings are subject to fluctuations as a result of various transactions. As at 31 December 2021 and 2022, the SDR allocated to Malta amounted to SDR256,709,738. This is reported under L 9 'Counterpart of special drawing rights allocated by the IMF'. SDR allocated to Malta cannot be withdrawn unless such advice is received from the IMF.

During 2022, the Bank entered into arrangements with the IMF to purchase a total of SDR1,234,375. As at 31 December 2022, Malta's SDR holdings, including interest received thereon, amounted to SDR249,976,029 (2021: SDR248,523,215) equivalent to €312,895,183 (2021: €307,149,823). The net reserve tranche position, SDR holdings and the SDR allocation are subject to SDR interest rates quoted by the IMF on a weekly basis.

During 2022, the Central Bank of Malta pledged to contribute towards the Fund's new Resilience and Sustainability Trust.

In 2021, the Bank entered into a bilateral SDR-denominated loan agreement with the Fund for €112,000,000. No drawings were affected under this agreement during 2021 and 2022.

A 2.2 Balances with banks and security investments, external loans and other external assets

These assets principally consist of security investments issued by non-euro area residents and balances with banks (see 4 'Investments' in the general notes to the financial statements).

	2022	2021	Change
	€'000	€'000	€'000
Marketable debt securities other than those held-to-maturity	**50,422**	179,208	(128,786)
Held-to-maturity debt securities	**674,599**	455,150	219,449
Current accounts and overnight deposits with banks	**55,691**	17,856	37,835
Total	**780,712**	652,214	128,498

A 3 Claims on euro area residents denominated in foreign currency

These foreign currency assets mainly comprise investments in marketable debt securities issued by euro area residents, claims arising from reverse operations with euro area counterparties and balances with banks.

	2022 €'000	2021 €'000	Change €'000
Marketable debt securities other than those held-to-maturity	**4,595**	30,064	(25,469)
Held-to-maturity debt securities	**74,936**	28,886	46,050
US dollar liquidity-providing operations	**142,696**	145,241	(2,545)
Current accounts and overnight deposits with banks	**3,778**	801	2,977
Total	**226,005**	204,992	21,013

During 2022, credit institutions established in Malta participated for a total amount of US$8,027,600,000 (2021: US$5,872,900,000) in US dollar liquidity-providing operations. The outstanding amount as at 31 December 2022 stood at US$152,200,000 (2021: US$164,500,000). Under this programme, the US dollar was provided by the Federal Reserve Bank of New York to the ECB by means of a swap line with the aim of offering short-term US dollar funding to Eurosystem counterparties. The ECB simultaneously entered into back-to-back swap transactions with euro area NCBs, which used the resulting funds to conduct liquidity-providing operations with the Eurosystem counterparties in the form of reverse and swap transactions.

Claims on euro area residents were denominated in foreign currency as follows:

	2022 €'000	2021 €'000	Change €'000
US dollar	**192,859**	177,728	15,131
Australian dollar	**10,256**	4,558	5,698
Swiss franc	**9,174**	3,892	5,282
Great Britain pound	**7,850**	12,701	(4,851)
Canadian dollar	**3,628**	3,707	(79)
Others	**2,238**	2,406	(168)
Total	**226,005**	204,992	21,013

A 4 Claims on non-euro area residents denominated in euro

These claims consist of marketable debt securities issued by non-euro area residents, a fixed income investment fund managed by external asset managers and balances with banks outside the euro area (see 4 'Investments' in the general notes to the financial statements).

	2022 €'000	2021 €'000	Change €'000
Marketable debt securities other than those held-to-maturity	**32,630**	154,692	(122,062)
Held-to-maturity debt securities	**605,374**	374,791	230,583
Fixed income investment fund	**45,106**	77,887	(32,781)
Current accounts and overnight deposits with banks	**8**	8	-
Total	**683,118**	607,378	75,740

A 5 Lending to euro area credit institutions related to monetary policy operations denominated in euro

This item reflects operations carried out by the Bank within the framework of the single monetary policy of the Eurosystem.

On 31 December 2022, the total Eurosystem holding of monetary policy assets amounted to €1,324 billion (2021: €2,202 billion) of which the Bank held €130,000,000 (2021: €712,900,000). In accordance with Article 32.4 of the Statute, losses from monetary policy operations, if they were to materialise, may be shared, by decision of the Governing Council, in full by the Eurosystem NCBs in proportion to the prevailing ECB capital key shares.

Losses can only materialise if the counterparty fails and the funds recovered from the resolution of the collateral provided by the counterparty are not sufficient. In relation to specific collateral which can be accepted by NCBs at their own discretion, risk sharing has been excluded by the Governing Council.

A 5.1 Main refinancing operations

MROs are executed through regular liquidity-providing reverse transactions carried out by the Eurosystem NCBs with a weekly frequency and a maturity of normally one week, on the basis of standard tenders. Since October 2008, these operations were conducted as fixed rate tender procedures. MROs play a key role in achieving the aims of steering interest rate, managing market liquidity and signalling the monetary policy stance.

During 2022, MROs carried out with the Bank amounted to €185,000,000 with no amount outstanding as at the end of the year. As at 31 December 2021, an amount of €14,000,000 was outstanding on these operations.

Throughout the financial year ended 31 December 2021, the interest rate used by the Eurosystem in its tenders for MROs remained unchanged at the level of 0.00%. The following table highlights the changes in this interest rate during 2022 as decided by the Governing Council.

With effect from:	Changes in basis points (bps)	Effective rate (%)
	2022	
1 January	-	0.00
27 July	+50 bps	0.50
14 September	+75 bps	1.25
2 November	+75 bps	2.00
21 December	+50 bps	2.50

A 5.2 Longer-term refinancing operations

Longer-term refinancing operations (LTROs) are regular liquidity-providing reverse transactions aimed at providing counterparties with additional longer-term refinancing liquidity. Participation in LTROs requires the availability of eligible collateral.

During 2022, credit institutions established in Malta participated in three-month LTROs with an aggregate amount of €159,000,000. These operations were conducted through fixed rate tender procedures with full allotment, at the average rate of the MROs prevailing over the life of the respective operation. As at 31 December 2022, outstanding LTROs stood at €50,000,000, while there were no outstanding amounts as at 31 December 2021.

In 2019, the Governing Council introduced a series of seven quarterly targeted longer-term refinancing operations (TLTRO III). Additionally, on 10 December 2020, the Governing Council added three further operations to this series, which were conducted between June and December 2021. These operations have a three-year maturity. For the first seven TLTRO III, from September 2021, starting 12 months after the settlement of each TLTRO III, participants have the option on a quarterly basis of terminating or reducing the amount of the TLTRO III concerned before maturity. For the eighth or subsequent TLTRO III, participants have this option on a quarterly basis as from June 2022. According to the initial decisions taken by the Governing Council, the final interest rate applicable to each TLTRO III can be as low as the average interest rate on the deposit facility prevailing over the life of the operation.

