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BANK ĊENTRALI TA' MALTA  
EUROSISTEMA  
CENTRAL BANK OF MALTA



# CENTRAL BANK OF MALTA QUARTERLY REVIEW

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## ABBREVIATIONS

APP	asset purchase programme
BCI	Business Conditions Index
BDI	Baltic Dry Index
BLS	Bank Lending Survey
CGS	COVID-19 Guarantee Scheme
COICOP	Classification of Individual Consumption by Purpose
COLA	cost-of-living adjustment
COVID-19	coronavirus disease 2019
CPI	Consumer Price Index
EA	Euro Area
ECB	European Central Bank
EEA	European Economic Area
EEI	Employment Expectations Indicator
EER	Effective Exchange Rate
EFTA	European Free Trade Association
ESI	Economic Sentiment Indicator
EU	European Union
EUI	Economic Uncertainty Indicator
EURIBOR	Euro Interbank Offered Rate
€STR	euro short-term rate
FC	financial corporation
FCI	Financial Conditions Index
FOMC	Federal Open Market Committee
GDP	gross domestic product
GFCF	gross fixed capital formation
GPG	gender pay gap
GVA	gross value added
HCI	Harmonised Competitiveness Indicator
HFCS	Household Finance and Consumption Survey
HICP	Harmonised Index of Consumer Prices
LFS	Labour Force Survey
LN	legal notice
LSGS	Liquidity Support Guarantee Scheme
MDB	Malta Development Bank
MFI	monetary financial institution
MGS	Malta Government Stocks
MPC	monetary policy committee
MRO	main refinancing operation
MSE	Malta Stock Exchange
NEIG	non-energy industrial goods
NFC	non-financial corporation
NI	national insurance
NPISH	non-profit institutions serving households
NSO	National Statistics Office
OECD	Organisation for Economic Cooperation and Development
PEPP	pandemic emergency purchase programme
PPI	Property Price Index
RPI	Retail Price Index
TCN	third-country national
TLTRO	targeted longer-term refinancing operation
UCA	Urban Conservation Areas
ULC	unit labour cost
UK	United Kingdom
US	United States
VAT	value added tax

## FOREWORD

During the fourth quarter of 2022, the pace of economic expansion decelerated, with annual real gross domestic product (GDP) increasing by 4.7%, from 5.3% in the previous quarter. Slower growth was driven by a more negative contribution from net exports, in part reflecting a significant increase in imports by the aviation sector, which offset an increase in the contribution of domestic demand. When adjusting for imports, domestic demand remained the main driver of growth, but external trade had a positive contribution as well.

Potential output growth is estimated to have stood at 6.3% in the fourth quarter of 2022, above the rate of 5.8% estimated for the third quarter. On a four-quarter moving average basis, the level increase in potential output relative to the third quarter was somewhat stronger than that in GDP, resulting in a smaller positive output gap. This implies that the degree of over-utilisation of the economy's productive capacity has eased somewhat.

Meanwhile, the Bank's Business Conditions Index (BCI) indicates that annual growth in business activity has normalised from its record highs registered in the first half of 2021, and now stands close to its historical average. The index was affected by strong annual increases in several sub-components, particularly in tourist arrivals.

Developments in the labour market remained positive, with employment levels and employment rates both rising in annual terms. The unemployment rate remained low from a historical perspective and stood well below that in the euro area.

Consumer price pressures eased somewhat during the quarter under review, but inflation remained high from a historical perspective. Annual inflation, as measured by the Harmonised Index of Consumer Prices (HICP), stood at 7.3% in December, marginally below that of 7.4% recorded in September. Services price growth was the driver behind the marginal decrease in inflation since September, as food and non-energy industrial goods (NEIG) inflation increased. Energy prices remained unchanged, reflecting Government subsidies. Meanwhile, annual inflation based on the Retail Price Index (RPI), which only considers expenditure by Maltese residents, edged down from 7.5% in September to 7.4% in December.

Industrial producer price inflation moderated to 4.3% in December, from 4.6% three months earlier. After declining in the third quarter, Malta's unit labour cost (ULC) index, measured on a four-quarter moving average basis, increased by 1.9% in the fourth quarter. The harmonised competitiveness indicators (HCIs), a gauge of external price competitiveness, point to a deterioration in international competitiveness between September and December 2022, reflecting an appreciation of the euro.

In the fourth quarter of 2022, the current account balance turned into a deficit from a surplus a year earlier. This was mostly due to a widening of the merchandise trade deficit, and higher net outflows on the primary income account. These offset higher net receipts from services and lower net outflows on the secondary income account. The current account balance registered a deficit equivalent to -5.8% of GDP for the year 2022.

When measured on a four-quarter moving sum basis, the general government balance registered a deficit of 5.8% of GDP, marginally higher than in the third quarter of 2022. The general



government debt-to-GDP ratio increased to 53.4% at end-December, from 52.9% at end-September. Compared with the fiscal position at end-2021, the general government deficit-to-GDP ratio declined by 2.0 percentage points, while the debt-to-GDP ratio decreased by 1.7 percentage points.

In the period under review, Maltese residents' deposits with monetary financial institutions (MFIs) in Malta continued to expand, albeit at a slower pace, compared to the previous quarter. The shift to overnight deposits persisted amid a preference for liquidity. Credit to Maltese residents continued to expand at a strong pace, but showed signs of moderation, reflecting a slower increase in credit to general government. Credit to residents outside general government accelerated, reflecting faster growth in loans to non-financial corporations (NFCs). Meanwhile, growth in loans to households eased slightly in the year to December.

According to the Bank's Financial Conditions Index (FCI), in the final quarter of 2022, financial conditions were tight from a historical perspective, and indeed were among the tightest in the last ten years. The tightening since September reflected a deterioration in domestic influences, as the contribution of foreign factors stood slightly less negative.

In December, the weighted average interest rate offered to households and NFCs on their outstanding deposits in Malta was down by 1 basis point on a year earlier, standing at 0.15%. Although deposit rates for NFCs generally increased, those offered to households showed mixed developments. Meanwhile, the weighted average lending rate paid by households and NFCs to resident MFIs increased by 9 basis points, to 3.32% over the same period. Hence, the spread between the two widened.

The primary market yield on Treasury bills in December was higher than that prevailing at the end of September. Secondary market yields on five-year and ten-year Malta Government Stocks (MGS) also increased between September and December, as recent ECB rates hikes were smoothly transmitted to euro area government bond yields. Meanwhile, domestic share prices declined.

By end-December 2022, 622 facilities were approved and still outstanding under the Malta Development Bank (MDB) COVID-19 Guarantee Scheme (CGS), covering total sanctioned lending of €482.6 million, unchanged from the total amount of sanctioned lending in September. 62.0% of the scheme's target size was sanctioned while 60.5% was disbursed. Meanwhile, four facilities were approved as part of the support measures launched in response to the war in Ukraine and high inflation. By end-December, these covered total sanctioned lending of €38.7 million, €24.5 million more from end-September.

The European Central Bank's (ECB) Governing Council raised its key interest rates further in October, and increased them again in December. Thus, by the end of the fourth quarter, the interest rates on the deposit facility, the main refinancing operations (MROs) and the marginal lending facility had risen to 2.00%, 2.50% and 2.75%, respectively. The Governing Council stated that it anticipated further significant increases in interest rates given still very high inflation, and in fact two further increases were announced in the first quarter of 2023.

Interest rate hikes are being complemented with measures targeting credit operations and asset purchases. In December, the ECB also announced that from March 2023, the Eurosystem will

not reinvest all of the principal payments from maturing securities under the asset purchase programme (APP). Accordingly, the APP portfolio has since started to decline at a measured and predictable pace.

During the quarter, the ECB adjusted the interest rates applicable to the targeted longer-term refinancing operations (TLTRO) III to ensure consistency with the monetary policy stance and offered banks additional voluntary early repayment dates. It also set the remuneration of minimum reserves at the ECB's deposit facility rate, thus aligning it more closely to money market conditions.

Meanwhile, the Governing Council reiterated its intention to continue reinvesting the principal payments from maturing securities purchased under the pandemic emergency purchase programme (PEPP), until at least the end of 2024. The future roll-off of the PEPP portfolio would be managed to avoid interference with the appropriate monetary policy stance.



## ECONOMIC SURVEY

### 1. THE EXTERNAL ENVIRONMENT AND THE EURO AREA

*In the fourth quarter of 2022, real GDP grew at a slower pace in the United States, while in the United Kingdom a mild expansion followed the contraction recorded in the preceding quarter. In the euro area, real GDP growth stood at -0.1% on a quarter-on-quarter basis, down from 0.4% in the third quarter. During the quarter, the unemployment rate remained broadly unchanged in all three economies.*

*While still high from a historical perspective, consumer price inflation eased somewhat in the euro area and the United States, but rose further in the United Kingdom. Annual consumer price inflation in the euro area declined to 9.2% in December, from 9.9% in September. Meanwhile in the United States, inflation fell to 6.5%, from 8.2% in September. On the other hand, in the United Kingdom, inflation rose further to 10.5%, from 10.1% in September. To address the elevated price pressures, during the quarter under review, the Federal Reserve, the Bank of England and the ECB raised their key interest rates.*

*During the quarter, the Fed continued to reduce its holdings of Treasury securities and agency debt and agency mortgage-backed securities. Meanwhile, the Bank of England began to conduct sales of UK government bonds held for monetary policy purposes. It also continued to unwind the stock of sterling non-financial investment-grade corporate bonds. The ECB also raised its policy rates further. While it continued to reinvest securities maturing under the APP and the PEPP, in December, the ECB announced that from March 2023, the Eurosystem will not reinvest all of the principal payments from maturing securities under the APP. The ECB also changed the terms and conditions on TLTRO-III.*

*Brent oil prices ended the quarter at a lower level as the downward pressure on oil prices related to lower demand for oil, outweighed concerns around supplies. On the other hand, in the December quarter, non-energy commodity prices rose marginally compared with the previous quarter, as higher prices of metals and minerals offset falls in the prices of agriculture products and fertilisers.*

#### Key advanced economies

##### US economic growth decelerates

In the United States, real GDP grew at a slower pace in the fourth quarter of 2022, rising at a quarterly rate of 0.6%, following an increase of 0.8% in the preceding quarter (see Table 1.1).

**Table 1.1**  
**REAL GDP GROWTH IN SELECTED ADVANCED ECONOMIES**

*Quarter-on-quarter percentage changes; seasonally and working day adjusted*

	2020		2021			2022			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
United States	1.0	1.5	1.7	0.7	1.7	-0.4	-0.1	0.8	0.6
Euro area	-0.3	0.0	2.0	2.3	0.6	0.6	0.9	0.4	-0.1
United Kingdom	1.2	-1.1	6.5	1.7	1.5	0.5	0.1	-0.1	0.1

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

Personal consumption expenditure grew at a slower pace. Meanwhile, gross private domestic investment partly recovered from the declines recorded in the previous two quarters, while government expenditure grew at the same rate as in the previous quarter. The trade deficit narrowed, as imports declined at a faster rate than exports.

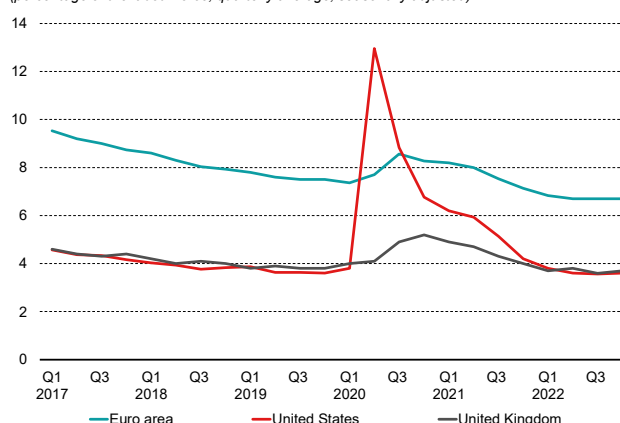
In the labour market, the participation rate averaged 62.2% in the fourth quarter, unchanged when compared with the two preceding quarters, but above the rate of 61.9% recorded in the final quarter of 2021. Meanwhile, employment increased by just 0.1% in quarter-on-quarter terms, after having risen by 0.3% in the third quarter.

Non-farm payroll data suggest that compared with the preceding quarter, the pace of job creation slowed down in most sectors, with the exception of the leisure and hospitality sector, and the financial sector. Employment growth in these two sectors was unchanged compared with the third quarter.

At 3.6%, the average unemployment rate was still relatively low, and was 0.1 percentage point lower compared with the third quarter. It was also at par with pre-pandemic rates (see Chart 1.1).

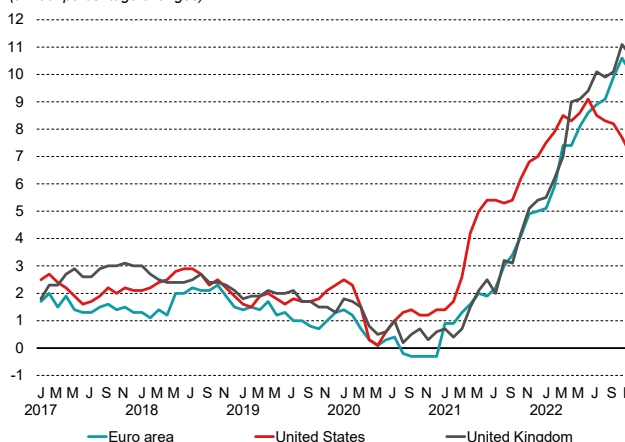
Inflationary pressures remained high from a historical perspective, but showed signs of moderation compared with the previous quarters. In fact, the annual inflation based on the consumer price index (CPI) stood at 6.5% in December, down from 8.2% three months earlier (see Chart 1.2). This decline was mainly driven by energy inflation, which fell to 7.3% in December from 19.8% in September. Meanwhile, food inflation eased to 10.4% from 11.2% in September. Prices of commodities, excluding food and energy, also rose less rapidly than in September, while services inflation was broadly unchanged. Inflation excluding food and energy declined to 5.7% in December, from the recent peak of 6.6% in September 2022.

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



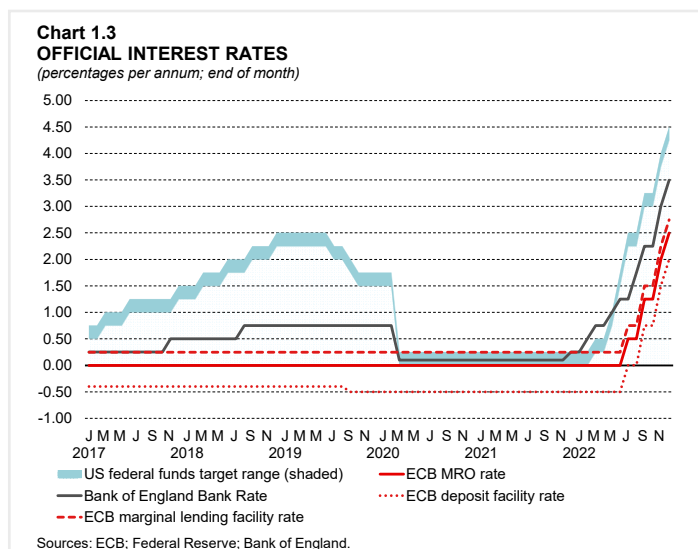
Sources: Bureau of Labor Statistics, US; Eurostat; Office for National Statistics, UK.

**Chart 1.2  
CONSUMER PRICE INFLATION**  
(annual percentage changes)



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

During the fourth quarter of 2022, the Federal Open Market Committee (FOMC) increased the target range for the federal funds rate on two occasions. In November, the target range was raised by 75 basis points. A further 50 basis points increase followed in December, bringing the rate to the highest level in 15 years. By the end of December, the target range stood between 4.25% and 4.50% (see Chart 1.3).



The Committee remained committed in achieving its goals of maximum employment, and an inflation rate of 2.0% over the longer run. The Committee anticipated that further increases in the target range would be appropriate. In determining the pace of future increases, the Committee would consider the cumulative tightening of monetary policy, its lagged transmission to activity and inflation, and economic and financial developments.

In addition, the Committee said that it would continue reducing its holdings of Treasury securities and agency debt and agency mortgage-backed securities, and reiterated that it remained strongly committed to returning inflation to its 2.0% objective.<sup>1</sup>

### *UK economy grows moderately*

Real GDP in the United Kingdom increased at a quarterly rate of 0.1% in the fourth quarter, after recording a decline of 0.1% in the third (see Table 1.1). This mainly reflected an increase in the contribution of changes in inventories, although a recovery in household expenditure also contributed. On the other hand, government consumption and gross fixed capital formation (GFCF) grew at a slower pace. Meanwhile, the contribution of net exports turned negative. The GDP level stood broadly equal to its level at the end of 2019.

After having fallen in the preceding quarter, employment rose by 0.2% on a quarterly basis. Meanwhile, the unemployment rate averaged 3.7% in the fourth quarter, up slightly from 3.6% in the third quarter. The unemployment rate was 0.1 percentage point below that prevailing in the last quarter of 2019 (see Chart 1.1).

Consumer price inflation in the United Kingdom increased further. It rose from 10.1% in September, to a new high of 11.1% in October (see Chart 1.2). The rate decreased to 10.5% in December. Prices of energy, food and services all grew at a faster pace compared to September, while NEIG inflation eased. The annual rate of inflation based on the CPI excluding energy, food, alcohol and

<sup>1</sup> In the first quarter of 2023, the Committee decided to raise the target range for the federal funds rate to between 4.75% and 5.00% and anticipated that some additional policy firming may be appropriate in order to attain a stance of monetary policy that is sufficiently restrictive to return inflation to 2.0% over time.

tobacco decelerated to 6.3% in December, from 6.5% in September, but remained high from a historical perspective.

As the labour market remained tight and against evidence of inflationary pressures in domestic prices and wages, the Bank of England's Monetary Policy Committee (MPC) increased the Bank Rate by 75 basis points, to 3.00% in November, and a further 50 basis points to 3.50% in December (see Chart 1.3). The Committee also signalled that further increases in Bank Rate might be required for a sustainable return of inflation to target.

The MPC said that the inflation target applies at all times, reflecting the primacy of price stability in the UK monetary policy framework. The framework recognises that there will be occasions when inflation will depart from the target as a result of shocks and disturbances. Monetary policy will ensure that, as the adjustment to economic shocks continues, CPI inflation will return to its target sustainably in the medium term, and also ensure that longer-term inflation expectations are anchored at the 2% target.

At the end of the third quarter, the Bank of England had 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. As financial market conditions stabilised, the Bank of England began to sell of UK government bonds held for monetary policy purposes, with the first operation carried out on 1 November. Furthermore, it continued to sell non-investment grade corporate bonds.<sup>2</sup>

## The euro area

### *GDP in the euro area contracts slightly*

Economic activity in the euro area stagnated in the fourth quarter of 2022. In real terms, GDP growth stood at -0.1% on a quarter-on-quarter basis, down from 0.4% in the third quarter (see Table 1.2). Economic activity during the quarter under review was mainly characterised by a sharp drop in private domestic demand, weak exports, and a contraction in imports. These developments mainly reflected subdued, though improving, consumer and business confidence amid persistently elevated inflationary pressures, tighter financing conditions and an external environment marked by protracted geopolitical uncertainty.

In the fourth quarter of 2022, final domestic demand deducted 1.1 percentage points from GDP growth, of which 0.8 percentage point represented lower investment. In part, this drop reflected a reduction in intellectual property investment in Ireland that had boosted investment in the previous quarter, together with lower investment in construction as well as machinery and equipment. In addition, rising inflation lowered real disposable income, leading to a fall in private consumption that lowered GDP growth by 0.5 percentage point. By contrast, government consumption contributed 0.2 percentage point while changes in inventories contributed a further 0.1 percentage point to economic activity. Net exports contributed 0.9 percentage point to GDP, which mainly reflected a decrease in imports, partly driven by a correction in energy imports, while exports were broadly unchanged.

<sup>2</sup> In its meetings held in February and March 2023, the MPC increased the Bank Rate to 4.25%. The MPC said that the labour market remains tight, and the near-term paths of GDP and employment are likely to be somewhat stronger than expected previously, and although nominal wage growth has been weaker than expected, cost and price pressures have remained elevated.

**Table 1.2****CONTRIBUTIONS TO QUARTERLY REAL GDP GROWTH IN THE EURO AREA<sup>(1)</sup>***Percentage points; quarter-on-quarter percentage change*

	2020		2021			2022			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Private consumption	-1.5	-1.0	1.6	2.2	0.1	0.1	0.5	0.5	-0.5
Government consumption	0.1	-0.1	0.5	0.1	0.1	0.0	0.0	0.0	0.2
GFCF	0.8	-0.5	0.4	-0.1	0.7	-0.2	0.2	0.9	-0.8
Changes in inventories <sup>(2)</sup>	0.8	0.7	-0.6	0.0	0.6	-0.3	0.2	0.2	0.1
Exports	2.1	0.5	1.2	0.8	1.2	0.7	0.9	0.9	0.0
Imports	-2.6	0.4	-1.2	-0.7	-2.2	0.2	-0.9	-2.0	0.9
<b>GDP</b>	<b>-0.3</b>	<b>0.0</b>	<b>2.0</b>	<b>2.3</b>	<b>0.6</b>	<b>0.6</b>	<b>0.9</b>	<b>0.4</b>	<b>-0.1</b>

Source: Eurostat.

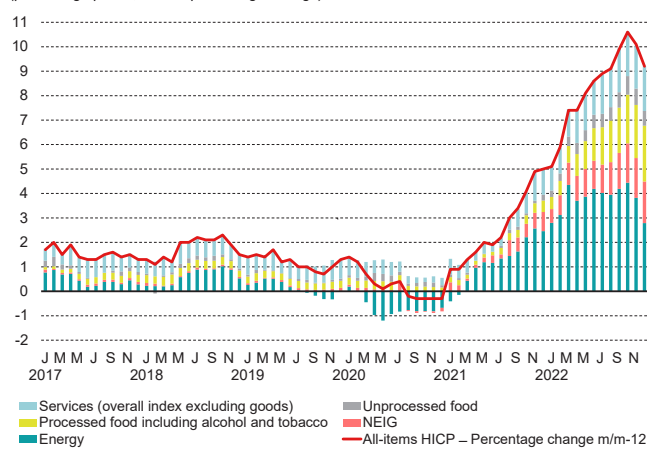
<sup>(1)</sup> Data are seasonally and working day adjusted. Figures may not add up due to rounding.<sup>(2)</sup> Including acquisitions less disposals of valuables.**Labour market conditions remain strong**

The labour market in the euro area continued to perform well in the fourth quarter despite the slowdown in economic activity. The seasonally adjusted unemployment rate stood at 6.7% in December, unchanged when compared to September. Meanwhile, the three-month average rate was also unchanged at 6.7% (see Chart 1.1).

Employment continued to expand, growing at an unchanged rate of 0.3% in quarterly terms.<sup>3</sup> This implies that the number of employed persons stood at 2.3% above the level recorded in the final quarter of 2019, just before the onset of the pandemic.

**Inflation eases slightly but remains notably high**

Elevated inflationary pressures in the euro area persisted, though they eased slightly in the fourth quarter. The annual rate of inflation based on the HICP stood at 9.2% in December, compared to 9.9% three months before (see Chart 1.4). This deceleration mainly reflected a marked decline in energy inflation and, to a lesser extent, slower growth in the prices of unprocessed food. These developments outweighed faster growth in the prices of processed food, NEIG as well as services. The past surge in the cost of energy and of other inputs for food production was still feeding through to consumer prices. Meanwhile, although supply bottlenecks

**Chart 1.4**  
**CONTRIBUTIONS TO YEAR-ON-YEAR HICP INFLATION IN THE EURO AREA**  
*(percentage points; annual percentage change)*<sup>3</sup> Employment data refer to the national accounts, total employment domestic concept. Data are seasonally and calendar adjusted.

were gradually easing, their delayed effects were still pushing up goods price inflation. Similarly, the effect of pent-up demand, following the lifting of pandemic-containment measures, was still exerting upward pressure on prices, particularly in the services sector.

Turning to the major HICP components, although energy continued to account for a substantial part of euro area inflation, the yearly growth in energy prices eased to 25.5% in December, compared to 40.7% three months before, due largely to the drop in energy commodity prices. Meanwhile, unprocessed food prices rose at a slightly subdued pace, with the annual growth rate standing at 12.0% in December, compared to 12.7% in September. Processed food prices rose by 14.3% year-on-year in December, compared to 11.5% in September. Also, the annual rate of NEIG inflation rose to 6.4% in December, compared to 5.5% in September. Lastly, the annual rate of change of services prices inched up to 4.4% in December, from 4.3% in September.

Underlying inflationary pressures continued to build up and did so at a faster pace. The annual rate of HICP inflation excluding energy and food prices rose from 4.8% in September to 5.2% in December.

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

According to the Eurosystem staff macroeconomic projections published in March 2023, real GDP in the euro area is estimated to have expanded by 3.6% in 2022. 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 zero 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 expected interest rate hikes 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 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.

**Table 1.3**

#### **MACROECONOMIC PROJECTIONS FOR THE EURO AREA<sup>(1)</sup>**

*Annual percentage changes*

	2022	2023	2024	2025
<b>GDP</b>	<b>3.6</b>	<b>1.0</b>	<b>1.6</b>	<b>1.6</b>
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
<b>HICP</b>	<b>8.4</b>	<b>5.3</b>	<b>2.9</b>	<b>2.1</b>
HICP excluding energy and food	3.9	4.6	2.5	2.2

Source: ECB.

<sup>(1)</sup> ECB staff macroeconomic projections (March 2023).



Compared to the December 2022 projections, the baseline projections are built on assumptions that include tighter financing conditions, lower oil prices, significantly lower wholesale gas and electricity prices and an appreciation of the euro.

Compared to the previous projection exercise, 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 points for 2024 and 2025, respectively. The revision for 2023 reflects 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. These 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. Since high costs continue to have an impact, 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 points 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 the reversal of fiscal measures on energy inflation, weakening indirect inflationary effects and an increasing pass-through of the recent appreciation in the euro exchange rate.

### *ECB raises interest rates steadily further*

On 27 October 2022, the Governing Council decided to raise the three key ECB interest rates by 75 basis points against a backdrop of rising inflation and broad price pressures. It also adjusted the interest rates applicable to the TLTRO III from 23 November 2022 to ensure consistency with the monetary policy stance and offered banks additional voluntary early repayment dates. Finally, it decided to set the remuneration of minimum reserves at the ECB's deposit facility rate, thus aligning it more closely to money market conditions.

Subsequently, on 15 December 2022, the Governing Council raised key interest rates by a further 50 basis points because inflation was too high and was foreseen to remain above the target for too long. Accordingly, the interest rates on the deposit facility, the MROs and the marginal lending facility were increased to 2.00%, 2.50% and 2.75%, respectively (see Chart 1.3). The Council stated that it anticipated further significant increases in interest rates given still very high inflation.

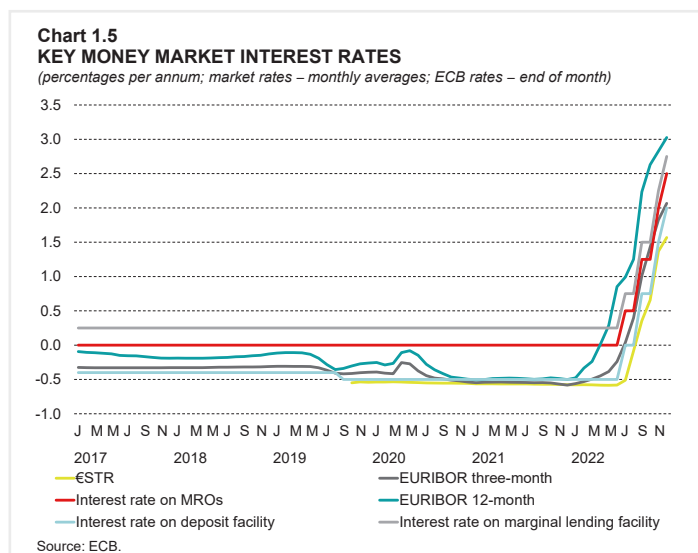
Whereas net asset purchases under the APP ended as of 1 July 2022, the Governing Council reaffirmed its intention to continue fully reinvesting the principal payments from maturing securities purchased under the APP until the end of February 2023. It decided that from the beginning of March, the APP 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.

Regarding the PEPP, the Governing Council reiterated its intention to continue reinvesting the principal payments from maturing securities purchased under the programme until at least the end of 2024. The future roll-off of the PEPP portfolio would be managed to avoid interference with the appropriate monetary policy stance. 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 to refinancing operations, the Governing Council stated that since banks were repaying the amounts borrowed under TLTRO III, the Council would regularly assess how targeted lending operations were contributing to its monetary policy stance.<sup>4</sup>

### Money market rates rise further

Money market interest rates in the euro area continued to increase during the quarter under review, reflecting the tightening of the monetary policy stance and expectations of higher key policy rates. The euro short-term rate (€STR) rose markedly further, though it remained below the interest rate on the ECB's deposit facility (see Chart 1.5).<sup>5</sup> It averaged 1.57% in December, compared to 0.36% in September. The three-month euro interbank offered rate (EURIBOR) went up by more than a full percentage point, averaging 2.07% in December, compared to 1.01% three months earlier. Meanwhile, the 12-month EURIBOR continued to increase, with its average reaching 3.03% in December from 2.23% in September.<sup>6</sup>



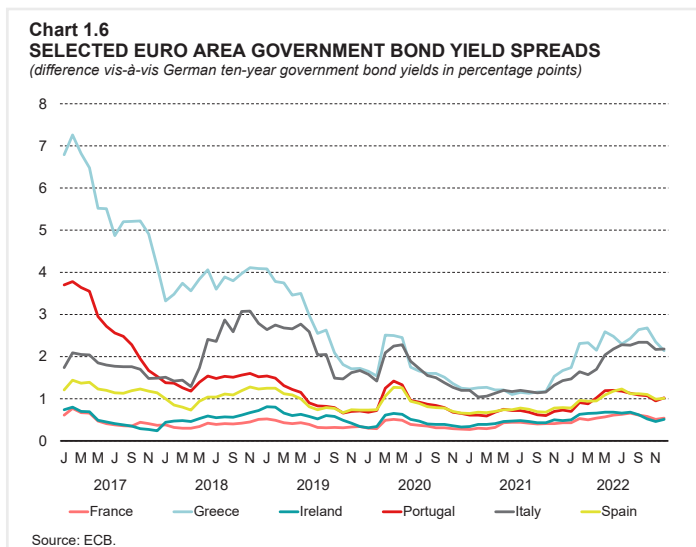
<sup>4</sup> In February 2023, the Governing Council raised the three key ECB interest rates by 50 basis points and stated that it expected to raise them further. The Governing Council also decided on the modalities for reducing the Eurosystem's holdings of securities under the APP. In March 2023, the 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.

<sup>5</sup> The €STR reflects the wholesale euro unsecured overnight borrowing costs of banks located in the euro area. The €STR is published on each TARGET2 business day based on transactions conducted and settled on the previous TARGET2 business day. The ECB first published €STR on 2 October 2019.

<sup>6</sup> 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.

### *Euro area government bond yields generally increase further*

The euro area ten-year benchmark government bond yield rose further during the fourth quarter, albeit at a slower pace than in the previous quarter. It stood at 3.00% at end-December, compared to 2.81% three months earlier. The increase reflects higher inflation and expectations regarding further tightening of monetary policy in the euro area and in other major economies.



Individual sovereign bond yields continued to rise in almost all euro area countries. In Germany, ten-year sovereign bond yields went up by 28 basis points to 2.08%. Similarly, yields increased by 21 basis points in France and by 17 basis points in Spain and Ireland. In Italy yields rose by 12 basis points. The increase in sovereign bond yields was especially pronounced in several smaller euro area jurisdictions. By contrast, Greek ten-year sovereign bond yields fell by 22 basis points, to 4.22%, likely reflecting a narrowing of Greece's fiscal imbalances and progress registered in the country's reform agenda.

Spreads between yields on the ten-year German bonds and those on the bonds issued by other euro area sovereigns generally narrowed during the quarter under review. Most notably, the spread on Greek bonds narrowed by 50 basis points (see Chart 1.6). By contrast, the spreads on the bonds issued by a number of smaller jurisdictions, including the Baltic states, Cyprus and Slovenia, widened to varying extents.

### *Euro exchange rate appreciates in effective terms*

By the end of December, the nominal effective exchange rate of the euro against the Effective Exchange Rate group of countries (EER-19) appreciated by 3.0%, compared to end-September.<sup>7</sup>

In the three months to December, the euro rose by 9.4% versus the US dollar, extending the recovery which started in September (see Chart 1.7). This mainly occurred in the context of the ECB's rapid normalisation of its monetary policy stance and as risk aversion abated.

Meanwhile, the euro rose by 0.4% against the British pound, as the latter continued to be negatively affected by political developments in the United Kingdom and persistent economic weakness that was also related to Brexit. During the review period, the euro recorded gains against other currencies including the Canadian, Hong Kong and Australian dollars, the Chinese renminbi, the Norwegian krone, the Swiss franc and a number of currencies of non-euro area EU member states.

<sup>7</sup> The EER-19 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.

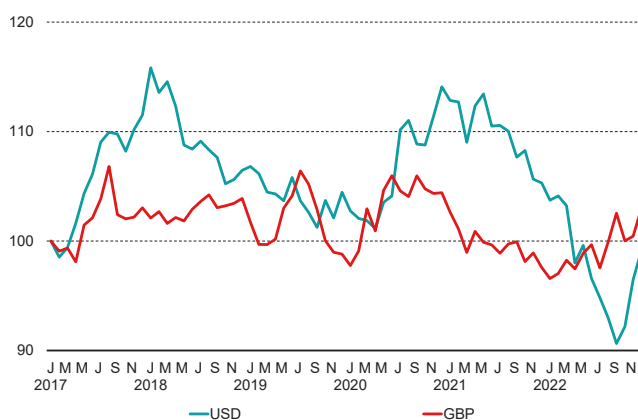
By contrast, the single currency lost ground against the Polish zloty, the Czech koruna and the Japanese yen.

