BANK ĊENTRALI TA' MALTA
EUROSISTEMA
CENTRAL BANK OF MALTA

# FIFTIETH ANNUAL REPORT AND STATEMENT OF ACCOUNTS 2017

ANNIVERSARJU BANK ĊENTRALI TA' MALTA

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*Printed by*
*Gutenberg Press Ltd*
*Gudja Road*
*Tarxien GXQ 2902*
*Malta*



*The cut-off date for information published in this Report is 28 February 2018 except where otherwise indicated. Figures in tables may not add up due to rounding.*

ISSN 0577-0653 (print)
ISSN 1811-1262 (online)

## MISSION STATEMENT

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

It seeks to carry out its statutory responsibilities in the public interest and is committed to performing its functions effectively, efficiently and economically to the highest level of integrity, competence and transparency. In this regard it will continue to:

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

ii. **implement the ECB's monetary policy** through market operations conducted within the operational framework of the Eurosystem;

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

iv. **formulate and implement a macro-prudential policy** to fulfil the tasks of the Bank as the national macro-prudential authority;

v. **promote and support the development and integration of financial markets** in Malta through oversight of market infrastructures and by ensuring the availability of cost-efficient securities settlement and payment systems;

vi. **provide an adequate supply of banknotes and coin (the latter on behalf of Government)** to meet the demands of the public, while ensuring high quality and authenticity of the currency in circulation;

vii. **collect, compile and publish economic and financial statistics** in line with international standards;

viii. **act as banker to Government and to the banking system;**

ix. **hold and actively manage financial assets** with the aim of optimising returns, subject to prudent risk management practices;

x. **actively participate in the ESCB, the Eurosystem and other relevant European Union bodies, including their sub-structures.**

**Finally, as a member of the Eurosystem, the Bank continues to subscribe to the Eurosystem's mission, strategic intents and organisational principles.**

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*Currency Services and Security*

**as at 29 March 2018*

## THE BOARD OF DIRECTORS*

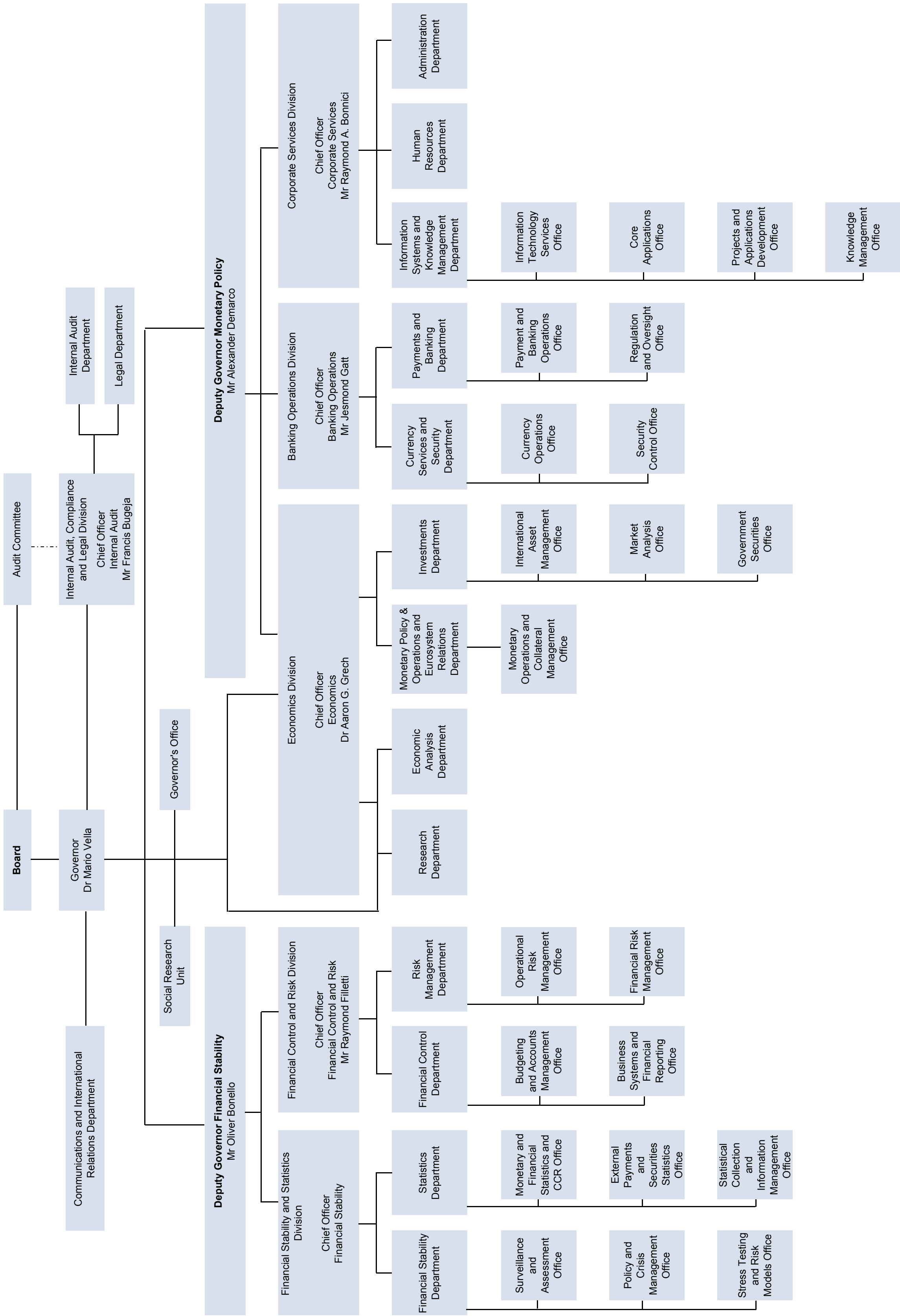
*(left to right)*

*Standing:* Professor Frank Bezzina (Director), Ms Philomena Meli (Director), Mr Peter J. Baldacchino (Director), Dr Romina Cuschieri (Director), Mr Herbert Zammit LaFerla (Secretary)

*Seated:* Mr Alexander Demarco (Deputy Governor), Dr Mario Vella (Governor and Chairman), Mr Oliver Bonello (Deputy Governor).

**as at 29 March 2018*

# ORGANISATION CHART*




*as at 29 March 2018

*Bank Ċentrali ta' Malta*
*Eurosistema*
*Il-Gvernatur*

*Central Bank of Malta*
*Eurosystem*
*The Governor*

29 March 2018

The Hon Professor Edward Scicluna
Minister for Finance
Maison Demandols
South Street
Valletta VLT 1102

Dear Minister

**LETTER OF TRANSMITTAL**

In terms of article 21 of the Central Bank of Malta Act (Cap 204), I have the honour to transmit to you, in your capacity as Minister responsible for finance, a copy of the Annual Report of the Bank for the financial year ended 31 December 2017.