In response to COVID-19, in 2020, the Governing Council decided to reduce the interest rate on the outstanding TLTRO III for the period between 24 June 2020 and 23 June 2021, and the period between 24 June 2021 and 23 June 2022, referred to as the special interest rate period and the additional special interest rate period respectively. The applicable interest rate 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 27 October 2022 the Governing Council decided that, from 23 November 2022 until the maturity date or early repayment date of each respective outstanding TLTRO III operation, the interest rate 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 are introduced to provide TLTRO III participants with additional opportunities to partly, or fully, repay their respective TLTRO III borrowings before their maturity.

The actual interest rates will only be known at the maturity or early repayment of each operation, and until that time, a reliable estimate is only possible for the interest rates relating to the special and additional special interest rate periods that have already been communicated to counterparties. For the financial year ended 31 December 2022, interest accruals on TLTRO III were calculated using the following approach: (i) until 23 June 2022, covering the additional special interest rate period, the interest rate related data applied, was that as communicated to the counterparties on 10 June 2022, (ii) for the period from 24 June 2022 until 22 November 2022, the interest rate was linked to the average applicable key ECB interest rate from the settlement date till 22 November 2022, and (iii) for the period 23 November 2022 until 31 December 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.

No new participations in TLTRO III were carried out with the Bank during the financial year ended 31 December 2022, and the outstanding amount of these operations as at year end amounted to €70,000,000 (2021: €623,500,000). During 2022, TLTRO III operations amounting to €513,500,000 were early repaid by credit institutions established in Malta and €40,000,000 matured.

Furthermore, of the four additional pandemic emergency longer-term refinancing operations (PELTROs) allotted in 2021 on a quarterly basis, each with a tenor of approximately one year, three matured in the course of 2022. These operations provided a liquidity backstop to the euro area banking system and contribute 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 interest rate is 25 basis points below the average rate applied on the Eurosystem's MROs over the life of the respective PELTRO. During 2022, there were no new participations in PELTROs carried out with the Bank. The outstanding PELTROs as at 31 December 2022 amounted to €10,000,000 (2021: €75,400,000).

A 5.3 Fine-tuning reverse operations

Fine-tuning reverse operations aim to regulate the market liquidity situation and steer interest rates, particularly to smooth the effects on interest rates caused by unexpected market fluctuations. Owing to their nature, they are executed on an ad hoc basis. No fine-tuning reverse operations were conducted by the ECB during the years ended 31 December 2021 and 2022.

A 5.4 Structural reverse operations

These are reverse open-market transactions through standard tenders to enable the Eurosystem to adjust its structural liquidity position vis-à-vis the financial sector. No structural operations were conducted by the ECB during the years ended 31 December 2021 and 2022.

A 5.5 Marginal lending facility

Marginal lending facilities may be used by counterparties to obtain overnight liquidity from Eurosystem NCBs at a pre-specified interest rate against eligible assets. During 2022, there was no participation in the marginal lending facility by credit institutions established in Malta. There were no outstanding transactions as at 31 December 2021 and 2022.

Throughout the financial year ended 31 December 2021, the marginal lending facility rate remained unchanged at the level of 0.25%. The following table highlights the changes in this interest rate during 2022 as decided by the Governing Council.

With effect from:	Changes in basis points (bps)	Effective rate (%)
	2022	
1 January	-	0.25
27 July	+50 bps	0.75
14 September	+75 bps	1.50
2 November	+75 bps	2.25
21 December	+50 bps	2.75

A 5.6 Credits related to margin calls

This sub-item refers to cash paid to counterparties in those instances where the market value of the collateral exceeds an established trigger point implying an excess of collateral with respect to outstanding monetary policy operations.

Since the Bank operates a general pooling system, no payments to counterparties are affected.

A 6 Other claims on euro area credit institutions denominated in euro

This item consists of claims on credit institutions within the euro area not relating to monetary policy operations, mainly current accounts and overnight deposits with banks.

A 7 Securities of euro area residents denominated in euro

This item consists of securities held for monetary policy purposes as well as other securities.

A 7.1 Securities held for monetary policy purposes

As at 31 December 2022, this sub-item consisted of securities acquired by the Bank within the scope of the SMP,[11] the PSPP[12] and the PEPP.[13] The Bank's PSPP and PEPP related purchases comprised MGS from

[11] ECB Decision of 14 May 2010 establishing a securities markets programme (ECB/2010/5), OJ L 124, 20.5.2010, p. 8.

[12] ECB Decision of 3 February 2020 on a secondary markets public sector asset purchase programme (ECB/2020/9), OJ L 39, 12.2.2020, p. 12. Under this programme, the ECB and the NCBs may purchase, in the secondary market, euro-denominated securities issued by euro area central, regional or local governments, recognised agencies located in the euro area and international organisations and multilateral development banks located in the euro area.

[13] ECB Decision of 24 March 2020 on a temporary pandemic emergency purchase programme (ECB/2020/17), OJ L 91, 25.03.2020, p. 1 as amended by ECB Decision of 28 July 2020 (ECB/2020/36), OJ L 248, 31.7.2020, p. 24 and ECB Decision of 10 February 2021 (ECB/2021/6), OJ L 50, 15.2.2021, p. 29.

the secondary market. The amortised cost of the securities under these programmes as well as their market values,[14] are as follows:

	2022		2021		Change	
	Amortised cost	**Market value**	Amortised cost	Market value	Amortised cost	Market value
	€'000	**€'000**	€'000	€'000	€'000	€'000
Securities markets programme	**9,753**	**10,314**	9,551	11,214	202	(900)
Public sector purchase programme	**1,053,843**	**877,736**	1,012,161	1,066,052	41,682	(188,316)
Pandemic emergency purchase programme	**513,584**	**402,308**	454,417	446,973	59,167	(44,665)
Total	**1,577,180**	**1,290,358**	1,476,129	1,524,239	101,051	(233,881)

The Governing Council decided to cease further SMP purchases on 6 September 2012.

During the first quarter of 2022, the Eurosystem continued with its net purchases of securities under the asset purchase programme (APP)[15] at an average of €20 billion per month. In March 2022, the Governing Council[16] decided to revise the net purchase amounts to €40 billion in April, €30 billion in May, and €20 billion in June. In June 2022 the Governing Council[17] decided to end net asset purchases under the APP as of 1 July 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 €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 in December 2021,[18] during the first quarter of 2022 the Eurosystem continued with its net asset purchases under the PEPP, however, at a lower pace than in the previous quarter. Based on the same decision, 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 will be managed to avoid interference with the appropriate monetary policy stance.

The Governing Council assesses on a regular basis the financial risks associated with the securities held for monetary policy purposes. Impairment tests are conducted on an annual basis, using data as at the end of the year and are approved by the Governing Council. In these tests, impairment indicators are assessed separately for each programme. The total Eurosystem NCBs' holding of such securities amounts to €4,480 billion (2021: €4,268 billion).