## Commodities

### *Oil prices end the quarter at a lower level*

Oil prices were relatively stable during October and most of November, as the decision of OPEC+ to reduce its oil supply offset the negative effect on oil prices associated with lower demand as a result of the moderation in global economic growth. However, as the quarter progressed, downward pressures on oil prices related to lower demand for oil, outweighed concerns about supply. Moreover, there was still considerable uncertainty regarding the effects of the EU's embargo and the G7's price cap on Russian crude oil implemented in the beginning of December. The price of Brent crude oil ended 2022 at USD 83.3 per barrel, 10.8% below the level prevailing at the end of September (see Chart 1.8).

**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)



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



World Bank data show that non-energy commodity prices rose marginally during the fourth quarter of 2022, adding 0.2%. This was attributable to prices of metals and minerals. By contrast, prices of agricultural products and in particular fertilisers fell compared with September.

## 2. OUTPUT AND EMPLOYMENT

Annual real GDP growth decelerated to 4.7% in the fourth quarter of 2022, following a 5.3% increase in the previous quarter, due to a more negative contribution from net exports.

Sectoral data show that the expansion in output was primarily driven by the services sector, especially the sector comprising wholesale and retail trade, transportation, accommodation and related activities. Gross value added (GVA) also rose in the manufacturing sector. By contrast, it declined in the construction sector.

During the fourth quarter of 2022, developments in the labour market remained positive, with employment levels and employment rates both rising in annual terms. The unemployment rate remained low from a historical perspective and stood well below that in the euro area. The number of registered unemployed persons declined in annual terms but rose slightly from very low levels when compared with the third quarter of 2022.

The job vacancy rate moderated slightly compared to the third quarter, while remaining marginally above its year-ago level. Another indicator of labour tightness, which is the ratio of the job vacancy rate to the unemployment rate, remained at levels that can be considered high.

### Potential output and Business Conditions Index

#### Potential output grows at a higher rate

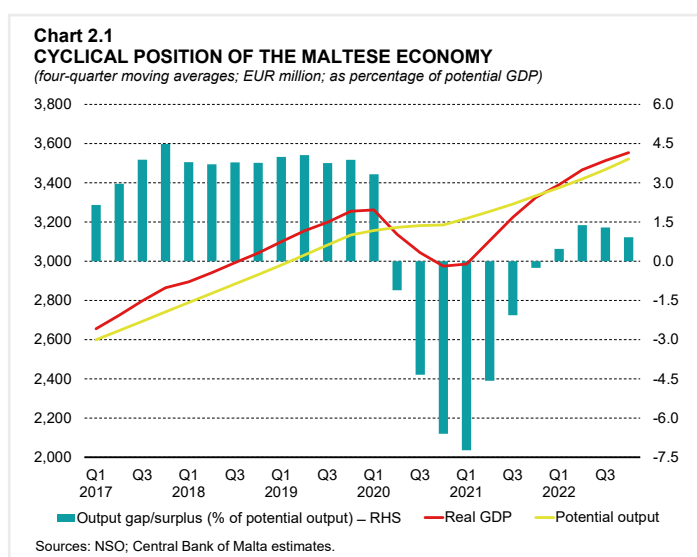
The Bank estimates that annual potential output growth stood at 6.3% in the fourth quarter of 2022, above the rate of 5.8% estimated for the previous quarter.

On a four-quarter moving average basis, the level increase in potential output relative to the third quarter was somewhat stronger than that in GDP, resulting in a smaller positive output gap. The latter is estimated at 0.9%, down from 1.3% in the third quarter of 2022 (see Chart 2.1).

This implies that the degree of over-utilisation of the economy's productive capacity has eased somewhat.

#### BCI signals normalisation in the pace of economic expansion

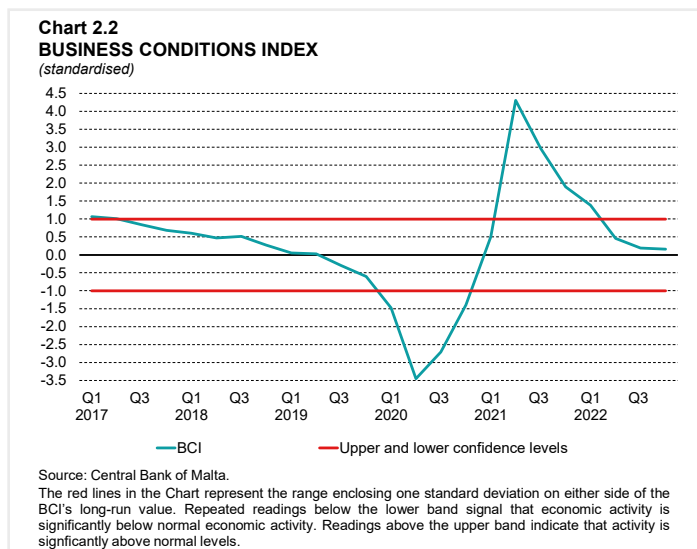
The Bank's BCI indicates that annual growth in business activity has normalised from its record highs registered in the first half of 2021, and was close to its historical average in the



last quarter of 2022 (see Chart 2.2).<sup>1</sup>

During the quarter under review, the BCI was affected by strong annual increases in several sub-components, particularly in tourist arrivals. Strong annual growth in tourism, the index of industrial production and GDP, as well as low unemployment, contributed to the above average BCI level. On average, growth in building permits also stood above its long-term average, although these have declined in December, dragging

somewhat the overall index in the last month of the quarter. On the other hand, the economic sentiment indicator (ESI) stood below its long-term average, thus pushing down the BCI close to its long-term average.<sup>2</sup>



## GDP and industrial production

### *Real GDP increases at a slower pace*

The pace of economic expansion decelerated in the fourth quarter of 2022. Real GDP rose by 4.7% on an annual basis, following a 5.3% increase in the previous quarter.<sup>3</sup> Slower growth was driven by a more negative contribution from net exports, which offset an increase in the contribution of domestic demand (see Table 2.1).

The annual growth rate of domestic demand increased to 13.1%, above the 12.8% registered in the previous quarter. Domestic demand added 11.1 percentage points to GDP growth in the quarter under review. Growth in this component was in turn underpinned by an increase in GFCF and private consumption, which offset a fall in government consumption.

Private consumption expenditure increased by an annual 6.5% in the fourth quarter of 2022, following an 8.3% increase in the previous quarter, adding 2.8 percentage points to real GDP growth.

Data on the Classification of Individual Consumption by Purpose (COICOP) show that the increase in consumption was broad based across most expenditure categories. The strongest increase in absolute terms was recorded in spending on restaurants and accommodation services. This was followed by higher spending on transport, as well as recreation and culture. Expenditure on these

<sup>1</sup> 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 04/2016*, Central Bank of Malta.

<sup>2</sup> Additional information on the interpretation of the BCI is available in the [January 2020 edition of the Bank's Economic Update](#).

<sup>3</sup> The analysis of GDP in this chapter of the *Quarterly Review* is based on data published in [NSO News Release 036/2023](#), which was published on 28 February 2023.



**Table 2.1**  
**GROSS DOMESTIC PRODUCT<sup>(1)</sup>**

	2021	2022			
	Q4	Q1	Q2	Q3	Q4
<i>Annual percentage changes</i>					
Private final consumption expenditure	10.2	12.5	13.8	8.3	6.5
Government final consumption expenditure	4.7	-2.1	12.6	1.7	-1.6
GFCF	13.7	25.9	19.6	33.5	42.3
<b>Domestic demand</b>	<b>9.9</b>	<b>11.1</b>	<b>14.9</b>	<b>12.8</b>	<b>13.1</b>
Exports of goods and services	7.4	8.0	7.3	8.8	1.5
Imports of goods and services	5.0	9.5	10.1	13.3	5.9
<b>GDP</b>	<b>13.4</b>	<b>8.2</b>	<b>9.4</b>	<b>5.3</b>	<b>4.7</b>
<i>Percentage point contributions</i>					
Private final consumption expenditure	4.5	5.1	5.8	3.6	2.8
Government final consumption expenditure	1.1	-0.5	2.5	0.3	-0.3
GFCF	2.8	5.0	4.4	6.5	8.6
Changes in inventories	0.3	-0.4	0.0	0.1	0.0
<b>Domestic demand</b>	<b>8.6</b>	<b>9.2</b>	<b>12.6</b>	<b>10.5</b>	<b>11.1</b>
Exports of goods and services	13.0	13.9	12.4	14.7	2.6
Imports of goods and services	-8.2	-14.9	-15.5	-19.9	-9.0
<b>Net exports</b>	<b>4.8</b>	<b>-1.0</b>	<b>-3.1</b>	<b>-5.2</b>	<b>-6.4</b>
<b>GDP</b>	<b>13.4</b>	<b>8.2</b>	<b>9.4</b>	<b>5.3</b>	<b>4.7</b>

Sources: NSO; Central Bank of Malta calculations.

<sup>(1)</sup> Chain-linked volumes, reference year 2015.

items benefitted from the repeal of all restrictions on travel and mobility compared to the fourth quarter of 2021.

In the national accounts however, COICOP data measure domestic consumption and thus, include the expenditure of non-residents in Malta while excluding the expenditure of Maltese residents abroad. Given that tourist arrivals exceeded last year's levels, certain COICOP categories of expenditure were affected by a significant increase in non-residents' expenditure in Malta. Nonetheless, the remaining part of domestic consumption – the expenditure of Maltese residents in Malta – also rose compared to the same period a year earlier. Meanwhile, the expenditure of Maltese residents abroad increased on its year-ago level, as trips abroad increased on its year-ago level.

Government consumption expenditure contracted by 1.6% in annual terms, after increasing by 1.7% in the previous quarter. The latest decline reflects a significant decline in intermediate consumption that in part, reflected lower outlays within the public administration, health and residential care sectors. This offset a marginal increase in compensation of employees. Overall, government consumption shed 0.3 percentage point from annual GDP growth.

Real GFCF increased by an annual 42.3% in the fourth quarter of the year, after increasing by around a third in the previous quarter. The latest increase in real GFCF reflects a substantial increase in expenditure on transport equipment, in part brought about by registrations of aircraft. Investment on intellectual property properties also increased, though the increase was much smaller. On the other hand, investment in dwellings and non-residential buildings declined. GFCF added 8.6 percentage points to real GDP growth.

The contribution of changes in inventories was broadly neutral in the fourth quarter of 2022.

Meanwhile, exports rose by 1.5% and imports increased by 5.9% on a year earlier. As imports grew faster than exports, net exports contracted, shedding 6.4 percentage points from annual real GDP growth. This mainly reflected a widening in the goods deficit, which was affected by the aforementioned increase in investment in aviation, while the surplus on services was broadly unchanged from that recorded in the last quarter of 2021.

The contributions shown in Table 2.1 are consistent with the approach normally followed in official databases and economic publications. However, they do not account for the variation in import content across different expenditure components and thus, fail to represent the true underlying relative contribution of domestic and external demand to economic growth.

Table 2.2 presents import-adjusted contributions, which address this limitation by apportioning imports to the respective demand components. In the quarter under review, most of the import-adjusted contributions were smaller than those based on the traditional approach, reflecting the increase in imports (see Table 2.1). This is particularly the case for GFCF, where the adjusted contribution was only a third of its unadjusted counterpart.

Nevertheless, even after adjusting for imports, domestic demand remained the main driver of growth in the last quarter of 2022. Moreover, the main driver behind the growth in domestic demand is still GFCF.

GDP data based on the output approach show that in the last quarter of 2022, real GVA rose by 6.1% in annual terms, following a 7.7% increase in the preceding quarter. It added 5.5 percentage points to GDP growth (see Table 2.3).<sup>4</sup>

Services remained the main driver behind the rise in economic activity, adding 4.5 percentage points to real GDP growth. Most of the increase stemmed from the sector comprising wholesale and retail trade, transportation, accommodation and related activities, which contributed 2.2 percentage points to GDP growth. This was followed by the sector comprising professional, scientific, administrative and related activities, which added a further 1.2 percentage points. At the same

**Table 2.2**  
**IMPORT-ADJUSTED CONTRIBUTIONS TO GDP GROWTH<sup>(1)</sup>**

	2021		2022		
	Q4	Q1	Q2	Q3	Q4
	<i>Percentage point contributions</i>				
Private final consumption expenditure	3.2	2.8	3.1	1.6	1.6
Government final consumption expenditure	1.0	-0.4	2.0	0.2	-0.3
GFCF	1.4	1.6	1.3	1.7	2.8
Changes in inventories	-0.2	-0.2	0.0	0.1	-0.2
<b>Domestic demand</b>	<b>5.3</b>	<b>3.9</b>	<b>6.4</b>	<b>3.6</b>	<b>3.9</b>
<b>Exports of goods and services</b>	<b>8.1</b>	<b>4.4</b>	<b>3.1</b>	<b>1.8</b>	<b>0.8</b>
<b>GDP</b>	<b>13.4</b>	<b>8.2</b>	<b>9.4</b>	<b>5.3</b>	<b>4.7</b>

Source: Central Bank of Malta estimates.

<sup>(1)</sup> Chain-linked volumes, reference year 2015.

<sup>4</sup> The difference between GDP and GVA is made up of taxes on products, net of subsidies.

**Table 2.3**  
**CONTRIBUTION OF SECTORAL GVA TO REAL GDP GROWTH**

*Percentage points*

	2021	2022			
	Q4	Q1	Q2	Q3	Q4
Agriculture, forestry and fishing	0.0	0.0	0.3	-0.1	0.0
Mining and quarrying; utilities	0.2	0.2	-0.1	0.1	0.2
Manufacturing	-0.4	-0.2	0.4	0.8	1.2
Construction	0.0	-0.2	-0.2	-0.4	-0.3
Services	13.7	8.2	8.8	6.6	4.5
<i>of which:</i>					
Wholesale and retail trade; repair of motor vehicles; transportation; accommodation and related activities	7.2	3.8	4.8	2.4	2.2
Information and communication	2.0	1.1	0.6	0.5	0.3
Financial and insurance activities	0.6	0.7	0.3	0.2	0.0
Real estate activities	0.4	0.4	0.2	0.3	-0.1
Professional, scientific, administrative and related activities	1.4	1.0	1.3	2.2	1.2
Public administration and defence; education; health and related activities	0.5	0.1	0.9	0.5	0.7
Arts, entertainment; household repair and related services	1.6	1.1	0.7	0.4	0.2
<b>GVA</b>	<b>13.5</b>	<b>7.9</b>	<b>9.1</b>	<b>7.1</b>	<b>5.5</b>
<b>Taxes less subsidies on products</b>	<b>-0.1</b>	<b>0.3</b>	<b>0.3</b>	<b>-1.8</b>	<b>-0.8</b>
<b>Annual real GDP growth (%)</b>	<b>13.4</b>	<b>8.2</b>	<b>9.4</b>	<b>5.3</b>	<b>4.7</b>

Source: NSO.

time, the sector comprising public administration and defence, education, health and related activities, the information and communication sector, and the sector including arts, entertainment, household repair and related activities, also contributed positively to growth, jointly adding another 1.2 percentage points. The remaining services sectors jointly shed 0.1 percentage point from growth. The manufacturing sector added 1.2 percentage points to growth, while construction lowered growth by 0.3 point.

The contribution of services to GDP growth moderated compared to the third quarter, mostly reflecting slower growth in the sector comprising professional, scientific, administrative and related activities. The contribution of construction stood marginally less negative relative to the third quarter. By contrast, the manufacturing sector had a more positive contribution to GDP growth in the fourth quarter of 2022.

Net taxes on products decreased in annual terms.

### *Nominal GDP growth remains strong*

Nominal GDP rose by 11.0% in annual terms in the fourth quarter of 2022, after increasing by 11.7% in the previous quarter. Growth remained strong, reflecting robust contributions from both compensation of employees and operating surplus (see Chart 2.3).

Compensation of employees grew by an annual 12.1% in the fourth quarter of the year, compared with 8.7% in the previous quarter. Its contribution to nominal GDP growth edged up to 5.4 percentage points.

Compensation of employees increased in all sectors, with the one comprising wholesale and retail trade, together with repair of motor vehicles and motorcycles registering the largest increase

in absolute terms. Other significant increases were recorded in the sector comprising professional, scientific and technical activities. Compensation of employees in the sectors comprising financial and insurance activities, and information and communication, also increased but by a lower extent.

In the quarter under review, gross operating surplus grew at annual rate of 13.1%, adding 6.5 percentage points to nominal GDP growth. In absolute terms, most of the increase in operating surplus in the fourth quarter of 2022 was driven by the transportation and storage, and manufacturing sectors. This was followed by the wholesale and retail trade sector, and the sector comprising administrative and support service activities.

Subsidies on production and imports increased sharply compared to the same quarter last year, reflecting the heavy subsidisation of energy costs. Taxes on production and imports also rose, but the increase was smaller than that of subsidies. As a result, net taxes on production and imports fell by 15.9% compared with the fourth quarter of 2021.

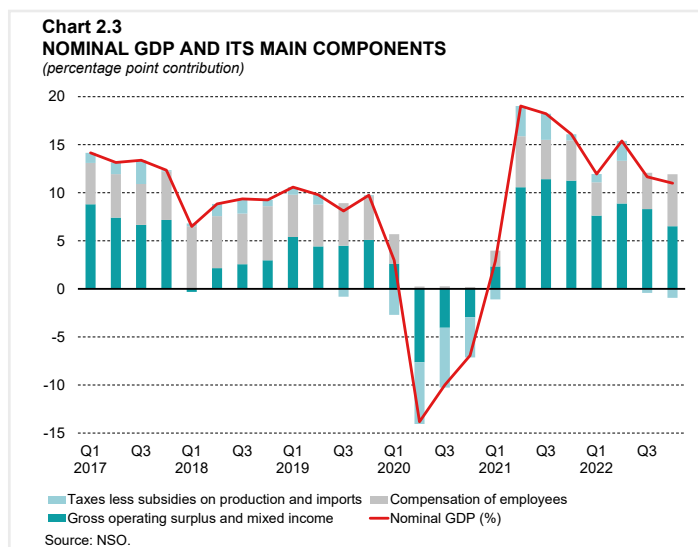
Overall, when assessed from the income distribution side, the moderation of GDP growth compared to the third quarter was driven by slower growth in operating surplus. This in turn mostly reflected slower growth in the operating surplus of the sector comprising accommodation and food service activities.

### *Industrial production increases at a faster rate*

Industrial production increased at an annual rate of 11.0% in the fourth quarter of 2022, after a rise of 9.7% in the previous quarter (see Table 2.4).<sup>5</sup>

The increase in output reflects developments in the manufacturing and energy sector.<sup>6</sup> On the other hand, the mining and quarrying sector contracted.

In the manufacturing sector, production rose by 11.0%, after rising by 10.2% in the third quarter. Several sub-sectors in the manufacturing industry contributed to the latest rise. Firms that manufacture pharmaceutical goods, computer, electronic and optical products as well as wearing apparel recorded the strongest year-on-year increases in output. Production also rose strongly among firms in the sector comprising of motor vehicles, trailers and semi-trailers as well as



<sup>5</sup> 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 and is expressed in nominal terms. Industrial production is a measure of the volume of output and takes no account of input costs. The sectoral coverage between the two measures also differs since industrial production data also include the output of the energy and quarrying sectors.

<sup>6</sup> Industrial production in the energy sector excludes energy generated abroad and imported through the interconnector.

**Table 2.4**  
**INDUSTRIAL PRODUCTION<sup>(1)</sup>**  
*Annual percentage changes*

	2021		2022		
	Q4	Q1	Q2	Q3	Q4
<b>Industrial production</b>	<b>-5.3</b>	<b>-2.4</b>	<b>-5.9</b>	<b>9.7</b>	<b>11.0</b>
<b>Manufacturing</b>	<b>-9.0</b>	<b>-3.2</b>	<b>-4.1</b>	<b>10.2</b>	<b>11.0</b>
<i>of which:</i>					
Food products	-13.1	5.9	14.1	33.6	1.5
"Other" manufacturing	-22.8	-27.1	-9.4	10.0	-14.2
Repair and installation of machinery and equipment	24.5	23.0	20.3	16.0	8.5
Basic pharmaceutical products and pharmaceutical preparations	-22.2	3.1	-14.2	37.8	74.3
Printing and reproduction of recorded media	-15.2	-14.9	-35.6	-6.0	31.1
Beverages	43.4	29.5	13.7	9.0	4.5
Rubber and plastic products	-13.6	-1.5	-2.8	-12.7	-9.4
Computer, electronic and optical products	-0.8	3.4	25.6	50.5	46.4
<b>Energy<sup>(2)</sup></b>	<b>16.8</b>	<b>11.2</b>	<b>-10.4</b>	<b>3.5</b>	<b>8.8</b>
<b>Mining and quarrying</b>	<b>61.5</b>	<b>-42.0</b>	<b>-29.8</b>	<b>-21.9</b>	<b>-44.6</b>

Sources: NSO; Eurostat.

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

<sup>(2)</sup> In this section, energy includes water, collection, treatment and supply. Therefore overall industrial production and energy data in this Table are not comparable with NSO News Release 058/2023, which was published after the cut-off date for this chapter and which excludes water-related activities.

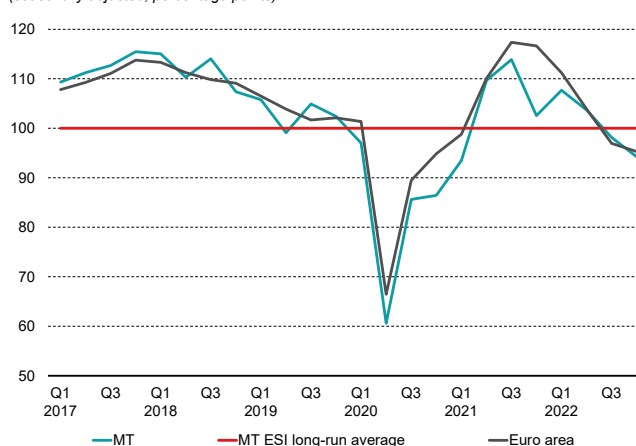
among firms that print and reproduce recorded media. Smaller increases were recorded among firms that repair and install machinery and equipment, together with those that manufacture food and beverages.

On the other hand, lower output was registered notably among firms that produce non-metallic mineral products, textiles and 'other manufacturing' goods – which includes medical and dental instruments, toys and related products.

## Business and consumer surveys

During the fourth quarter of 2022, the European Commission's Economic Sentiment Indicator (ESI) for Malta fell further below its long-term average of around 100.0. It stood at 94.2, down from 98.1 in the preceding quarter. Following this decrease, the overall indicator was below that in the euro area, which averaged 95.3 (see Chart 2.4).<sup>7,8</sup>

**Chart 2.4**  
**ECONOMIC SENTIMENT INDICATOR**  
*(seasonally adjusted; percentage points)*



Source: European Commission.

<sup>7</sup> The ESI summarises developments in confidence in five surveyed sectors: industry; services; construction; retail; and consumers. Quarterly data are three-month averages.

<sup>8</sup> Long-term averages are calculated over the entire period for which data are available. For the consumer and industrial confidence indicators, data for Malta became available in November 2002, while for services and construction data became available in May 2007 and May 2008, respectively. The long-term average of the retail confidence indicator is calculated as from May 2011, when it was first published. The long-term average of the ESI is computed from November 2002.

When compared with the third quarter of 2022, confidence decreased in all sectors, except the retail sector. The strongest declines were recorded in the services sector and construction, with smaller decreases recorded among consumers and in industry. By contrast, sentiment in the retail sector turned positive.

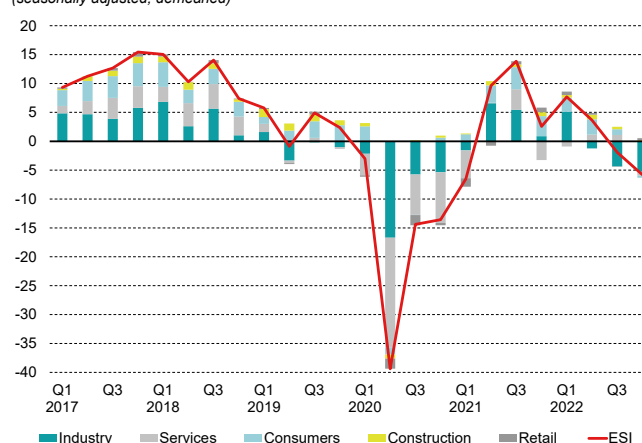
When accounting for the variation in the weights assigned to each sector in the overall index, the fall in the ESI relative to the third quarter of 2022 was notably driven by the services sector and consumers.<sup>9,10</sup> The confidence indicator for industry largely explains why the overall ESI stood below the long-term average in the quarter under review (see Chart 2.5).

### *Confidence in the services sector weakens but remains positive<sup>11</sup>*

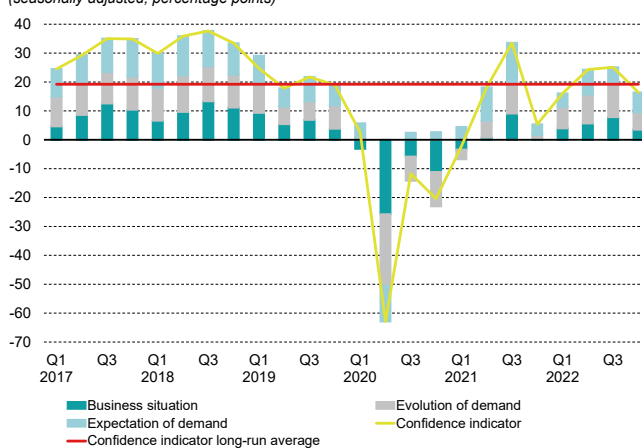
The confidence indicator in the services sector edged down to 16.4 in the fourth quarter of 2022, from 25.1 in the previous quarter. Following this decrease, sentiment stood below its long-term average of 19.2 (see Chart 2.6). Respondents' assessment of demand and of the business situation over the three-month period preceding the survey deteriorated when compared with the third quarter, but remained positive. By contrast, demand expectations for the next three months improved.

Supplementary survey data indicate that participants' price expectations remained elevated from a historical perspective, at around 39%.

**Chart 2.5**  
**ECONOMIC SENTIMENT INDICATOR**  
(seasonally adjusted; demeaned)



**Chart 2.6**  
**SERVICES CONFIDENCE INDICATOR**  
(seasonally adjusted; percentage points)



<sup>9</sup> Weights are assigned as follows: industry 40%; services 30%; consumers 20%; construction 5%; and retail trade 5%.

<sup>10</sup> In January 2021, data were revised for previous periods following the annual updating of country weights and the inclusion of 2020 in the standardisation sample.

<sup>11</sup> 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 in the subsequent three months.



### Confidence in construction turns negative<sup>12</sup>

In the fourth quarter of 2022, the indicator measuring confidence in the construction sector fell to -0.7, from 6.6 in the previous quarter, but remained well above its long-term average of -8.8 (see Chart 2.7).

Employment expectations turned negative in the fourth quarter of the year. At the same time, a smaller share of respondents assessed order books to be above normal levels compared with the third quarter of 2022.

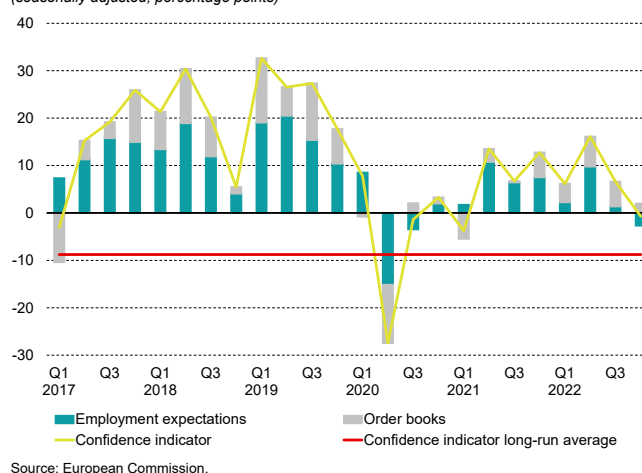
Meanwhile the net share of respondents expecting price increases over the next three months, edged down slightly to around 29%.

### Sentiment among consumers falls further into negative territory<sup>13</sup>

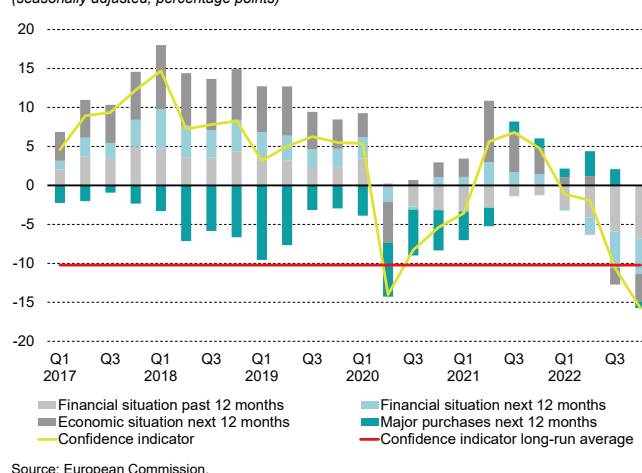
The consumer confidence indicator averaged -15.7 during the fourth quarter of 2022, down from -10.6 recorded in the previous quarter, and stood below its long-run average of -10.2 (see Chart 2.8).

This decrease mostly reflected a deterioration in consumers' expectations about major purchases. In contrast to the previous quarter, on balance consumers anticipated that they would make fewer major purchases during the 12 months ahead. At the same time, respondents' expectations of the general economic situation in the coming months, as well as their assessment of their financial situation in past 12 months became more negative. By contrast, consumers' expectations of their future financial situation stood marginally less negative than in the third quarter.

**Chart 2.7**  
**CONSTRUCTION CONFIDENCE INDICATOR**  
(seasonally adjusted; percentage points)



**Chart 2.8**  
**CONSUMER CONFIDENCE INDICATOR**  
(seasonally adjusted; percentage points)



<sup>12</sup> 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 to employment expectations over the subsequent three months.

<sup>13</sup> 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.

Supplementary survey data show a higher share of respondents expecting unemployment to increase, compared with the third quarter. Furthermore, the net share of respondents expecting price increases rose to around 32% during the quarter.

### *Industrial confidence remains strongly negative<sup>14</sup>*

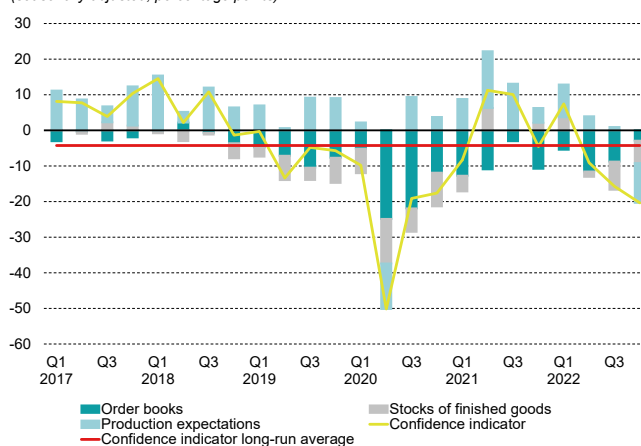
The industrial confidence indicator decreased to -20.4, from -15.7 in the previous three-month period, standing well below its long-term average of -4.3 (see Chart 2.9). The latest decrease was almost entirely driven by a sharp decline in production expectations, which fell in negative territory during the fourth quarter of the year. These developments offset a decline in the share of participants assessing order book levels to be below normal, and in the share of respondents assessing stocks of finished goods to exceed normal levels.<sup>15</sup>

Additional survey data reveal a higher share of respondents foreseeing an increase in selling prices in the months ahead. However, this notably reflects a significant increase in expectations (around the 76% mark) in November. By December, the share of respondents expecting selling price increases retreated to below 25%.

### *Sentiment among retailers turns positive<sup>16</sup>*

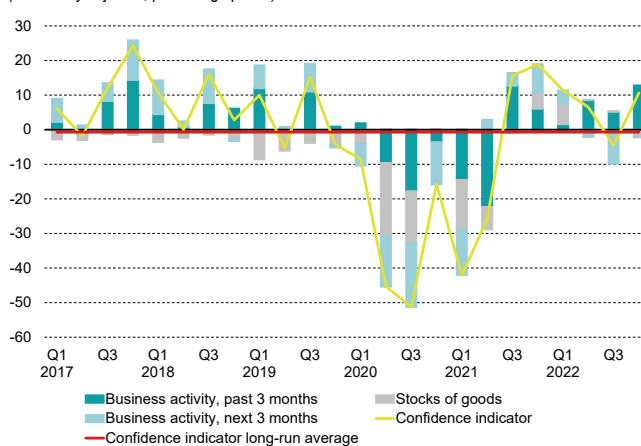
The indicator representing sentiment in the retail sector increased to 10.6 in the last quarter of 2022, from -4.5 in the previous quarter, rising further above its long-term average of -0.7. The recent amelioration in sentiment was largely driven by a sharp increase in retailers' short-term expectations of business activity, from negative to a broadly neutral level. Retailers'

**Chart 2.9**  
**INDUSTRIAL CONFIDENCE INDICATOR**  
(seasonally adjusted; percentage points)



Source: European Commission.

**Chart 2.10**  
**RETAIL CONFIDENCE INDICATOR**  
(seasonally adjusted; percentage points)



Source: European Commission.

<sup>14</sup> 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, to current levels of order books and to stocks of finished goods.

<sup>15</sup> Above-normal stock levels indicate lower turnover and affect the overall indicator in a negative way. Such levels are thus represented by negative bars in Chart 2.9.

<sup>16</sup> 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.

assessment of sales over the past three months also improved. These developments offset an increase in the share of participants reporting stocks of finished goods to be above normal, which contrasts with the previous quarter's assessment of broadly normal stock levels (see Chart 2.10).

Supplementary survey data indicate that, on balance, orders expectations improved strongly when compared to the third quarter of 2022. Meanwhile, price expectations edged down, but remained elevated at around 77%.