Yours sincerely

Mario Vella

**Dr Mario Vella**

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## ABBREVIATIONS

| | |
|---|---|
| APP | asset purchase programme |
| BLS | Bank Lending Survey |
| ECB | European Central Bank |
| EONIA | Euro OverNight Index Average |
| ESCB | European System of Central Banks |
| ESI | economic sentiment indicator |
| ESRB | European Systemic Risk Board |
| EU | European Union |
| EURIBOR | Euro Interbank Offered Rate |
| GDP | gross domestic product |
| GVA | gross value added |
| HCI | harmonised competitiveness indicator |
| HICP | Harmonised Index of Consumer Prices |
| IMF | International Monetary Fund |
| LFS | Labour Force Survey |
| MFI | monetary financial institution |
| MFSA | Malta Financial Services Authority |
| MGS | Malta Government Stocks |
| MRO | main refinancing operation |
| MSE | Malta Stock Exchange |
| NCB | national central bank |
| NEIG | non-energy industrial goods |
| NFC | non-financial corporation |
| NPISH | non-profit institutions serving households |
| NPL | non-performing loans |
| NSO | National Statistics Office |
| OECD | Organisation for Economic Co-operation and Development |
| PPI | Producer Price Index |
| RPI | Retail Price Index |
| SME | small and medium-sized enterprises |
| TLTRO | targeted longer-term refinancing operation |
| ULC | unit labour cost |

## GOVERNOR'S STATEMENT

In 2017 the global economy continued to strengthen, with the number of countries recording accelerating GDP growth the highest since 2010. Short-term survey indicators and trade data suggest this strong momentum is likely to persist in the short-term. Nonetheless, in several advanced economies economic growth remains below that recorded before the global financial crisis. While oil prices extended the recovery seen in 2016, inflationary pressures in several countries remained subdued. Against this background, and in view of the limited scope for additional monetary and fiscal stimulus in several advanced economies, attention is turning to structural reforms that would lift long-term potential economic growth and address remaining imbalances.

The euro area benefited from the recovery in global economic conditions and the related increase in foreign demand. Non-standard monetary policy measures also contributed to lift domestic demand. The labour market continued to improve across the euro area, with the unemployment rate at the lowest level since 2009, although there is still heterogeneity across countries in terms of unemployment and the degree of economic slack. Consumer price inflation recovered from the very low rates recorded between 2014 and 2016. However, at 1.5%, the average inflation rate in 2017 was still some distance from the price stability objective of the European Central Bank (ECB).

Against this background, the ECB maintained an accommodative monetary policy stance. The interest rates on main refinancing operations (MRO), the marginal lending facility and the deposit facility were held at 0.00%, 0.25% and -0.40%, respectively. Initially, the Governing Council confirmed that it continued to expect them to remain at present or lower levels for an extended period of time, and well past the horizon of the asset purchase programme (APP). In June, the reference to further rate cuts was dropped as the outlook for price stability improved. The ECB also provided long-term liquidity to eligible credit institutions through its second series of targeted longer-term refinancing operations, which were launched the year before. The last liquidity providing operation in this series was conducted in March 2017. Meanwhile, the APP was extended, although the monthly pace of purchases was reduced to €60 billion from April 2017 onwards. Monetary policy measures were recalibrated again in October 2017, when the monthly pace of purchases was scaled back further to €30 billion from January 2018 until the end of September 2018, or beyond, if necessary. This combination of forward guidance, the provision of liquidity on favourable terms and the extension of the APP have contributed to supportive financing conditions and a further recovery in credit growth to the private sector.

In contrast to the cautious economic recovery elsewhere, economic growth in Malta remained robust, with real GDP growth standing at 6.6% in 2017. The expansion remained largely underpinned by the services sector, although the manufacturing and construction sectors also posted an increase in gross value added. Employment continued to increase at strong rates and the unemployment rate fell to a historical low. Meanwhile, the situation in public finances has improved further, with the fiscal surplus widening over that recorded in 2016 and the general government debt falling to 53.4% of GDP in September.

Notwithstanding the fast pace of expansion and tight labour market, the annual inflation rate based on the Harmonised Index of Consumer Prices remained moderate from a historical perspective, averaging 1.3% over the year as a whole, and below the euro area average.

During 2017, the Bank continued to implement the Eurosystem's monetary policy decisions in Malta, through standing facilities, liquidity-providing operations and the Public Sector Purchase Programme (PSPP). As liquidity remained ample, domestic credit institutions made limited use of the Eurosystem's refinancing operations and the average daily level of excess funds which eligible credit institutions placed overnight with the

Bank through the deposit facility almost doubled.  Through the PSPP, the Bank bought €245.7 million worth of Maltese government bonds, bringing total purchases before amortisation since the start of the programme to €948.1 million by the end of 2017.

The Bank's balance sheet expanded further during 2017, with total assets rising to €8.6 billion at the end of the year, from €5.5 billion twelve months earlier. The substantial increase in the use of the deposit facility, which carries a negative interest rate in line with ECB policy, was a main contributor to the higher net interest income of €63.3 million when compared to the €56.5 million of the previous year. Notwithstanding that, the operating profit before transfers to provisions decreased to €51.6 million from €76.4 million over the previous year, mainly due to exceptional capital gains on the Bank's financial operations that had been realised towards the end of 2016. The amount of €16.6 million was transferred to provisions, whilst an amount of €35.0 million will be payable to the Government of Malta.

In the area of financial stability, the Bank continued to monitor the soundness and resilience of the financial sector, assessing systemic risks and imbalances and formulating relevant policy recommendations. The Bank's risk assessments, stress test results and work related to macro prudential policy were published in two financial stability reports, which showed that the domestic banking system remained well-capitalised, liquid and profitable. The Joint Financial Stability Board (JFSB) which brings together officials of the Bank, the MFSA and Ministry for Finance, approved macro-prudential policies and discussed micro and overall macro financial stability risks. The Domestic Standing Committee for the management of financial crisis situations also continued to meet regularly.

In 2017, the Bank refined the framework for assessing vulnerabilities arising in the property market and also developed a new stress test to assess the sensitivity of the banks' net interest income under alternative interest rate scenarios prescribed by the Basel Committee for Banking Supervision. On the basis of its assessment of risks related to excessive credit growth and other indicators, the Bank decided to keep the countercyclical capital buffer rate unchanged at 0% throughout 2017.  Meanwhile, the Bank supported the work of the Maltese Presidency of the European Union, through membership on two working groups addressing matters related to financial services. It also began preparations for the assessment under the IMF's Financial Sector Assessment Program (FSAP), which is scheduled for 2018.

To obtain a better gauge of economic conditions and prospects, the Bank continued to meet business firms and public sector institutions in Malta. In 2017, it also began to publish a monthly business conditions index, while the information published on its economic forecasts was expanded. In an effort to disseminate research findings more widely, contributions on thematic issues featured more often in the Bank's main publications. Some studies were also published in external journals or presented at conferences abroad. The Bank continued to meet with constituted bodies and academia to discuss economic policy issues of mutual interest.

As the Bank lacked a social research capacity to enable it to add depth to its economic research with scientific investigation of the social dimension of issues within its remit, on 27 February 2017 the Board of Directors resolved to set up a Social Research Unit.