[14] Market values are indicative and derived on the basis of market quotes. When market quotes are not available, market prices are estimated using internal Eurosystem models.
[15] The APP consists of the CBPP3, the ABSPP, the PSPP and the corporate sector purchase programme (CSPP).
[16] See the press release of 10 March 2022 of the Governing Council's decisions.
[17] See the press release of 9 June 2022 of the Governing Council's decisions.
[18] See the press release of 16 December 2021 of the Governing Council's decisions.

In accordance with the decision of the Governing Council taken under Article 32.4 of the Statute, losses from holdings of SMP, CBPP3,[19] ABSPP,[20] PSPP supranational securities, PEPP securities other than public sector securities and CSPP,[21] if they were to materialise, are to be shared in full by the Eurosystem NCBs, in proportion to the prevailing ECB capital key shares. As a result of the impairment tests carried out as at 31 December 2022 on securities purchased under all the programmes, the Governing Council decided that all future cash flows on these securities are expected to be received.

A 7.2 Other securities

This sub-item comprises all the Bank's investments in non-monetary policy debt securities and marketable investment funds with euro area residents (see 4 'Investments' in the general notes to the financial statements).

	2022	2021	Change
	€'000	€'000	€'000
Marketable debt securities other than those held-to-maturity	**11,263**	109,410	(98,147)
Held-to-maturity debt securities	**372,701**	262,192	110,509
Marketable investment funds	**378,649**	301,122	77,527
Total	**762,613**	672,724	89,889

A 9 Intra-Eurosystem claims

This item consists of claims arising from the Bank's participating interest in ECB, claims equivalent to the transfer of foreign reserves to the ECB and other net claims within the Eurosystem.

A 9.1 Participating interest in ECB

Pursuant to Article 28 of the Statute, the ESCB NCBs are the sole subscribers to the capital of the ECB. Subscriptions depend on shares which are determined in accordance with Article 29 of the Statute and are subject to adjustment every five years or whenever there is a change in the composition of the ESCB NCBs.

The subscribed capital of the ECB is €10,825 million. The ECB kept its subscribed capital unchanged after the Bank of England's withdrawal from the ESCB. The share of the Bank of England in the ECB's subscribed capital, was reallocated among the euro area NCBs and the remaining non-euro area NCBs.

In 2020, the ECB's paid-up capital also remained unchanged at €7,659 million, as the remaining NCBs were required to cover the withdrawn Bank of England's paid-up capital of €58 million. In addition, euro area NCBs were required to pay up in full their increased subscriptions to the ECB capital in two equal annual instalments in 2021 and 2022. As a result, the Bank has paid up two instalments of €639,880 each in 2021 and 2022, thus increasing its share in the paid-up capital of the ECB to €9,233,731 (2021: €8,593,851).

This sub-item also includes the participating interest in the rest of the ECB equity. As at 31 December 2022, this amounted to €13,000,376, with no change from the previous year.

[19] ECB Decision of 3 February 2020 on the implementation of the third covered bond purchase programme (recast) (ECB/2020/8), OJ L 39, 12.2.2020, p. 6, as amended by ECB Decision of 25 September 2020 (ECB/2020/48), OJ L 379, 13.11.2020, p. 58.

[20] ECB Decision of 19 November 2014 on the implementation of the asset-backed securities purchase programme (ECB/2014/45), OJ L 1, 6.1.2015, p. 4, as amended by ECB Decision of 10 September 2015 (ECB/2015/31), OJ L 249, 25.9.2015, p. 28, ECB Decision of 11 January 2017 (ECB/2017/3), OJ L 16, 20.1.2017, p. 55 and ECB Decision of 18 May 2017 (ECB/2017/15), OJ L 190, 21.7.2017, p. 24.

[21] ECB Decision of 1 June 2016 on the implementation of the corporate sector purchase programme (ECB/2016/16), OJ L 157, 15.6.2016, p. 28 as amended by ECB Decision of 11 January 2017 (ECB/2017/4), OJ L 16, 20.1.2017, p. 57, ECB Decision of 18 May 2017 (ECB/2017/13), OJ L 190, 21.7.2017, p. 20 and ECB Decision of 24 March 2020 (ECB/2020/18), OJ L 91, 25.3.2020, p. 5 as amended by ECB Decision of 9 September 2022 (ECB/2022/29), OJ L 241, 19.9.2022, p.13. Under this programme, the NCBs may purchase investment grade euro denominated bonds issued by non-bank corporations established in the euro area.

A 9.2 Claims equivalent to the transfer of foreign reserves

This asset represents the Bank's claims arising from the transfer of foreign reserve assets to the ECB when the Bank joined the Eurosystem. As at 31 December 2021 and 2022 these claims amounted to €42,313,997. The remuneration of these claims is calculated daily at the latest available interest rate used by the Eurosystem in its tenders for MROs, adjusted to reflect a zero return on the gold component.

A 9.4 Net claims related to the allocation of euro banknotes within the Eurosystem

This sub-item reflects claims which would arise from application of the banknote allocation key (see 7 'Banknotes in circulation' in the general notes to the financial statements). As at the end of 2021 and 2022, the Bank had no claims in this respect but had a liability which is presented in L 10.3 'Net liabilities related to the allocation of euro banknotes within the Eurosystem'.

A 9.5 Other claims within the Eurosystem (net)

As at 31 December 2022, the balance of €5,456,040,418 (2021: €7,322,395,015) included three main components, namely; (i) the claim of the Bank vis-à-vis the ECB in respect of the transfers issued and received through TARGET2 by the ESCB NCBs, including the ECB, plus the balances held with the Eurosystem NCBs through correspondent accounts, (ii) balances resulting from the pooling and allocation of monetary income within the Eurosystem pending settlement (see 5 'Net result of pooling of monetary income' in the notes to the profit and loss account), and (iii) balances with the ECB in respect of any amounts receivable or refundable.

In 2021 this item also included the amount due to the Bank in respect of the ECB's interim profit distribution. With respect to 2022, the Governing Council, in view of the ECB's overall financial result for the year, decided to retain the full amount of income derived from banknotes in circulation, as well as income earned on securities purchased under the SMP, APP and PEPP (see 8 'ECB profit distribution' in the general notes to the financial statements). Therefore, no related amounts were due at the end of 2022.

The remuneration of the debit balance in respect of TARGET2 is calculated daily at the latest available interest rate used by the Eurosystem in its tenders for MROs.

	2022	2021	Change
	€'000	€'000	€'000
TARGET2 balance	**5,482,321**	7,339,298	(1,856,977)
Net result from pooling of monetary income	**(26,806)**	(17,382)	(9,424)
ECB profit distribution	**-**	157	(157)
Other claims within the Eurosystem	**525**	322	203
Total	**5,456,040**	7,322,395	(1,866,355)

A 10 Items in course of settlement

These assets comprise transactions which were not yet settled as at the end of the financial year.