### *Employment Expectations Indicator (EEI) eases marginally but remains above long-run average*

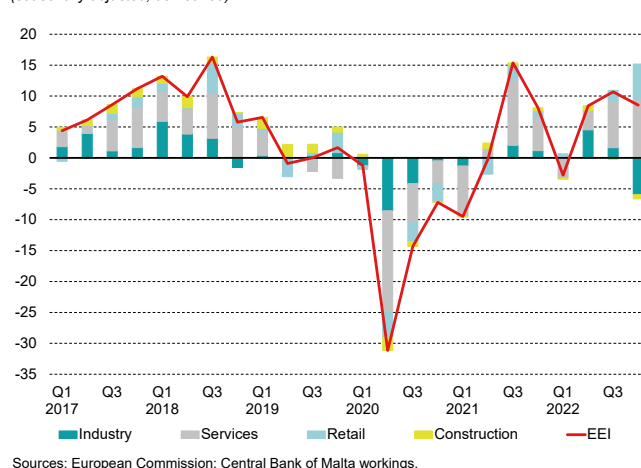
The EEI – which is a composite indicator of employment expectations in industry, services, retail trade and construction – edged down, but remained above its long-term average of around 100.0. It stood at 109.8, marginally below the 110.8 recorded in the preceding quarter. Notwithstanding this decrease, the index exceeded the euro area average of 106.5.<sup>17</sup>

When accounting for the variation in the weights assigned to each sector in the overall index, the decrease relative to the third quarter largely reflected developments in industry (see Chart 2.11). At the same time, the contribution of the construction sector was slightly more negative in the quarter under review. By contrast, the already positive contributions of retailers and services firms edged up.

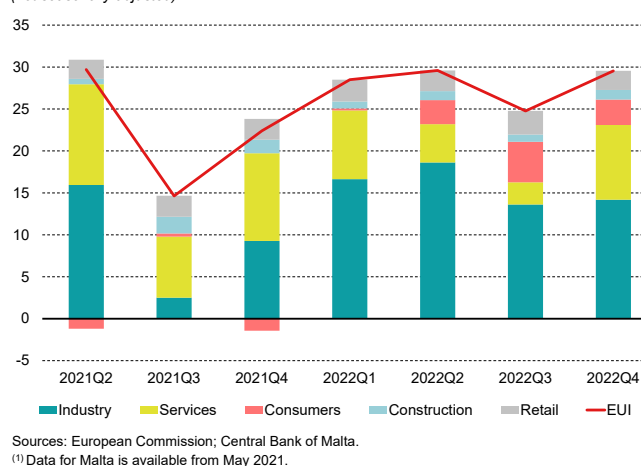
### *Economic Uncertainty Indicator (EUI) decreases*

The European Commission's EUI is a composite indicator of how difficult it is for sectors to make predictions about their future financial or business situation. In Malta, this indicator

**Chart 2.11**  
**EMPLOYMENT EXPECTATIONS INDICATOR**  
(seasonally adjusted; demeaned)



**Chart 2.12**  
**ECONOMIC UNCERTAINTY INDICATOR<sup>(1)</sup>**  
(not seasonally adjusted)



<sup>17</sup> 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](#).

reached 29.5 in the fourth quarter of 2022, up from 24.8 in the previous three-month period (see Chart 2.12). Following the latest increase, the indicator stood above that in the euro area, where the index averaged 28.8.<sup>18,19</sup>

The recent rise in uncertainty in Malta was driven by the services sector, which had seen a sharp fall to low levels in the previous quarter. The uncertainty indicator also increased in the construction sector and in industry when compared with the third quarter of 2022, but to a smaller extent. These developments offset lower uncertainty among retailers and consumers.

The highest uncertainty scores were recorded in the retail sector and in industry, with the latter contributing the most to Malta's EUI, when considering each sector's weight.

## The labour market<sup>20</sup>

### Labour force increases at a faster pace

Labour Force Survey (LFS) data show that in the fourth quarter of 2022, the labour force grew by 15,437 persons, or 5.4% on an annual basis, faster than the 4.6% increase registered in the previous quarter (see Table 2.5).<sup>21</sup>

**Table 2.5**  
**LABOUR MARKET INDICATORS BASED ON THE LFS**

*Persons; annual percentage changes*

	2021 Q4	2022 Q4	Annual change %
<b>Labour force</b>	<b>284,290</b>	<b>299,727</b>	<b>5.4</b>
Employed	275,727	290,995	5.5
<i>By type of employment:</i>			
Full-time	242,173	254,780	5.2
Part-time	33,554	36,215	7.9
Unemployed	8,563	8,732	2.0
<b>Activity rate (%)</b>	<b>79.8</b>	<b>80.9</b>	
Male	86.6	86.7	
Female	71.9	74.3	
<b>Employment rate (%)</b>	<b>77.4</b>	<b>78.6</b>	
Male	83.8	84.0	
Female	70.1	72.3	
<b>Unemployment rate (%)</b>	<b>3.0</b>	<b>2.9</b>	
<b>Actual hours worked (per week)</b>	<b>33.6</b>	<b>33.8</b>	

Source: NSO.

<sup>18</sup> 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.

<sup>19</sup> Data on consumer uncertainty became available in October 2020, while data for industry, services, retail and construction became available in May 2021.

<sup>20</sup> This section draws mainly on labour market statistics from two sources: the LFS, which is a household survey conducted by the NSO based on definitions set by the International Labour Organization (ILO) and Eurostat; and administrative records compiled by Jobsplus according to definitions established by domestic legislation on employment and social security benefits.

<sup>21</sup> 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.

The activity rate stood at 80.9% in the quarter under review, higher than the 79.8% registered a year earlier.<sup>22</sup> This was mostly driven by an increase in the female participation rate, which rose by 2.4 percentage points to 74.3%. The male activity rate increased by a marginal 0.1 percentage point to 86.7%. Both rates exceeded the corresponding rates for the euro area.

### Employment increases further

In the quarter under review, employment rose by 5.5% in annual terms, following a rise of 5.1% in the previous quarter.

Both full-time employment as well as part-time jobs increased strongly in annual terms. The number of persons in full-time jobs rose by 12,607, or 5.2% in annual terms (see Table 2.5). This increase was mainly coming from the information and communication sector, followed by the sectors comprising of accommodation and food services as well as education.

The number of part-time employees – which also includes those employed full-time on reduced hours – rose by 2,661 persons, or 7.9% on a year earlier. This increase was largely driven by the wholesale and retail sector, as well as the sectors of public administration and education.

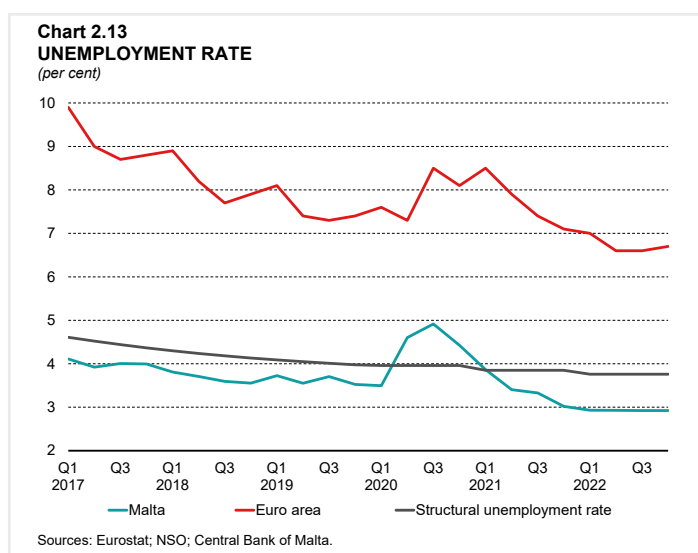
The overall employment rate rose by 1.1 percentage points on the same period of 2021, to reach 78.6%.<sup>23</sup> This primarily reflected a rise in the female employment rate, which rose by 2.2 percentage points to 72.3%. Higher employment rates were registered in the 15 to 24 and in the 55 to 64 age brackets. The male employment rate rose by 0.2 percentage point to 84.0%, which was entirely driven by the 55 to 64 age bracket, as those outside this bracket in the aggregate registered a decline.

During the quarter, average weekly hours worked derived from the LFS rose to 33.8 from 33.6 a year earlier (see Table 2.5).<sup>24</sup>

This reflected an increase in both full-time and part-time working hours.

### The unemployment rate remains low

The unemployment rate based on the LFS stood at 2.9% in the fourth quarter of 2022, unchanged from the previous quarter (see Table 2.5). However, it stood marginally below the 3.0% recorded a year earlier.<sup>25</sup> The historically low jobless rate in Malta continues to reflect resilient domestic



<sup>22</sup> The activity rate measures the number of persons in the labour force aged between 15 and 64 as a proportion of the working age population, which is defined as all those aged 15 to 64 years.

<sup>23</sup> The employment rate measures the number of persons aged between 15 and 64 employed on a full-time or part-time basis as a proportion of the working-age population.

<sup>24</sup> Actual hours refer to the number of hours actually spent at the place of work during the reference week for LFS. However, owing to increased flexibility at workplaces coupled with technology, the place of work may also include one's home. In this regard, actual hours worked also include the hours of work conducted by persons who telework.

<sup>25</sup> According to the LFS, the unemployed comprise persons aged between 15 and 74 years who are without work, available for work and who have actively sought work during the four weeks preceding the Survey. In contrast, the number of unemployed on the basis of the Jobsplus definition includes only those persons registering for work under Part 1 and Part 2 of the unemployment register.

demand. Labour market conditions remain more favourable than those in the euro area, where the unemployment rate stood at 6.7%, on average (see Chart 2.13).

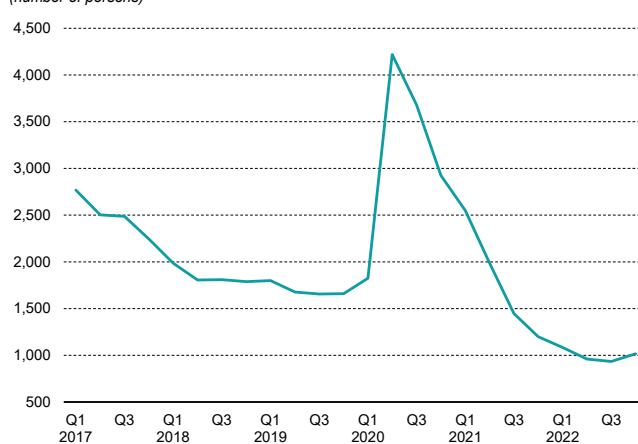
During the quarter under review, the unemployment rate also stood below the Bank's structural measure of 3.8%.<sup>26</sup> This indicates a degree of labour market tightness, which is also confirmed by surveys.

Jobsplus data show that the number of persons on the unemployment register rose slightly on a quarterly basis, however it fell in annual terms. During the fourth quarter of 2022, the average number of persons on the unemployment rose by 82 persons to 1,016, although it remained lower than the 1,199 registered in the previous year (see Chart 2.14).

In fact, Eurostat's job vacancy rate for industry, construction and services stood slightly lower in the fourth quarter compared to the previous quarter, however it remained at elevated levels (see Chart 2.15). It amounted to 2.4%, 0.1 percentage point higher than that recorded in the same quarter of 2021.<sup>27</sup> The vacancy rate was highest in the information and communication sector (6.2%), followed by the 'other services' sector (4.5%), and the accommodation and food services sector (4.4%).

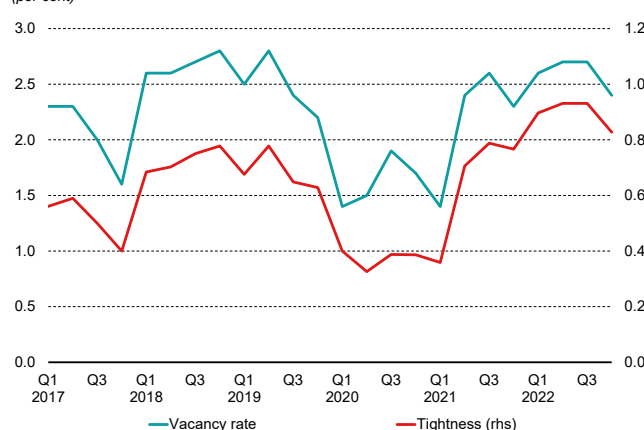
The ratio of the job vacancy rate to the unemployment rate is an indicator of the imbalance between labour demand and supply and, therefore, of labour tightness. During the quarter under review, this ratio stood at 0.8, higher than the ratio registered in the same quarter a year

**Chart 2.14**  
**REGISTERED UNEMPLOYED**  
(number of persons)



Source: NSO.

**Chart 2.15**  
**VACANCY RATE AND LABOUR MARKET TIGHTNESS INDICATOR**  
(per cent)



Sources: Eurostat; NSO; Central Bank of Malta.

<sup>26</sup> 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 a multivariate filter as described in Micallef, B., (2014). "A Multivariate filter to estimate potential output and NAIRU for the Maltese economy," Central Bank of Malta [Working Paper 05/2014](#).

<sup>27</sup> 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.

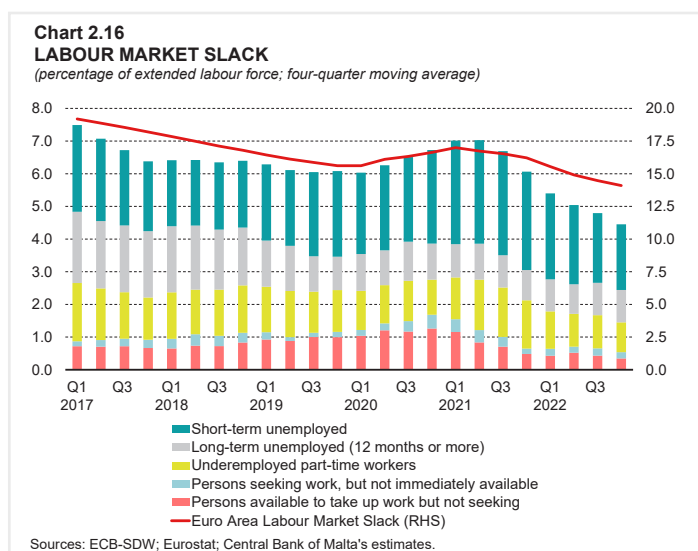


earlier, but lower than the rate registered in the previous quarter. The year-on-year increase was mostly driven by the rise in the vacancy rate. This indicator remains at elevated levels from a historical perspective.

To measure better labour market slack, one can consider an extended labour force definition, which in addition to the unemployed, also includes persons available to take up work but not seeking it, persons seeking work but not immediately available, and underemployed part-time workers. By this measure labour market slack (unemployed and underutilised labour) was equivalent to 4.5% of the extended labour force in the fourth quarter of the year (see Chart 2.16).<sup>28</sup> This is much lower than the 6.1% registered a year earlier and is well below this measure's average of around 8% estimated since 2010. It is also significantly lower than the 14.1% recorded for the euro area.

The gap between the broader measure of labour market slack and the unemployment rate has been declining since the last quarter of 2021, indicating a reduction in the share of underutilised labour.

Around two-thirds of labour market slack in the quarter under review stemmed from unemployment (primarily from short-term unemployed). Underemployed part-time workers, i.e., those working part-time but willing and able to work additional hours, contributed the most to labour underutilisation.



<sup>28</sup> For further details on the methodology underlying the measure of labour market slack, see Ellul, R. (2019). "Labour Market Slack," *Quarterly Review 2019:1*, pp. 37-41, Central Bank of Malta. Given that this methodology partly relies on internal estimation, the slack indicator reported in this *Review* may differ slightly from that published by Eurostat.

## BOX 1: DOES COVID-19 NECESSITATE A REASSESSMENT OF THE ECONOMIC IMPACT OF THE RISING PENSION AGE IN MALTA?<sup>1</sup>

The Maltese Government had enacted a reform in 2006 that as from 2013 raised the pension age gradually from 61 for men and 60 for women to 65 for both genders. Individuals are still able to receive a pension as from age 61 if they have a full contribution record, but if they do so, they are precluded from working till they reach their statutory pension age. If someone with a full contributory record opts to work beyond 61, their pension is boosted by a maximum of 23% if they work till 65.

Since older cohorts were more vulnerable to COVID-19, the pandemic was expected to be an age-specific shock to the labour market, undoing the lengthening of working lives of previous decades. In the case of Malta, the existence of the early exit age of 61 enhanced these fears, as older workers could withdraw more easily from the labour market and draw a more generous benefit than the COVID-19 wage supplement. This box discusses the main findings in Grech (2022), which uses administrative data to assess whether COVID-19 impacted significantly early exit from the labour force, and whether the estimates of economic impact of the rising pension age made in Grech (2016) need to be reassessed.<sup>2,3</sup>

The latter study had utilised Jobsplus' employment register data to study the retirement behaviour of those affected by the pension age changes, but it only had information on the behaviour of those born in 1952, and the early exit behaviour of those born in 1953. This covered just the first change which moved the pension age from 61 for men to 62, and from 60 for women to 62. Administrative data now fully covers the period to 2021, which means that the labour market behaviour of all those born till 1958 is now known, while the early exit behaviour of all those born up to 1960 is also available. This means that the projections made in Grech (2016) can be compared with actual outcomes for an additional six to seven single-birth year cohorts.

The last cohort where both the statutory pension age and the early exit age was 61 was for those that were born in 1951. Labour market data show that of those born in that year who were still working at age 60, only 36% were still working at age 61. Full-time labour market participation of this cohort continued to decline with each year, falling to 22% for men and to 25% for women by age 65, as can be seen in Table 1.

The first rise in the pension age affected those born in 1952. The rate of drop-out from full-time employment immediately declined significantly, such that 63% of men who had been working at age 60 were still working at age 61, an effective improvement of about two-fifths in the drop-out rate. For women, the impact was much stronger, as the improvement was of about four-fifths. For men, the impact was limited to age 61, whereas for women there was a distinct improvement also for those who continued to work full-time to age 62.

<sup>1</sup> Prepared by Dr Aaron G. Grech, Chief Officer of the Economics Division of the Bank. The views expressed in this article represent those of the author and should not be interpreted to reflect those of the Bank. Any errors are the author's own.

<sup>2</sup> For a fuller version of this study, see Grech, A.G. (2022), "[The impact of COVID-19 on longer careers – An initial assessment for Malta](#)", Central Bank of Malta, *Policy Note*.

<sup>3</sup> Grech, A.G. (2016), "[The possible impact of pension age changes on Malta's potential output](#)", Central Bank of Malta, *Policy Note*.

**Table 1**  
**PROPORTION OF THOSE BORN IN A PARTICULAR YEAR WHO WERE**  
**WORKING FULL-TIME AT AGE 60 AND WHO WERE STILL WORKING FULL-TIME**  
**BY SINGLE YEAR OF AGE**

*(a) Male; per cent*

Birth year	61	62	63	64	65
1951	36	28	26	24	22
1952	63	30	26	24	21
1953	68	31	28	26	24
1954	71	36	32	31	28
1955	72	40	36	34	29
1956	74	65	45	37	30
1957	75	67	44	38	
1958	78	68	49		
1959	75	66			
1960	78				

*(b) Female; per cent*

Birth year	61	62	63	64	65
1951	42	33	29	27	25
1952	91	42	31	27	24
1953	89	41	31	29	27
1954	90	44	37	34	32
1955	92	53	42	40	35
1956	90	86	58	44	36
1957	90	82	55	48	
1958	88	85	60		
1959	86	80			
1960	90				

Source: Author's estimates using Jobsplus data.

With each subsequent birth year cohort, the tendency to stay in employment post age 60 strengthened. Of men born in 1960 who had been working full-time at age 60, 78% were still working at age 61, whereas 90% of women continued to work full-time. Looking, for instance, at the cohort of men born in 1957, their labour market participation at age 64 was better than that at age 61 of those born in 1951. In simple terms, 64 was the new 61 even for those whose retirement age was still 63.

The initial reaction to the second pension age increase, that from 62 to 63, ended up being quite like the first pension age increase. The proportion of men who stayed in full-time employment went up to 65%, which was just above the increase that had occurred in the first year after the retirement age had risen from 60 to 61. Among women, the impact of the second pension age rise was a bit less pronounced than the first one, but in relative terms the impact of the second pension age on female labour participation remained much stronger than that for men.

One thing that is quite evident from Table 1 is that while there was a significant improvement over time in the proportion of men who remained in full-time employment at age 61, this proportion has remained below 80%. This contrasts with Grech (2016) which had

assumed that post-61 labour market behaviour of men would converge to that of women. While there was some convergence, this appears to have stalled somewhat.

On the other hand, Table 1 indicates that successive cohorts are ending up working for longer after the statutory pension age. For instance, 24% of men born in 1952, who faced for the first time the new pension age of 62 were still working at age 65. This was the same proportion as that for men born in 1952, who faced a retirement age of 61. By contrast, 29% of men born in 1955 were still working at age 65, even though they faced the same retirement ages as men born in 1952. This pattern is evident for all cohorts. This diverges from the projections made in Grech (2016) where the bulk of the change in behaviour was related to changes in the pension age, while data now show that a growing proportion of those who stayed to work till the statutory pension age opt to continue working even beyond it.

It is relevant to note that the pension deferral scheme applies for ages up to 65 and offers quite significant top-ups at ages 63 and 64. One cannot exclude that this financial incentive is leading to a growing proportion of individuals to continue working up to the age when the deferral scheme offers its maximum return. In 2021, the proportion of men still working full-time at age 64 was higher than that of men who were working full-time age 61 just six years earlier. The same result is observed for women.

Turning specifically to what appears to have happened in 2021, the drop-out rates out of full-time employment (displayed in the bottom diagonal in the Table 1) do not appear to have deteriorated. In fact, for all ages bar 62, the proportion of those who had been working full-time in 2020 and who remained in full-time employment in 2021 was a historical high. For example, 49% of men born in 1958 who had been working before they reached the early exit age, were still working in 2021 even though they were 63 by then. For those born a year earlier, the proportion was just 44%. The only age where there appears to have been a significant negative impact in 2021 was for those who were aged 62. For this age bracket, there was a decline in full-time employment rates, especially among women.

Jobplus data therefore suggest that the pandemic did not exert any long-lasting impact on the lengthening of careers. There may have been an initial dip in employment of older workers, but this was quite temporary and labour market behaviour returned to pre-pandemic levels quickly. Despite the possibility to retire early and access their pension, the bulk of workers remained in full-time employment, and the trend to work beyond the statutory pension age continued unabated.

Grech (2016) had estimated the labour market impact of pension age changes by assuming that had the latter not been enacted, employment drop-out rates would remain unchanged after 2012. This no-policy change benchmark had been contrasted with the actual labour market outcomes between 2012 and 2014, together with forecasts made for the period 2015 to 2026 based on the assumption of continued improvement in drop-out rates as a result of subsequent rises in the pension age. The same approach was undertaken again utilising updated labour market data up to 2021, with forecasts made to 2026 based on the insights on employment drop-out rates that have been described above.

The new estimates are presented in Table 2 and contrasted with those made in Grech (2016). This indicates that in 2026 the potential labour supply should be some 3% higher than it would have been otherwise, and Malta's potential output should be some 1.7% higher than if the pension age had remained unchanged. This is somewhat lower than the Grech (2016) projections, but this reflects mostly a base effect as the Maltese economy and workforce grew much more sharply than had been expected, and therefore the base against which the pension age-induced improvements are being compared is much higher.

The fact that thousands more persons are remaining in full-time employment instead of drawing a two-thirds pension, of course, also has a strong positive impact on public finances. Assuming those in full-time employment would have drawn the average two-thirds pension, the annual saving in spending for Government grew nearly tenfold, from €5.8 million in 2013 to €52.4 million in 2021. If one makes a conservative projection of annual rises in pension rates, till 2026, the saving will nearly double. At the same time, the induced increase in GDP had a very positive impact on government revenue, estimated at €7.1 million in 2013, and reaching €65.5 million in 2021. Assuming the tax-to-GDP ratio remains stable at its 2021 level, by 2026 this positive impact should also nearly double. Taken together these two impacts imply that had labour market behaviour post age 61 remained frozen in its 2012 pattern, government would have needed to borrow an additional 9.1% of GDP between 2013 and 2026. This is higher than the estimate made in Grech (2016). This reflects two facts: namely that since that study was conducted, the Maltese Government

**Table 2**  
**NEW ESTIMATE OF THE IMPACT OF PENSION AGE CHANGES (2013 TO 2026)**

*Per cent*

	Potential labour supply	Potential output	Public debt ratio (% of GDP)
2013	0.4 (-0.2)	0.2 (-0.4)	0.2 (0.0)
2014	0.6 (-0.1)	0.3 (-0.1)	0.4 (0.0)
2015	0.7 (0.0)	0.4 (0.0)	0.7 (0.0)
2016	0.8 (-0.1)	0.4 (-0.1)	1.0 (0.0)
2017	0.9 (-0.3)	0.5 (-0.2)	1.4 (0.0)
2018	1.4 (-0.2)	0.8 (-0.1)	1.9 (0.1)
2019	1.7 (-0.1)	1.0 (0.0)	2.5 (0.1)
2020	1.8 (-0.1)	1.1 (0.0)	3.2 (0.3)
2021	2.1 (-0.1)	1.2 (0.0)	4.0 (0.4)
2022	2.3 (-0.2)	1.4 (0.0)	4.9 (0.6)
2023	2.6 (-0.2)	1.5 (-0.1)	5.9 (0.8)
2024	2.6 (-0.3)	1.5 (-0.2)	6.9 (1.0)
2025	2.8 (-0.4)	1.6 (-0.3)	8.0 (1.3)
2026	3.0 (-0.6)	1.7 (-0.4)	9.1 (1.4)

Source: Author's calculations.

Note: The figure in brackets compares the new estimate with the estimate made in Grech (2016).

consistently awarded higher than projected annual pension increases, and also that the tax-to-GDP ratio did not fall as much as had been expected.

In conclusion, the pandemic does not appear to have led to any substantive revisiting of the economic impact of the pension age changes. The labour market behaviour changes induced by the pension age changes have been resilient in the face of what initially appeared would be quite an age-specific shock. The strong and quick economic recovery, combined with the pension deferral scheme, undoubtedly played a role in this respect.

## BOX 2: THE IMPACT OF THE COVID-19 PANDEMIC ON HOUSEHOLDS' FINANCES IN MALTA<sup>1</sup>

This box summarises the findings on the impact of the COVID-19 pandemic for Maltese households as reported in the fourth wave of the Household Finance and Consumption Survey (HFCS) for Malta.

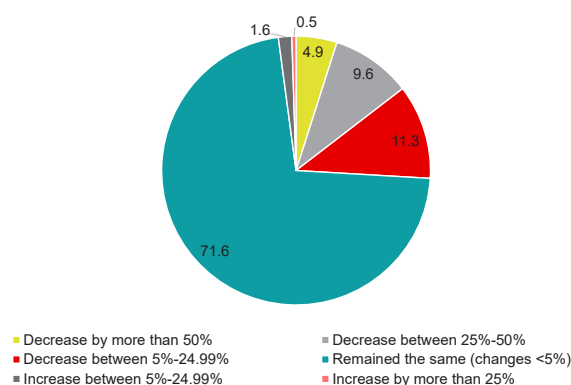
The HFCS is part of a co-ordinated research project led by the ECB and involves national central banks of all euro area countries and selected non-euro area EU member states. The Survey is conducted every three to four years. In Malta, the fieldwork for this wave was carried out between November 2020 and February 2021, with the reference period for income related variables being 2020.<sup>2</sup>

Given the exceptional circumstances caused by the COVID-19 pandemic during the latest wave of the Survey, the Household Finance and Consumption Network (HFCN) decided to include an ad-hoc module to assess the impact of the pandemic on households' finances.

Households were asked to compare their 2020 income with that of 2019 to identify whether the pandemic or the associated restrictions which were in place had any impact on their income levels. Almost three-fourths of Maltese households (71.6%) stated that their income was not impacted significantly by the pandemic (see Chart 1). These findings are broadly consistent with what was reported through the statistics on income and living conditions (SILC). Meanwhile, almost 26% of households reported a lower income, most of which replied that the income lost was between 5% and 25%. Additionally, only 2.1% of households stated to have a higher income in 2020 when compared to a year earlier.

The Survey includes a panel component, which allows one to measure the change in income for this subset of households between the past two waves.<sup>3</sup> Results from the Survey show that households in the panel component whose labour status have been negatively impacted by the

**Chart 1**  
**COVID IMPACT – CHANGE IN INCOME (2020 vs 2019)**  
(percentage of households)



Source: Authors' calculations based on MT-HFCS data.

Note: The question put to respondents was: 'As a result of the COVID-19 crisis, how did the total income of your household change during the year 2020 when compared to a similar period in the previous year?'

<sup>1</sup> Prepared by Aleandra Muscat, Dr Valentina Antonaroli and Warren Deguara, Economist and Principal economists, respectively within the Economic Projections and Conjunctural Analysis Office. The views expressed are those of the authors and do not necessarily reflect the views of the Central Bank of Malta. Any remaining errors are the sole responsibility of the authors.

<sup>2</sup> More [information, data and studies on the HFCS in Malta](#).

<sup>3</sup> The panel component for 2020, that is households who also participated in the 2017 wave, made up 33% of interviewed households.



pandemic have nonetheless reported an increase of 30.3% in their median income in 2020 with respect to 2017. These results could reflect the overall wage growth between the third and fourth wave and suggest that the changes brought about by the pandemic impacted households only during the months in which the containment measures were in place.

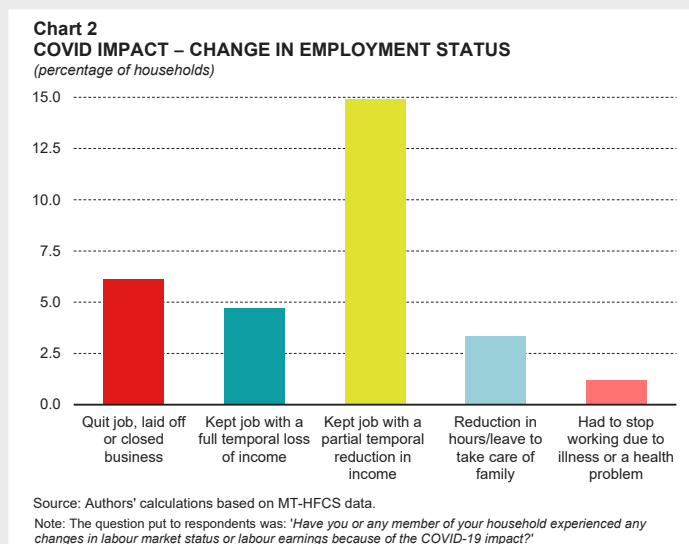
Respondents were also asked to comment how COVID-19 affected their employment situation. The share of households who completely lost their job was relatively low, as only 6.1% reported to have either quit their job, closed their business, or had been laid off (see Chart 2).<sup>4</sup> Additionally, 4.7% of all respondents were able to keep their job but had a full reduction in wages or earnings, probably due to the temporary mitigation measures in place that restricted the operation of non-essential services. Almost half of those whose labour status was impacted were able to keep their job but had a partial reduction in wages or earnings.

Around 3.3% of households were forced to ask for a reduction in working hours or leave. This might reflect health-related concerns during the pandemic, as well as the need for parents with young children to care for their dependants during the shift to online schooling. Moreover, 1.2% of respondents were forced to stop working due to sickness or other health problems.<sup>5</sup>

The high proportion of households that were able to keep their job (over 70%) likely reflects the effectiveness of state support such as the wage supplement scheme, which was specifically intended to safeguard employment of those who were mostly impacted by lockdowns or pandemic-related containment measures.

Looking at those households who were negatively affected by the pandemic, the share who lost their job or closed their business due to the COVID-19 pandemic was similar across all education levels and age groups (see Chart 3a).

As expected, a full wage loss while remaining in employment was mostly experienced by self-employed respondents (19.6%), while another 52.8% of these self-employed respondents experienced only a partial wage loss. Such partial loss in earnings was mostly observed for males, those with a tertiary level education, and



<sup>4</sup> Official statistics show that the unemployment rate in 2020 also grew slightly in comparison to 2019.

<sup>5</sup> It is important to note that respondents were allowed to select more than one option.

respondents aged 35 and under. The impact on wages was relatively similar for males and females, as 6.1% of both genders reported losing their job, and 5.3% and 4.0% respectively experienced a full earnings loss but managed to retain their job.

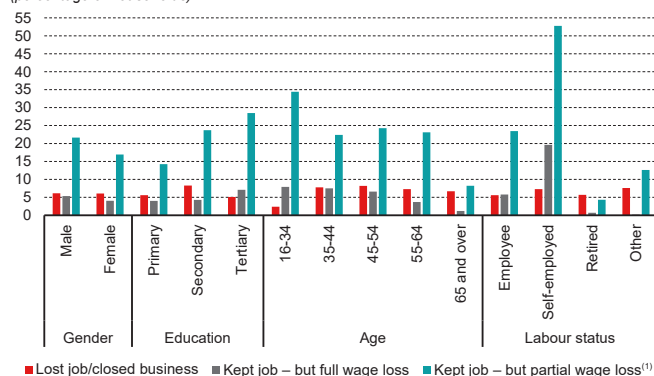
The share of respondents who lost their job was relatively low across all income and wealth quintiles (see Chart 3b). The highest share was reported by households in the fifth income quintile (9.9%) as well as the third wealth quintile (7.4%).

On the other hand, respondents who suffered a partial loss in wages was higher among the highest income quintiles. Households in the third income quintile registered the largest share in this regard (27.0%), followed very closely by the fifth quintile (26.9%). With regards to wealth quintiles, households in the highest wealth quintile (24.7%) reported the largest share of partial income losses, but this was followed by the second and first wealth quintile.

Generally, the share of employees who were impacted by the pandemic was higher for those in the private sector than for those working in the public sector. In the private sector, households employed in the wholesale and retail, and transport and storage sectors were more likely to state that they were negatively affected by the pandemic.