Another key development during the year was the completion of a new building with meeting and conference facilities as well as additional office space, a data centre, a new library and modern archiving facilities. In 2017, the Bank also upgraded the infrastructure within its banknote examination facilities and several systems used in ESCB-related operations, including its collateral management and payment messaging systems. At the end of 2017, the Bank also successfully migrated operations in several key business areas to a new IT system. The Bank also enhanced its electrical systems and their distribution networks to instil greater efficiency and ensure business continuity. Moreover, the Bank's website now also features a new electronic platform offering extensive remote search capabilities, including a library catalogue, an electronic journal database and a collection of e-books.

On behalf of the Board of Directors, I would like to thank Mr Alfred Mifsud, former Deputy Governor responsible for monetary policy who resigned on 30 June 2017, and former Board member Mr Victor Busuttil, whose second term at the Bank ended on 31 December 2017. I would also like to congratulate Mrs Philomena Meli for her third consecutive appointment as member of the Board and Professor Frank Bezzina who was appointed Board member on 1 January 2018. I wish to express my appreciation for the Bank staff's dedication and hard work.

Dr Mario Vella

# PART I

# FINANCIAL AND

# ECONOMIC DEVELOPMENTS

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

*During 2017, the United States' economy expanded at a stronger pace compared with the preceding year, while economic activity in the United Kingdom slowed down for the third consecutive year.*

*Price pressures continued to build up in these two economies, largely on the back of higher energy prices and, in the United Kingdom, the lagged pass-through of a weaker pound sterling. Against this background, the Federal Reserve raised the official federal funds target rate on three occasions as the year progressed, while the Bank of England increased the Bank Rate in November.*

*In the euro area, real growth in gross domestic product (GDP) accelerated to 2.3% in 2017, from 1.8% in the previous year. Consumer price inflation, measured on the basis of the Harmonised Index of Consumer Prices (HICP) also increased strongly, averaging 1.5% for the whole year, up from 0.2% in 2016.*

*The European Central Bank's (ECB) Governing Council maintained an accommodative monetary policy stance during 2017, with the key interest rates on main refinancing operations (MRO), marginal lending facility and deposit facility remaining at 0.00%, 0.25% and -0.40%, respectively over the year. During the year, the Governing Council continued with the asset purchase programme (APP) although it lowered the monthly purchases to €60 billion from April and decided to lower it further to €30 billion from January 2018.*

*Brent crude prices registered strong gains during 2017, supported by strong demand, heightened geopolitical tensions and expectations of an extension of the agreement between OPEC and non-OPEC members to restrain oil supply. Such agreement was reached towards the end of the year.*

## Key advanced economies

### *US economic activity picks up*

During 2017, economic activity in the United States gathered pace with real GDP growth accelerating to 2.3%, following an increase of 1.5% in 2016 (see Table 1.1). This increase was driven by a recovery in non-residential fixed investment. At the same time, private inventory investment was less negative. Net exports lowered GDP growth, though the contribution was less negative compared with a year earlier. Meanwhile, government spending decelerated, as did residential fixed investment. Private consumption rose at the same rate recorded in 2016, but remained the main driver behind economic growth in the United States.

During 2017, employment continued to grow. However, the rate of increase eased to 1.3% in 2017 compared with 1.8% in 2016. Sector data show that while employment in construction, private services and within the public sector slowed down, employment in the manufacturing sector increased at a faster pace compared with 2016.

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

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| United States | 2.2 | 1.7 | 2.6 | 2.9 | 1.5 | 2.3 |
| Euro area | -0.9 | -0.3 | 1.3 | 2.1 | 1.8 | 2.3 |
| United Kingdom | 1.5 | 2.1 | 3.1 | 2.3 | 1.9 | 1.7 |

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

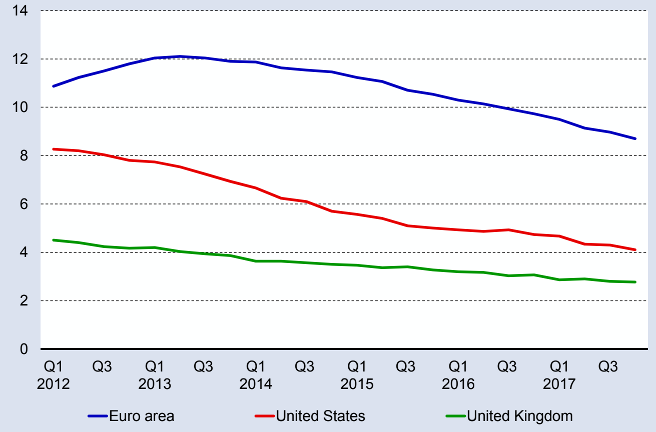
[1] The cut-off date for data on GDP in this Chapter is 9 March 2018.

The deceleration in the labour force was even stronger. Consequently, the unemployment rate declined. The latter averaged 4.4% in 2017, a decline of 0.5 percentage point compared with 2016 (see Chart 1.1). The jobless rate declined throughout the year reaching 4.1% by October, remaining at this level through the end of the year. This was the lowest rate recorded since December 2000.

Inflationary pressures generally eased during the first half of 2017, with the annual rate of consumer price inflation reaching a low of 1.6% in June (see Chart 1.2). In the second half of the year, however, HICP inflation began to increase again, fluctuating in a narrow range of around 2.0%. For the year as a whole, CPI inflation averaged 2.1%, as against 1.3% in 2016. The rise in inflation was mainly driven by energy inflation, which turned positive. At the same time, prices of food and beverages increased at a faster pace. These movements offset lower inflation on services. CPI inflation excluding food and energy averaged 1.9% in 2017, 0.3 percentage point lower than in the previous year.

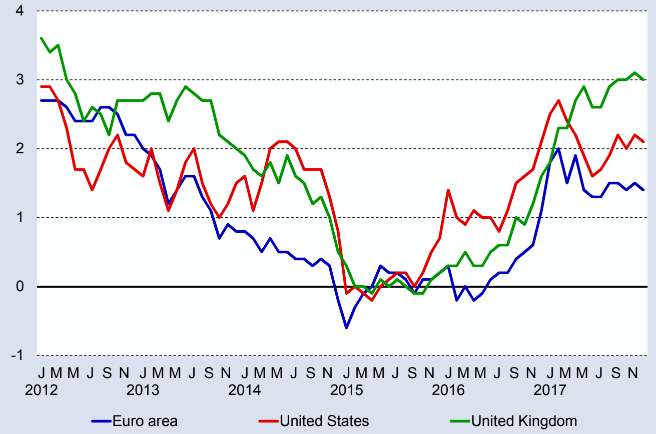
During 2017, the Federal Open Market Committee (FOMC) started to gradually remove its accommodative monetary policy stance. It increased the federal funds target rate on three occasions, in March, June and December. By the end of the year the range was widened to between 1.25% and 1.50% (see Chart 1.3). The increases in the target rate reflected a strengthening of the labour market, improved economic activity and expectations that labour market tightness would eventually lead to higher inflation. The Committee maintained its existing policy of reinvesting principal payments from its agency debt and agency mortgage-backed security holdings in agency mortgage-backed securities, and rolling over maturing Treasury securities at auction.