A 11 Other assets

A 11.1 Coins of euro area

This sub-item represents the Bank's holdings of euro coins issued by euro area countries.

A 11.2 Tangible and intangible fixed assets

Tangible and intangible fixed assets principally comprise the Bank's premises, computer hardware and software, equipment and other assets.

	Land and buildings	Other assets	Total
	€'000	€'000	€'000
Cost			
As at 31 December 2021	35,760	15,386	51,146
Additions	115	3,858	3,973
Derecognition of assets	-	(40)	(40)
Disposal of assets	-	(15)	(15)
As at 31 December 2022	**35,875**	**19,189**	**55,064**
Accumulated depreciation			
As at 31 December 2021	5,066	6,336	11,402
Charge for the year	510	1,790	2,300
Derecognition of assets	-	(28)	(28)
Disposal of assets	-	(15)	(15)
As at 31 December 2022	**5,576**	**8,083**	**13,659**
Net book value			
As at 31 December 2021	30,694	9,050	39,744
As at 31 December 2022	**30,299**	**11,106**	**41,405**

	Land and buildings	Other assets	Total
	€'000	€'000	€'000
Right-of-use assets			
As at 31 December 2021	424	195	619
Additions	3	136	139
Depreciation charge for the year	(10)	(84)	(94)
As at 31 December 2022	**417**	**247**	**664**
Total net book value			
As at 31 December 2021	31,118	9,245	40,363
As at 31 December 2022	**30,716**	**11,353**	**42,069**

As at 31 December 2022, the net book value included an amount of €1,412,505 (2021: €1,984,266) which related to assets not yet available for use and not depreciated.

A 11.3 Other financial assets

The Bank holds an earmarked portfolio comprising MGS and Treasury bills purchased on the secondary market by the Bank in its role as market maker amounting to €227,502,533 (2021: €237,221,846) (see 'Securities and marketable investment funds' in 3 'Accounting policies' in the general notes to the financial statements).

A 11.4 Off-balance sheet instruments revaluation differences

This sub-item reflects revaluation gains arising on off-balance sheet positions, mainly foreign exchange forward transactions outstanding as at the balance sheet date.

A 11.5 Accruals and prepaid expenses

As at 31 December 2022, this sub-item consists of accrued interest income of €33,935,641 of which, €11,464,234 relates to interest attributable to intra-Eurosystem claims. As at 31 December 2021, this item mainly included accrued interest income of €19,223,236.

A 11.6 Sundry

Sundry assets mainly consisted of loans amounting to €13,444,455 (2021: €12,455,924) and unrealised losses attributable to the earmarked portfolio amounting to €47,374,819 (2021: €2,558,314). At 31 December 2022, these assets also included realised gains attributable to off-balance sheet positions, principally foreign exchange forward transactions outstanding at the year end, amounting to €32,827,352 (see L 12.3 'Sundry' in the notes to the balance sheet for position held as at 31 December 2021).

Liabilities

L 1 Banknotes in circulation

This item consists of the Bank's share of the total euro banknotes in circulation (see 7 'Banknotes in circulation' in the general notes to the financial statements).

During 2022, the total value of banknotes in circulation within the Eurosystem increased by 1.8% from €1,544 billion at 31 December 2021 to €1,572 billion at 31 December 2022. According to the banknote allocation key, the Bank had an amount of euro banknotes in circulation of €1,517,011,845 at the end of the year (2021: €1,490,332,490).

The value of the euro banknotes issued by the Bank in 2022 increased by 8.0% from €2,131,465,485 to €2,301,645,630 at year end. As this is more than the allocated amount, the difference of €784,633,785 (2021: €641,132,995) is shown under L 10.3 'Net liabilities related to the allocation of euro banknotes within the Eurosystem'.

L 2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro

These interest-bearing liabilities arise from the monetary policy operations conducted by the Bank on behalf of the Eurosystem.

L 2.1 Current accounts (covering the minimum reserve system)

Current accounts contain the credit balances of credit institutions that are required to hold minimum reserves, excluding funds of credit institutions that are not freely disposable and accounts of credit institutions exempt from minimum reserve requirements, which are disclosed separately under L3 "Other liabilities to euro area credit institutions denominated in euro".

The minimum reserve requirements must be met on average over the reserve maintenance period in accordance with the schedule published by the ECB. Until 20 December 2022, these minimum reserve balances were remunerated at the latest available interest rate used by the Eurosystem in its tenders for MROs. As from 21 December 2022, consequent to the Governing Council decision of 27 October 2022, these balances are to be remunerated at the Eurosystem's deposit facility rate.

Throughout the financial year ended 31 December 2021, the deposit facility rate remained unchanged at the level of -0.5%. The following table shows the changes in this interest rate during 2022 as decided by the Governing Council.

With effect from:	Changes in basis points (bps)	Effective rate (%)
	2022	
1 January	-	-0.50
27 July	+50bps	0.00
14 September	+75bps	0.75
2 November	+75bps	1.50
21 December	+50bps	2.00

As for the reserve holdings exceeding the required minimum reserves, since June 2014, these have been remunerated at zero per cent or the deposit facility rate, whichever is lower. As from 30 October 2019, the Governing Council introduced a two-tier system for reserve remuneration consisting of exempt and non-exempt tiers. The exempt tier, which was determined as a multiple of six[22] on an institution's minimum reserve requirements, was remunerated at zero per cent. The non-exempt tier of excess liquidity holdings continued to be remunerated at zero per cent or the deposit facility rate, whichever was lower. Following the Governing Council's decision of 14 September to increase the deposit facility rate to above zero, the two-tier system for the remuneration of excess reserves was deemed to no longer be necessary and was thus suspended by setting the multiplier equal to zero.

Current accounts amounting to €867,726,908 remained outstanding as at 31 December 2022 (2021: €7,707,110,197).

L 2.2 Deposit facility

This facility is available to eligible counterparties to make overnight deposits with Eurosystem NCBs at pre-specified rates. During 2022, the aggregate volume of such deposits with the Bank amounted to €438,149,403,249 (2021: €4,640,000,000). As at 31 December 2022, outstanding deposits amounted to €4,976,618,544 (2021: NIL).

L 2.3 Fixed-term deposits

These liabilities relate to liquidity absorbing fine-tuning operations for a fixed-term at variable rate tenders. No liquidity absorbing fine-tuning operations were conducted by the ECB during the years ended 31 December 2021 and 2022. Accordingly, there were no outstanding liquidity absorbing fine-tuning operations as at 31 December 2021 and 2022.