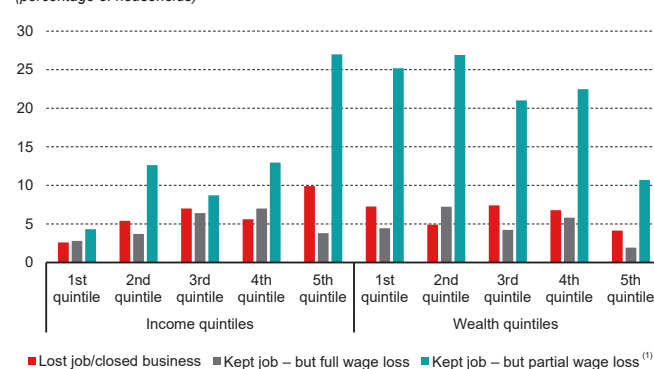
Around 70% of respondents who reported a decrease in income stated that they lowered their expenditure on food, clothes, travelling, and other consumer goods and services to

**Chart 3a**  
COVID IMPACT – ANY IMPACT ON EMPLOYMENT STATUS, BREAKDOWNS  
(percentage of households)



Source: Authors' calculations based on MT-HFCS data.  
<sup>(1)</sup> In this category, the following households' replies are combined:  
 - Kept job with a partial temporal reduction in wages or labour earnings or business income;  
 - Had to ask for a reduction in hours or for a leave of absence to take care of children or dependents;  
 - Had to stop working due to illness or a health problem.

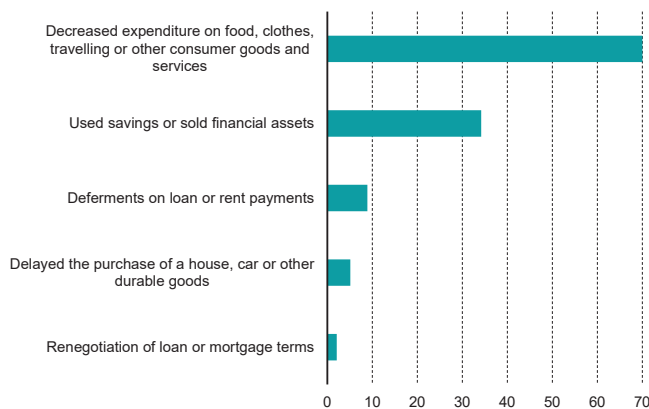
**Chart 3b**  
COVID IMPACT – CHANGE IN EMPLOYMENT STATUS, BREAKDOWNS  
(percentage of households)



Source: Authors' calculations based on MT-HFCS data.  
<sup>(1)</sup> In this category, the following households' replies are combined:  
 - Kept job with a partial temporal reduction in wages or labour earnings or business income;  
 - Had to ask for a reduction in hours or for a leave of absence to take care of children or dependents;  
 - Had to stop working due to illness or a health problem.

cope with the reduction in earnings (see Chart 4).<sup>6</sup> Taking only the panel component of the survey, when comparing expenditure on travel and holidays of households who suffered a full or partial loss in income due to COVID-19 in 2020 with that in 2017, a 53% reduction is noted. In fact, the median value dropped from €1,750 in 2017 to €940 in 2020.

**Chart 4**  
**COMPENSATION FOR INCOME LOSS DUE TO COVID**  
(percentage of households)



Source: Authors' calculations based on MT-HFCS data.

Note: The question put to respondents was: 'How did your household compensate for the loss of income?'

Other ways to compensate for the decrease in income included dissaving and the sale of financial assets (34.2%). However, this could also reflect the low interest rate environment which might have hindered the attractiveness of such a financial asset. Some households (8.9%) also deferred loan and rent payments (8.9%). Lastly, none of the respondents took additional loans to make up for their income losses, while some (2.1%) were able to renegotiate their loan or mortgage terms.

Overall, the results of this Survey confirm that even though COVID-19 had repercussions on economic activity, the Maltese labour market remained resilient, and in large part households' income was safeguarded. This reflects the substantial support measures offered by Government, notably the wage supplement scheme.

Only a small proportion of households, mostly self-employed or employees in the private sector, have experienced full or temporary loss in income, but those who were affected mostly opted to lower consumption or draw on accumulated assets. This helps explain why private consumption bounced back so rapidly in subsequent years, such that by 2022 household consumption was already 6.4% higher than in 2019.

<sup>6</sup> It is important to note that respondents were allowed to select more than one measure in which they compensated for their loss in income as most respondents adopted a mixture of measures.

### 3. PRICES, COSTS AND COMPETITIVENESS

Consumer price pressures eased somewhat during the quarter under review, but inflation remained high from a historical perspective. Also, producer prices point to moderating cost pressures, while ULCs increased in the last quarter of 2022.

Annual inflation, as measured by the HICP, stood at 7.3% in December, marginally below that of 7.4% recorded in September. Services price growth was the driver behind the decrease in inflation since September, as food and NEIG inflation increased. Energy prices remained unchanged. Annual inflation based on the RPI – which only considers expenditure by Maltese residents – edged down from 7.5% in September to 7.4% in December.

Producer price inflation declined to 4.3% in December, from 4.6% three months earlier. Malta's ULC index, measured on a four-quarter moving average basis, increased by 1.9% in the fourth quarter, as compensation grew more strongly than productivity.

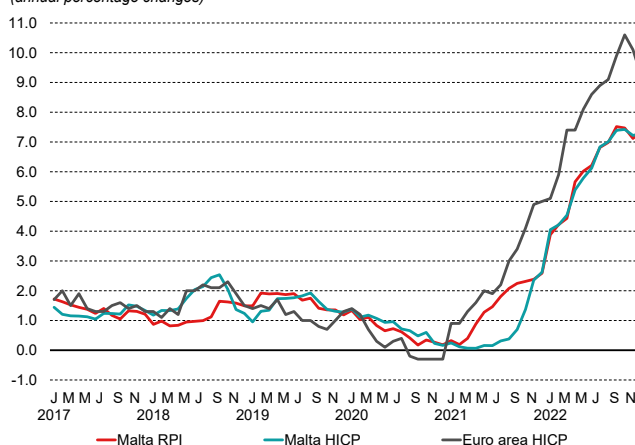
Malta's HICIs point to a deterioration in international competitiveness between September and December 2022, reflecting an appreciation of the euro. However, ULCs remained below those at the beginning of the year, as Malta registered a lower inflation rate compared to that of its trading partners.

#### Inflation

##### *HICP inflation eased slightly*

Annual HICP inflation edged down to 7.3% in December 2022, from its historic peak of 7.4%, reached between September and October (see Table 3.1).<sup>1</sup> HICP inflation in Malta remained below that recorded in the euro area, where inflation ended the fourth quarter of 2022 at 9.2% (see Chart 3.1). This divergence mainly stems

**Chart 3.1**  
INFLATION RATES IN MALTA AND IN THE EURO AREA  
(annual percentage changes)



Sources: NSO; Eurostat.

**Table 3.1**  
HICP INFLATION  
Annual percentage change

Annual percentage change													
	2021						2022						
	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Unprocessed food	11.3	12.7	15.1	13.8	12.2	14.9	11.8	13.0	9.6	8.7	14.4	10.0	10.3
Processed food including alcohol and tobacco	2.0	3.7	4.6	5.3	6.0	6.8	7.6	8.9	9.4	10.4	11.3	12.0	11.8
Energy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEIG	2.6	3.7	3.7	4.0	4.5	4.5	5.4	5.5	5.4	6.6	6.5	6.7	6.7
Services (overall index excluding goods)	2.3	4.1	3.8	4.2	5.6	5.8	6.1	6.9	7.5	7.4	6.7	6.5	6.7
<b>All Items HICP</b>	<b>2.6</b>	<b>4.1</b>	<b>4.2</b>	<b>4.5</b>	<b>5.4</b>	<b>5.8</b>	<b>6.1</b>	<b>6.8</b>	<b>7.0</b>	<b>7.4</b>	<b>7.4</b>	<b>7.2</b>	<b>7.3</b>

Source: Eurostat.

<sup>1</sup> The HICP weights are revised on an annual basis to reflect changes in overall consumption patterns. In 2022, the weight allocated to services stands at 43.3%, while that of NEIG is 28.3%. Food accounts for 21.8% of the index, while the share allocated to energy stands at 6.7%. These were revised from 42.6% for services, 28.6% for NEIG and 22.1% for food in 2021 while the weight for energy was broadly unchanged.

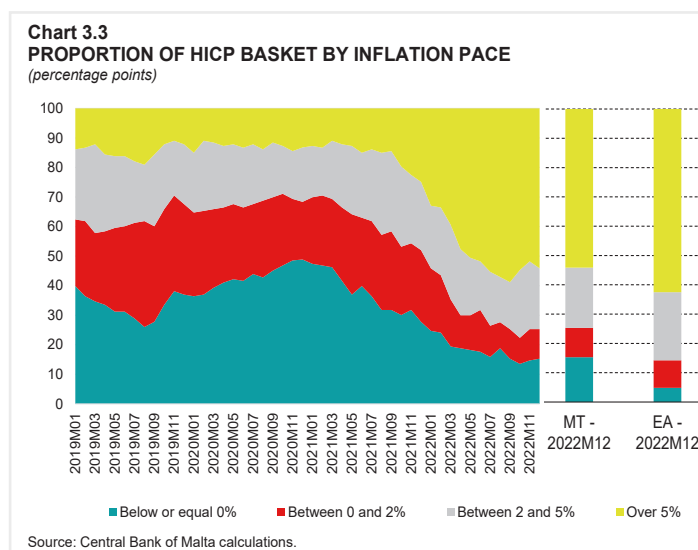
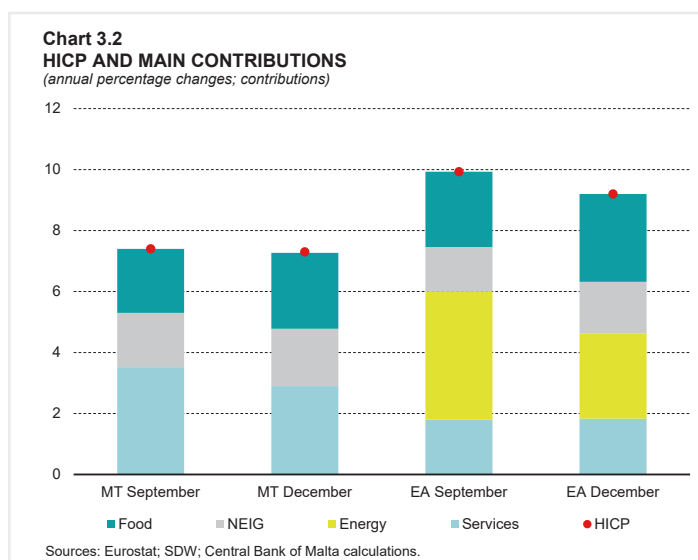
from energy prices, which were unchanged in Malta but rose by an annual rate of 25.5% in the euro area, and contributed 2.8 percentage points to euro area HICP inflation in December (see Chart 3.2). The contribution of food was also slightly lower in Malta compared to the euro area average. On the other hand, the contributions to inflation of services and NEIG inflation were higher in Malta than in the euro area.

Chart 3.3 shows a distribution of price changes whereby sub-components of HICP are categorised into four classes of inflation rates: i) below or equal to 0%; ii) between 0% and 2%; iii) between 2% and 5% and iv) over 5%.<sup>2</sup> This indicates whether the surge in inflation during 2022 was broad-based across HICP items, or if it was driven only by selected components of the consumption basket.

Since late 2021, the share of subcomponents registering inflation rates in the lowest inflation band has declined in both Malta and the euro area. This was mirrored in a substantial rise in the share of subcomponents with year-on-year price increases of more than 5%. Indeed, in December, the share of the latter stood at 54.1% and 62.5% in Malta and the euro area, respectively. This indicates that the relatively high inflation rates registered throughout 2022 were driven by a majority of items in the respective consumption basket.

Nevertheless, despite the still relatively large share of the Maltese basket falling in the upper band, this share has declined in December when compared to three months earlier. Looking at the interval holding items with inflation rates between 2% and 5%, we note that in December this share stood at 20.6% in Malta, and 23.3% in the euro area. On the contrary to the bracket holding items with inflation higher than 5%, this bracket expanded in Malta when compared to three months earlier. Furthermore, the shares of the two intervals with inflation of 2% or below,

<sup>2</sup> 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 20.5% for the euro area. Around 67% of the euro area basket fell in the 0-2% and 2-5% intervals – in almost equal parts. These shares stand at 26.2% and 27.5% respectively in Malta. While 18.7% of the Maltese basket fell in the over 5% interval, only 12.2% of the euro area basket falls in this interval.



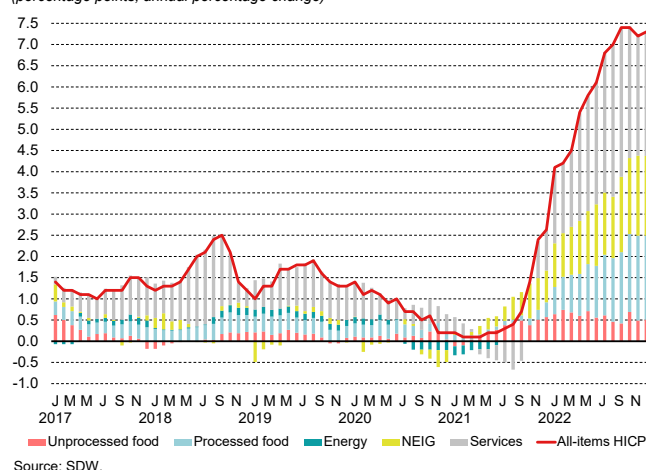
was higher in Malta than in the euro area, though unchanged when compared to three months earlier. Malta's inflation rate was below that of the euro area in part due to certain subcomponents that are of an administrative nature, i.e., where prices are determined or partially determined by government. Apart from energy, these include post-secondary and tertiary education, as well as passenger transport by bus.

Overall, the latest data indicates some modest easing in inflationary pressures during the quarter under review, with pressures remaining broad-based across consumer items.

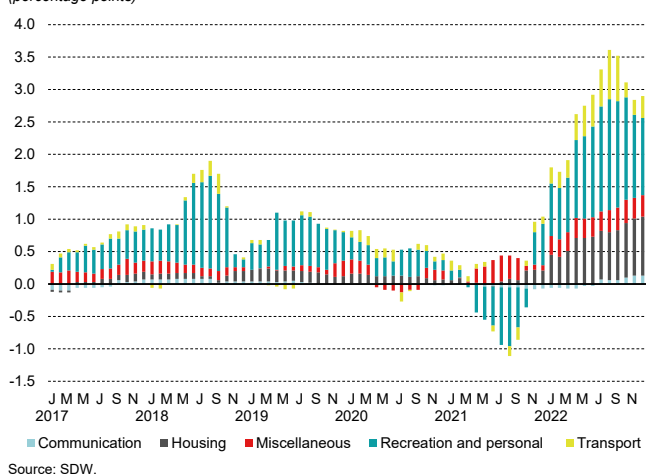
The marginal fall in HICP inflation relative to September was entirely driven by slower growth in services prices (see Chart 3.4). By contrast, the contributions from food and NEIG prices increased since September, while energy prices remained unchanged in annual terms.

Services inflation decreased from 7.4% in September to 6.7% in December, contributing 2.9 percentage points to overall HICP inflation (see Chart 3.5). Despite easing, services inflation still stands relatively high from a historical perspective. All services components had a positive contribution to overall HICP inflation in December, but almost half of the services contribution to overall HICP inflation came from the recreation and personal care. Among other items, this component includes package holidays, where prices rose by an annual rate of 12.6%, down from 20.2% in September. Also, prices at restaurants, cafes and similar establishments rose by 9.9% in December, declining from 10.5% in September. The contribution from transport services also declined strongly when compared to September, reflecting the introduction of the free public transport services which began in October. On the other hand, the contribution from housing services increased when compared to September, largely reflecting faster growth in fees for the maintenance and repair of dwellings, as well as higher growth in housing rents.

**Chart 3.4**  
**CONTRIBUTIONS TO YEAR-ON-YEAR HICP INFLATION**  
(percentage points; annual percentage change)



**Chart 3.5**  
**CONTRIBUTIONS FROM SERVICES TO HICP INFLATION**  
(percentage points)



On the contrary to services inflation, food inflation increased during the quarter under review, reaching 11.5% in December. This largely reflected faster growth in the prices of dairy products, as the contribution from this component rose to 0.5 percentage point in December (see Chart 3.6). This was followed closely by meat, and to a lesser extent by fruit, fish and vegetables. On the other hand, the contribution of bread and cereal products decreased.

The overall contribution of food to HICP inflation stood at 2.5 percentage points in December, up from 2.1 percentage points in September. This increase was driven by both processed and unprocessed food inflation. Indeed, while processed food inflation reached 11.8% from 10.4% in September, unprocessed food inflation rose to 10.3% from 8.7% previously.

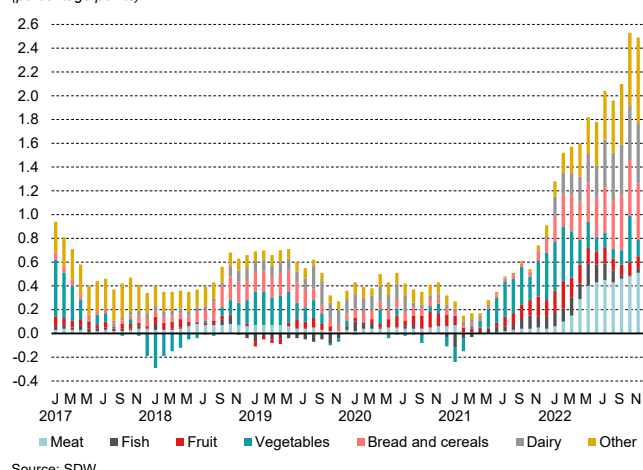
NEIG inflation edged up by 0.1 percentage point to 6.7% in December. Inflation increased in durables and non-durables, while semi-durable prices increased at a slower pace when compared with September. Prices of durable NEIG rose by an annual rate of 6.4%, from 6.2% three months earlier, while prices of non-durables rose at 8.5%, up from 7.7% in September. The latter's price dynamics largely reflect developments in the prices of cleaning and maintenance products, as well as personal hygiene and beauty products. Furthermore, the pick-up in NEIG inflation may reflect the lagged pass-through of recent increases in input costs to consumer prices.

Energy inflation was unchanged at 0.0% in December, 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.

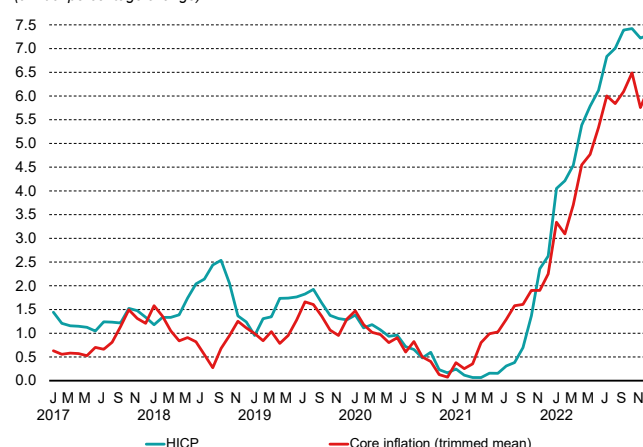
### Core HICP inflation edges up

The Bank's measure of core inflation rose to 6.2% in December 2022, from 6.1% three

**Chart 3.6**  
**CONTRIBUTIONS FROM FOOD TO HICP INFLATION**  
(percentage points)



**Chart 3.7**  
**HICP IN MALTA: OVERALL AND CORE MEASURE**  
(annual percentage change)





**Table 3.2**  
**CONTRIBUTIONS TO YEAR-ON-YEAR RPI INFLATION**

Percentage points

	2021					2022								
	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	
Food	1.1	1.5	1.7	1.7	2.0	2.1	2.1	2.5	2.4	2.5	2.9	2.7	2.7	
Beverages and tobacco	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	
Clothing and footwear	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	-0.1	0.2	0.2	0.1	0.0	
Housing	0.3	0.6	0.7	0.8	1.2	1.2	1.2	1.2	1.2	1.3	1.5	1.5	1.5	
Water, electricity, gas and fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Household equipment and house maintenance costs	0.2	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.5	0.6	0.5	0.6	0.6	
Transport and communications	0.3	0.5	0.5	0.4	0.6	0.8	0.9	1.1	1.4	1.2	0.6	0.5	0.6	
Personal care and health	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	
Recreation and culture	0.3	0.3	0.2	0.3	0.6	0.6	0.5	0.5	0.3	0.4	0.3	0.2	0.3	
Other goods and services	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	
<b>RPI (annual percentage change)</b>	<b>2.6</b>	<b>3.9</b>	<b>4.2</b>	<b>4.4</b>	<b>5.7</b>	<b>6.0</b>	<b>6.2</b>	<b>6.8</b>	<b>7.0</b>	<b>7.5</b>	<b>7.5</b>	<b>7.1</b>	<b>7.4</b>	

Source: NSO.

months earlier (see Chart 3.7).<sup>3</sup> Hence, it was 1.1 percentage points lower than overall HICP inflation. The divergence between the two measures of inflation largely reflects the exclusion of volatile items from the core measure.

### *RPI inflation edges down marginally*

Annual inflation based on the RPI index – which is based on a different basket of goods and services from the HICP index, as well as a different frequency of weight updates – fell to 7.4% in December, from 7.5% in September (see Table 3.2).<sup>4</sup> The decline was largely driven by lower contribution from the transport and communications services following the introduction of the free public transport initiative in October. Indeed, the contribution of this sector to overall RPI inflation halved to 0.6 percentage point, from 1.2 percentage points three months earlier. The contributions of prices for recreation and culture, as well as clothing and footwear, also contributed to the decline in inflation, though marginally. On the other hand, the contribution from food, housing, as well as personal care and health edged up compared to September, jointly lifting RPI inflation by half a percentage point. Meanwhile, energy tariffs continued to have a neutral impact on overall RPI inflation in the period under review.

## **The housing market**

### *Residential property prices grow at a slower pace*

The NSO's Property Price Index (PPI) – which is based on actual transactions involving apartments, maisonettes, and terraced houses – continued to increase in annual terms, albeit at a slower pace. The annual rate of change stood at 5.9% in the last quarter of 2022, from 6.3% in the third quarter of 2022 (see Chart 3.8).<sup>5</sup> House price inflation in Malta has surpassed that in the euro area, where prices increased at an annual rate of 3.0%.

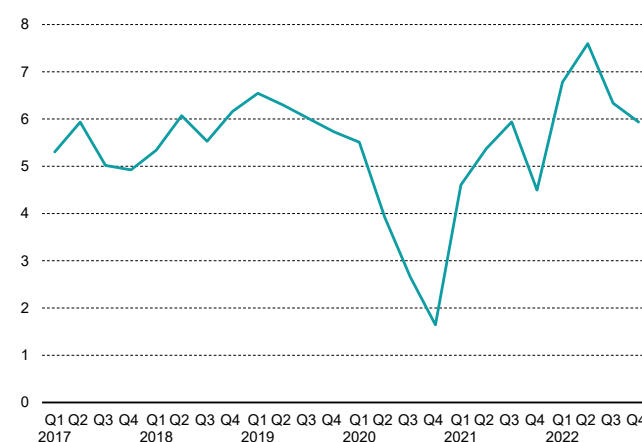
<sup>3</sup> The Bank uses a 'trimmed mean' approach to measure core inflation, whereby the more volatile subcomponents of the index are removed from the basket of consumer goods so as to exclude extreme movements from the headline inflation rate. See Gatt, W. (2014), "An Evaluation of Core Inflation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

<sup>4</sup> 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. Due to the strong impact of the pandemic on tourist expenditure, the two measures are expected to diverge significantly as weights in the HICP have changed significantly while those of the RPI have not been adjusted.

<sup>5</sup> '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. '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.

Residential property prices continue to be supported by numerous factors, including Government schemes supporting demand for property, such as the first-time and second-time buyers' schemes, the purchase of properties located in Urban Conservation Areas (UCA) and in Gozo, as well as refund schemes for restoration expenses. The ongoing recovery of tourism and the normalisation of migrant workers flows from pandemic lows may have also shored up demand for property and contributed to the increase in property prices.

**Chart 3.8**  
**MOVEMENTS IN RESIDENTIAL PROPERTY PRICES**  
(annual percentage changes)



Source: Eurostat.

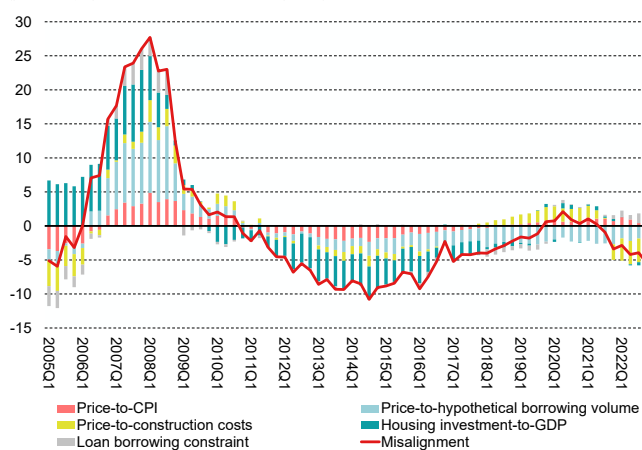
### *Misalignment indicator affected by exceptional inflationary environment*

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.<sup>6,7</sup> This indicator consists of five sub-indices that capture household, investor, and system-wide factors, with the weights being derived using principal component analysis.

According to the misalignment indicator, house prices, as measured by the NSO's PPI, were below the level consistent with fundamentals in the final quarter of 2022, with the gap from such level slightly more negative than that estimated for the third quarter (see Chart 3.9).<sup>8</sup>

The undervaluation estimated for the fourth quarter was driven mainly by the price-to-construction cost ratio, and the price-to-hypothetical borrowing volume – that is the affordability indicator. The former had one of the most negative contributions on record. Although house prices have increased

**Chart 3.9**  
**HOUSE PRICE MISALIGNMENT INDICATOR**  
(percentage points; based on transaction prices)



Source: Central Bank of Malta estimates.

<sup>6</sup> 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.

<sup>7</sup> The actual numerical results presented in this section should not be overstated given the limitations in the construction of this indicator. 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 indicator.

<sup>8</sup> 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.

**Table 3.3**  
**TRANSACTIONS**

Levels

	2021	2022			
	Q4	Q1	Q2	Q3	Q4
<b>Residential transactions</b>					
Promise of sale	4,614	2,741	3,231	2,846	3,355
Final deeds of sale	3,896	3,407	3,567	3,593	3,764

Source: National Statistics Office.

markedly, construction costs have risen at a faster rate pushing down this ratio. The housing investment-to-GDP ratio, which is an indicator of overheating, also contributed, although marginally. By contrast, the loan borrowing constraint, which is an indicator of the loan-bearing capacity of households, continued to contribute positively to the misalignment indicator.

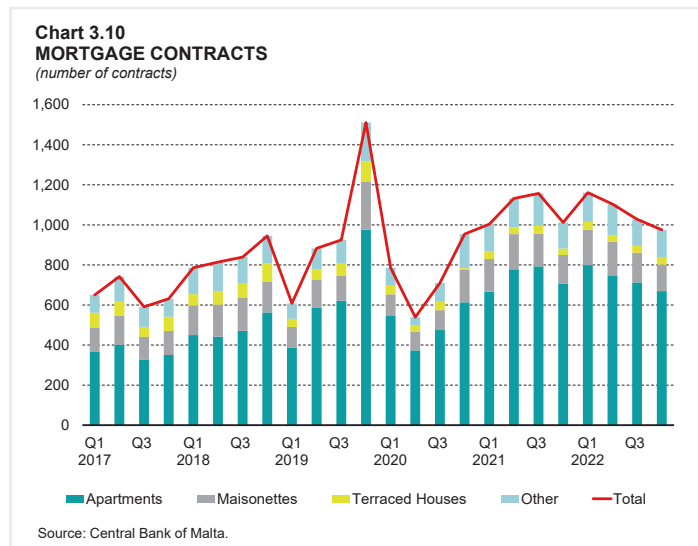
### *Property transactions increase in quarterly terms but fall in annual terms*

NSO data on residential property transactions show that 3,764 final deeds of sale were registered in the quarter under review, an increase of 4.8% compared to the number of sales concluded in the third quarter of 2022, but 3.4% lower than the same level registered in the final quarter of 2021 (see Table 3.3). Over 90% of these transactions involved purchases by individuals.

The number of promise-of-sale agreements also increased on a quarter-on-quarter basis. At 3,355, the number of promise-of-sale agreements was 17.9% higher than those notified in the third quarter, but 27.3% lower than those registered in the same quarter of 2021. Most of the decrease in year-on-year terms occurred in December 2022, and reflects the fact that a year earlier there was a substantial increase in promise of sale agreements ahead of the expected expiration of a tax incentive related to the acquisition of property.

### *Mortgage transactions declined but remain above the average between 2017 and 2019<sup>9</sup>*

The number of mortgage contracts continued to decline in the fourth quarter of 2022, standing at 975. When compared with the last quarter of 2021, they stood lower by 3.7% (see Chart 3.10). This decrease was mostly on account of fewer apartments

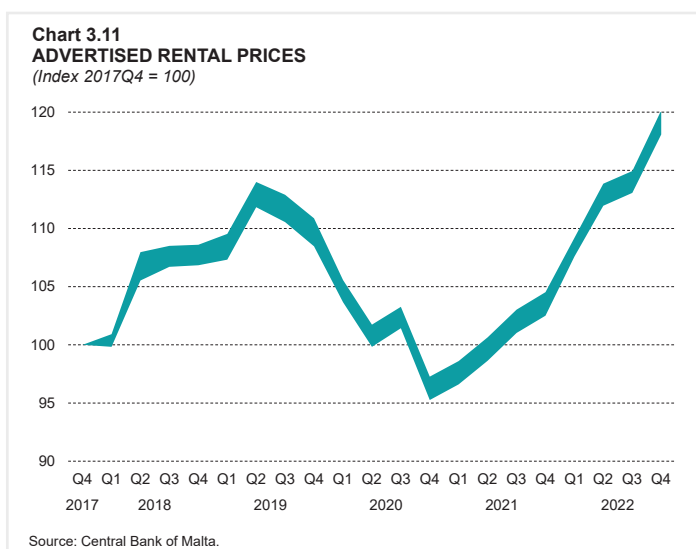


<sup>9</sup> The data used in the section are collected by the Central Bank of Malta from four commercial banks and relate only to properties which have been purchased with a mortgage. The dataset excludes properties that have either been transacted using other means of financing, as well as mortgages that have been refinanced. The property types included are: flats, penthouses, maisonettes, terraced houses, town houses, houses of character, farmhouses, bungalows, and villas. Other property types included in the previous section such as airspace, boathouses, garages, and plots of land are excluded.

and maisonettes, as mortgages for terraced houses and other property categories registered a slight increase. Although lower in annual terms, the number of mortgage contracts in the fourth quarter exceeded the average of 827 transactions per quarter recorded between 2017 and 2019.

### *Advertised rent prices increase at a faster pace*

The annual rate of change of advertised rents collected from internet sources increased in the final quarter of 2022 compared with the previous quarter.<sup>10</sup> The range of estimates from various methods indicate that rents have increased at annual rates of between 14.2% and 16.2% in the quarter under review (see Chart 3.11). Furthermore, the level of advertised rents remained around 9% above the pre-pandemic level estimated in the final quarter of 2019.



## **Costs and competitiveness**

### *Producer price inflation moderates*

Annual inflation, based on the industrial producer price index, which is a measure of the change in the prices of goods sold by producers in the industrial sector, eased to 4.3% in December, from 4.6% in September.<sup>11</sup> This reflected slower growth in the prices of capital and consumer goods. Prices of capital goods rose by 2.3% in December, down from 4.2% in September, while consumer goods inflation edged down to 8.4%, from 9.0%. On the other hand, producer prices for intermediate goods rose at a faster rate of 3.5% in December, after increasing by 3.2% in September. Energy producer price inflation remained zero in the period under review.

### *Recent improvement in competitiveness begins to unwind<sup>12</sup>*

In December 2022, the nominal HCI was up by 0.8% on its level a year earlier, reflecting the euro's appreciation against currencies of trading partners (see Chart 3.12). By contrast, the real HCI fell by 0.9%. 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

<sup>10</sup> 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.

<sup>11</sup> The industrial producer price index measures the prices of goods at the factory gate and is commonly used to monitor inflationary pressures at the production stage.

<sup>12</sup> HCIs act as an effective exchange rate 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.

its level in January 2022, as domestic inflation remained below that in trading partners.

When compared with September, both the nominal and the real HCI increased by 2.3%, suggesting that the exchange rate was behind the deterioration in price competitiveness on a quarter-on-quarter basis.

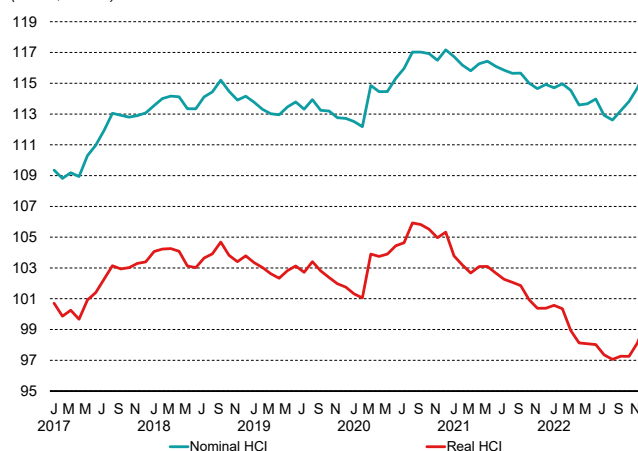
### *ULCs increase at a faster rate in the fourth quarter*

Malta's ULC index – measured as the ratio of compensation per employee to labour productivity – increased during the fourth quarter of 2022, both in quarter-on-quarter terms, as well as in annual terms.<sup>13</sup> When measured on a four-quarter moving average basis in headcount terms, ULCs in Malta rose at an annual rate of 1.9%. This followed a decline of 0.9% in the previous quarter (see Chart 3.13). The recent rise in ULCs occurred as compensation per employee rose at a faster rate than productivity.