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



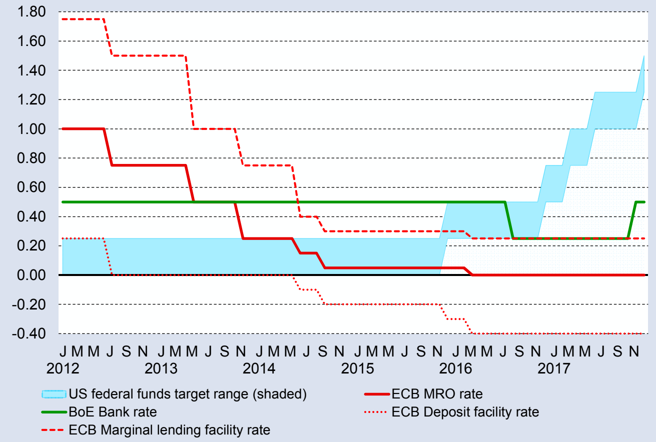

Sources: Eurostat; US Bureau of Labor Statistics; Office for National Statistics, UK.

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




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

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




Sources: ECB; Federal Reserve; Bank of England.

### *UK economic growth decelerates*

Economic growth in the United Kingdom eased in 2017, with real GDP expanding by 1.7% down from 1.9% in the previous year (see Table 1.1). This reflected a slowdown in private and government consumption, which offset higher growth in investment and net exports.

In the labour market, the unemployment rate fell further to 4.5% in 2017, 0.5 percentage point lower than in 2016 (see Chart 1.1). Growth in employment eased to 1.2% in the year under review from 1.4% in 2016.

Inflation in the United Kingdom followed an upward trend during most of the year, to end the year at 3.0%. For the year as a whole, inflation as measured by the Consumer Price Index (CPI) averaged 2.7% in 2017, up from 0.7% in 2016 (see Chart 1.2). Upward inflationary pressures reflected a substantial increase in energy inflation, which turned positive. Goods inflation, food and beverage inflation and non-energy industrial goods inflation also turned positive, partly reflecting the lagged effects of the weakening of sterling against major currencies in 2016, although the increases were less pronounced than those in the energy component. Meanwhile, the prices of services rose at a slightly faster pace. The annual rate of inflation based on the CPI excluding food and energy rose to 2.4%, from 1.3% a year earlier.

The Bank of England's Monetary Policy Committee maintained the Bank Rate unchanged at 0.25% for most of 2017 before increasing the rate to 0.50% in November (see Chart 1.3). The Committee judged that it was appropriate to tighten modestly the stance of monetary policy in order to return inflation sustainably to the 2% target. The Committee maintained the stock of sterling non-financial investment-grade corporate bond purchases totalling up to GBP 10 billion, financed by the issuance of central bank reserves. It also maintained the stock of UK government bond purchases, financed by the issuance of central bank reserves, at GBP 435 billion.

## Economic and financial developments in the euro area

### *Euro area GDP growth rises*

Real GDP in the euro area increased by 2.3% in 2017, after it had grown by 1.8% in 2016 (see Table 1.2).

Economic activity in the euro area was primarily supported by domestic demand, as net exports contributed to a lesser extent. Nevertheless, the contribution of domestic demand was lower than that in 2016

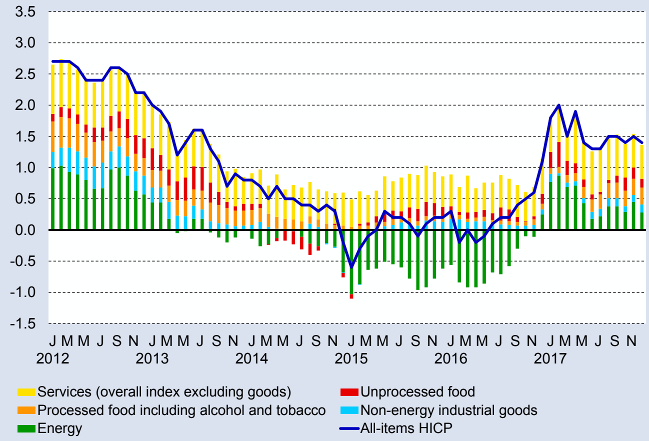
**Table 1.2**
**REAL GDP GROWTH IN THE EURO AREA**
*Chain-linked volumes*

| | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|
| | | *Annual percentage changes* | | |
| Private consumption | 0.8 | 1.8 | 2.0 | 1.6 |
| Government consumption | 0.7 | 1.3 | 1.8 | 1.2 |
| Gross fixed capital formation | 1.8 | 3.3 | 4.6 | 3.5 |
| Exports | 4.7 | 6.4 | 3.4 | 4.9 |
| Imports | 4.9 | 6.7 | 4.8 | 4.4 |
| **GDP** | **1.3** | **2.1** | **1.8** | **2.3** |
| | | *Percentage point contributions* | | |
| Private consumption | 0.5 | 1.0 | 1.1 | 0.9 |
| Government consumption | 0.2 | 0.3 | 0.4 | 0.3 |
| Gross fixed capital formation | 0.4 | 0.6 | 0.9 | 0.7 |
| Exports | 2.1 | 2.9 | 1.6 | 2.2 |
| Imports | -2.0 | -2.7 | -2.0 | -1.8 |
| **GDP** | **1.3** | **2.1** | **1.8** | **2.3** |

Source: Eurostat.

as private consumption, government consumption and investment registered a more moderate rate of growth. In contrast, the contribution from net exports was higher than that registered in 2016, as export growth accelerated and import growth slowed down.

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




Source: Eurostat.

## *Inflation rises*

The annual rate of inflation in the euro area, as measured by the HICP edged up during 2017, with the average reading for the year as a whole standing at 1.5% in 2017, up from 0.2% in 2016 (see Chart 1.4). This rise in the inflation rate reflected faster growth in the prices of services, and of processed and unprocessed food. Furthermore, energy inflation, turned positive. Non-energy industrial goods inflation was unchanged from 2016. The overall inflation rate accelerated strongly during the first quarter, reaching a high of 2.0% in February, before moderating to around 1.3% and 1.5% in second part of the year. Inflation stood at 1.4% in December.

## *Labour market improves further*

The labour market continued to improve during the 2017. Employment rose at a faster pace compared with 2016, while the unemployment rate declined. Employment growth reached 1.6%, following a 1.3% increase in 2016. The rate of unemployment averaged 9.1% during the year, down from 10.0% in the previous year (see Chart 1.1). By December, it had fallen to 8.6%.

Cross-country data show that the unemployment rate fell across all euro area countries with the steepest declines over 2016 recorded in Spain, Portugal and Greece.[2] Nevertheless, wide disparities across countries continued to persist. In 2017 the countries with the lowest unemployment rates were Germany and Malta, with 3.8% and 4.0%, respectively. On the other hand, Greece, Spain and Cyprus registered the highest rates of unemployment at 21.5%, 17.2% and 11.3% respectively.

## *ECB staff projections point towards robust growth*

According to the ECB staff macroeconomic projections published in March 2018, real GDP growth in the euro area is expected to remain robust in the short term, supported by very elevated levels of business and consumer sentiment. Economic activity in the medium term is projected to be sustained by the ECB's accommodative monetary policy stance, lower deleveraging needs, further improvement in labour market conditions, households' net worth and the ongoing global economic recovery. Real GDP growth is foreseen to stand at 2.4% in 2018, before easing to 1.9% and 1.7% in the subsequent two years (see Table 1.3).[3] The slowdown in real GDP growth over the forecast horizon reflects the gradual decline of the impact of past monetary policy measures, an increase in precautionary savings and a moderation in employment growth. Additionally, the recent appreciation of the euro, together with the deceleration in euro area foreign demand, is expected to slow down export growth.