L 2.4 Fine-tuning reverse operations

Fine-tuning liquidity absorbing reverse operations are executed on an ad hoc basis through bilateral procedures with the purpose of managing the liquidity situation in the market and setting interest rates. Their frequency and maturity are not standardised. No fine-tuning absorption reverse operations were conducted during the years ended 31 December 2021 and 2022, and accordingly there were no outstanding operations as at 31 December 2021 and 2022.

L 2.5 Deposits related to margin calls

This sub-item refers to cash received from counterparties in those instances where the market value of the collateral pledged has fallen below an established trigger point, implying a shortfall of collateral to cover the outstanding monetary policy operations. During 2022, the aggregate volume of deposits related to margin calls with the Bank amounted to €32,691,508. There were no outstanding deposits related to margin calls as at 31 December 2021 and 2022.

L 3 Other liabilities to euro area credit institutions denominated in euro

As at 31 December 2022, this item consisted of funds of credit institutions that were not freely disposable amounting to €6,794,925 (2021: €77,505,968).[23]

[22] The multiplier may be adjusted by the Governing Council over time in line with changing levels of excess liquidity holdings.
[23] ECB Decision of 11 November 2021 on the legal framework for accounting and financial reporting in the European System of Central Banks (ECB/2021/51), OJ L 419, 24.11.2021, p. 14.

L 5 Liabilities to other euro area residents denominated in euro

L 5.1 General government

This liability includes current and sinking fund accounts denominated in euro held by the Government of Malta. These balances are repayable on demand and remunerated in accordance with the provisions established by the Governing Council.[24]

	2022	2021	Change
	€'000	€'000	€'000
Current accounts	**454,817**	626,224	(171,407)
Sinking fund accounts	**118,245**	180,916	(62,671)
Total	**573,062**	807,140	(234,078)

L 5.2 Other liabilities

This sub-item included current accounts in euro which are repayable on demand amounting to €192,416,450 (2021: €173,553,167),[25] of which €42,932,360 (2021: €42,218,247) related to balances of former credit institutions. These balances are remunerated in accordance with the provisions established by the Governing Council.[26]

Collateralised inward deposits, which as at 31 December 2022 amounted to €335,000,000 (2021: €260,000,000), are also included in this sub-item. These liabilities are attributable to securities sold subject to repurchase agreements entered into by the Bank (see 'Sale and repurchase agreements and lending of securities' in 3 'Accounting policies' in the general notes to the financial statements).

L 6 Liabilities to non-euro area residents denominated in euro

This item consists of balances denominated in euro held by international and supranational organisations and by non-Eurosystem central banks, including the IMF No. 2 current account for administrative expenses (see 'Claims on the International Monetary Fund' in 3 'Accounting policies' in the general notes to the financial statements). As at 31 December 2022, balances with such organisations amounted to €67,616,138 (2021: €31,078,794). Whereas the IMF account is non-interest bearing, the other balances are remunerated in accordance with the provisions established by the Governing Council.[27]

L 7 Liabilities to euro area residents denominated in foreign currency

Balances held by the Government of Malta which are repayable on demand and other customer deposits are included in this item. Deposits by banks are subject to fixed interest rates. All other balances are remunerated in accordance with the provisions established by the Governing Council.[28] Other current accounts

[24] ECB Decision of 20 February 2014 on the prohibition of monetary financing and the remuneration of government deposits by national central banks (ECB/2014/8), OJ L 159, 28.5.2014, p. 54 as amended by ECB Decision of 4 September 2015 (ECB/2015/29), OJ L 245, 22.9.2015, p. 12 and ECB Decision of 9 April 2019 (ECB/2019/8), OJ L 113, 29.04.2019, p. 9; the Guideline of 9 April 2019 on domestic assets and liability management operations by the national central banks (recast) (ECB/2019/7), OJ L 113, 29.4.2019, p. 11; and ECB Decision of 15 October 2019 on the remuneration of holdings of excess reserves and of certain deposits (recast) (ECB/2019/31), OJ L 267, 21.10.2019, p. 12 as amended by ECB Decision of 8 September 2020 (ECB/2020/38), OJ L 297, 11.9.2020, p. 5 , ECB Decision of 26 May 2021 (ECB/2021/25), OJ L 191, 31.5.2021, p.43 and ECB Decision of 16 December 2022 (ECB/2022/47), OJ L 3 5.1.2023, p. 16.

[25] See L 3 'Other liabilities to euro area credit institutions denominated in euro' in the notes to the balance sheet.

[26] See footnote 24.

[27] See footnote 24.

[28] See footnote 24.

and fixed-term deposits included balances of former credit institutions amounting to €71,035,200 (2021: €72,934,269).

	2022	2021	Change
	€'000	€'000	€'000
Government of Malta current accounts	**100,316**	42,388	57,928
Government of Malta sinking fund accounts	**25**	41	(16)
Liabilities to banks	**128,246**	179,925	(51,679)
Other current accounts and fixed-term deposits	**82,022**	88,642	(6,620)
Total	**310,609**	310,996	(387)

L 8 Liabilities to non-euro area residents denominated in foreign currency

L 8.1 Deposits, balances and other liabilities

This sub-item consists of balances denominated in foreign currency.

L 9 Counterpart of special drawing rights allocated by the IMF

This item represents the counterpart of SDR allocated by the IMF to Malta (see A 2.1 'Receivables from the IMF' in the notes to the balance sheet).

L 10 Intra-Eurosystem liabilities

This item represents the Bank's liabilities to the ECB and to the other Eurosystem NCBs.

L 10.3 Net liabilities related to the allocation of euro banknotes within the Eurosystem

This sub-item consists of the liability of the Bank vis-à-vis the Eurosystem relating to the excess of euro banknotes issued by the Bank over and above the amount allocated to the Bank by the ECB in accordance with the banknote allocation key (see L 1 'Banknotes in circulation' in the notes to the balance sheet). The increase in the excess euro banknotes in 2022 reflects the relatively higher increase (8.0%) in the banknotes issued by the Bank as compared to the increase in banknotes put into circulation by the Eurosystem as a whole (1.8%).

L 10.4 Other liabilities within the Eurosystem (net)

As at 31 December 2021 and 2022, the Bank had a net claim within the Eurosystem as reported under A 9.5 'Other claims within the Eurosystem (net)'.

L 12 Other liabilities

L 12.1 Off-balance sheet instruments revaluation differences

This sub-item reflects revaluation losses arising on off-balance sheet positions, mainly foreign exchange forward transactions outstanding as at the balance sheet date.

L 12.2 Accruals and income collected in advance

This sub-item includes accrued interest expense on interest-bearing liabilities, and other accrued expenses.

	2022	2021	Change
	€'000	€'000	€'000
Accrued interest payable	**12,180**	6,741	5,439
Others	**278**	584	(306)
Total	**12,458**	7,325	5,133

L 12.3 Sundry

This sub-item mainly includes accrued operating expenses and sundry liabilities, of which €663,646 (2021: €618,650) relates to the lease liability (see 'Leases' in 3 'Accounting policies' in the general notes to the financial statements).