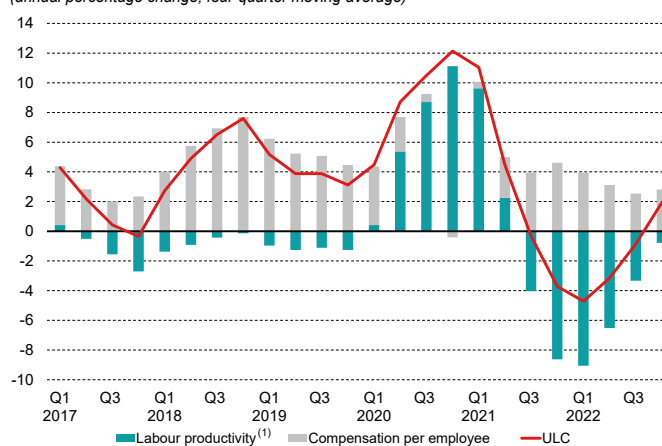
The acceleration in the last quarter of the year, when compared to the previous quarter, (as measured on a four-quarter moving average basis), reflects both slower growth in labour productivity, and faster growth in compensation per employee. Indeed, while labour productivity growth decelerated from 3.3% to 0.8%, growth in compensation per employee accelerated by 0.3 percentage point to 2.8%.

Similar to ULC per person, ULC per hour increased on a

**Chart 3.12**  
**HARMONISED COMPETITIVENESS INDICATORS**  
(1999Q1 = 100)



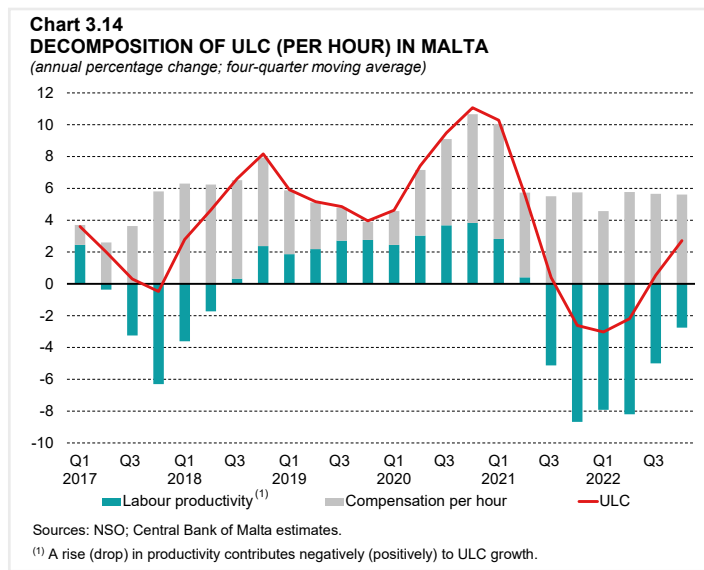
**Chart 3.13**  
**DECOMPOSITION OF ULC (PER PERSON) IN MALTA**  
(annual percentage change; four-quarter moving average)



<sup>(1)</sup> A rise (drop) in productivity contributes negatively (positively) to ULC growth.

<sup>13</sup> Annual growth in ULC, compensation per employee and labour productivity is measured on a four-quarter moving average basis. A degree of caution is required in the interpretation of ULC 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, and Rapa, N. (2016), "Measuring international competitiveness", *Quarterly Review* 2016(1), pp. 53-63, Central Bank of Malta.

four-quarter moving average basis, rising by 2.7% in the fourth quarter of 2022, following a 0.5% increase in the previous quarter (see Chart 3.14). Compensation per hour rose by 5.6% in the quarter under review, which is above the 2.8% increase in productivity per hour. Furthermore, the acceleration in ULC per hour mostly reflects slower growth in productivity, as growth in compensation per hour was only marginally lower than that estimated for the third quarter of 2022.



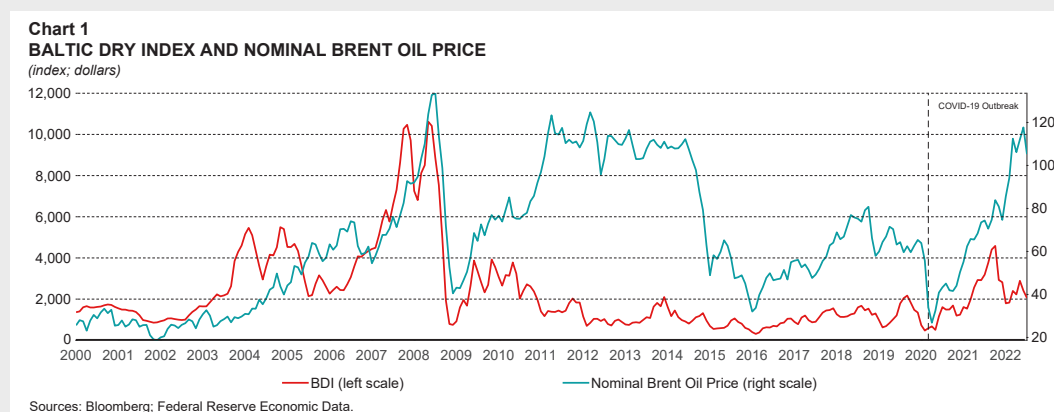
## BOX 3: GLOBAL OIL PRICE SWINGS AND SHIPPING DISRUPTIONS: DO THEY MATTER FOR MALTA?<sup>1</sup>

### Price developments on the oil and shipping markets

Recent years have been characterised by the COVID-19 outbreak, leading to a sharp contraction in global economic activity in 2020, and a remarkable rebound in 2021, together with logistical and supply-chain disruptions. As a result, oil prices and shipping costs experienced large swings, which in turn led to upward pressure on retail prices.

Both shipping and energy have a direct impact on the Maltese economy, as Malta is a small island with a highly open economy, and heavily reliant on shipping transportation for merchandise goods and commodities. In addition to goods, Malta is reliant on the importation of a variety of fossil fuels. Between the mid-1990s and 2016, most of the electricity production in Malta was produced from heavy fuel oil, while liquified natural gas (LNG) was used from 2017 onwards.<sup>2</sup> Importantly, energy prices in Malta are fully administered and, to date, have been kept unchanged since July 2020, despite the surge in international energy prices.

Chart 1 shows the evolution of the nominal Brent oil price and the Baltic Dry Index (BDI) over the period between January 2000 and March 2022. The Brent oil price is used as a benchmark for pricing crude oil in most of the Atlantic basin and internationally. The BDI is a composite index of shipping costs and is regarded as a measure of demand for shipping capacity versus the supply of cargos. The two are meant to capture developments in global oil and shipping markets, respectively. Chart 1 shows how both indices tend to gradually increase during periods of economic expansions, and to decline abruptly in conjunction with global economic crises. This characteristic was particularly evident during the Great Recession of 2008/09, and at the onset of the COVID-19 pandemic. During these periods,



<sup>1</sup> Prepared by Germano Ruisi, a Principal Research Economist of the Economic Research Department at the Bank. The analysis presented in this box is based on the author's study: Ruisi (2022), "Global oil price swings and shipping disruptions: do they matter for Malta?", Central Bank of Malta *Policy Note* Series, December 2022. Helpful comments by Brian Micallef, William Gatt, Massimo Giovannini, Ian Borg, Noel Rapa, Abigail Marie Rapa, and participants of the 2022 EUROMED Workshop are gratefully acknowledged. The views expressed are the author's own and do not necessarily reflect the views of the Central Bank of Malta.

<sup>2</sup> Malta further diversified its energy mix by connecting its power grid with the European one in 2015 through the Malta-Sicily interconnector.



the demand for cargo capacity and for energy was adversely affected due to the negative outlook of the global economy.

### The effect of oil and shipping disruption shocks on the Maltese economy

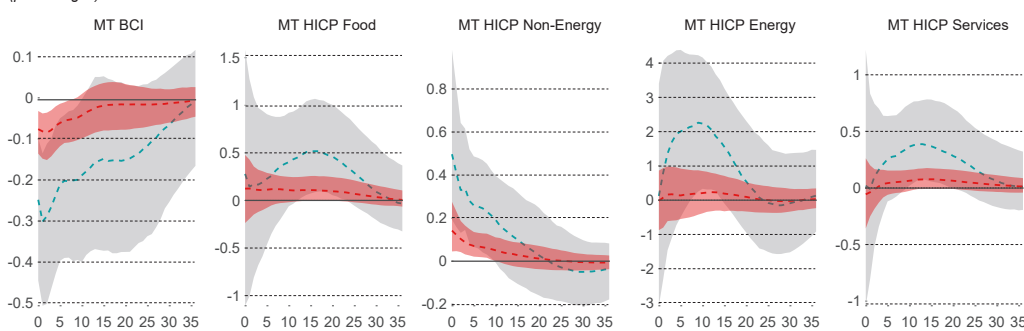
The insularity of the Maltese economy, together with its high degree of openness and heavy reliance on shipping services and on petroleum products, raises the need to quantify the macroeconomic effect of changes in oil prices, and disruptions in the shipping industry.

The empirical analysis is based on a structural vector autoregressive model featuring two blocks: a Maltese block and a world block representing the dynamics taking place at the global level. The world block includes the growth rates of industrial production and consumer price inflation of the 38 OECD countries that serves as a proxy to global economic activity and prices, respectively. It also features the growth rates of the real price of Brent oil and the BDI, as well as the ratio between these two indicators, to help in the identification strategy aiming at separating the two disturbances. The Maltese block is highly stylised and contains the BCI developed in Ellul (2016) as a measure of economic activity, and the four main HICP components – food, NEIG, energy, and services.<sup>3</sup> The data are collected at monthly frequency and cover the period between January 2000 and March 2022. The identification strategy, which helps disentangling the two shocks, is based on sign restrictions.<sup>4</sup>

The responses to the two identified disturbances are shown in Chart 2. The grey and the red shaded areas, represent the dynamic responses to an oil and to a shipping disruption shock, respectively. The responses are normalised to increase oil or BDI by 10%, in order to better link them with the effect that the recent swings on the global market are bringing about. The model captures the median responses over the entire sample, which runs from 2000 until March 2022, and not just that relating to a specific point in time.

Following an oil disturbance, the full effect on Maltese energy prices is experienced after about ten months, with a peak response of slightly more than 2%. This refers to the case

**Chart 2**  
**RESPONSES TO A 10% OIL (GREY) AND SHIPPING (RED) SHOCK**  
(percentages)



Source: Author's calculations.

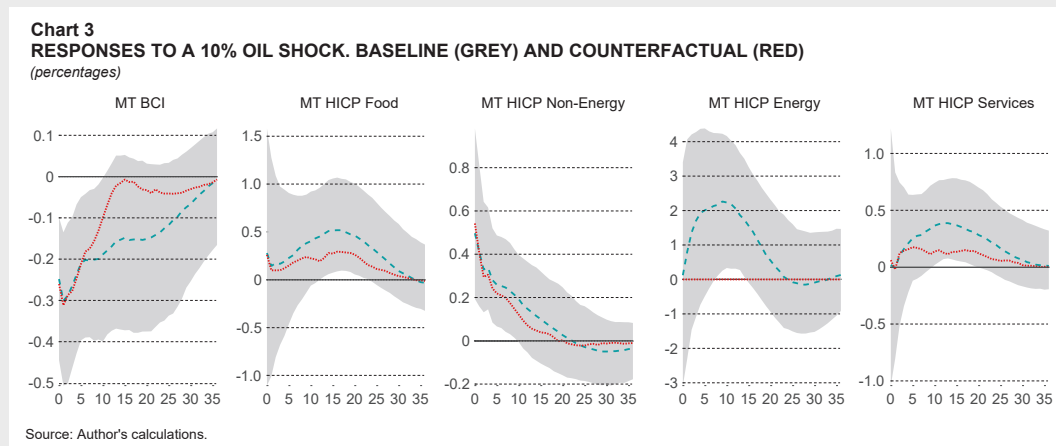
<sup>3</sup> For more details on the BCI please refer to Ellul, R. (2016) "[A real-time measure of business conditions in Malta](#)", Central Bank of Malta Working Paper WP/04/2016.

<sup>4</sup> More details on the identification strategy are presented in the [Policy Note](#).

when energy prices in Malta are allowed to fluctuate due to market forces. Interestingly, in the case of disruptions in the shipping industry, energy prices do not significantly respond at any horizon.

In the case of the oil shock, the median response for all the other price series appears to be positively affected. Food and services sub-indices gradually increase and reach peak responses of 0.5% and 0.45% after about 12 to 16 months, respectively. The increase in prices experienced by NEIG is more abrupt and is felt on impact. The different responsiveness of the sub-indices, with the NEIG on the one hand, and food and services on the other, might be explained by the observation that a non-negligible portion of food items and services that are locally produced requires the utilisation of energy provided domestically. As such, the slower increase in food and services inflation might be due to the time necessary for the transmission of shocks in the global energy markets to domestic energy prices. NEIG are mostly imported and, therefore, tend to be more responsive to developments in the world economy. Finally, the responses of food, NEIG and services for a shipping disruption shock are qualitatively similar to the oil price shock although, quantitatively, the magnitude is remarkably smaller. This highlights the higher responsiveness of the Maltese economy to developments on the global energy markets than those in the shipping industry.

Chart 3 illustrates a scenario that helps to identify the effect of the energy subsidies by the Maltese government. The scenario focuses on what would happen if energy prices were kept unchanged in response to a global oil shock. By doing so, this simulation proxies the fact that energy prices in Malta are fully administered and, as such, the HICP energy sub-index did not respond to the oil shock. This scenario is investigated by imposing that the HICP energy response is bound to be equal to zero throughout the whole response horizon, despite the disturbance to global oil prices.<sup>5</sup> Chart 3 compares the baseline responses (grey shaded areas) with the counterfactual ones (red dotted lines).



<sup>5</sup> The counterfactual responses are computed by means of the technique outlined in Kilian and Lewis (2011) "Does the Fed respond to oil price shocks?" *The Economic Journal*, 121(555), pp. 1047–1072. The credible bands are not reported due to their erratic behaviour. Therefore, the economic intuition is drawn only from the median responses.

The figure clarifies how sheltering the Maltese energy prices from price fluctuations on the global oil market has beneficial effects on both domestic economic activity and prices. The BCI experiences a much less persistent negative effect. Turning to the inflation sub-indices, the responses of the food and services HICPs are at least halved compared to the baseline case. More precisely, food and services would respectively rise by 0.25% and 0.2% after, respectively, 18 and 12 months, as opposed to 0.5% and 0.45% in the case of no government intervention. No remarkable difference is found in relation to NEIG prices. A possible explanation could be related to the fact that, as already mentioned, most of the NEIG are imported, so domestic energy prices would not play any role, at least, upon impact.

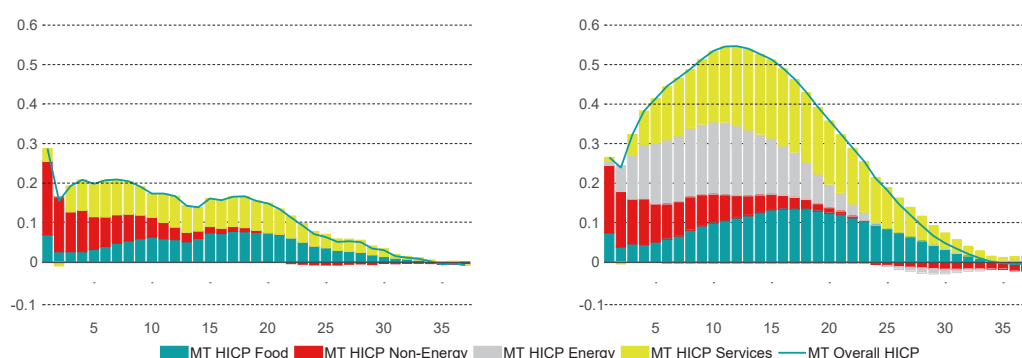
### Effects on headline inflation

Chart 4 shows the response of headline inflation following an oil shock that raises oil prices by 12.16% in the scenario of government intervention to shelter the Maltese economy from increases in energy prices (left), and in the baseline case (right). The choice of this normalisation is based on the observation that 12.16% is the average monthly oil price increase during the last three months available in the sample, i.e., January to March 2022. By doing so, it is easier to compare the estimated responses with the experience obtained during the very recent past.

Chart 4 illustrates how sheltering energy prices from the fluctuations in the global oil market helped to lower the upward pressure on HICP inflation. More precisely, the peak response reaches about 0.2%, instead of more than 0.5%. In addition, by looking at the various components, this lower pressure is not only driven by the absence of energy price increases but also by lower growth in the other inflation sub-indices. This is especially evident for food and services.

Chart 5 depicts the effect of a shock in the shipping industry normalised to raise the BDI by 27.44%.<sup>6</sup> The full effect is reached after roughly 12 to 16 months. Initially, the impact

**Chart 4**  
RESPONSE OF HEADLINE HICP AND ITS SUB-INDICES TO AN OIL SHOCK UNDER THE ASSUMPTION OF UNCHANGED ENERGY PRICES (LEFT) AND UNDER THE BASELINE SCENARIO (RIGHT)  
(percentages)



Source: Author's calculations.

Note: The shock is normalised to increase the real oil price by 12.16%.

<sup>6</sup> In a similar way to the case of oil, the chosen percentage increase reflects the average monthly growth rate experienced by the BDI over the last three months of available observations.

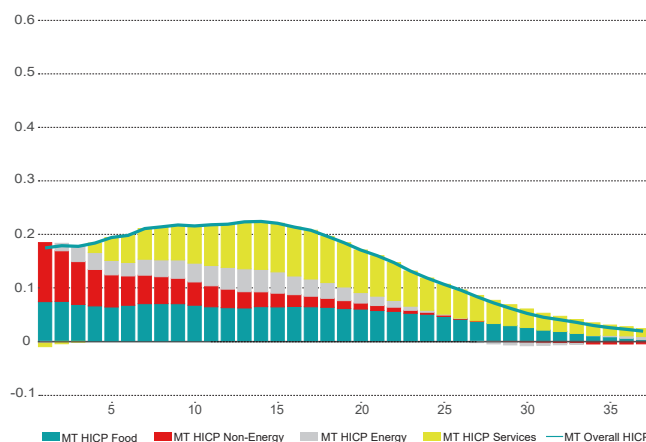
is due to a prompt reaction of NEIG and food prices, while the impact on services is felt with a lag.

## Conclusions

This study finds that both global oil price swings and disruptions in the shipping industry appear to exert recessionary effects on the Maltese economy, while putting upward pressure on headline inflation and its sub-indices. That said,

the study demonstrates that the responsiveness of the Maltese economy to developments on the global energy markets is relatively much stronger than to developments in the shipping industry. The evidence provided in this study also shows that the energy subsidies provided by the Maltese government helped to reduce the negative consequences on economic activity, and to dampen the inflationary pressures, both directly via the energy sub-component and, indirectly, due to the absence of spillover effects from domestic energy prices onto other categories of the consumption basket, especially food and services.

**Chart 5**  
RESPONSE OF HEADLINE HICP AND ITS SUB-INDICES TO A SHIPPING SHOCK  
(percentages)



Source: Author's calculations.  
Note: The shock is normalised to increase the BDI by 27.44%.

## 4. THE BALANCE OF PAYMENTS

During the fourth quarter of 2022, the current account balance turned into a deficit from a surplus a year earlier. This was mostly due to a widening of the merchandise trade deficit, in part reflecting significant capital expenditure in the aviation sector, and higher net outflows on the primary income account. These offset higher net receipts from services and lower net outflows on the secondary income account.

In the quarter under review, net inflows on the capital account increased when compared to the corresponding quarter of 2021, while on the financial account, net borrowing was recorded as opposed to net lending previously.

The current account balance registered a deficit equivalent to -5.8% of GDP for the year 2022. This compares with a current account deficit of -0.7% of GDP in the euro area.

The cyclically-adjusted current account balance is estimated to have recorded a deficit of -7.6% during the fourth quarter of 2022.

During the fourth quarter of 2022, the tourism sector continued to report gains, with the number of inbound tourists, nights stayed and tourist expenditure in Malta all increasing when compared with a year earlier. Activity levels were still below 2019 levels, however, by November, the level of expenditure exceeded its pre-pandemic level.

### The current account

#### The current account balance turns into a deficit

Between October and December 2022, the current account of the balance of payments registered a deficit of €232.5 million, which contrasts with a surplus of €93.7 million in the same quarter of 2021 (see Table 4.1). This was driven by an increase in the merchandise trade deficit and higher net outflows on the primary income account, which offset higher net receipts from services and lower net outflows on the secondary income account.

**Table 4.1**  
**BALANCE OF PAYMENTS**

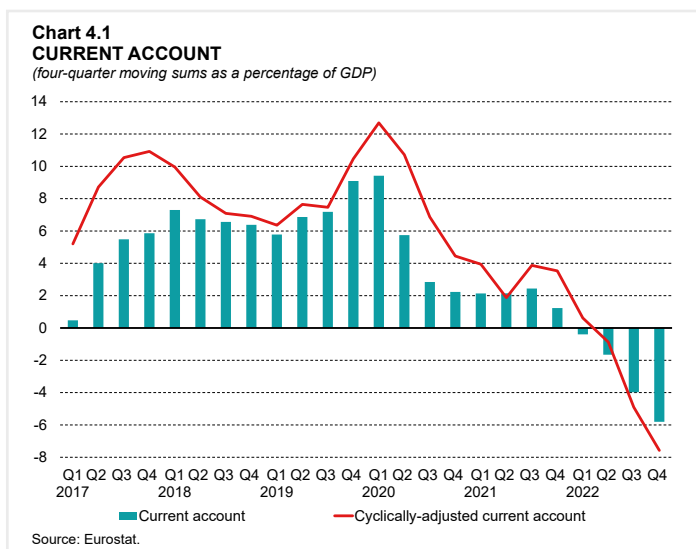
EUR millions

	Four-quarter moving sums					2021 Q4	2022 Q4
	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4		
<b>Current account</b>	<b>184.5</b>	<b>-61.3</b>	<b>-264.5</b>	<b>-653.4</b>	<b>-979.6</b>	<b>93.7</b>	<b>-232.5</b>
Goods	-1,924.8	-2,182.2	-2,510.7	-3,137.7	-3,443.6	-455.9	-761.8
Services	4,106.5	4,229.1	4,580.6	4,822.7	4,889.8	1,068.2	1,135.3
Primary income	-1,725.2	-1,847.0	-1,885.9	-1,940.2	-2,031.6	-465.3	-556.7
Secondary income	-272.0	-261.2	-448.5	-398.3	-394.2	-53.3	-49.3
<b>Capital account</b>	<b>151.7</b>	<b>178.7</b>	<b>203.0</b>	<b>176.8</b>	<b>187.5</b>	<b>64.9</b>	<b>75.6</b>
<b>Financial account<sup>(1)</sup></b>	<b>636.5</b>	<b>-484.0</b>	<b>-262.9</b>	<b>-1,061.0</b>	<b>-1,939.0</b>	<b>216.4</b>	<b>-661.5</b>
<b>Errors and omissions</b>	<b>300.4</b>	<b>-601.3</b>	<b>-201.4</b>	<b>-584.4</b>	<b>-1,146.8</b>	<b>57.8</b>	<b>-504.6</b>

Sources: Eurostat; Central Bank of Malta.

<sup>(1)</sup> Net lending (+) / net borrowing (-).

In 2022, the current account deficit amounted to €979.6 million, as opposed to a surplus of €184.5 million a year earlier. The change in the current account balance into a deficit was spurred by a significant widening in the merchandise trade deficit and, to a lesser extent, higher net outflows on the primary and secondary income accounts. Together, these offset an increase in net receipts from trade in services. As a result, the current account-to-GDP ratio fell to -5.8% from 1.2% a year earlier (see Chart 4.1).

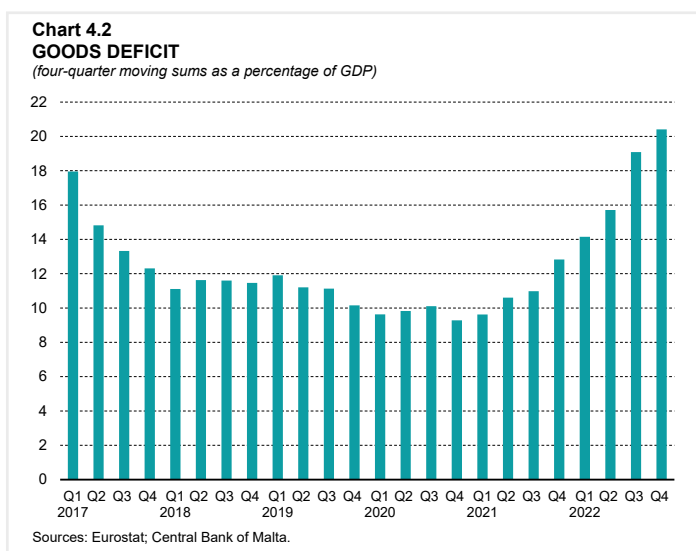


Malta's cyclically-adjusted current account balance is estimated to have stood at -7.6% of GDP in 2022. The cyclically-adjusted measure broadly exhibits similar developments to the unadjusted measure (see Chart 4.1). However, in the quarter under review, it stood below the headline measure reflecting differences between Malta's economic cycle and that of its trading partners.<sup>1</sup>

### The merchandise trade deficit widens

In the fourth quarter of 2022, the merchandise trade deficit stood at €761.8 million, up from €455.9 million in the corresponding period of 2021. This was driven by an increase in imports, which in absolute terms was more than three times the increase in exports. Imports of fuel, and extraordinary capital investment in the aviation sector were the main drivers behind the increase in imports.

The visible trade gap increased significantly when measured on a four-quarter cumulative basis, reaching €3,443.6 million, from €1,924.8 million in 2021. This reflected a €2,112.0 million rise in goods imports which outweighed a €593.2 million increase in exports. As a result, the share of the goods deficit in GDP rose to 20.4% in 2022, from 12.8% a year earlier (see Chart 4.2).



<sup>1</sup> 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.

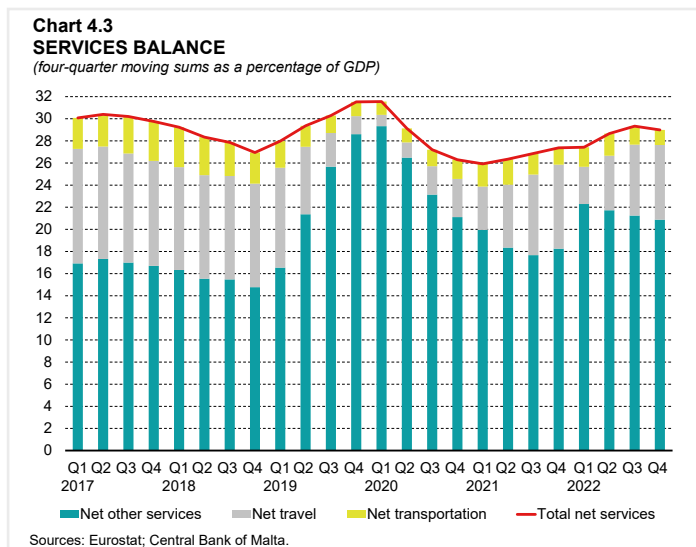
### The surplus on services widens

In the quarter under review, net receipts on the services account amounted to €1,135.3 million, €67.2 million more than in the corresponding period of 2021. Both services exports and imports increased on a year earlier, though the increase in the former was stronger.

The main contributor to the increase in the surplus from services in the fourth quarter of the year was the travel component as tourism exports outpaced expenditure by Maltese residents on travel abroad. This led net travel receipts to increase by €85.3 million. Conversely, net receipts on the transport account fell by €46.4 million when compared with the corresponding quarter of last year.

Net receipts on ‘other services’ increased by €28.2 million, as higher net receipts from personal, cultural, and recreational services, which includes gaming and betting activities, outweighed higher net payments related to ‘other business services’, particularly professional and management consulting services, and technical and trade-related services.

On a four-quarter cumulative basis, the overall surplus from services stood at €4,889.8 million, an increase of €783.4 million over the surplus recorded in 2021. The main contributor to this increase in surplus was again the travel component. The share of net services receipts in GDP rose to 29.0%, from 27.4% over the same period last year (see Chart 4.3).



### Net outflows on the primary income account increase<sup>2</sup>

Between October and December 2022, net outflows on the primary income account stood at €556.7 million, €91.4 million more than in the fourth quarter of 2021. This was largely due to lower net interest receipts from ‘other investment’, which offset a decrease in net income payments related to direct investment and higher net income on portfolio investment.

When measured over the year to December 2022, net outflows on the primary income account declined by €306.4 million, to stand at €2,031.6 million. Flows relating to primary income continued to be strongly influenced by internationally-oriented firms, which transact predominantly with non-residents. Over the year to December 2022, these net outflows amounted to 12.0% of GDP.

### Outflows on the secondary income account decline marginally<sup>3</sup>

In the fourth quarter of the year, net outflows on the secondary income account declined by around €4 million on a year earlier, to stand at €49.3 million.

<sup>2</sup> The primary income account shows income flows related mainly to cross-border investment and compensation of employees.

<sup>3</sup> The secondary income account shows current transfers between residents and non-residents.



Conversely, net outflows on this account increased substantially when measured on a four-quarter moving sum basis. These stood at €394.2 million, equivalent to 2.3% of GDP and €122.2 million more than the amount recorded in 2021.

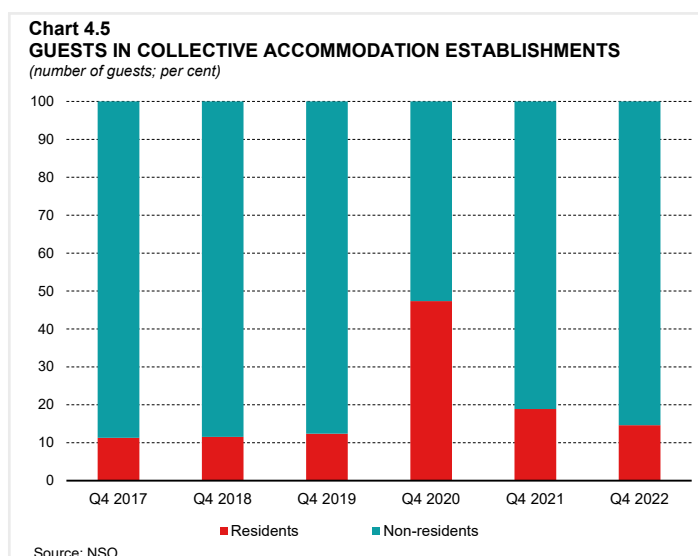
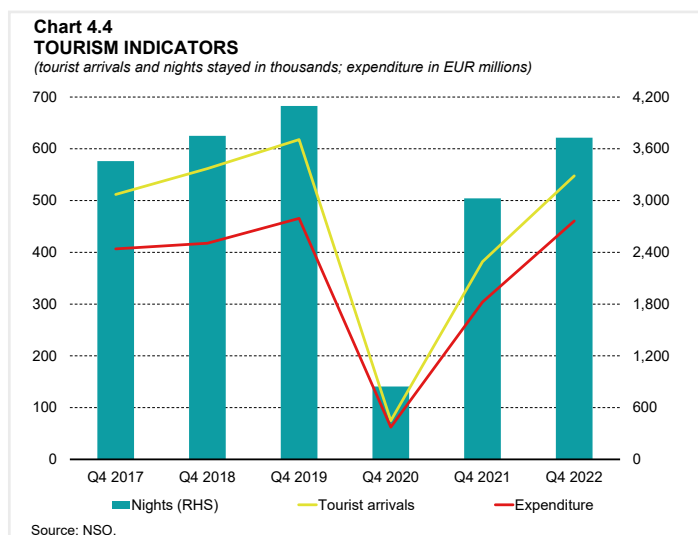
### Tourism activity

In the quarter under review, the number of inbound tourists totalled 547,754, up from 381,902 a year earlier (see Chart 4.4). In absolute terms, tourists visiting for holiday purposes accounted for most of the annual increase in arrivals, even though those visiting for business and other reasons also increased. The number of inbound tourists was, however, still 11.3% less than the level recorded in the fourth quarter of 2019.

The share of non-residents in collective accommodation establishments in the fourth quarter of 2022 continued to increase. It stood at 85.4%, up from 81.1% in the fourth quarter of 2021, though still below the share of 87.6% recorded in the final quarter of 2019 (see Chart 4.5).

The total occupancy rate in collective accommodation establishments in the fourth quarter of 2022 rose to 49.8%, from 40.9% a year earlier (see Chart 4.6). However, it remained below that recorded in the last quarter of 2019, when it stood at 57.1%. All categories reported increases in their occupancy rates over 2021, with the three-star and four-star categories registering the largest increases – of around 11.0 percentage points. The occupancy rate in the five-star category rose by 7.0 percentage points. Meanwhile, the smallest increase – of 3.9 percentage points – was registered in the ‘other’ collective accommodation category. Occupancy rates remained below those prevailing before the pandemic across all category levels, with the most significant gap recorded among five-star hotels.

Tourist expenditure in Malta totalled €460.7 million in the fourth quarter of 2022, up from €304.0 million a year earlier. For the quarter as a whole, total



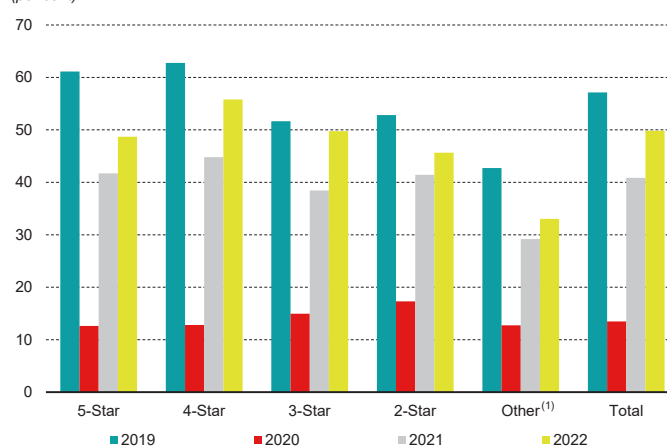
spending was just 1.1% below the level registered in the corresponding period of 2019. When compared to 2021, all expenditure categories registered gains, with the non-package, and 'other' expenditure categories reporting the largest increases in absolute terms. The gap in relation to 2019 narrowed over the quarter such that expenditure exceeded pre-pandemic levels in November.