Domestic demand is projected to remain the main driver behind euro area growth over the projected horizon.

[2] Data for Greece was available up to November.
[3] The cut-off date for information used in the ECB staff macroeconomic projections was 19 February 2018.

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

| | 2018 | 2019 | 2020 |
|---|---|---|---|
| **GDP** | **2.4** | **1.9** | **1.7** |
| Private consumption | 1.7 | 1.7 | 1.5 |
| Government consumption | 1.2 | 1.2 | 1.1 |
| Gross fixed capital formation | 4.4 | 3.4 | 2.8 |
| Exports | 5.3 | 4.1 | 3.8 |
| Imports | 5.1 | 4.5 | 4.0 |
| **HICP** | **1.4** | **1.4** | **1.7** |

(1) ECB staff macroeconomic projections (March 2018).
Source: ECB.

Private consumption growth is set to remain solid as suggested by very high level of consumer confidence, expected labour market conditions and rising real compensation per employee. Furthermore, favourable bank lending conditions increased household net worth, while progress with deleveraging will also support consumption. Over the medium term, private consumption growth is set to fall reflecting a shift to higher savings, whereby the household saving ratio is expected to rise gradually from historically low levels.

Gross fixed capital formation is projected to grow strongly over the forecast horizon, through a continued recovery in both residential and business investment. Housing investment is expected to continue benefiting from improved financing conditions and higher income growth. Some loss of momentum is projected due to the mature phase of the housing cycle and the fading impact of fiscal incentives in some countries. Business investment is set to benefit from elevated business confidence, higher capacity utilisation, supportive financing conditions and rising profit mark-ups. A slowdown in the rate of increase over the forecast period in business investment reflects the deceleration in domestic and foreign demand. Government consumption growth is set to remain relatively constant over the projection horizon.

As regards international trade, export growth is projected to moderate in response to the recent appreciation of the euro. Conversely, euro area imports are set to benefit from positive domestic demand developments and the recent strength of the euro. As import growth is expected to decelerate less than export growth, this should result in a slightly negative contribution to real GDP growth from net exports during 2018 and a neutral contribution thereafter.

Compared with the Eurosystem staff projections published in December 2017, euro area GDP growth was revised upwards by 0.1 percentage point in 2018 mainly due to higher than expected business and consumer sentiment. Growth projections for the following two years remained unchanged from those published in December 2017.

According to the March 2018 ECB staff projections, HICP is envisaged to moderate to 1.4% in 2018 and 2019 before rising to 1.7% in 2020. Energy inflation is set to strengthen in the short term, partly reflecting higher oil prices. It is then expected to decrease sharply to around zero. On the other hand, food inflation is projected to increase moderately over the forecast horizon, supported by higher international food commodity prices and upward effects from increases in tobacco taxes. HICP excluding food and energy is set to rise gradually to reach 1.8% in 2020.

Compared with the December projections, HICP inflation was marginally revised down in 2019, reflecting the effects of the appreciation of the euro. On the other hand, the forecast of 2018 and 2020 remains unchanged.

## *The ECB maintains its accommodative monetary policy stance*

The ECB's Governing Council maintained an accommodative monetary policy stance during 2017. The interest rate on MRO, marginal lending facility and deposit facility were maintained at 0.00%, 0.25% and -0.40%, respectively throughout the year (see Chart 1.3). Initially, the Governing Council confirmed that it continued to expect them to remain at present or lower levels for an extended period of time, and well past the horizon of the APP. In June, the reference to further rate cuts was dropped as the outlook for price stability improved.

The Governing Council also retained the comprehensive package of non-standard measures. The ECB continued to provide long-term liquidity to eligible credit institutions through its second series of targeted longer-term refinancing operations which were launched the year before. The last liquidity providing operation in this series was conducted in March.

The ECB also continued with its APP. The APP purchases were conducted at a monthly pace of €80 billion until the end of March, after which the monthly pace was lowered to €60 billion until the end of December. In the October meeting, the Governing Council decided to reduce the monthly rate to €30 billion from January 2018 until at least the end of September 2018. The Governing Council stated that it was ready to increase the size and/or duration of the APP if the outlook becomes less favourable, or *"if financial conditions become inconsistent with further progress towards a sustained adjustment in the path of inflation"*. Additionally, the principal payments from maturing securities bought under the APP are to be reinvested for an extended period of time after the end of the net asset purchases, or for as long as necessary. The Governing Council also noted that the main refinancing operations and the three-month longer-term refinancing operations, which were launched in the previous year, will continue to be conducted as fixed rate tender procedures with full allotment.[4]

## *Money market rates reach historical lows*

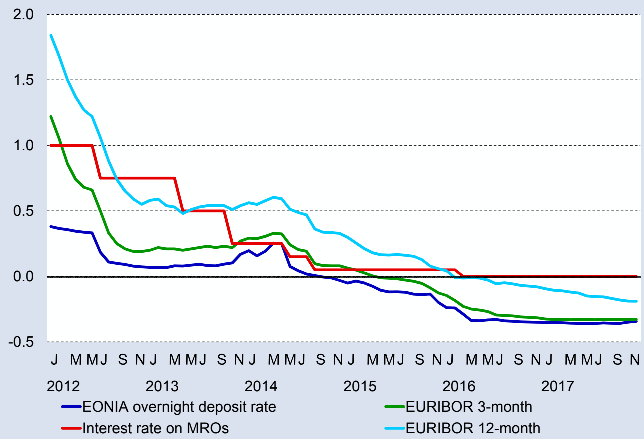
In the light of the accommodative monetary policy stance, money market rates in the euro area declined further into negative territory during 2017, with several benchmark rates attaining new historical lows. In particular, the 12-month EURIBOR reached a low of -0.19% in November and remained at that level in December (see Chart 1.5). This compares with -0.08% 12 months earlier. The 3-month EURIBOR fell to -0.33% in January and remained at that level throughout the year. The EONIA also fell marginally over the 12 months to December, ending the year at -0.34%.

## *Euro area bond yields decline*

Yields on ten-year government bonds in the euro area fell during 2017, in the majority of countries. Generally, downward pressure on yields partly reflected lower political risks and positive economic data for the euro area. Political uncertainty in the United States and the United Kingdom also contributed.

Yields in Greece and Portugal recorded the strongest declines. These fell by 2.5 and 1.9 percentage points over the year, to stand at 4.44% and 1.83% respectively in December. The decline in borrowing costs for Greece reflected the granting of new loans from the

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



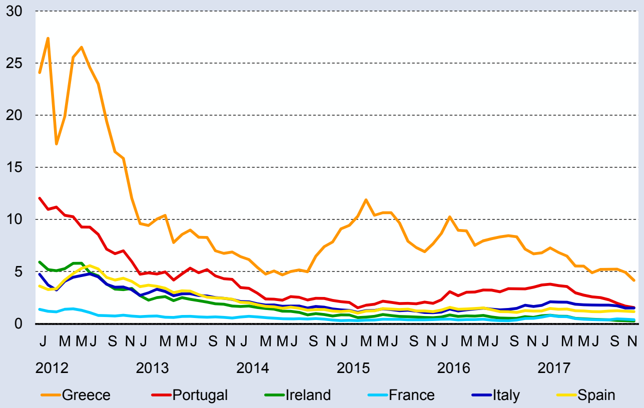

Source: ECB.