As at 31 December 2021, these liabilities included realised losses attributable to off-balance sheet positions outstanding as at that date amounting to €15,785,360. As at end of year 2021, this sub-item also included unrealised revaluation gains attributable to MGS and Treasury bills held as part of an earmarked portfolio amounting to €5,955,636. For the corresponding positions as at 31 December 2022, see A 11.6 'Sundry' in the notes to the balance sheet.

L 13 Provisions

Provision for financial risks

This item comprises a provision for financial risks, which is used to the extent as deemed necessary by the Board of Directors. The size and continuing requirement for this provision is reviewed annually, based on the Bank's assessment of its exposure to financial risks. The Bank's financial risks are fully covered with the provision and the capital and reserves.

As at end of 2022, an amount of €20,908,106 was released from this provision due to the materialisation of financial risks. Consequently, the Bank's financial result for the year amounted to zero. Following the release from provision to the profit and loss account, as at 31 December 2022, the provision amounted to €107,900,554 (2021: €128,808,660).

Provision for credit risks in monetary policy operations

During 2022, there were no impairment losses on monetary policy operations which resulted in provision for credit risks (see A 7.1 'Securities held for monetary policy purposes' in the notes to the balance sheet).

L 14 Revaluation accounts

The revaluation accounts include the unrealised revaluation gains arising from the valuation of foreign currency on and off-balance sheet positions, gold, marketable securities and investment funds at year end.

	2022	2021	Change
	€'000	€'000	€'000
Gold	**-**	333	(333)
Foreign currency positions	**7**	4	3
Marketable instruments	**658**	11,217	(10,559)
Total	**665**	11,554	(10,889)

L 15 Capital and reserves

The following table analyses the movement in capital and reserves of the Bank:

	Capital €'000	General reserve fund €'000	Reserve for risks and contingencies €'000	Capital contribution €'000	Total €'000
Balance as at 31 December 2021	20,000	75,505	187,776	93,502	376,783
Net issuance of euro coins	-	-	-	5,313	5,313
Balance as at 31 December 2022	**20,000**	**75,505**	**187,776**	**98,815**	**382,096**

L 15.1 Capital

In terms of article 19(1) of the Act, the Bank shall have an authorised capital of €20,000,000. This is fully paid-up and is held exclusively by the Government of Malta.

L 15.2 Reserves

General reserve fund

In terms of article 19(2) of the Act, the Bank shall also maintain a general reserve fund which shall be of not less than €20,000,000 and which shall be available for any purpose as may be determined by the Board of Directors. Whenever amounts are drawn from the general reserve fund, these shall be replaced as may be decided by the Board.

Reserve for risks and contingencies

The reserve for risks and contingencies is maintained in terms of article 22(1) of the Act to cover the broad range of risks to which the Bank is exposed. The major risks in this regard arise from potential movements in market values of the Bank's holdings of domestic and foreign securities and other investments, losses which could arise from support of the financial system in the Bank's role as a lender of last resort and other non-insured losses.

Capital contribution

This reserve represents the capital contribution made by the Government of Malta to the Bank in respect of the agency agreement between the Bank and the Government relating to the issuance of euro coins. The Bank shall act as agent of the Government and shall retain full responsibility for procurement, storage and issuance of euro coins. This reserve represents seigniorage revenue arising from the issue of euro coins. In terms of the agency agreement, the Government has agreed not to withdraw such revenue and retain these amounts in a reserve account held at the Bank. Allocation of revenue to the reserve account shall be deemed as a capital contribution to the Bank by the Government.

Notes to the profit and loss account

1 Net interest income

This item represents the net result of interest income and interest expense. During 2022, the Governing Council increased the key ECB interest rates to positive territory (see A5.1 'Main Refinancing Operations' and L2.1 'Current accounts (covering the minimum reserve system)' in the notes to the balance sheet). The negative interest rates which prevailed until 26 July 2022, gave rise to interest expense on certain financial assets, and interest income on certain financial liabilities. Interest income or expense on monetary policy operations are netted on a balance sheet sub-item level (see 'Recognition of income and expenses' in 3 'Accounting policies' in the general notes to the financial statements).

1.1 Interest income

Interest income includes income on foreign reserve assets and euro-denominated portfolios, as well as interest income on monetary policy instruments.

	2022	2021	Change
	€'000	€'000	€'000
Marketable debt securities			
- In euro	**10,247**	8,398	1,849
- In foreign currency	**15,925**	10,849	5,076
Current accounts and overnight deposits			
- In euro	**(4)**	(11)	7
- In foreign currency	**109**	(7)	116
IMF	**457**	1,113	(656)
Monetary policy operations			
- Main refinancing operations	**60**	-	60
- Minimum reserves	**14,231**	22,721	(8,490)
- Overnight deposits	**-**	94	(94)
- Deposits related to margin calls	**1**	1	-
- Securities acquired under the SMP	**672**	672	-
- Securities acquired under the PSPP	**14,260**	11,994	2,266
- Securities acquired under the PEPP	**3,165**	1,071	2,094
Intra-Eurosystem claims			
- Target 2 Balances	**35,613**	-	35,613
- Claims arising from the transfer of foreign reserves	**211**	-	211
Forward foreign exchange contracts	**(5,435)**	(2,592)	(2,843)
Marketable investment funds	**8,521**	5,308	3,213
Other interest income	**66**	24	42
Total	**98,099**	59,635	38,464

1.2 Interest expense

Interest expense mainly arises from Government of Malta and other customer accounts and net liabilities to euro area credit institutions related to monetary policy operations.

	2022	2021	Change
	€'000	€'000	€'000
Government accounts			
- In euro	**(463)**	(4,422)	3,959
- In foreign currency	**1,156**	(30)	1,186
Other customer accounts			
- In euro	**(141)**	(1,347)	1,206
- In foreign currency	**4,457**	547	3,910
Monetary policy operations			
- Longer-term refinancing operations	**3,239**	4,753	(1,514)
- Overnight deposits	**20,662**	-	20,662
Intra-Eurosystem liabilities			
- Net liabilities related to the allocation of banknotes within the Eurosystem	**4,331**	-	4,331
Other interest expense	**(61)**	(1,451)	1,390
Total	**33,180**	(1,950)	35,130

2 Net result of financial operations, write-downs and risk provisions

2.1 Realised gains/losses arising from financial operations

This sub-item includes realised gains arising from the disposal of financial instruments, mainly debt securities, and reductions in foreign currency positions.

	2022	2021	Change
	€'000	€'000	€'000
Net gains on disposal of financial instruments	**4,184**	14,112	(9,928)
Net gains on foreign currency positions	**315**	667	(352)
Total	**4,499**	14,779	(10,280)

2.2 Write-downs on financial assets and positions

This sub-item comprises unrealised revaluation losses arising from the price revaluation of marketable debt securities and investment funds and the exchange rate revaluation of foreign currency assets and liabilities, including off-balance sheet positions, by comparing the market value at balance sheet date with the average book value.