Since tourism expenditure increased at a faster pace compared with arrivals, expenditure per capita increased to €841.0, from €796.0 in the last quarter of 2021. The average length of stay stood at 6.8 nights, from 7.9 a year earlier. Expenditure per capita exceeded that recorded in the fourth quarter of 2019, as did the average length of stay.

According to Malta International Airport data, in the fourth quarter of 2022, average seat capacity was 10.6% above the level recorded a year earlier, reaching an average of 570,904 seats per month (see Chart 4.7). Nevertheless, seat capacity remained around a fifth below that in the fourth quarter of 2019.

A total of 61 cruise liners visited Malta in the third quarter of 2022, up from 34 one year earlier. Foreign passengers reached 101,797 persons, more than double the number that visited in the final quarter of 2021, but still almost 40% below the number recorded in the corresponding

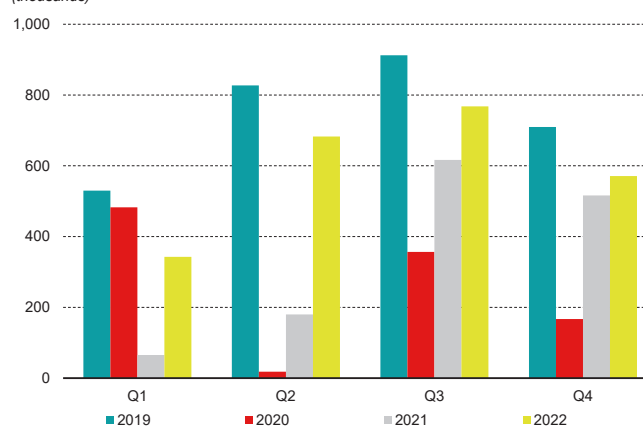
**Chart 4.6**  
**AVERAGE OCCUPANCY RATES IN THE FOURTH QUARTER**  
(per cent)



Source: NSO.

<sup>(1)</sup> Includes guest houses, hostels and holiday complexes.

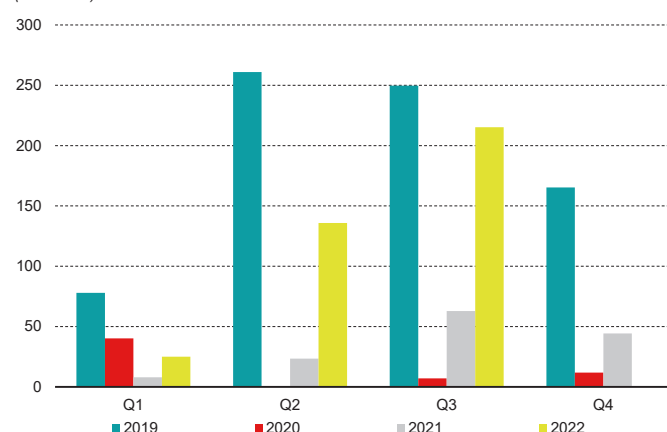
**Chart 4.7**  
**AVERAGE MONTHLY SEAT CAPACITY<sup>(1)</sup>**  
(thousands)



Source: Malta International Airport.

<sup>(1)</sup> Data include schedule and charter seats.

**Chart 4.8**  
**CRUISE LINER PASSENGERS<sup>(1)</sup>**  
(thousands)



Source: NSO.

<sup>(1)</sup> Ports were closed during the second quarter of 2020.

quarter of 2019 (see Chart 4.8). Italian visitors comprised the largest share of total cruise passengers during the quarter under review, followed by visitors from Germany, the United Kingdom and the United States.

### **The capital account**

Net inflows on the capital account stood at €75.6 million in the fourth quarter of 2022, increasing from €64.9 million a year earlier (see Table 4.1). Capital inflows also increased when measured on a four-quarter cumulative basis, standing at €187.5 million in 2022, compared to €151.7 million in 2021.

## 5. GOVERNMENT FINANCE

In the fourth quarter of 2022, the general government deficit widened in level terms when compared to that recorded in the corresponding period of 2021. When measured on a four-quarter moving sum basis, the general government balance registered a deficit of 5.8% of GDP, marginally higher than in the third quarter of 2022, but below the 7.8% registered at end-2021. The general government debt-to-GDP ratio reached 53.4% at end-December 2022; higher than the 52.9% recorded in September, but lower than the 55.1% posted at end-2021. The net financial worth as a share of GDP improved in the quarter under review. Furthermore, the cyclically-adjusted deficit ratio widened.

### Quarterly developments

#### General government deficit widens in the fourth quarter

In level terms, the general government registered a deficit of €323.9 million in the fourth quarter of 2022, an increase of €51.2 million when compared to the deficit registered in the corresponding period of 2021. This was mainly due to a strong increase in government expenditure, which more than offset a rise in government revenue. The primary deficit increased to €279.2 million for the quarter under review, up from €230.8 million in the corresponding quarter of the previous year.

#### Higher tax receipts underpin revenue growth

In the fourth quarter of 2022, general government revenue increased by €73.6 million, or 4.7%, when compared with the same quarter of 2021 (see Table 5.1). This was mainly driven by higher

**Table 5.1**  
**REVENUE, EXPENDITURE AND DEBT**

EUR millions

	2021		2022			Change 2022Q4-2021Q4	
	Q4	Q1	Q2	Q3	Q4	Amount	%
<b>Revenue</b>	<b>1,567.6</b>	<b>1,307.6</b>	<b>1,506.6</b>	<b>1,458.6</b>	<b>1,641.1</b>	<b>73.6</b>	<b>4.7</b>
Taxes on production and imports	414.2	394.9	455.3	471.2	456.0	41.9	10.1
Current taxes on income and wealth	592.4	478.1	597.0	551.3	672.6	80.2	13.5
Social contributions	288.5	229.2	240.5	255.8	265.2	-23.3	-8.1
Capital and current transfers receivable	79.5	56.3	56.9	55.9	83.6	4.0	5.1
Other <sup>(1)</sup>	192.9	149.1	156.8	124.4	163.8	-29.2	-15.1
<b>Expenditure</b>	<b>1,840.3</b>	<b>1,680.8</b>	<b>1,598.5</b>	<b>1,650.6</b>	<b>1,965.0</b>	<b>124.8</b>	<b>6.8</b>
Compensation of employees	447.3	452.5	465.8	458.8	453.2	5.9	1.3
Intermediate consumption	427.6	321.9	350.8	303.8	389.3	-38.3	-8.9
Social benefits	319.8	421.4	352.8	326.4	388.4	68.7	21.5
Subsidies	189.8	160.9	160.9	262.9	264.7	74.9	39.4
Interest	41.9	37.4	42.1	41.7	44.7	2.8	6.7
Other current transfers payable	120.9	133.0	54.5	84.9	189.9	69.0	57.1
GFCF	189.7	121.1	138.8	131.1	172.8	-16.8	-8.9
Capital transfers payable	99.8	28.8	29.3	31.2	64.9	-35.0	-35.0
Other <sup>(2)</sup>	3.5	3.7	3.4	9.8	-3.0	-6.5	
<b>Primary balance</b>	<b>-230.8</b>	<b>-335.8</b>	<b>-49.8</b>	<b>-150.3</b>	<b>-279.2</b>	<b>-48.4</b>	
<b>General government balance</b>	<b>-272.7</b>	<b>-373.2</b>	<b>-91.9</b>	<b>-192.0</b>	<b>-323.9</b>	<b>-51.2</b>	
<b>General government debt</b>	<b>8,263.9</b>	<b>8,651.3</b>	<b>8,595.5</b>	<b>8,695.0</b>	<b>9,003.4</b>		

Source: NSO.

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

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

tax revenue, which was buoyed by strong growth in domestic demand. Receipts from current taxes on income and wealth increased by €80.2 million in year-on-year terms, due to higher inflows from income taxes on households. Moreover, inflows from taxes on production and imports rose by €41.9 million, mainly reflecting higher VAT receipts. Meanwhile, due to timing issues, inflows from social contributions fell by €23.3 million.

Non-tax revenue declined when compared to a year earlier. This was due to a fall of €29.2 million in the 'other' component of government revenue, reflecting lower income from sales.

### *Current expenditure underpins the rise in expenditure*

Total government expenditure increased by €124.8 million, or 6.8% when compared with the fourth quarter of 2021. This increase reflects higher current expenditure, mainly through a significant rise in subsidies, social benefits, and other current transfers. Outlays on subsidies increased by €74.9 million, mainly reflecting costs related to the restructuring exercise and early retirement schemes issued by Air Malta. Spending on social benefits increased by €68.7 million, mainly attributable to increases in outlays on supplementary allowances and in-work benefits. This reflects the introduction of a new COLA-based mechanism to support low-income households, more generous eligibility on the in-work benefit, and revamped administrative procedures.<sup>1</sup> Meanwhile, outlays on current transfers payable rose by €69.0 million, after declining strongly in the previous two quarters.

Outlays on compensation of employees and interest payments increased marginally by €5.9 million and €2.8 million, respectively. Meanwhile, intermediate consumption declined by €38.3 million, largely on the back of lower spending related to public administration.

Capital spending declined during the period under review. Outlays on government investment fell by €16.8 million, mainly attributable to lower outlays on road construction, and on investments in property, plant, and equipment. Furthermore, capital transfers declined by €35.0 million, due to a decrease in outlays on locally-financed initiatives.

### *Debt increases*

In December 2022, the stock of general government debt amounted to €9,003.4 million, €308.4 million higher than the level registered at end-September 2022. This reflects an increase in long-term debt securities outstanding (composed of MGS), which outweighed a decline in short-term debt securities outstanding (composed of Treasury bills). The former rose by €465.0 million due to new MGS issues. As a result, its share in total debt rose by 2.6 percentage points to 76.2%. Meanwhile, holdings of short-term debt securities fell by €166.1 million, and their share in total debt decreased by 2.2 percentage points to 8.9%.

The value of loans outstanding increased by €9.8 million, due to an increase in long-term loans. The share of loans outstanding in total debt stood at 9.6%, down from 9.9% in September.

## **Headline and cyclically-adjusted developments**

### *Headline deficit ratio rises slightly in the final quarter but declines in annual terms*

When measured on a four-quarter moving sum basis, the general government deficit-to-GDP ratio widened slightly by 0.1 percentage point, from 5.7% in the third quarter of 2022 to 5.8% in

<sup>1</sup> In 2022, in-work benefits started being paid to all eligible parents irrespective of application status. Payments are made in arrears.

the quarter under review (see Chart 5.1). This was driven by a 0.5 percentage point drop in the revenue-to-GDP ratio, which reached 35.1%, due to a decline in the share of current revenue in GDP. This drop more than offset a 0.3 percentage point fall in the expenditure-to-GDP ratio, which now amounts to 40.9%. It reflects a 0.4 percentage point decrease in the share of capital expenditure in GDP.

Over the year as a whole, the deficit decreased by 2.0 percentage points from 7.8% at end-2021. This was driven by a declining share of expenditure in GDP, which offset a smaller decline in the revenue-to-GDP ratio.

Between September 2022 and December 2022, debt increased in level terms. During this period, the debt-to-GDP ratio increased by 0.5 percentage point, from 52.9% to 53.4%. The impact of transactions in financial assets and other deficit-debt adjustments on the debt ratio during this quarter was marginal (see Chart 5.2).

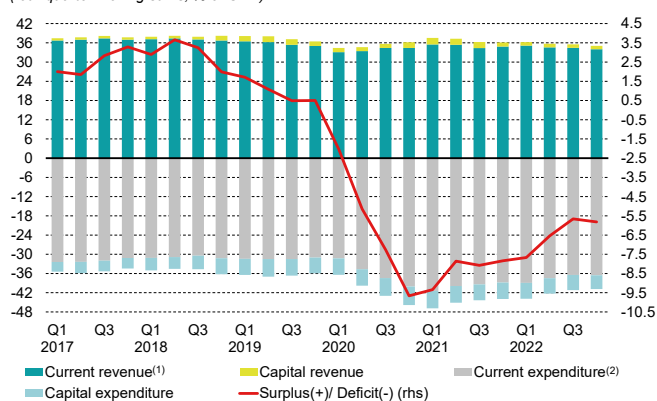
Over the year as whole, the debt ratio declined by 1.7 percentage points, despite the level increase in debt. This is due to significant negative deficit-debt adjustments, mostly from net trade receivables.

### Net financial worth improves relative to GDP

The market value of financial assets held by the general government fell to €4,820.2 million by December 2022, €198.7 million less than the level as at end-September 2022. This was mainly due to a decline in the value of currency and deposits, following a drawdown of deposits held with the Central Bank of Malta. Consequently, the share of financial assets in GDP dropped to 28.6%, from 30.5% in the previous quarter (see Chart 5.3).

The market value of financial liabilities declined by €83.7 million, to stand at €10,318.7 million. This is mainly due to a strong decline in other accounts payable, which was partly offset by an increase in the value of debt securities. Consequently, the share of financial liabilities in GDP

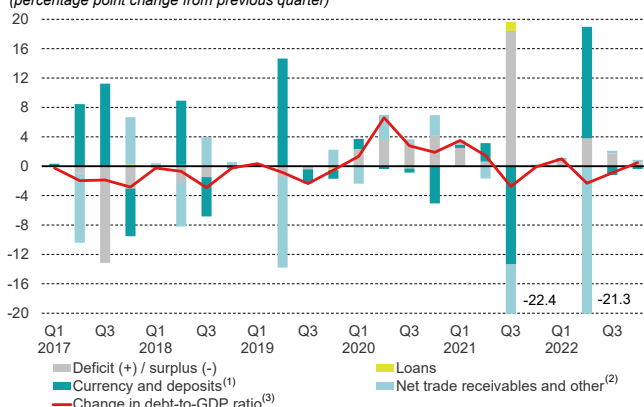
**Chart 5.1**  
**GENERAL GOVERNMENT REVENUE AND EXPENDITURE**  
(four-quarter moving sums; % of GDP)



Sources: NSO; Central Bank of Malta.

(1) 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.  
(2) 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 5.2**  
**CONTRIBUTION TO CHANGE IN DEBT**  
(percentage point change from previous quarter)



Source: Central Bank of Malta.

(1) Composed mainly of transactions in deposits held with the Central Bank of Malta.

(2) Also includes transactions related to shares and other equity and adjustments for valuation and volume effects.

(3) GDP data are four-quarter moving sums.

declined by 2.1 percentage points, to reach 61.2%.

The resulting net financial worth of general government stood at -€5,498.5 million, which is a deterioration of €115.0 million compared to the previous quarter. However, the net financial worth of general government as a share of GDP improved by 0.2 percentage point, standing at -32.6% by end-December.

As a share in GDP, the net financial worth of the euro area improved by 1.5 percentage points compared to September, to -57.0% of GDP. Despite this development, the net worth position of the Maltese general government is still more favourable than that in the euro area.

### *Debt ratio continues to compare favourably with the euro area's*

During the quarter under review, the euro area general government deficit stood at 3.6% of GDP on a four-quarter moving sum basis, up from a deficit of 3.3% of GDP at end-September

(see Chart 5.4). Over the same period, the euro area debt ratio declined to 91.6% of GDP, from 93.0% of GDP in the previous quarter. Over the year as whole, the euro area general government deficit-to-GDP ratio declined by 1.7 percentage points, while the debt-to-GDP ratio decreased by 3.9 percentage points.

In 2022, the Maltese government deficit ratio improved at a faster rate than the euro area's, but remained above it. Malta's debt-to-GDP ratio declined at a comparatively slower pace but remained well below the corresponding ratio for the euro area.

### *Cyclically-adjusted deficit widens<sup>2</sup>*

On a four-quarter moving sum basis, the cyclically-adjusted deficit stood at 5.8% of GDP in the quarter under review, 0.2 percentage point higher than the deficit posted three months earlier (see

<sup>2</sup> 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., Astarita C., and Princen S. (2014): "Adjusting the budget balance for the business cycle: the EU methodology," European Economy – Economic Papers 536, (DG ECFIN), European Commission.

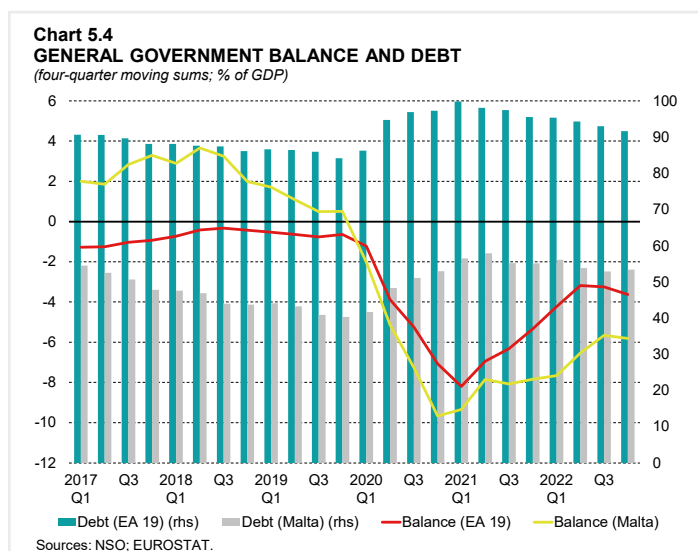
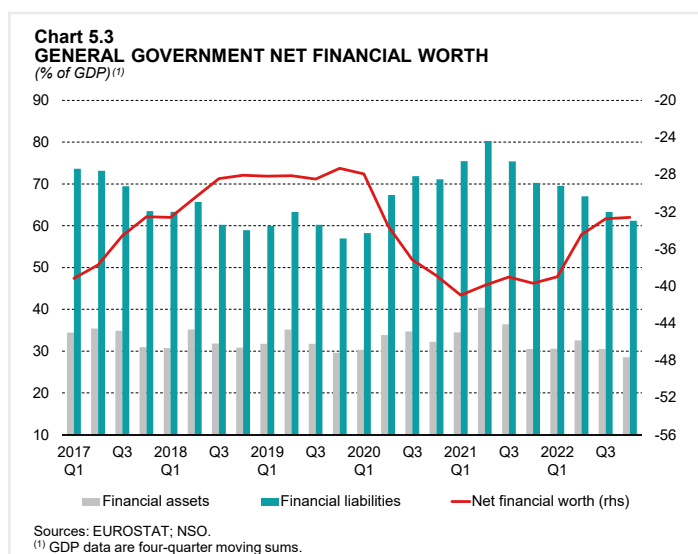




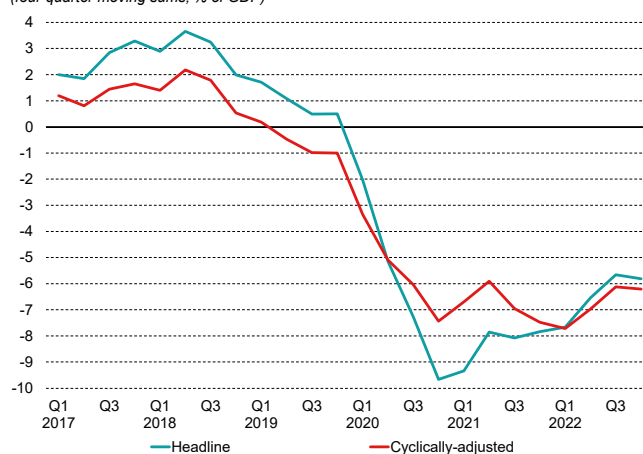
Chart 5.5). This is broadly in line with the 0.1 percentage point increase in the headline deficit ratio over the same period.

Overall, the share of cyclically-adjusted revenue in GDP declined by 0.6 percentage point (see Table 5.2). This was mostly due to a fall in the share of 'other revenues', which declined by around 0.4 percentage point, due to a fall in income from sales. Overall, cyclically-adjusted tax revenue had a marginal contribution to the decline in the revenue ratio.

While the share of social contributions in GDP fell by 0.3 percentage point, this was partly offset by a 0.2 percentage point increase in the share of current taxes on income and wealth.

The share of cyclically-adjusted expenditure fell by 0.5 percentage point. This was mainly due to the decrease in the ratio of intermediate consumption, compensation of employees and government investment. This was partly offset by an increase in 'other expenditure' and social benefits, which rose by 0.4 percentage point and 0.1 percentage point, respectively, due to the aforementioned increases in outlays on subsidies, current transfers and on certain benefits.

**Chart 5.5**  
**GENERAL GOVERNMENT BALANCE**  
(four-quarter moving sums; % of GDP)



Sources: NSO; Central Bank of Malta estimates.

**Table 5.2**  
**QUARTER-ON-QUARTER CHANGES IN CYCLICALLY-ADJUSTED FISCAL COMPONENTS**

Percentage points of GDP

	2021		2022		
	Q4	Q1	Q2	Q3	Q4
<b>Revenue</b>	<b>-0.1</b>	<b>0.0</b>	<b>-0.5</b>	<b>-0.3</b>	<b>-0.6</b>
Current taxes on income and wealth	0.0	0.1	-0.6	0.1	0.2
Taxes on production and imports	-0.3	0.0	0.0	0.0	0.0
Social contributions	0.2	-0.1	0.0	0.1	-0.3
Other <sup>(1)</sup>	-0.1	0.0	0.1	-0.4	-0.4
<b>Expenditure</b>	<b>0.4</b>	<b>0.2</b>	<b>-1.2</b>	<b>-1.1</b>	<b>-0.5</b>
Compensation of employees	0.1	-0.2	-0.2	-0.2	-0.3
Intermediate consumption	0.2	0.1	0.2	-0.3	-0.5
Social benefits	-0.2	0.3	-0.5	-0.3	0.1
Interest payments	0.0	-0.1	0.0	0.0	0.0
GFCF	0.1	-0.1	-0.2	0.0	-0.2
Other <sup>(2)</sup>	0.3	0.2	-0.6	-0.3	0.4
<b>Primary balance</b>	<b>-0.6</b>	<b>-0.3</b>	<b>0.7</b>	<b>0.8</b>	<b>-0.1</b>
<b>General government balance</b>	<b>-0.5</b>	<b>-0.2</b>	<b>0.7</b>	<b>0.9</b>	<b>-0.1</b>

Sources: NSO; Central Bank of Malta estimates.

<sup>(1)</sup> Includes market output, income derived from property and investments and current and capital transfers received.

<sup>(2)</sup> Mainly includes subsidies, current and capital transfers.

## 6. MONETARY AND FINANCIAL DEVELOPMENTS

According to the Bank's FCI, in the fourth quarter of 2022, financing conditions were tight from a historical perspective.

In December, annual growth in Maltese residents' deposits with MFIs in Malta, moderated compared to September.<sup>1</sup> The shift to overnight deposits persisted, amid a continued preference for liquidity. Growth in credit to Maltese residents continued to expand at a strong pace, although the annual rate of change eased compared to September. This reflected a slower increase in credit to general government. Meanwhile, credit to residents outside general government accelerated, reflecting faster growth in loans to NFCs. Growth in loans to households eased slightly in the year to December, as mortgage credit moderated. The weighted average interest rate on deposits stood marginally below its year-ago level, while that on loans increased when compared with a year earlier. Thus, the spread between the two rates widened.

In December, the primary market yield on Treasury bills increased further from that prevailing three months earlier. Secondary market yields on five and ten-year MGS also rose. As the domestic ten-year yield rose at a faster pace compared with the euro area benchmark yield, the spread against the latter widened. Domestic share prices declined between September and December and were also lower compared with a year earlier.

The number of outstanding loans benefitting from guarantees in terms of the MDB schemes was mostly unchanged during the quarter under review.

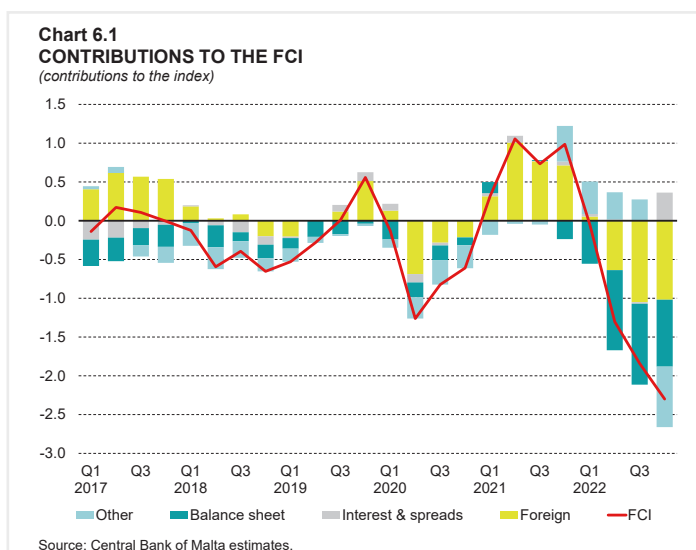
### Monetary and financial conditions

#### Financial conditions tighten<sup>2</sup>

According to the Bank's FCI, in the fourth quarter of 2022, financial conditions were tight from a historical perspective (see Chart 6.1). Indeed, conditions are among the tightest in the last ten years.

Financial conditions worsened compared with the third quarter of 2022, notably reflecting a deterioration in domestic influences. By contrast, the contribution of foreign factors stood slightly less negative.

The additional tightening attributed to domestic factors was driven entirely by the 'other' component, which was affected by a negative contribution from net issues of securities issued by NFCs.



<sup>1</sup> Monetary data analysed in this chapter are compiled on the basis of the statistical standards found in the Statistics section of the Bank's website.

<sup>2</sup> This index is composed of various financial indicators, which are available at a high frequency. This section is based on quarterly averages for each indicator.

By contrast, the 'balance sheet' component had a smaller tightening effect, reflecting a smaller negative contribution from the return on equity and real credit when compared with the third quarter. Furthermore, the 'interest and spreads' component had a loosening effect, as only part of the increases in the ECB's policy rate that began in July 2022 was reflected in domestic lending rates, causing the spread of the latter over the policy rate to narrow considerably in the last quarter of 2022.

Foreign factors were less tight in the quarter under review, mostly reflecting a smaller negative contribution from euro area stock prices.

Financial conditions also worsened considerably when compared to the fourth quarter of 2021. When measured on this basis, the tightening in financing conditions was mostly driven by foreign influences. This reflects both a fall in equity prices, and higher financial market uncertainty over the year to December 2022. Domestic factors also tightened over this period, largely reflecting a decline in the contribution of net issues of NFC securities (part of the 'other' component), and a larger negative contribution from real deposits (part of the 'balance sheet' component). This was amplified by a fall in equity prices (part of the 'other' component), and a widening in the sovereign spread against the German bund (part of the 'interest rate' component).

#### *Maltese residents' deposits expand at a slower pace*

Total deposits held by Maltese residents with MFIs in Malta continued to expand, albeit at a more moderate pace. The annual rate of change stood at 3.0% in December, down from 6.9% in September (see Table 6.1).

**Table 6.1**  
**DEPOSITS OF MALTESE RESIDENTS**

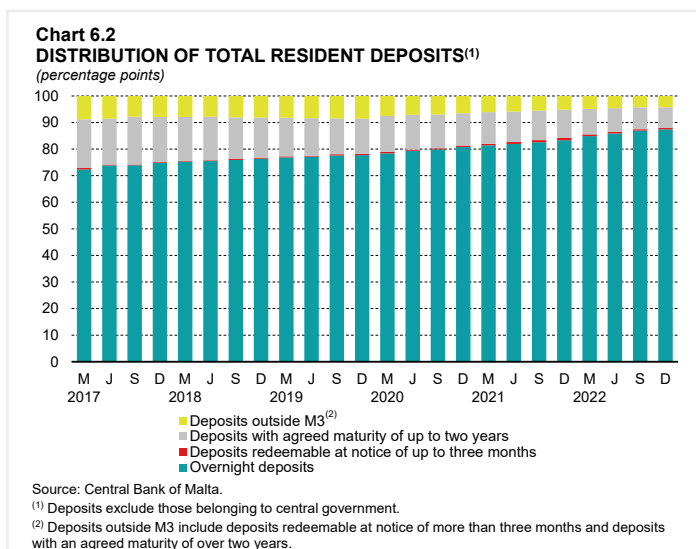
	EUR millions 2022 Dec.	Annual percentage changes				
		2021 Dec.	Mar.	June	2022 Sep.	Dec.
<b>Overnight deposits</b>	<b>20,428</b>	<b>12.3</b>	<b>13.3</b>	<b>13.4</b>	<b>12.7</b>	<b>8.1</b>
<i>of which</i>						
Households	14,020	12.8	14.2	13.4	14.8	12.4
NFCs	4,717	11.2	13.4	10.8	11.0	8.1
<b>Deposits redeemable at notice of up to three months</b>	<b>117</b>	<b>59.9</b>	<b>6.9</b>	<b>-11.9</b>	<b>-36.6</b>	<b>-38.7</b>
<i>of which</i>						
Households	42	14.7	10.7	6.2	3.5	5.4
NFCs	47	67.3	1.8	-27.4	-59.0	-59.5
<b>Deposits with an agreed maturity of up to two years</b>	<b>1,822</b>	<b>-4.3</b>	<b>-12.3</b>	<b>-16.7</b>	<b>-20.4</b>	<b>-24.7</b>
<i>of which</i>						
Households	1,354	-6.2	-13.7	-20.4	-26.7	-27.6
NFCs	191	-12.8	-28.1	3.0	18.0	-3.4
<b>Deposits outside M3<sup>(1)</sup></b>	<b>1,001</b>	<b>-13.9</b>	<b>-13.6</b>	<b>-14.1</b>	<b>-17.1</b>	<b>-14.4</b>
<i>of which</i>						
Households	942	-12.7	-12.6	-11.3	-12.2	-9.6
NFCs	35	-1.1	13.9	-31.2	-43.7	-34.5
<b>Total residents deposits<sup>(2)</sup></b>	<b>23,368</b>	<b>8.8</b>	<b>8.5</b>	<b>8.1</b>	<b>6.9</b>	<b>3.0</b>

Source: Central Bank of Malta.

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

<sup>(2)</sup> Total residents deposits exclude deposits belonging to Central Government.

During the 12 months to December, deposit growth remained driven by overnight deposits, which is the most liquid component. Annual growth in this category of deposits stood at 8.1% in December, below the 12.7% recorded three months earlier. The increase in this component was mainly driven by an increase in households' balances. The share of overnight deposits in total deposits edged up to 87.4%, from 87.0% in September, thereby extending the established upward pattern observed in recent years (see Chart 6.2).



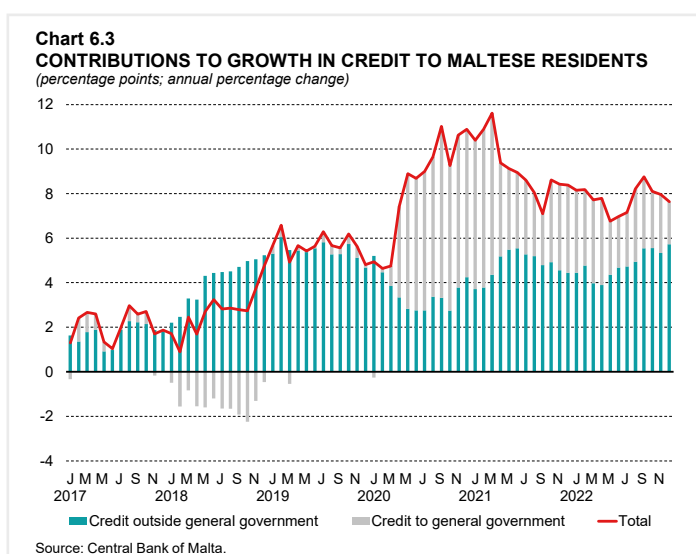
Deposits with an agreed maturity of up to three months fell by 38.7% since December 2021, after contracting by 36.6% in the year to September. Following this decline, their share in total deposits remained broadly unchanged from September's, at 0.5%.

Similarly, deposits with an agreed maturity of up to two years declined by almost a fourth in December, after contracting by 20.4% three months earlier. Meanwhile, deposits classified outside M3 – which are mainly composed of deposits with an agreed maturity of over two years – fell by 14.4%, following a year-on-year decrease of 17.1% in September. As a result, the share of these two categories of deposits edged down compared to September, closing the fourth quarter of the year at 7.8% and 4.3%, respectively.

### *Credit to residents grows at a slower pace*

Credit to Maltese residents expanded by 7.6% in the year to December, below the 8.8% registered in September, reflecting slower growth in credit to general government. This contrasts with a faster increase in credit to residents outside general government (see Table 6.2 and Chart 6.3).

Credit to general government rose by 7.3% in the year to December, following an increase of 12.4% three months earlier. This was largely driven by a smaller increase in MFI



**Table 6.2**  
**MFI CREDIT TO MALTESE RESIDENTS**

	EUR millions 2022 Dec.	Annual percentage changes 2022				
		2021 Dec.	Mar.	June	Sep.	Dec.
<b>Credit to general government</b>	<b>4,815</b>	<b>16.1</b>	<b>14.6</b>	<b>8.7</b>	<b>12.4</b>	<b>7.3</b>
<b>Credit to residents outside general government</b>	<b>13,570</b>	<b>5.9</b>	<b>5.3</b>	<b>6.3</b>	<b>7.5</b>	<b>7.8</b>
Securities and equity	324	11.2	-0.2	0.0	-0.3	-5.8
Loans	13,246	5.7	5.5	6.5	7.7	8.1
<i>of which:</i>						
Loans to households	7,673	9.6	10.0	9.7	9.8	9.4
Mortgages	7,107	10.9	11.4	10.9	10.5	9.8
Consumer credit and other lending	566	-4.2	-4.5	-3.3	1.1	4.8
Loans to NFCs <sup>(1)</sup>	4,631	0.3	-0.7	2.8	5.4	7.8
<b>Total credit to residents</b>	<b>18,385</b>	<b>8.4</b>	<b>7.7</b>	<b>7.0</b>	<b>8.8</b>	<b>7.6</b>

Source: Central Bank of Malta.