[4] The Governing Council kept the key interest rates unchanged during its January and March 2018 meetings.

country's creditors, while Portugal saw better economic results as well as a shrinking budget deficit. Yields in Ireland, Italy and France followed a similar pattern, although decreases were relatively more contained, in the range of 0.1 to 0.3 percentage point. In December, bond yields in Spain remained at the same level as that recorded in the previous year. On the other hand, Germany saw a marginal rise in its yield, to 0.30% from 0.25% a year earlier.

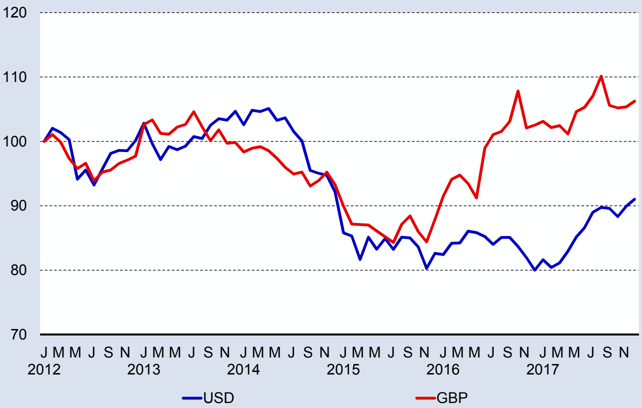
As a result of the above, spreads between yields on ten-year German bonds and on those issued by other euro area governments generally narrowed over the year (see Chart 1.6).

**Chart 1.6**
**EURO AREA TEN-YEAR GOVERNMENT BOND YIELD SPREADS[(1)]**
*(vis-à-vis German ten-year government bond yields)*




[(1)] Since there were no data for Greece for July 2015 due to market closure, the spread was left equal to that of the previous month.
Source: ECB.

**Chart 1.7**
**EXCHANGE RATE MOVEMENTS OF THE EURO AGAINST OTHER MAJOR CURRENCIES**
*(index of end of month rates; Jan. 2012=100; an increase in the index implies euro appreciation)*




Source: Eurostat.

*The euro appreciates further*

After rising during 2016, the euro exchange rate appreciated further during 2017.[5] During the first quarter of the year, the euro weakened slightly against currencies of major trading partners, before increasing in the three consecutive quarters, amid signs of improving economic conditions, lower political risk and higher investor confidence in the euro area. By the end of the year, it stood 5.4% above its end-2016 level.

The euro appreciated against the majority of its trading partners during the year, particularly against the US dollar, the Japanese Yen and the pound sterling, which offset losses against other currencies. On a bilateral basis, the euro gained 13.8% against the US dollar and 3.6% against sterling (see Chart 1.7).

## Commodities

*Commodity prices increase*

The price of Brent crude oil rose in January and early February as global oil production dropped. Between February and June, Brent oil broadly followed a decreasing path amid some volatility, reaching a low level of around USD 43 per barrel in June, against a backdrop of increasing supply and higher US crude oil inventories (see Chart 1.8). Subsequently, oil prices generally followed an upward path as a result of robust demand, geopolitical tensions and firming expectations of an extension of the agreement between OPEC

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

and non-OPEC members to cut oil production. By 30 November, when OPEC and non-OPEC members agreed to extend production cuts to the whole of 2018, the oil price had recovered to above USD 60 per barrel. The price of Brent crude oil stood at USD 67.08 at the end of 2017, an increase of 22.7% on its level a year earlier.

Non-energy commodity prices also increased during 2017, with World Bank data showing a rise of 5.6%. This rise was mainly driven by higher prices for metals and minerals, and, to a lesser extent, raw materials.

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


Source: Reuters.

## 2. MONETARY AND FINANCIAL DEVELOPMENTS

*The total assets of monetary financial institutions (MFI) in Malta rose during 2017, driven by increases in the assets of core domestic banks and of international banks. Maltese residents' deposits continued to expand, reflecting ample liquidity in the economy, and remained the main source of funding for resident MFIs. The shift away from longer term deposits towards overnight deposits persisted, in an environment of low interest rates and robust economic growth. Meanwhile, growth in credit granted to Maltese residents slowed in 2017, driven by weaker growth in credit to general government. Loans to the private sector continued to grow, as a further expansion in mortgage loans to households offset a contraction in other lending to households and in loans to non-financial corporations (NFC). Interest rates on both deposits and loans to Maltese residents fell during the year, though the decline in deposit rates was once more larger than that in lending rates. Consequently, the spread between the lending and deposit rates rose further.*

*The three-month yield in the domestic primary money market rose during 2017. Likewise, yields on five-year and ten-year Maltese government bonds increased, mirroring movements in the corresponding euro area yields. Net private and government bond issues in 2017 were lower than those issued a year earlier. In the equity market, the Malta Stock Exchange (MSE) share index ended the year 2.6% below the level registered at the end of December 2016.*

### Monetary aggregates and their counterparts

Total assets pertaining to the Maltese banking system reached €56.8 billion by the end of 2017, an increase of €4.8 billion when compared with 2016. The assets of MFIs other than the Central Bank of Malta rose by €1.8 billion as both core domestic banks and international banks increased their asset holdings. The asset holdings of core domestic banks[1] rose by €1.2 billion, or 5.4%, while those held by international banks rose by €0.8 billion, or 3.7%. On the other hand, the asset holdings of non-core domestic banks, which form a relatively small share in total assets, contracted during 2017.

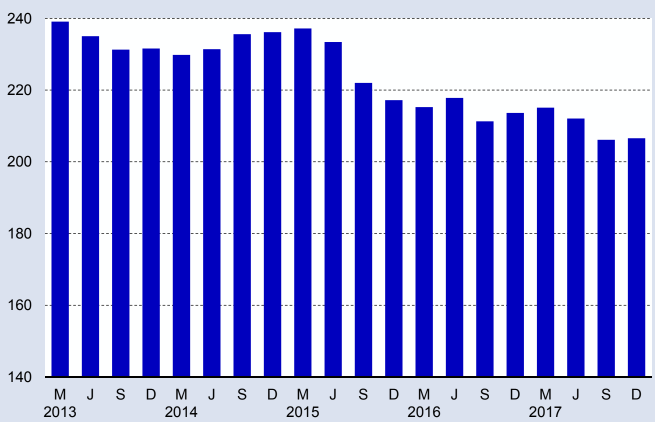
In light of these developments, the core domestic bank assets' share in gross domestic product (GDP) declined to 206.6% at the end of 2017, from 213.6% in December 2016 (see Chart 2.1).[2] This decline was a result of GDP growing at a faster rate than the total assets of core domestic banks.

#### *Residents' overnight deposits continue to grow strongly*

Total deposits belonging to residents of Malta held with local MFIs continued to grow at a robust pace during 2017, closing the year €0.9 billion above their December 2016 level. The annual rate of growth thus stood at 5.0%, compared with 8.3% at the end of 2016 (see Table 2.1).