	2022	2021	Change
	€'000	€'000	€'000
Write-downs on marketable instruments	**37,273**	7,752	29,521
Write-downs on foreign currency positions	**115**	1	114
Total	**37,388**	7,753	29,635

2.3 Transfer to/from provision for financial risks

This sub-item consists of movements in provisions (see L 13 'Provisions' in the notes to the balance sheet).

3 Net income/expense from fees and commissions

Fees and commissions receivable mainly arise from banking services provided by the Bank. Fees and commissions payable include correspondent account charges, handling fees on cheques drawn on the Bank and TARGET2 connection and participation fees.

4 Income from equity shares and participating interests

During 2022, the Bank received an amount of €43,750 (2021: €401,771) representing its relative share of the ECB's distributable remaining profits for 2021, in proportion to the Bank's subscribed capital key (see 6 'Capital key' in the general notes to the financial statements).

As at 31 December 2021, this caption also included an amount of €157,325 due to the Bank with respect to the ECB's 2021 interim profit distribution (see 8 'ECB profit distribution' in the general notes to the financial statements). As outlined in note A9.5 'Other claims within the Eurosystem (net)' in the notes to the balance sheet, there were no related amounts for 2022.

5 Net result of pooling of monetary income

This item contains the net result of pooling of monetary income for 2022 amounting to an expense of €26,815,518 (2021: €17,205,760). In 2022, a net income of €9,650 was received in relation to adjustments for previous years as against a net expense of €176,554 paid in 2021.

There was no provision against losses in monetary policy portfolios in 2021 and 2022.

The amount of each Eurosystem NCB's monetary income is determined by measuring the actual annual income that is derived from the earmarkable assets held against the liability base. The liability base consists mainly of the following items: banknotes in circulation; liabilities to euro area credit institutions related to monetary policy operations denominated in euro; net intra-Eurosystem liabilities resulting from TARGET2 transactions; net intra-Eurosystem liabilities related to the allocation of euro banknotes within the Eurosystem, accrued interest recorded at quarter-end by each NCB on monetary policy liabilities with a maturity of one year or longer; liabilities vis-à-vis the ECB backing the claim in relation to swap agreements that earn net income for the Eurosystem; and deposit liabilities to defaulted Eurosystem counterparties which have been reclassified from L 2.1 'Current accounts (covering the minimum reserve system)'. Any interest paid on liabilities included within the liability base is to be deducted from the monetary income to be pooled.

The earmarkable assets consist mainly of the following items: lending to euro area credit institutions related to monetary policy operations denominated in euro; securities held for monetary policy purposes; intra-Eurosystem claims equivalent to the transfer of foreign reserve assets to the ECB; net intra-Eurosystem claims resulting from TARGET2 transactions; net intra-Eurosystem claims related to the allocation of euro banknotes within the Eurosystem; claims on euro area counterparties related to swap agreements between the ECB and non-Eurosystem central banks that earn net income for the Eurosystem; accrued interest recorded at quarter-end by each NCB on monetary policy assets with a maturity of one year or longer; and a limited amount of each NCB's gold holdings in proportion to each NCB's capital key share.

The amount of each NCB's monetary income shall be determined by measuring the actual income that is derived from the earmarkable assets recorded in its books. As an exception to this, gold is considered to generate no income and the following are considered to generate income at the latest available marginal interest rate used by the Eurosystem in its tenders for MROs: securities held under CBPP,[29] CBPP2[30] and

[29] ECB decision of 2 July 2009 on the implementation of the covered bond purchase programme (ECB/2009/16), OJ L175, 4.7.2009, p. 18.
[30] ECB decision of 3 November 2011 on the implementation of the second covered bond purchase programme (ECB/2011/17), OJ L297, 16.11.2011, p. 70.

debt instruments issued by central, regional and local governments and recognised agencies and substitute debt instruments issued by public non-financial corporations under the PSPP and PEPP.

The net income derived from the earmarkable assets held and the liability base shall be offset by applying the latest applicable marginal rate for the Eurosystem MROs to the difference between the value of the NCB's earmarkable assets and the value of the liability base.

The monetary income pooled by the Eurosystem is allocated among NCBs according to the ECB capital key. The pooling and reallocation of monetary income to NCBs leads to certain net reallocation effects. One reason is that the yields earned on certain earmarkable assets and the interest expense paid on certain liability base items may differ to a varying degree among the Eurosystem NCBs. In addition, usually each Eurosystem NCB's share of earmarkable assets and the liability base deviates from its share in the subscribed capital of the ECB. The net result arising from the calculation of monetary income for 2021 and 2022 was a payment by the Bank. This net result is the difference between the net monetary income pooled by the Bank amounting to €34,300,039 (2021: €18,433,059) and the redistributed amount of €7,484,520 (2021: €1,227,299).

6 Other income

This item mainly includes the income from the issuance of numismatic coins.

7 Staff costs

Staff costs consist of salaries and other ancillary costs.

	2022	2021	Change
	€'000	€'000	€'000
Staff salaries	**12,752**	12,429	323
Other staff costs	**1,161**	1,248	(87)
Training, welfare and other related expenditure	**1,020**	921	99
Total	**14,933**	14,598	335

The full-time equivalent average number of staff employed by the Bank during the year was as follows:

	2022	2021	Change
	Number	Number	Number
Governors	**3**	3	-
Chief Officers	**8**	7	1
Heads and executives	**192**	182	10
Officers II and I	**113**	126	(13)
Non-clerical staff	**30**	29	1
Total	**346**	347	(1)

8 Administrative expenses

This item consists of operating expenditure incurred by the Bank.

Administrative expenses of €10,581,822 (2021: €9,497,041) comprised maintenance expenditure, professional fees, travelling costs and other expense items which were incurred in the course of the Bank's operations. Auditors' remuneration, inclusive of VAT, for the year ended 31 December 2022 amounted to €162,660 (2021: €126,100).

Compensation to the members of the Board of Directors for the financial year ended 31 December 2022 amounted to €407,625 (2021: €408,256). The Governor, Deputy Governors and the other members of the Board of Directors are entitled to benefits and refund of certain other expenses.

9 Depreciation of tangible and intangible fixed assets

Depreciation of buildings, computer hardware and software, equipment and other assets was charged to the Bank's profit and loss account according to the depreciation rates disclosed in 'Tangible and intangible fixed assets' and 'Leases' in 3 'Accounting policies' in the general notes to the financial statements.

10 Banknote production services

This item consists of expenditure relating to the procurement and transportation of euro banknotes and other ancillary costs.