<sup>(1)</sup> NFCs include sole proprietors and non-profit institutions serving households (NPISH).

holdings of Government stocks, in line with the issuance profile of MGS. At the same time, MFI holdings of Treasury bills also rose at a slower pace compared to September.

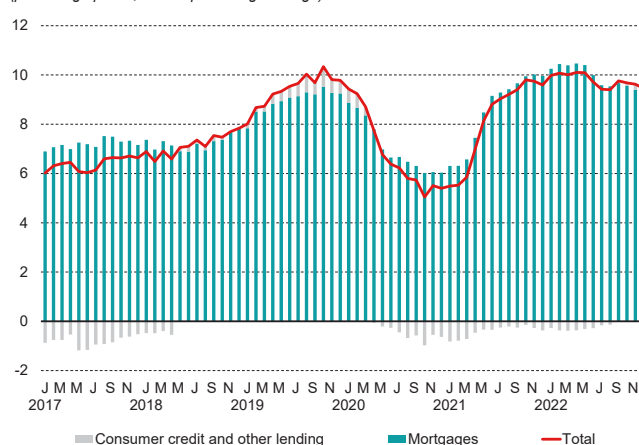
The annual rate of change of credit to residents outside general government reached 7.8%, up from 7.5% three months earlier, reflecting faster growth in loans to the private sector. By contrast, in December, MFI holdings of securities issued by the private sector stood almost 6% below their year-ago level, following a marginal fall in September.

Growth in loans to households eased to 9.4% on an annual basis, from 9.8% recorded in the previous three-month period. Annual growth in mortgage lending moderated to 9.8% in December, from 10.5% in September. By contrast, consumer credit and other lending grew at a faster rate of 4.8%, after increasing by 1.1% in September. Meanwhile, loans to NFCs rose at an annual rate of 7.8%, above the 5.4% recorded three months earlier (see Chart 6.4).

The increase in loans to NFCs over the year to December reflected an increase in loans to private NFCs, as loans to public NFCs contracted over this period.

Sectoral data show that improved dynamics in loans were largely driven by a faster increase in loans to the real estate sector, and to a smaller extent, a recovery in lending to the construction and energy sectors (see Chart 6.5). By contrast, loans to the wholesale and retail trade sector, as well

**Chart 6.4**  
**CONTRIBUTIONS TO GROWTH IN LOANS TO HOUSEHOLDS**  
(percentage points; annual percentage change)



Source: Central Bank of Malta.

as the sector comprising transport, storage, information and communication, increased at a slower pace compared to September. Meanwhile, loans to the accommodation and catering sector decreased at a faster pace.

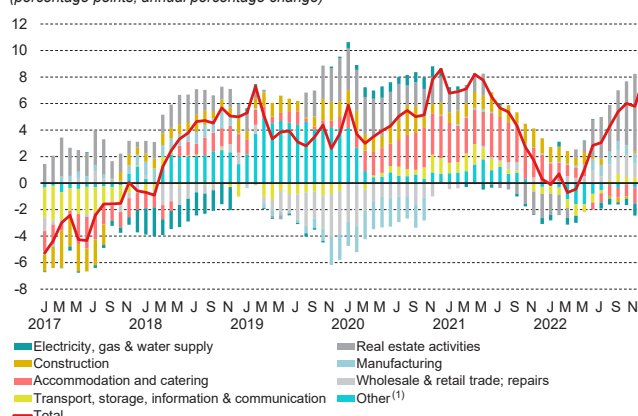
Financial accounts data show that the share of bank lending in total NFC debt was broadly in line with that recorded in September but stood slightly above the share recorded a year earlier (see Chart 6.6). NFCs had been consistently reducing their reliance on bank loans in recent years in favour of alternative sources, mainly intra-sectoral lending, with the share of bank loans in total NFC debt reaching a low of 15.4% at the end of 2019.<sup>3</sup> This ratio increased in the following years, as a result of firms' recourse to loan moratoria and guaranteed loans during the pandemic. By December 2022, the share of bank loans in total NFC debt had reached 17.2%, slightly up from 16.9% at the end of 2021.

The share of intra-sectoral lending in total NFC debt edged up to 51.6% in December, from 51.4% in September. However, it stood below the 52.0% registered a year earlier. The share of loans from non-residents edged up to 13.2% in December, from 13.1% in September and also stood above the 12.9% recorded a year earlier. Meanwhile, the share of securities remained small and eased slightly from that in September, to 3.6%. This compares with 4.1% a year earlier.

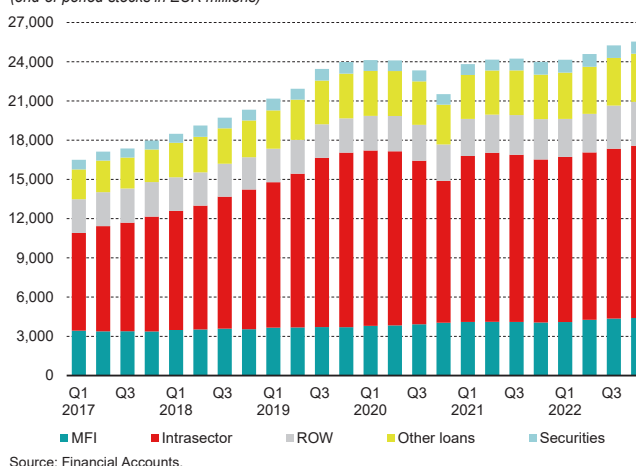
### *Stock of securities of NFCs and financial corporations (FC) listed on Malta Stock Exchange (MSE) increases*

MSE data show that by December 2022, around €1,930.1 million in outstanding corporate debt securities were listed on the Exchange, 14.9% higher than the amount listed a year earlier (see

**Chart 6.5**  
**LOANS TO NFCs BY SECTOR**  
(percentage points; annual percentage change)



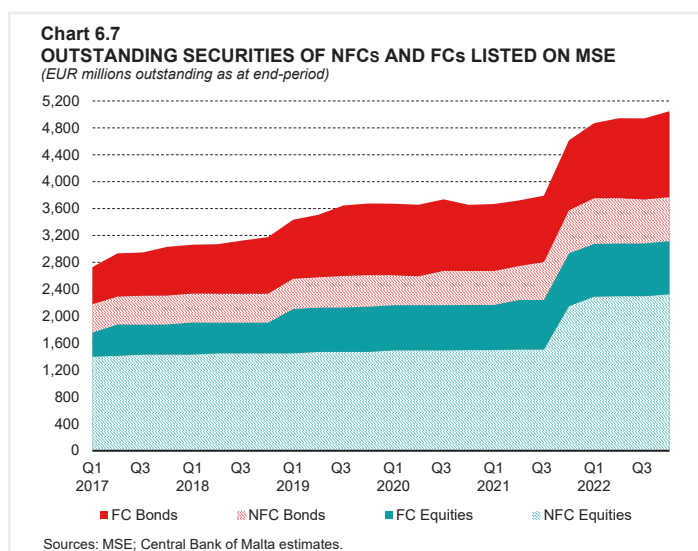
**Chart 6.6**  
**NFC DEBT BY SOURCE**  
(end-of-period stocks in EUR millions)



<sup>3</sup> See Darmanin, J. (2017), "The financing of companies in Malta", Policy Note July 2017, Central Bank of Malta.

Chart 6.7).<sup>4</sup> Around two-thirds of this amount was issued by financial entities other than credit institutions. These also accounted for most of the increase 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 FCs playing a secondary role. The increase over the year to December was mostly driven by NFCs that operate within the real estate and construction. The total amount of outstanding listed equity as at December 2022 exceeded that of bonds by over 61%.<sup>5</sup>



### Spread between deposit and lending rate widens

During the year to December, the weighted average deposit rate offered on outstanding balances held by households and NFCs in Malta eased by 1 basis point, to 0.15% (see Table 6.3).<sup>6</sup> This was largely driven by a further decrease in rates paid on households' saving deposits redeemable at notice, with a maturity of over three months. The rates paid on households' time deposits with a maturity of over two years also edged down compared with 12 months earlier, falling by 4 basis points. By contrast, the rate on households' outstanding fixed deposits with a maturity of up to two years, increased by around 20 basis points, and was accompanied by a broad-based increased in rates on deposits belonging to NFCs.

Meanwhile, the weighted average lending rate paid by households and NFCs to resident MFIs increased by 9 basis points, to 3.32%. This increase was driven by rates paid by NFCs, which also remained above those charged to households, reflecting different assessments of credit risk in the two institutional sectors. This contrasts with a decline in rates on households' outstanding balances.

The spread between the weighted average lending rate and the deposit rate closed the quarter under review at 316 basis points, above the 306 basis points recorded 12 months earlier.

### Liquidity support measures

To alleviate liquidity challenges because of the pandemic, the Government launched the MDB's CGS. This scheme provides guarantees to commercial banks with the aim of enhancing access

<sup>4</sup> MSE data may differ from financial accounts data due to differences in valuation methodology and coverage. In particular, financial accounts data are at market value and include both listed and privately-placed securities. MSE data on corporates presented in Chart 6.7 are based on the official MSE list and thus exclude securities listed through Prospects. Chart 6.7 includes data on NFCs and FCs other than MFIs.

<sup>5</sup> Apart from the official MSE platform, small and medium-sized enterprises can also obtain finance through the specifically-g geared platform – Prospects.

<sup>6</sup> Basis points are rounded to the nearest whole number and hence may not exactly match the figures given in Table 6.3.



**Table 6.3**  
**INTEREST RATES ON DEPOSITS AND LOANS**

*Percentages per annum to residents of Malta; weighted average rates as at end of period*

	2019 Dec.	2020 Dec.	2021 Dec.	2022			
				Mar.	June	Sep.	Dec.
<b>Total deposits<sup>(1)</sup></b>	<b>0.30</b>	<b>0.21</b>	<b>0.16</b>	<b>0.16</b>	<b>0.15</b>	<b>0.14</b>	<b>0.15</b>
<i>of which</i>							
<b>Overnight deposits</b>							
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
<b>Savings deposits redeemable at notice</b>							
Households	0.90	0.49	0.40	0.38	0.38	0.17	0.16
NFCs	0.32	0.17	0.04	0.08	0.08	0.05	0.12
<b>Time deposits (less than 2 years)</b>							
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
<b>Time deposits (more than 2 years)</b>							
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
<b>Total loans<sup>(1)</sup></b>	<b>3.46</b>	<b>3.36</b>	<b>3.23</b>	<b>3.19</b>	<b>3.18</b>	<b>3.25</b>	<b>3.32</b>
<i>of which</i>							
Households and NPISH	3.29	3.21	3.01	2.97	2.96	2.94	2.87
NFCs	3.76	3.61	3.63	3.59	3.60	3.82	4.15
<b>Spread<sup>(2)</sup></b>	<b>3.16</b>	<b>3.15</b>	<b>3.06</b>	<b>3.03</b>	<b>3.03</b>	<b>3.11</b>	<b>3.16</b>
ECB MROs rate	0.00	0.00	0.00	0.00	0.00	1.25	2.50

Source: Central Bank of Malta.

<sup>(1)</sup> Annualised agreed rates on outstanding euro-denominated amounts belonging to households (incl. NPISH) and NFCs.

<sup>(2)</sup> Difference between composite lending rate and composite deposit rate.

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 for up to a total portfolio volume of €777.8 million.<sup>7</sup>

By the end of December 2022, 622 facilities were approved and still outstanding under the CGS, covering total sanctioned lending of €482.6 million, unchanged from the total amount of sanctioned lending in September (see Table 6.4). As the scheme provides guarantees on loans for working capital and loan repayment purposes, the amount actually disbursed may fall short of that sanctioned. In fact, €470.2 million were disbursed by the end of December. Hence, by then, 62.0% of the scheme's target size was sanctioned, while 60.5% was disbursed.

In terms of the number of facilities, the sector comprising wholesale and retail activities had the largest outstanding number of facilities benefitting from the scheme. By end-December 2022, 170 facilities were approved and still outstanding in this sector, with a sanctioned value of €89.8 million. This was followed by accommodation and food services activities, with 146 facilities and a sanctioned amount of €119.0 million.

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 (SLS) 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

<sup>7</sup> The MDB CGS was approved by the European Commission on 2 April 2020. See [MDB CGS](#) for further details.

**Table 6.4****MDB COVID-19 GUARANTEE SCHEME – AS AT DECEMBER 2022***Number of facilities approved and still outstanding; EUR millions*

	As at September 2022		As at December 2022	
	Total number of facilities <sup>(1)</sup>	Sanctioned amount <sup>(2)</sup>	Total number of facilities <sup>(1)</sup>	Sanctioned amount <sup>(2)</sup>
Manufacturing	55	24.5	55	24.5
Construction	34	46.8	34	46.8
Wholesale and retail trade; repair of motor vehicles and motor cycles	170	89.8	170	89.8
Transportation and storage and information and communication	39	45.2	39	45.2
Accommodation and food service activities	146	119.0	146	119.0
Professional, scientific and technical activities	37	20.4	37	20.4
Administrative and support service activities	38	13.7	38	13.7
Real estate activities	17	7.3	17	7.3
Other <sup>(3)</sup>	86	115.9	86	115.9
<b>Total</b>	<b>622</b>	<b>482.6</b>	<b>622</b>	<b>482.6</b>

Source: MDB.

<sup>(1)</sup> The number of facilities taken by various sectors.<sup>(2)</sup> The total number of loans sanctioned under the scheme as at end month, in EUR millions.<sup>(3)</sup> Includes loans to education, health and social work, financial and insurance activities, arts, entertainment and recreation, other services activities and extra-territorial bodies & organisations, and the electricity, gas & water supply sector.

facilities were approved, covering total sanctioned lending of €14.2 million. The outstanding level of disbursements from this scheme stood at €11.8 million.

In June 2022, the MDB launched the Liquidity Support Guarantee Scheme (LSGS), which consists of 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.

### *Bank Lending Survey (BLS) generally indicates broadly unchanged credit standards, terms and conditions*

According to the January 2023 BLS, in the fourth quarter of 2022, participating banks reported unchanged credit standards and terms and conditions for NFCs in Malta. Banks also expected credit standards on such loans to remain unchanged in the first quarter of 2023. As regards the demand for credit by NFCs, half of the respondent banks assessed demand to have remained unchanged in the fourth quarter, with the remaining half saying that it had somewhat increased. No changes in demand were expected for the first quarter of 2023.

Credit standards on loans for house purchases, consumer credit and other lending were assessed to have remained unchanged by all surveyed banks in the fourth quarter of 2022, and

the majority of banks also reported no changes on terms and conditions. All participating banks expected credit standards for consumer credit and other lending to remain unchanged in the first quarter of 2023. In the case of loans for house purchases, credit standards were also generally expected to remain unchanged. Demand for loans for house purchases, consumer credit and other lending was assessed to have remained unchanged by most of the participating banks in the fourth quarter, and all banks were expecting stable demand in the following quarter.

The January BLS also posed ad hoc questions on changes in banks' access to wholesale and retail funding, as a result of the prevailing situation in financial markets. No impacts were reported as regards access to interbank unsecured money markets, debt securities, securitisation, or the ability to transfer risks off balance sheet. However, some effect was reported in terms of access to retail deposits. In particular, half of the participating banks reported unchanged market access to retail funding, with the remaining half reporting more mixed results. This assessment was also reflected in expectations for the first quarter of 2023.

Participating banks claimed that their non-performing loan ratio had not affected their lending policies in the preceding six-month period. They also expect no effects in the six months ahead. 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. The majority of surveyed banks had the same expectations for the year ahead.

Respondent banks were also asked to state how their credit standards, terms and conditions on new loans, and demand for loans have changed across the main sectors of economic activity – namely manufacturing, construction, services, wholesale and retail trade, and real estate. Credit standards and terms and conditions remained unchanged in the past six months and were expected to remain unchanged in the next six months. In general, banks' responses point to unchanged demand conditions. However, in some cases, somewhat lower demand was reported for energy intensive manufacturing sectors, commercial real estate, and wholesale and retail trade. On balance, demand was expected to be stable in the following six months.

### **The money market**

During the fourth quarter of 2022, the Government issued €566.7 million in Treasury bills (before redemptions), €137.3 million less than the amount issued in the third quarter.

In the domestic primary market, the yield on three-month Treasury bills rose further to 2.23% by the end of December, from 0.95% at end-September.

### **The capital market**

During the fourth quarter, the Government issued four new MGS with a total value of €508.5 million. Five private sector institutions also launched new bond issues on the MSE. MedservRegis plc, JD Capital plc and Best Deal Properties Holding plc issued secured bonds worth €13.0 million, €14.0 million and €15.0 million, respectively. Meanwhile, Gap Group plc issued €23.0 million in secured bonds while Von der Heyden Group issued €35.0 million in unsecured bonds.

By the end of December, 21 firms had bonds that were listed on the MSE through Prospects, one less compared with end-September.<sup>8</sup>

In the secondary market, turnover in government bonds nearly doubled to reach €33.8 million, from €17.1 million in the third quarter. Meanwhile, turnover in corporate bonds fell to €15.2 million, from €28.3 million previously.

The yield on five-year bonds rose further to 3.51% at the end of December, from 2.88% three months earlier (see Chart 6.8). The yield on ten-year bonds also increased, reaching 3.91% from 3.65% in September. Meanwhile, the euro area benchmark yield on five-year bonds rose to 2.76% from 2.39%, while the benchmark yield on ten-year bonds increased to 3.00% from 2.81%.

Maltese sovereign yields have been trending upwards, in line with other euro area yields. This reflected the recent increases in ECB policy rates which have transmitted smoothly to sovereign yields.

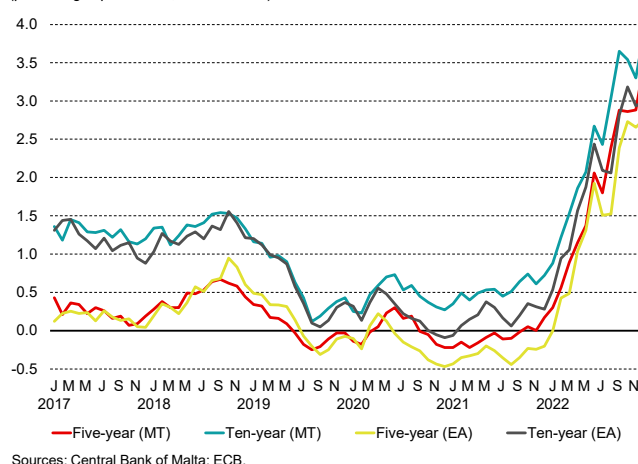
As the increase in the domestic ten-year yield was larger than that in the euro area benchmark yield, the spread against the latter widened to 91 basis points, from 84 basis points in September.

### MSE Share Index declines further

During the fourth quarter of 2022, share prices in Malta fell. The MSE Equity Price Index ended the quarter 2.2% lower than its level at end-September and was 9.9% below its reading a year earlier (see Chart 6.9). Meanwhile, the MSE Equity Total Return Index, which accounts for changes in equity prices and dividends, declined by 3.7% between end-September and end-December.

Equity turnover fell to €6.3 million during the fourth quarter of 2022, from €7.5 million in the previous quarter.

**Chart 6.8**  
**GOVERNMENT BOND YIELDS**  
(percentages per annum; end of month)



**Chart 6.9**  
**MSE EQUITY PRICE INDEX**  
(end of month)



<sup>8</sup> Prospects is a multi-lateral trading facility operated by the MSE with the aim of facilitating access to capital markets for SMEs.

## WOMEN IN THE LABOUR MARKET<sup>1,2</sup>

Joanna Borg Caruana

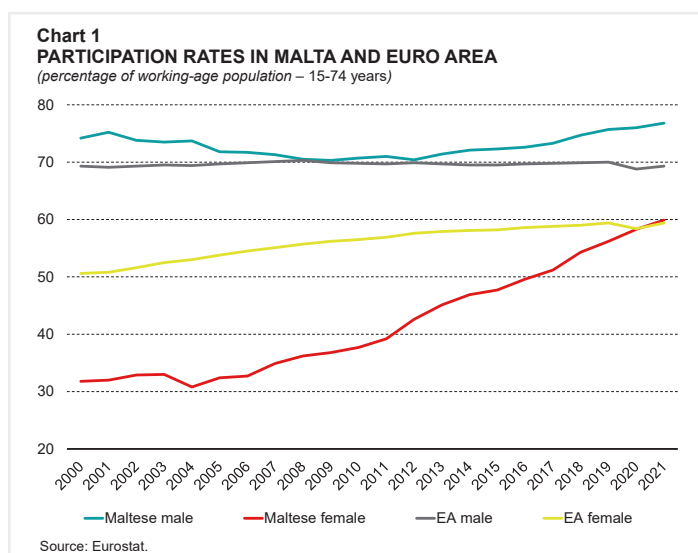
Facilitating female participation in the labour force has become a major social policy target internationally.<sup>3</sup> Additionally, it can impact greatly potential GDP, helping to offset the effect of population ageing (Juhn and Potter, 2006). In 2019, as Chair of the International Monetary Fund, Christine Lagarde (now the President of the ECB) noted that “if women’s employment equalled men’s, economies would be more resilient and economic growth would be higher”.

This article looks at how the Maltese female labour market evolved since 2000. It uses administrative data and information from the LFS to study the driving forces behind the gap between the male and female participation rates, and the main reasons for inactivity amongst females. It also analyses the characteristics of females in employment.

### The developments of the gender participation gap over time

The female participation rate is the share of the active workers (consisting of employed and unemployed women) within the female working-age population.<sup>4</sup> Across Europe, the female participation rate has typically been lower than that for males, and Malta is no exception. Locally, the female participation rate has risen strongly since 2005, reaching 59.9% in 2021, and exceeding the euro area average of 59.4% (see Chart 1). As the male participation rate over this period fluctuated between 70% and 80%, the gap between the male and female participation rates has decreased steadily over time, falling from 42.4 percentage points in 2000, to 16.9 percentage points in 2021. Nevertheless, the gap remains above that in the euro area, where the gap decreased to 9.9 percentage points from 18.7 percentage points in 2000.

The reasons behind the increase in the female participation rate since 2000 could be due to both demand and supply factors. Higher demand for female workers could have been the result of the higher service-oriented employment opportunities (Galor and Weil, 1996), and higher educational attainment of women (Micallef,



<sup>1</sup> Joanna Borg Caruana is a Senior Economist in the Economic Analysis Department of the Central Bank of Malta. The author would like to thank Dr Aaron G. Grech, Dr Brian Micallef, Ms Rita Schembri, Mr John Farrugia and Mr Ian Borg for their helpful comments. Comments from Prof. JosAnn Cutajar from the University of Malta are also gratefully acknowledged. The views expressed in this article are those of the author and do not necessarily reflect those of the Central Bank of Malta. Any errors are the author’s own.

<sup>2</sup> The cut-off date for this article is 20 November 2022, except as otherwise indicated. Figures may differ from those cited in other parts of this *Report* which have a more recent cut-off date.

<sup>3</sup> For instance, it was one of the pillars of the EU 2020 Strategy, the G20 25X25 target and the United Nation’s Sustainable Development Goal No. 8.

<sup>4</sup> Unless otherwise specified, the term working-age population refers to ages between 15 and 74.

2018). Supply-side factors include the introduction of family-friendly policy measures by employers, such as the introduction of flexible work practices, as well as government policies (Micallef, 2018). A series of government measures in Malta have been implemented in the past with the aim to encourage women to remain or return to the labour force (Rapa, 2019). These can be divided into two; those that directly impact disposable income – such as the reduction in national insurance (NI) contribution, the introduction of tax credits, a new parent tax computation, in-work benefits and higher maternity benefits; and those that impact disposable income indirectly – such as increasing maternity and paternity leave, the introduction of partial payment for parental leave, free child-care services, afternoon school programmes, and other schemes to facilitate the return of women to work (see Table 1).

The increase in the number of women in the labour force can also reflect cultural changes such as lower fertility (Micallef, 2018), an increase in the mean age of marriage and that of first childbirth,

**Table 1**  
**GOVERNMENT MEASURES TO ENCOURAGE WOMEN IN THE LABOUR FORCE**

*List of measures*

Direct impact on disposable income	Indirect impact on disposable income
Pro-rata NI Contribution for Part-time Self-Employed Women	Three months of unpaid parental leave for each parent until the child is eight years, to be used in established periods of one month each and is non-transferrable between parents
Tax Credit for women returning to work after having children	Afternoon School Programmes in the Community – Klabb 3-16
New Tax Computation for Parents	Increased parental leave to a period of four months
Increase in the tax deduction to €2,000 for parents sending their children to private childcare centres	Increasing maternity leave to 18 weeks
Reduction in income tax for unemployed women over 40 years who return to work after being inactive for more than five years	Free child-care services for parents in employment or in education
Increasing the maternity benefit rate of self-employed women to the National Minimum wage	Breakfast club to provide care for primary school children between 7:00am and 8:30am
Raising the rate of pay of the last four weeks of maternity from €160 per week to minimum wage	Aligning adoption leave with maternity leave - increasing leave from five to 16 weeks, and then to 18 weeks
The In-Work Benefit scheme to support low-income working parents (2015) as well as families with one working parent	"Access to Employment" Scheme – This scheme provides employment aid to enterprises to promote the recruitment of the more challenged amongst jobseekers and inactive persons
	The setting up of a special fund to finance maternity leave in the private sector in a bid to decrease gender discrimination in employment
	The introduction of Legal Notice (LN) 201 of 2022, transposing the EU Work-Life Balance Directive, includes provisions whereby paternity leave for new fathers, or the second parent, rose to ten days (from one day). Moreover, both parents are now eligible to two months of paid parental leave (at sickness rate) and another two months of unpaid parental leave until the child is eight years. Parental leave has to be used in established periods of two weeks, and two months of them can be transferrable between parents. It also gives parents of children younger than eight the right to request flexible working hours. The LN also allows individuals taking care of sick relatives to take five days of unpaid leave to care for them (instead of utilising their respective sick leave).

Source: Author's compilation.

as well as higher separation and divorce rates (Juhn and Potter, 2006). Developments in the housing market might have also contributed, especially in the increase in household indebtedness (Micallef, 2018).

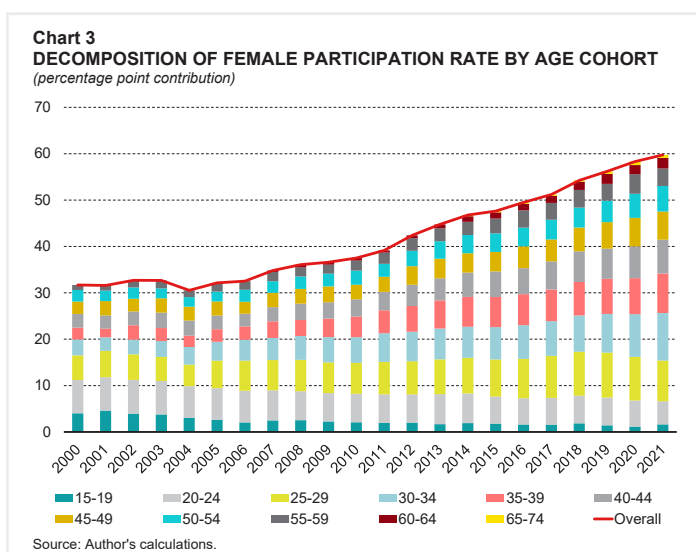
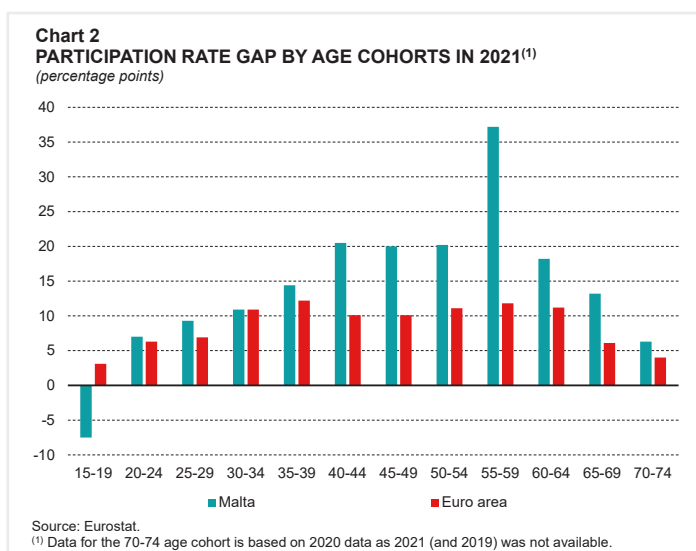
Data by age cohort show that in 2021, the male participation rate surpassed the female rate in most age cohorts. This is illustrated by a positive gap in Chart 2. The largest gap between the male and female participation rates is in the 55-59 age bracket (37.2 percentage points), while the smallest difference is in the youngest cohort, where this tends to fluctuate between positive and negative gaps over time.

The gap in the Maltese labour market seems to exceed that in the euro area across most age brackets, in particular, the 55 to 59 group, but also among those aged 40 to 54. The Maltese participation rate gap seems to be more in line with that of the euro area in younger cohorts.

During 2021, the female participation rate was highest for the 25-29 age bracket at 86.9%. Between 2000 and 2007, the female activity rate peaked slightly before, in the 20-24 age bracket. This could be because the mean age of the first marriage for women was earlier, and there was a higher tendency for women to leave the workforce once they get married or bear children. In fact, in 2021, the male rate peaks later, at 35-39 years, and remains above 90% till the 55-59 age bracket, before abating.

The increase registered by the female participation rate between 2000 and 2021 reflected a strong improvement in the rate of women between the ages of 35 and 39 (55.5 percentage points) as well as those between the ages of 50 to 54 (51.6 percentage points). On the other hand, the participation rates of women between the ages of 15 and 24 declined, in line with the drop in the share of female early school leavers.

From a historical perspective, almost 40% of the female participation rate in 2000 can be attributed to females between 20 and 29 years (see Chart 3).





The share falls at higher age cohorts. This may reflect a tendency for females to exit the labour force once they get married or bear children. Nevertheless, this development seems to have been changing over time, as the 20-29 age group contributed less to the female participation rate in 2021 (23%), while women in their 30s and mid-40s contributed around 44% of the female participation rate, compared to around 30% in 2000. This reflects higher participation of females in the 30 to mid-40s cohorts.

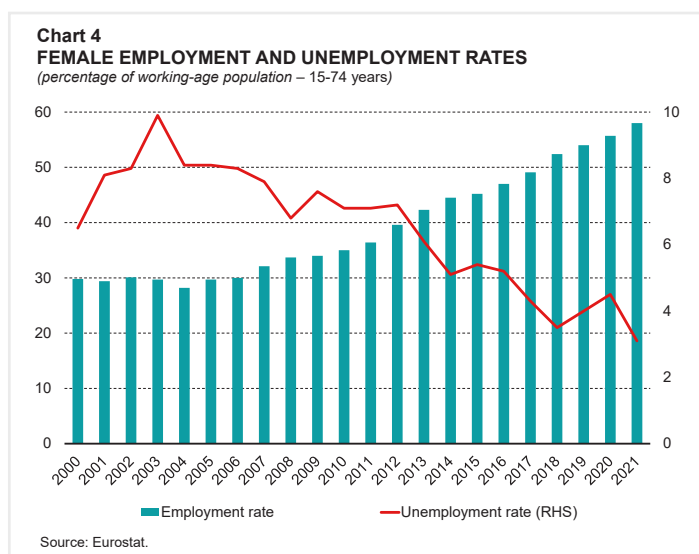
Moreover, the share contributed by older women has increased only slightly. This might reflect the tendency of these women to not have any mortgages. It may also reflect lifestyle choices, as several older women might have been inactive for a number of years and might be unwilling to enter the labour market or gain further skills at this stage in life.

Grech (2020), in fact, showed that for those women in older age categories who were in employment, the response to policy changes, such as the rise in the pension age, was even more pronounced than that seen among men. Older women who are in employment appear to differ from the rest of the women in their cohort, and being a much smaller group than older male workers also tend to be relatively more engaged in higher occupational categories and in professional work.

The one category where female participation is declining is that of females under 20, with the contribution of this age group to the overall female participating rate falling from almost 13% in 2000, to around 3% in 2021. This reflects the increase in young females that are furthering their studies and are not being captured as part of the labour force.

Female participation can also be assessed in terms of employment status (the participation rate is composed of the employed and unemployed). The female employment rate, which is calculated as the share of women in employment as a percentage of the female working-age population, has been on the rise since 2009, reaching 58.0% in 2021, from 29.8% in 2000 (see Chart 4). This reflects the abovementioned demand, supply, and cultural factors at play. Moreover, mirroring the developments in the female participation rate, the female employment rate continued to increase even during 2020 and 2021.

After reaching a high of 9.9% in 2003, the unemployment rate for women has been generally on a downward trend, except for a spike recorded following the financial crisis in 2009, and another one which began in 2019 and continued to rise in the following year due to the COVID-19 pandemic. Nevertheless, by 2021, the unemployment rate for women returned to its downward path and hit a historical low of 3.1%.



The Maltese female unemployment rate was always lower than that of the euro area, which stood at 8.1% in 2021.

On the other hand, the Maltese female unemployment rate was generally higher than that of males up to 2012. Since the following year, the gap between these two rates has been either zero, or fluctuating between small negative and positive gap rates, suggesting that female employment have benefited from the economic expansion of the last decade in a broadly similar way to males. In 2021, the female unemployment rate stood 0.5 percentage point lower than that of males.

From the above analysis it is clear that even though the female participation rate has risen strongly, and the respective unemployment rate has declined, significant gaps with males remains in terms of participation, especially in the over 40s age brackets. Nevertheless, the recent pandemic showed that the female labour force seems to be as resilient as that of males during turbulent economic times.