Growth remained driven by overnight deposits, which rose by €1.2 billion during the year under review. In percentage terms, this signified an increase of 10.2%. Growth in this category of deposits offset a contraction of €0.4 billion, or 8.0%,

**Chart 2.1**
**TOTAL ASSETS OF CORE DOMESTIC BANKS**
*(% of nominal GDP; GDP data are four-quarter moving sums)*




Sources: Central Bank of Malta; NSO.

[1] The domestically relevant banks or "core" domestic banks are APS Bank Ltd, BNF Bank plc, Bank of Valletta plc, HSBC Bank Malta plc, Lombard Bank Malta plc, and MeDirect Bank (Malta) plc.

[2] GDP statistics are sourced from NSO *News Release* 038/2018, issued on 8 March 2018.

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

| | 2015 Dec. | 2016 Dec. | 2017 Dec. | 2017 Amount outstanding | 2017 Absolute change |
|---|---|---|---|---|---|
| **Overnight deposits** | **24.9** | **15.7** | **10.2** | **13,411.9** | **1,246.7** |
| *of which* | | | | | |
| Households | 23.9 | 17.2 | 15.8 | 7,613.1 | 1,037.6 |
| Non-financial corporations | 22.5 | 9.3 | 4.9 | 3,225.4 | 150.5 |
| **Deposits redeemable at notice up to 3 months** | **-2.2** | **-15.2** | **-56.2** | **45.2** | **-58.0** |
| *of which* | | | | | |
| Households | -7.4 | -16.4 | -51.5 | 38.8 | -41.3 |
| Non-financial corporations | 15.0 | -49.2 | -69.5 | 3.1 | -7.1 |
| **Deposits with agreed maturity up to 2 years** | **-10.9** | **-9.3** | **-1.6** | **3,112.5** | **-49.5** |
| *of which* | | | | | |
| Households | -9.4 | -8.7 | -3.1 | 2,438.5 | -76.7 |
| Non-financial corporations | -14.7 | -20.6 | 23.7 | 284.1 | 54.4 |
| **Deposits with agreed maturity above 2 years** | **9.2** | **-0.4** | **-17.5** | **1,344.3** | **-285.0** |
| *of which* | | | | | |
| Households | 10.4 | -2.4 | -17.7 | 1,226.4 | -264.3 |
| Non-financial corporations | 0.2 | 18.2 | -29.7 | 62.4 | -26.3 |
| **Total residents deposits[1]** | **12.9** | **8.3** | **5.0** | **17,913.9** | **854.2** |

[1] Total resident deposits exclude deposits belonging to Central Government.

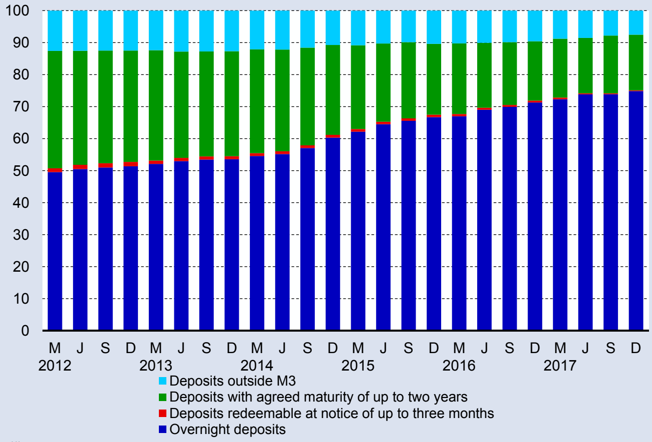
Source: Central Bank of Malta.

in time deposits, around three-fourths of which was due to a drop in deposits with an agreed maturity of over two years.

As a result of these developments, by the end of the year, the share of overnight deposits in total residents' deposits had risen to 75%, from 71% a year earlier (see Chart 2.2). At the same time, the share of time deposits fell from 29% to 25%, of which 17% were deposits with an agreed maturity of up to two years, 8% in deposits with maturities of over two years, and a negligible amount in deposit redeemable at notice of up to three months.

These developments were mainly driven by households, who in 2017 showed a greater preference for more liquid overnight deposits over longer-term deposits. In total, household demand contributed over three-quarters of the increase in total deposits during the year and over eighty percent of the increase in overnight deposits.

**Chart 2.2**
**DISTRIBUTION OF TOTAL RESIDENT DEPOSITS[1]**
*(percentage points)*




[1] Deposits exclude those belonging to central government.
Source: Central Bank of Malta.

As a result, households continued to account for the largest share of deposits with local MFIs in Malta. Balances belonging to NFCs also contributed to the observed expansion, albeit in a more limited way.

Overall, these developments point to an abundance of liquidity and a continued preference for holding liquid assets, in an environment of low interest rates, robust economic growth, and an increasing labour force.

### *Credit to residents grows at a more moderate pace*

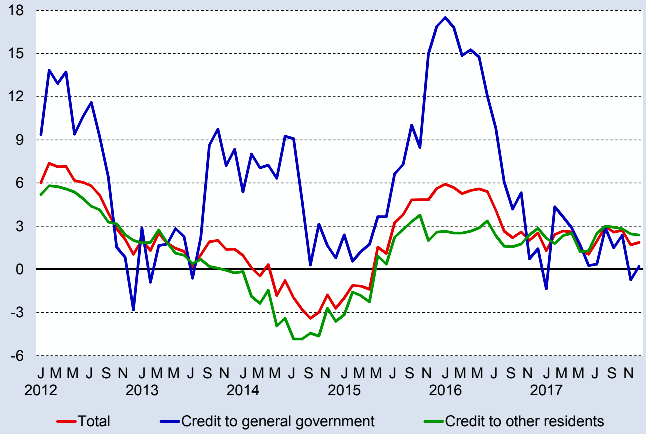
Although credit to Maltese residents grew further during 2017, the pace of expansion moderated when compared with the previous year. The annual growth rate of this component, mainly comprising loans, but also including equity and other security holdings of banks, stood at 1.9% in December, down from 2.5% 12 months earlier (see Chart 2.3).

This moderation reflected developments in credit to general government and, to a lesser extent, in credit to residents excluding government. Annual growth in the former exhibited some volatility during the year, before falling to 0.2% in December. This component of credit is heavily influenced by banks' holdings of Maltese Government Stocks (MGS), and is hence sensitive to changes in the amount and timing of MGS issues, the share of bids allotted to MFIs, as well as MGS redemptions.

Meanwhile, growth in credit to residents other than general government remained weak during 2017, relative to the rate of economic expansion, with the annual growth rate of 2.4% registered at the end of the year being lower than the 2.9% registered 12 months earlier. This deceleration was driven by a drop in MFI holdings of securities and equities. On the other hand, loans to residents outside general government grew at an unchanged annual rate of 2.7%.

Growth in loans remained driven by loans to households, which rose by 6.6% over the 12 months to December 2017 (see Table 2.2). Loans for house purchase, which comprise 89% of household loans, grew by 8.2% on a year earlier, boosted by low interest rates, favourable labour market conditions which supported disposable income, and the Government incentives for first-time buyers (see Chart 2.4). This was partly offset by a continued contraction in

**Chart 2.3**
**CREDIT TO RESIDENTS OF MALTA**
*(annual percentage changes)*




Source: Central Bank of Malta.