Other notes

Off-balance sheet instruments

As at 31 December 2022, the Bank had outstanding net foreign exchange forward and swap contracts of €778,181,024 (2021: €548,196,775) against other currencies (mainly the US dollar). There were no unsettled net spot transactions as at 31 December 2022 (2021: €26,460,000).

At the balance sheet date, the Bank had outstanding interest rate futures contracts linked to German government securities (net short position with a notional amount of €5,100,000) and US treasury notes (net short position with a notional amount of US$900,000).

Contingent liabilities and commitments

As at the end of the year, the Bank had commitments in respect of tangible and intangible fixed assets which extended beyond the balance sheet date. Capital commitments, which amount to €5,480,500 (2021: €8,540,800), are expected to be incurred during the forthcoming financial year and relate mainly to capital expenditure attributable to buildings and investment in IT.

Transactions with Government

In the course of its operations, the Bank conducts banking transactions with, and provides several banking services to, the Government of Malta, government departments, public sector corporations and other entities owned by the Government. The Bank holds the principal accounts of the Government and maintains accounts for the other entities. Balances held with the Bank by the Government and the other entities as at the balance sheet date, together with the terms of such instruments, are disclosed in L 5 'Liabilities to other euro area residents denominated in euro' and L 7 'Liabilities to euro area residents denominated in foreign currency' in the notes to the balance sheet. The net interest on deposits arising from these banking transactions is recognised in 1.2 'Interest expense' in the Bank's profit and loss account. The Bank provides these entities with foreign exchange and related services, which do not have a significant impact on the Bank's profit and loss account.

Market maker in Malta Government securities

The Bank acts as market maker in MGS and Treasury bills and ensures their liquidity in the secondary market by being ready to trade in such securities on the initiative of the market (see A 11.3 'Other financial assets' in the notes to the balance sheet). Income earned by the Bank from these assets, amounting to €3,054,949 (2021: €2,745,402), is included in 1.1 'Interest income' in the notes to the profit and loss account and presented within income from euro marketable debt securities.

Investment securities pledged as collateral

As at 31 December 2022, investment securities were pledged as collateral against the provision of credit lines by a counterparty up to an amount of US$65,000,000 or approximately €60,941,000 (2021: US$65,000,000 or approximately €57,391,000). No amounts were borrowed under these facilities at the balance sheet dates.

Assets held in custody

As at 31 December 2022, assets held in custody by the Bank in terms of the Insurance Business Act (Cap. 403) amounted to the equivalent of €13,612,896 (2021: €19,146,336).

Management of funds belonging to the Investor and Depositor Compensation Schemes

The Bank is an investment manager in respect of funds belonging to the Investor and Depositor Compensation Schemes. These funds are managed on a discretionary basis in accordance with the investment parameters set by the Management Committees of the respective Schemes. As at 31 December 2022, the Investor and Depositor Compensation Schemes had deposits of €547,645 (2021: €208,081) and €12,167,168 (2021: €8,089,302) respectively, with the Bank.

Statement of the Bank's investments as at 31 December 2022

	EUR	USD	Others	Total
	€'000	€'000	€'000	€'000
Cash and balances with banks				**66,423**
Gold balances				**3,412**
Securities by issuer category:				
Government	2,078,888	53,928	140,177	**2,272,993**
Monetary financial institutions	524,451	234,005	193,356	**951,812**
Other financial institutions	170,494	52,552	51,941	**274,987**
Non-financial institutions	14,903	7,971	-	**22,874**
Supranational	37,917	23,716	46,904	**108,537**
	2,826,653	**372,172**	**432,378**	**3,631,203**
Claims on the IMF				**368,789**
Participating interest in the ECB				**22,234**
Transfer of foreign reserves to the ECB				**42,314**
Marketable investment funds				**423,755**
Total investments				**4,558,130**

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Independent Auditors' Report

To the Directors of the Central Bank of Malta

Opinion

We have audited the financial statements of the Central Bank of Malta (the "Bank") which comprise the balance sheet as at 31 December 2022, the profit and loss account for the year then ended, and notes, comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Bank as at 31 December 2022, and of its financial performance for the year then ended in accordance with the basis of accounting described in the guideline on the legal framework for accounting and financial reporting in the European System of Central Banks (recast) ECB/2016/34 issued on 3 November 2016 as amended by subsequent European Central Bank guidelines (the "Guideline"), as established by the Central Bank of Malta Act (Chapter 204, Laws of Malta).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing ("ISAs"). Our responsibilities under those standards are further described in the *Auditors' responsibilities for the audit of the financial statements* section of our report. We are independent of the Bank in accordance with the International Ethics Standards Board for Accountants' *International Code of Ethics for Professional Accountants* (including International Independence Standards) (IESBA Code), together with the ethical requirements that are relevant to our audit of the financial statements in accordance with the *Accountancy Profession (Code of Ethics for Warrant Holders) Directive* issued in terms of the Accountancy Profession Act (Chapter 281, Laws of Malta), and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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Independent Auditors' Report (continued)

To the Directors of the Central Bank of Malta

Other information

The directors are responsible for the other information. The other information comprises

(i) the 'Directors' Report', which we obtained prior to the date of this auditor's report; and
(ii) the 'Governor's Statement', the 'Financial and Economic Developments'; and the 'Bank Policies, Operations and Activities', which are expected to be made available to us after that date.

The other information does not include the financial statements and our auditors' report thereon. Our opinion on the financial statements does not cover the other information and, we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above, and, in doing so, 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 on the other information that we have obtained prior to the date of this auditors' report, 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.

When we read the other information not yet received identified in this section of our report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to the directors. In the event that a material misstatement in the other information not yet received is not corrected by the directors, we are required to determine the appropriate course of action in accordance with the requirements of ISAs.

Responsibilities of the directors for the financial statements

As those charged with governance of the Bank, the directors are responsible for the preparation of financial statements that give a true and fair view in accordance with the basis of accounting described in the Guideline, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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Independent Auditors' Report (continued)

To the Directors of the Central Bank of Malta

Responsibilities of the directors for the financial statements (continued)

In preparing the financial statements, the directors are responsible for assessing the Bank's ability to continue as a going concern, disclosing, as applicable, matters related to going concern. The directors are required to use the going concern basis of accounting as pronounced in the Guideline, provided there are no factual or legal impediments to do so.

The directors are also responsible for overseeing the financial reporting process.

Auditors' 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 auditors' 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 ISAs 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 ISAs, we exercise professional judgement 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 Bank's internal control.

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Independent Auditors' Report (continued)

To the Directors of the Central Bank of Malta

Auditors' responsibilities for the audit of the financial statements (continued)

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' 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 Bank's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' 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 auditors' report. However, future events or conditions may cause the Bank to cease to continue as a going concern.
- 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 directors 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.

The Principal authorised to sign on behalf of KPMG on the audit resulting in this independent auditors' report is Claude Ellul.

KPMG
Registered Auditors

20 March 2023