### Reasons for inactivity in the female population

Although it has decreased steadily over time, the female inactivity rate – which measures the percentage of women who are not employed, unemployed or actively seeking work – remains substantial. The rate declined from 68.2% in 2000 to 40.1% in 2021, for the 15 to 74 age bracket. Although the gap between the male and female inactivity rate narrowed over the years, in 2021 the female inactivity rate stood almost 17 percentage points higher than that of males, translating to 76,700 inactive females compared to 49,500 inactive males.

The Maltese female inactivity rate always stood higher than the euro area average, but the gap started to narrow since 2007. In 2021, the Maltese rate stood half a percentage point lower than that of the euro area. During that year, the female inactivity rate in Malta was lower than that in France, Belgium, Croatia, Greece, and Italy, but was higher compared with the rest of the euro area. The largest gap was registered with the Netherlands, Estonia, and Lithuania, where the inactivity rate stood at 30.3%, 32.2% and 32.7%, respectively.

The inactive population can be categorized into those that are willing to work and those that are not. Most inactive females are not actively searching for employment. In 2021, this figure stood at 72,900, or 95.4% of inactive women. This share rose by 3.6 percentage points since 2000, less than half the increase registered by males over the same period. In fact, the share of males rose by 8.2 percentage points to 97.8% in 2021.

In 2021, the majority of inactive females across all age categories were not willing to work, with the share being highest in the 50 to 74 age bracket, at 99.0%, which is equivalent to around 47,900 women. As noted in the previous section, most of these inactive women may have been out of the labour market for a very long time, or else might not have entered the labour force at all. Moreover, they are less likely to be burdened with mortgages, and with the children all grown up, they will have less need to work.<sup>5</sup>

The 15 to 24 age bracket has a slightly lower share of inactive females that do not want to work than the previous cohort, at 91.2%, equivalent to around 10,300 females. The women falling in

<sup>5</sup> The 50-74 age bracket also includes persons of pensionable age. Although the Government has provided a number of incentives aimed at encouraging such persons to remain in employment, some may still feel uncompelled to work.

this group are mainly students. The age bracket with the lowest share of inactivity is that between 25 to 49 years at 87.5%, equivalent to 14,700 women.

A survey by Azzopardi and Bezzina (2014) on female homemakers reveals that reasons for inactivity can be categorized into four – the home environment, discouraged workers, unwillingness to work due to cultural factors and those who are informally active.<sup>6</sup> According to the authors, the first category is the most common reason behind inactivity amongst women. The home environment includes any personal or family constraints, such as caring for children, the elderly or the disabled, own illness or disability, early retirement, as well as those that are studying. In fact, LFS data confirm that these categories together account for around 80% of inactive women who are willing to work in 2019 and 2020, which is much higher than that calculated for the euro area (see Table 2).<sup>7</sup>

Within the home environment category, the most prominent cause of inactivity is ‘other family or personal reasons,’ which was mentioned by 26.3% of inactive females willing to work in 2019 but rose to 31.5% during the first year of the COVID-19 pandemic. Another large group is those females that are inactive because they are in education or training, which stood at 27.7% in 2019 of inactive women that were willing to work but moderated slightly in the following year. Less than

**Table 2**  
**REASONS FOR BEING INACTIVE BUT WILLING TO WORK<sup>(1)</sup>**

*Percentage of inactive population but willing to work*

	Females		Males	
	2019	2020	2019	2020
<b>Malta</b>				
Lay-offs	-	-	-	-
Other family or personal reasons	26.3	31.5	-	-
Care of adults with disabilities or children	19	15.9	-	-
Education or training	27.7	24.5	61.3	39.9
Own illness or disability	7.4	7.1	13.6	-
Believing no job available	-	-	-	-
Other reason	16.8	16.1	22.3	34.4
No response	-	-	-	-
<b>Euro area</b>				
Lay-offs	1.4	2.6	2.4	3.8
Other family or personal reasons	9.7	7.0	3.5	2.5
Care of adults with disabilities or children	19.1	17.8	2.4	2
Education or training	15.7	16.4	21.4	20.6
Own illness or disability	12.6	11.1	17.4	14.7
Believing no job available	18.7	16.4	20.5	18.5
Other reason	21.8	27.6	30.7	36.4
No response	1.1	1.1	1.7	1.5

Source: Eurostat.

<sup>(1)</sup> Figures in columns may not add up to 100 due to rounding and missing data for certain categories. Data for 2020 may be affected by the impact of COVID-19 pandemic on the labour market.

<sup>6</sup> This study covers female homemakers with ages between 23 and 65 years.

<sup>7</sup> Data for 2021 are not available for all categories.

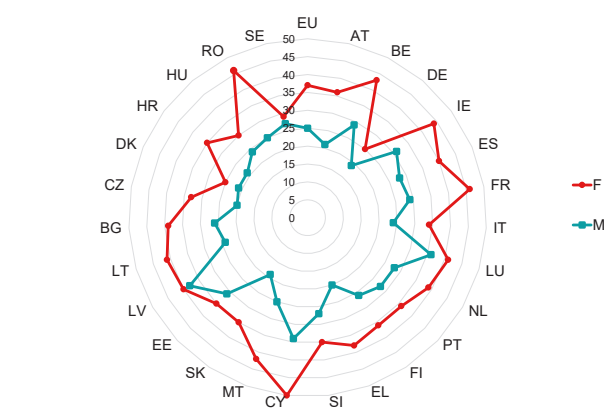
20% of inactive females willing to work attributed their inactivity to the care of adults with disabilities or children. This share fell to 15.9% in 2020. The smallest group was those inactive due to own illness or disability.

This pattern differs from that of males. Data for 2019 shows that over 60% of inactive males willing to work attributed their inactivity to education and training, while the rest are inactive partly due to illness or disability.<sup>8</sup> In fact, Azzopardi and Bezzina (2014) highlighted that although unpaid parental leave is available, it is the female who is most likely to be the main child-carer.

The reason for female inactivity due to personal reasons or caring for family members seems to be much stronger in Malta when compared to the euro area. The percentage of Maltese females who remain inactive due to education and training also exceeds that of the euro area. On the other hand, inactivity due to own illness or disability is somewhat less prevalent than in the euro area.

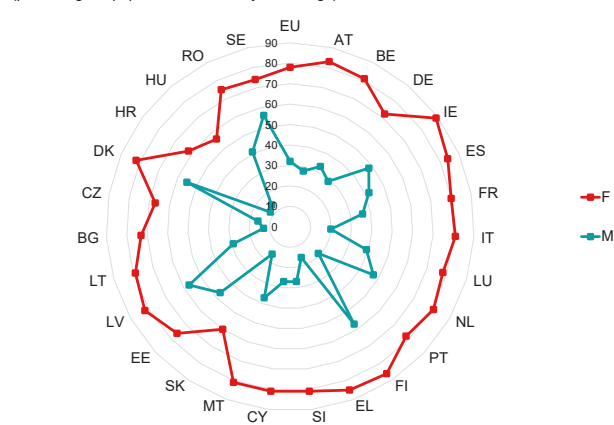
The time-dimension of the Gender Equality Index, published in 2022 by the European Institute for Gender Equality (EIGE) supports the above argument through two indices that focus on the “caring activities” dimension.<sup>9</sup> One of the indices focuses on caring and educating children, grandchildren, elderly or people with disabilities (see Chart 5) and another one that looks at cooking activities and housework (see Chart 6). From these two indices it is clear that European women were participating more in caring and education activities as well as cooking and household work than males, with gaps between males and females being heterogeneous across countries. Malta is among the countries with the largest gap between genders in caring and educating dependents – with a

**Chart 5**  
**PEOPLE CARING AND EDUCATING THEIR CHILDREN OR GRANDCHILDREN, ELDERLY OR PEOPLE WITH DISABILITIES**  
(percentage of population above 18 years of age)



Source: European Institute for Gender Equality.

**Chart 6**  
**PEOPLE DOING COOKING AND/OR HOUSEWORK**  
(percentage of population above 18 years of age)



Source: European Institute for Gender Equality.

<sup>8</sup> Data for Malta for 2020 were not available for males on all the categories, suggesting that the number of males falling under these categories is small.

<sup>9</sup> For the index refer to [Malta | Index | 2022 | Gender Equality Index | European Institute for Gender Equality \(europa.eu\)](https://eige.europa.eu/gender-equality-index). Due to an absence of updated data, the time dimension for Malta is based on 2016 data.

17 percentage points difference, together with Romania (21 percentage points), Greece (18 percentage points), Lithuania (17 percentage points) and France (17 percentage points). The European average gap for this index is 12 percentage points.

On the other hand, the gender gap on cooking and housework for Malta stood at 44 percentage points, in line with the European average of 46 percentage points. The highest gap can be found in Greece (69 percentage points) and Italy (61 percentage points) while the smallest gap can be found in Sweden (18 percentage points) and Latvia (25 percentage points).

Besides the home environment, Azzopardi and Bezzina (2014) noted three other reasons behind inactivity amongst female homemakers. One issue could be the discouraged worker effect, referring to workers that think that there is no suitable job for them. Although no data for Malta is officially available from Eurostat, as noted in Table 2, this issue accounts for a significant share of inactivity across the euro area. These women might be discouraged to look for work due to lack of skills that they might have and might be disheartened to further their education.

Women who are informally active can also be classified as ‘inactive’. These females might have temporary or occasional jobs which tend to be not registered in an official way and therefore, cannot be counted as “employed” in national statistics. Although no official data is available specifically for this category, a factsheet by the European Commission (2017) noted that inactive female workers tend to participate in household services such as cleaning, and also help run family businesses. This determinant of inactivity would be captured in the “other reasons” category featured in Table 2. This category represents a lower percentage of the inactive population amongst women compared to men. Moreover, it is also lower than that for females in the euro area.

Another reason behind joblessness is unwillingness to work. In case of females, Azzopardi and Bezzina (2014) note that it could be related to cultural beliefs that a woman should stay at home. This category might also incorporate women that come from families with strong financial wealth or have no loans or mortgages, and therefore it is unnecessary for them to work, and others that have been out of the labour force for a very long time and see no need to re-enter the labour market.

### The main characteristics of women in employment

The number of women in actual employment over the age of 15, during 2021, stood at around 110,900, which is 41% of total employment.<sup>10</sup> This number of female workers is almost triple that registered in 2000, which stood around 43,500, when it covered 30% of total employment in the labour market.

#### Full-time and part-time employment

More than three fourths of employed women in 2021 – around 88,900 – were employed in full-time jobs, while the rest (22,000) were in part-time employment as their main occupation (see Chart 7).<sup>11,12</sup> The number of females working part-time as a primary job was almost double that of males, which stood at 11,500 in 2021. Nevertheless, the share of females working part-time has been on a declining trend since 2015, as more women are choosing to work full-time.

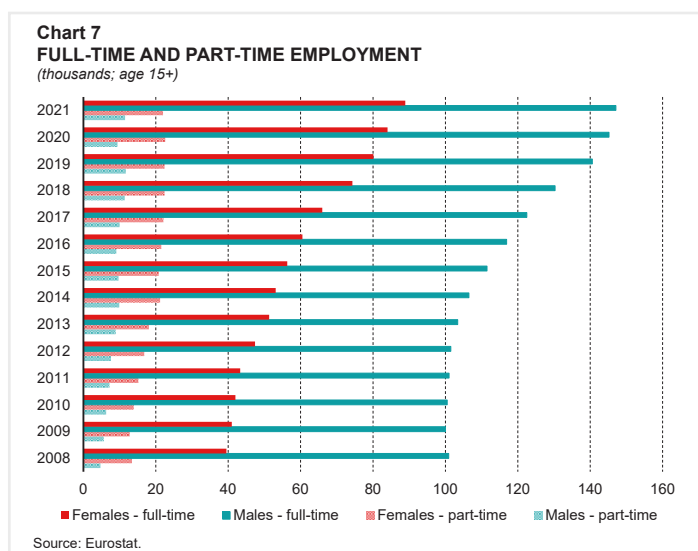
<sup>10</sup> This section makes use of employment data for the age cohort 15+.

<sup>11</sup> In the LFS data, part-time employment includes workers whose working hours in their main occupation are less than those of full-time workers, including also those employed on a full-time with reduced hours basis.

<sup>12</sup> There is no data on part-time employment as a secondary job in LFS data.

From Chart 7 it is evident that both the level of full-time and part-time female employment continued to rise despite the pandemic. While the full-time jobs of males also continued to increase, the number of male part-time jobs dipped in 2020, although the latter had almost completely recovered by the following year.

The reasons for women choosing to work part-time jobs vary across ages. According to the LFS, in 2021, 80% of young females falling in the 15 to 24 age bracket were primarily working part-time to supplement their income during their studies. This share was much lower in the past, as young females also faced difficulty in finding full-time employment. The principal motivation for working less hours for women between 25 and 49 years was always due to family or personal reasons, as well as caring of adults with disabilities or children.



### Employment by sector

Almost 92% of employed women work in the services sector, which employs around 101,800 females. This number is more than three times that registered in 2000, when the services sector had about 32,400 females in employment. This pattern was also observed in other developed economies, and over different periods in time. Moreover, once women began to outsource certain household work and childcaring, it was easier for these jobs to be filled by women (Ngar and Petrongolo, 2013). Therefore, these skills give women a comparative advantage to males in services-oriented jobs.

The sectors with the largest number of women in 2021 were the sectors of human health and social work activities, the education sector and the wholesale and retail industry. These sectors accounted for around 43% of all women in employment.

The sectoral distribution of women in full-time and part-time jobs is slightly different, as the presence of women in part-time employment is stronger than that in full-time.

The industry with the highest share of females in its labour complement of full-time jobs during 2021 was the “other services” sector, which had 70% of its jobs filled by females, equivalent to around 5,000 employees (see Chart 8).<sup>13</sup> Other sectors with more than 60% of their full-time workers being female include education (66%, equivalent to 13,900 women) and human health and social work activities (64% of workers, equivalent to 15,700 females). Other sectors with high female engagement in full-time jobs include the wholesale and retail sector (9,300 women – 33%

<sup>13</sup> The “other services activities” sector includes activities in business, employers and professional membership organisations, activities in trade unions and other organisation such as religious and political organisations. It also includes the repair of computers, personal and households goods and other personal services activities which are not elsewhere classified, such as washing and (dry-)cleaning of textiles and fur products, hairdressing and other beauty treatment, funeral and related activities.



of all full-time staff) and financial and the insurance industry (about 6,900 women – 49% of all full-time staff).

This contrasts with the structure of the female labour market in the early 2000s. In fact, in 2000, the industry with the highest share of females working full-time jobs was the education sector, where 53% of workers were women. This was followed by financial intermediation (with a share of 48%) and the sector of health and social work (37%).

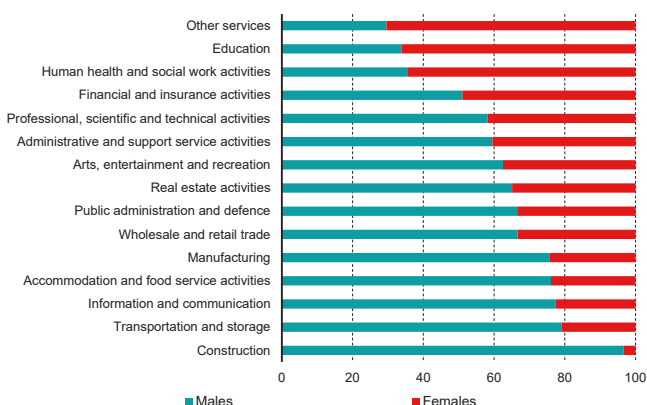
The majority of sectors offering part-time jobs tend to rely more on females than males (see Chart 9). During 2021, the ‘other services’ sector had the largest share of part-time jobs that were taken up by women. Women made up around 94% of part-time employment in that sector – around 1,700 females. Other sectors that have more than two-thirds of their part-time workers being females include the human health and social work sector (82%), financial and insurance activities (76.5%), the administration and support services (73.3%), wholesale and retail trade (69.8%), and arts and entertainment (69.2%).

In the early 2000s, the dominance of women in part-time employment was stronger in certain sectors than it was in 2021. In fact, the education sector was reported to have almost the entire part-time workforce being female. Part-time work in the health and social work sector was always predominantly female, with the share of females standing at 85% in 2000, very close to the rate registered for 2021. Other sectors with a high dependence on female part-timers included ‘other services’ (around 75%), wholesale and retail trade (64%), and real estate (57%). In the manufacturing sector, financial intermediation and the public sector, the part-time complement was more or less evenly distributed between males and females.

### Foreign workers

Administrative data on the labour market in Malta show that it has a sizable pool of female foreign nationals. This has been increasing strongly over time, rising from an average of 571 workers in 2000

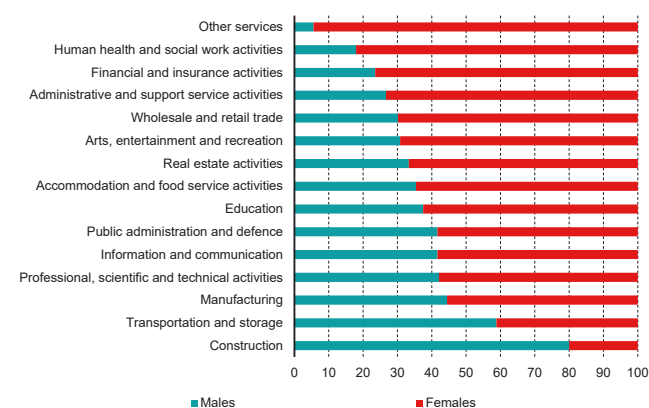
**Chart 8**  
**FULL-TIME EMPLOYMENT BY GENDER IN 2021<sup>(1)</sup>**  
(per cent)



Source: Eurostat.

<sup>(1)</sup> Note that no data is available for females employed in the Energy sector and in the Agriculture, Forestry and Mining sector in 2021.

**Chart 9**  
**PART-TIME EMPLOYMENT AS A PRIMARY JOB BY GENDER IN 2021<sup>(1)</sup>**  
(per cent)



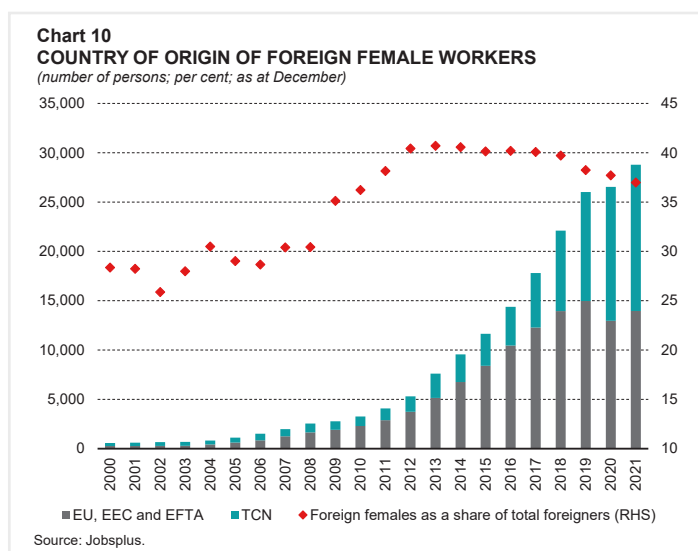
Source: Eurostat.

<sup>(1)</sup> Note that no data is available for females employed in the Energy sector and in the Agriculture, Forestry and Mining sector in 2021.



to an average of 28,784 workers in 2021 (see Chart 10).<sup>14</sup> This number did not fall during the pandemic, although its rate of growth moderated significantly. After growing at a double digit rate for a number of years, the number of female foreign workers rose by just 2% in 2020. It then increased by 8% in 2021.

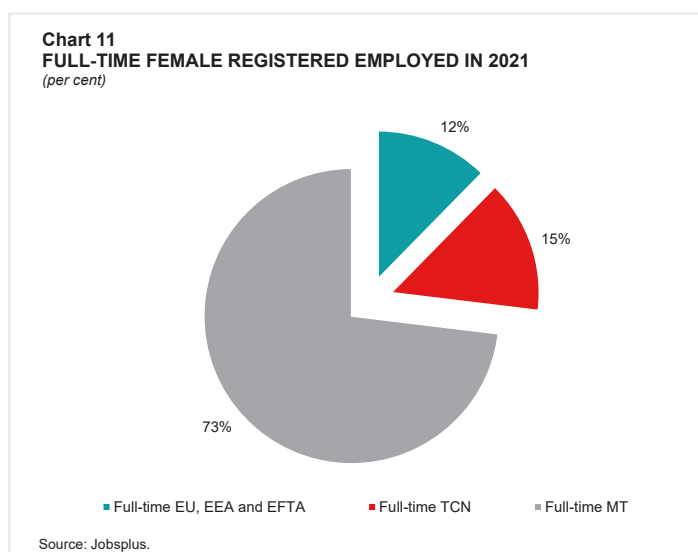
The share of females in the total employment of non-nationals stood at 28% in 2000 and rose to a high of 41% by 2013, where it remained around that rate before moderating in the last three years to 37% in 2021.



Administrative data for gainfully occupied females show that between 2000 and 2003, the number of third-country nationals (TCNs) was slightly higher than that of European workers (European Union, European Economic Area (EEA) and European Free Trade Association (EFTA)). Nevertheless, once Malta joined the European Union, free mobility made it easier for EU-workers to come and join the domestic labour market. Indeed, by 2016, the share of European (including the UK) female workers rose to a high of 73% of foreign women workers in Malta. More recently, however, the share of females from TCNs was rising much faster than those from the European Union. This trend was compounded since 2020, partly because workers from the United Kingdom started being considered as TCNs due to Brexit. In 2021, 48.5% of non-Maltese women working in Malta were European Union, EEA and EFTA nationals.

The majority of non-Maltese women working in Malta have a full-time occupation. After reaching almost 93% in 2008 from 89% in 2000, this share started to decline. It fell to around 78% by 2014, before rising again to 89.7% in 2021.<sup>15</sup>

Foreign females accounted for almost 27% of all women in full-time employment, while the share in part-time employment stood at 16% (see Charts 11 and 12). Furthermore, in the case of full-time jobs, these are



<sup>14</sup> The administrative data from Jobsplus cannot be compared to the LFS data due to diverse method of collection.

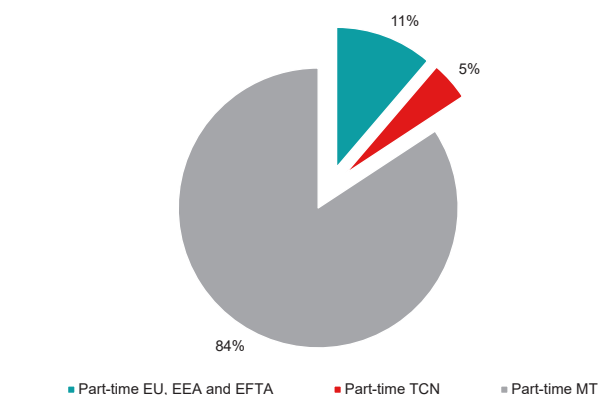
<sup>15</sup> The administrative data in this section refers to part time as a primary job.

characterised by a more even split between TCNs (including the United Kingdom) and European Union and other European nationalities, whereas the latter dominate part-time jobs held by foreign women.

According to administrative data by sector, the largest number of non-Maltese women with a full-time job in 2021 could be found in the administrative and support services sector. These amount to almost 4,000 women, with more than two-thirds coming from TCNs (including the United Kingdom) (see Chart 13). This was followed by human health and social work activities, with around 3,400 foreign females. The sectors of accommodation and the food services as well as arts and entertainment employ around 3,000 non-Maltese females each in full-time jobs, while the sector comprising professional, scientific and technical activities employs slightly less, at about 2,800. All of these sectors, with the exception of the arts and entertainment sector, as well as the sector comprising professional, scientific and technical activities, employ more than half of their foreign female workforce from TCNs.

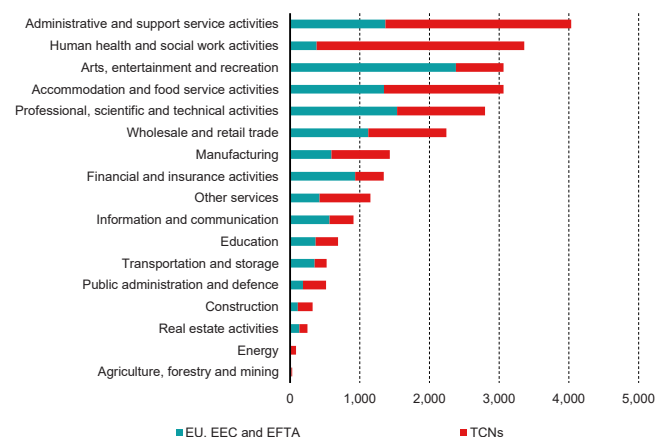
The sector with the largest number of non-Maltese women working in part-time employment in 2021 was accommodation and food services activities, with more than 630 women (see Chart 14). This was followed by the wholesale and retail trade

**Chart 12**  
**PART-TIME FEMALE REGISTERED EMPLOYED IN 2021<sup>(1)</sup>**  
(per cent)



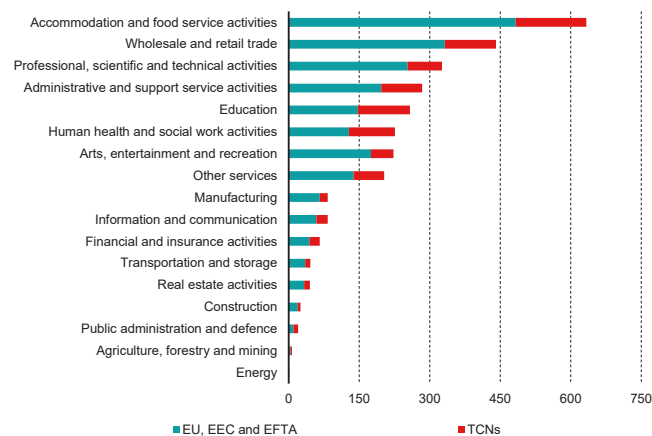
Source: Jobsplus.  
(<sup>1</sup>) Part-time as a primary job.

**Chart 13**  
**FULL-TIME FOREIGN FEMALE WORKERS BY SECTOR IN 2021**  
(number of persons)



Source: Jobsplus.

**Chart 14**  
**PART-TIME FOREIGN FEMALE WORKERS BY SECTOR IN 2021**  
(number of persons)



Source: Jobsplus.

industry, which employed more than 440 non-Maltese females, and the professional, scientific and technical industry with almost 330 persons. A slightly lower number of non-Maltese women were employed in the administrative and support services activities as well as the education sector. All these industries had the majority of their foreign female workers coming from EU countries.

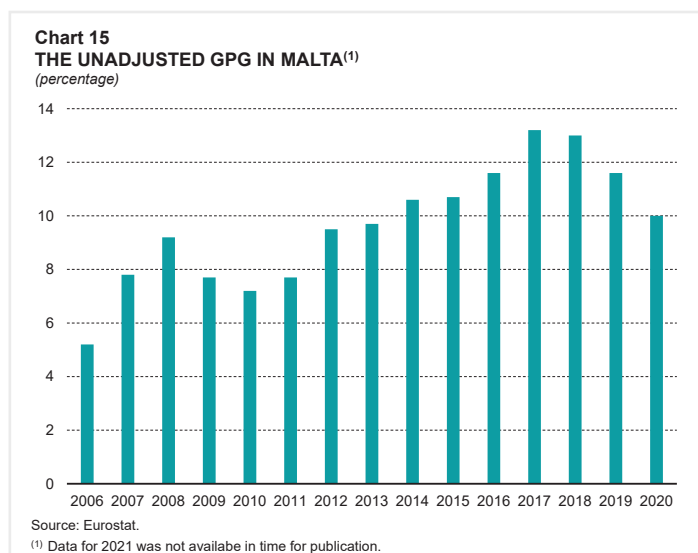
## Gender gap in income

With higher educational attainment and an increase in female participation rates, women have been seeing their income converging to that of males. With the existing laws in place, especially since becoming a member in the European Union, employers cannot discriminate on the basis of gender. Nevertheless, the gender pay gap (GPG) captures other factors behind income discrepancy between genders, such as sectoral and occupational gender segregation. Sectoral gender segregation occurs when women tend to work in low-paying sectors while men work in high-paying sectors. Occupational gender segregation occurs when men are more frequently promoted to higher-level grades than women, which can be the result of glass-ceiling effects but also because of career breaks.

To gauge differences in income between genders across European countries, one can use the ‘unadjusted’ GPG disseminated by Eurostat. This indicator measures the average differences in the gross hourly wages between males and females.<sup>16</sup> The unadjusted gender rate gap for Malta was generally on the increase up to 2017, only abating in 2009 and 2010 (see Chart 15). After reaching a high of 13.2% in 2017, the indicator has recorded steady declines and stood at 10.0% in 2020.<sup>17</sup> Nevertheless, it is still above its historical average.

Malta’s pay gap during 2020 stood below that of the European Union (13.0%) and the euro area (14.1%). Countries with higher unadjusted pay gap than Malta include Latvia (22.3%), Estonia (21.1%), Austria (18.9%) and Germany (18.3%). On the other hand, Luxembourg (0.7%), Slovenia (3.1%), Italy (4.2%), Belgium (5.3%), Cyprus (9.0%) and Spain (9.4%) have a lower gap.

While an analysis of the determinants of the gender gap is beyond the scope of this study, it is worth highlighting that persistence of such gaps has implications for the long-term growth potential of the economy, the functioning of the labour market, and inequality.



<sup>16</sup> Eurostat defines the unadjusted GPG as follows: [(average gross hourly earnings of male paid employees – average gross hourly earnings of female paid employees)/average gross hourly earnings of male paid employees] expressed as a percentage. Average earnings are calculated as arithmetic means.

<sup>17</sup> Data for 2021 was not available in time for publication.

## Conclusion

The female participation rate has increased strongly in the last decade and the drop out rates of females has diminished over time. However, the female participation rate remains below the corresponding male rate in most age brackets. Furthermore, the gender gap in terms of participation rates remains higher than that in the euro area across most age groups, and is particularly higher in the case of those in the 40 to 59 age brackets. Hence, higher educational attainment and further improvements in family friendly work policies need to be complemented with other measures that facilitate access to work.

Labour market data show that Malta seems to have attracted more male non-nationals than female ones. This may require investigating the extent to which this is due to factors that may discourage women to come and work in Malta, in particular, of the state of family friendly measures and social support networks available to migrant workers compared to those present in other countries. Cultural differences (particularly amongst TCNs) may also account for this difference.

Sectoral data show that the majority of women in Malta are employed in services such as health and social work activities, as well as education, the wholesale and retail sector and the 'other services' sector. These tend to be jobs with a lower-earning potential, and therefore they contribute to the gender pay discrepancy. This segregation can be also seen in the education-attainment years. Additional policies should encourage females to enter male-dominated sectors to increase their earning potential. Additional studies are needed that focus on the quality of and access to education among women in Malta, and whether this is affecting the types of sectors that women can then find employment in.

Although Malta has introduced a number of legislative measures to ensure equal pay for equal work, GPG is still present in the labour market. This indicator has been declining since 2017, although it is higher than its historical average. Further indepth research is needed to analyse the GPG in Malta, with particular focus on the determinants of this inequality, and its distribution across sectors.

It is not enough to increase the female participation rate. Policies need to ensure that women, and parents more generally, can still reach their full earning potential, particularly at certain points during child-rearing years, such as during school-holiday days and when children get sick. Another important challenge will be to ensure that the gains of higher female participation during child-rearing years are not lost during the ageing transition. Women tend to face relatively more responsibilities related to the care of elderly persons and persons with disability. In this regard, measures taken in recent years to extend and simplify the Carer's Allowance are a step in the right direction. Although efforts can be done to encourage and support females who want to work, the decision finally rests on each individual and the family situation. Nevertheless, policies should still aim at supporting women who want to return to the labour market.

## References

- Arnold Lincove, J. (2008). Growth, Girls' Education and Female Labor: A longitudinal analysis. *The Journal of Developing Areas*, 41(2), 45-68.
- Azzopardi, R. and Bezzina, F. (2014). Understanding Female Inactivity in Malta: An Empirical Study with Homemakers. *SAGE Open*, 4(4), 1-12.
- Byrne, S. and O'Brien, M. D. (2016). Understanding Irish Labour Force Participation. *Central Bank of Ireland, Research Technical Paper*, May 2016.
- Callus, A. (1992). Ghadma minn Ghadmi Grajjiet il-Mara u Jeddijietha.
- Darian, J. C. (1976). Factors influencing the rising labour force participation rates of married women with pre-school children. *Social Science Quarterly*, 56(4).
- Department of Social Security and The Pensions Strategy Group (2020). Strategic Review on the Adequacy, Sustainability, and Solidarity of the Pension System as Mandated by Article 64B of the Social Security Act. 2020 Pensions Strategic Review Document for Public Consultation.
- Goldin, C. (2014). A grand gender convergence: Its last chapter. *The American Economic Review*, 104(4), 1091-1119.
- Grech, A. G. (2020). The ageing of the Maltese workforce and the impact of pension changes, Central Bank of Malta *Policy Note*, February 2020.
- Hotchkiss, J. L. (2009). Decomposing changes in the aggregate labor force participation rate. *Federal Reserve Bank of Atlanta, Working paper* 2009-6a.
- Juhn, C. and Potter, S. (2006). Changes in Labour Force Participation in the United States. *Journal of Economic Perspectives*, 20(3), 27-46.
- Lagarde C. (2019). A Global Imperative, Empowering women is critical for the world's economy and people. *International Monetary Fund, Finance and Development* March 2019.
- Micallef, B. (2018). Estimating the Impact of Structural Reforms to Increase the Female Participation Rate in Malta. *International Journal of Social Science Studies*, 6(8).
- National Commission for the Promotion of Equality (2012), Unlocking the Female Potential – Research Report.
- Rapa, A. M. (2019). A Cohort Approach to Project the Labour Participation Rate in Malta. Central Bank of Malta, *Policy Note* April 2019.
- Srivastava, N. and Srivastava, R. (2010). Women, Work and Employment Outcomes in Rural India. *Economic and Political Weekly*, 45(28), 49-63.