**Table 2.2**
**LOANS TO RESIDENTS OF MALTA**
*Annual percentage changes*

| | 2015<br>Dec. | 2016<br>Dec. | 2017<br>Dec. |
|---|---|---|---|
| Loans to NFCs | -7.4 | -4.5 | -1.8 |
| Loans to OFIs | 7.3 | 22.0 | 0.0 |
| Loans to Households | 6.9 | 5.8 | 6.6 |
| *for: House Purchase* | 8.8 | 7.7 | 8.2 |
| *for: Consumer Credit and Other Lending* | -3.7 | -5.5 | -4.2 |
| **Total Loans** | **1.1** | **2.7** | **2.7** |

Source: Central Bank of Malta.

**Table 2.3**
**SECTORAL CONTRIBUTIONS TO YEAR-ON-YEAR GROWTH IN LOANS TO NFCs**
*Percentage points; annual percentage changes*

| | All NFCs | | |
|---|---|---|---|
| | 2015 | 2016 | 2017 |
| Accommodation and food service activities | -0.8 | -1.6 | -1.2 |
| Construction | -1.9 | 0.6 | 1.6 |
| Manufacturing | -0.3 | -0.4 | 0.6 |
| Transportation and storage | -1.7 | -1.3 | -0.4 |
| Wholesale and retail trade | -0.9 | -0.9 | 0.1 |
| Other | -1.9 | -0.9 | -2.5 |
| **Total** | **-7.4** | **-4.5** | **-1.8** |

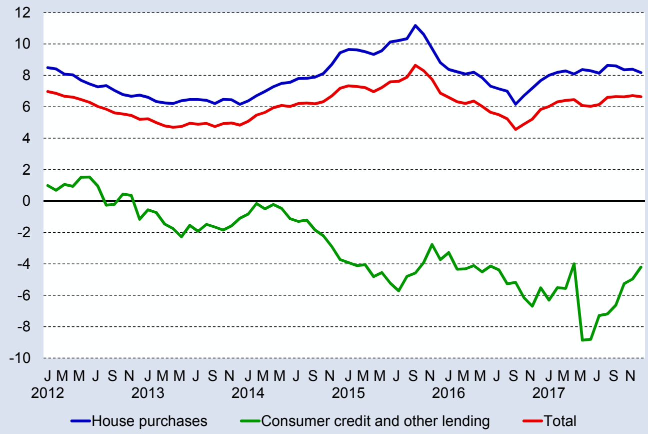
Source: Central Bank of Malta.

consumer credit and other lending, which fell by 4.2% year-on-year.

On the other hand, loans to NFCs, which include both public and private NFCs, contracted during the year under review. Nonetheless, at -1.8%, the annual drop observed in December 2017 was more moderate than the -4.5% registered 12 months earlier.

Across sectors, the decline in NFC loans was concentrated in the energy, transport and storage, and food and accommodation sectors (see Table 2.3). Lower credit to these sectors offset mild growth in credit to construction, manufacturing and to the wholesale and retail trade sector.

**Chart 2.4**
**LOANS TO HOUSEHOLDS**
*(annual percentage changes)*




Source: Central Bank of Malta.

The contraction in loans to NFCs contrasts with the current strong pace of economic activity, and could reflect the increased use of internal funding and capital markets by companies in the context of a buoyant economy and increased attractiveness of corporate bonds to retail investors. It also reflects the economy's increased orientation towards less capital-intensive industries and an underlying shift in banks' loan portfolios away from companies and towards households, where credit risk may be perceived to be more limited.[3]

### *Spread between lending and deposit rates widens*

Interest rates on residents' deposits with domestic credit institutions continued to fall during 2017, with the composite rate on all deposits belonging to households and NFCs resident in Malta dropping by 10 basis points, to close the year at 0.38% (see Table 2.4).

The decline was particularly evident in rates on longer-term time deposits, and was observed in both household rates and NFC deposit rates. In particular, the interest rate on household deposits with maturities exceeding two years dropped by 23 basis points, and stood at 2.64% at the end of 2016. The comparable rate on NFC deposits fell by 4 basis points during 2017, standing at 1.98% in December. Rates on NFC deposits with maturity up to two years also decreased, shedding 12 basis points.

[3] See Darmanin, J. (2017), "The financing of companies in Malta", *Policy Note* July 2017, Central Bank of Malta, available at https://www.centralbankmalta.org/file.aspx?f=61638.

**Table 2.4**
**INTEREST RATES ON DEPOSITS AND LOANS**
*Percentages per annum to residents of Malta; weighted average rates as at end of period*

| | 2014 | 2015 | 2016 | 2017 | | | |
|---|---|---|---|---|---|---|---|
| | Dec. | Dec. | Dec. | Mar. | June | Sep. | Dec. |
| **Total deposits**[1] | **1.03** | **0.69** | **0.48** | **0.45** | **0.42** | **0.40** | **0.38** |
| *of which* | | | | | | | |
| **Overnight deposits** | | | | | | | |
| Households | 0.17 | 0.12 | 0.06 | 0.06 | 0.07 | 0.06 | 0.07 |
| Non-financial corporations | 0.18 | 0.11 | 0.03 | 0.03 | 0.02 | 0.03 | 0.04 |
| **Time deposits (less than 2 years)** | | | | | | | |
| Households | 1.73 | 1.11 | 0.79 | 0.79 | 0.79 | 0.78 | 0.78 |
| Non-financial corporations | 1.45 | 0.85 | 0.65 | 0.61 | 0.60 | 0.57 | 0.54 |
| **Time deposits (more than 2 years)** | | | | | | | |
| Households | 3.44 | 2.99 | 2.64 | 2.54 | 2.45 | 2.48 | 2.41 |
| Non-financial corporations | 2.84 | 2.26 | 2.03 | 1.89 | 1.89 | 1.99 | 1.98 |
| **Total Loans**[1] | **4.02** | **3.81** | **3.68** | **3.64** | **3.66** | **3.63** | **3.64** |
| *of which* | | | | | | | |
| Households and NPISH | 3.70 | 3.60 | 3.52 | 3.49 | 3.52 | 3.50 | 3.48 |
| Non-financial corporations | 4.41 | 4.10 | 3.93 | 3.87 | 3.87 | 3.83 | 3.91 |
| **Spread**[2] | **2.99** | **3.12** | **3.20** | **3.19** | **3.24** | **3.22** | **3.26** |
| ECB main refinancing operations rate | 0.05 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

(1) Annualised agreed rates on outstanding euro-denominated amounts belonging to households (incl. NPISH) and non-financial corporations.

(2) Difference between composite lending rate and composite deposit rate.

Source: Central Bank of Malta.

Rates on overnight deposits, being already low, remained relatively unchanged during 2017. The rate paid to households on such deposits stood at 0.07%, while the comparable rate paid to NFCs was 0.04%.

Meanwhile, interest rates on loans to residents edged down further, with the weighted average rate on loans to households and NFCs falling by 4 basis points to 3.64%. This drop was mainly driven by a fall in the weighted average lending rate to households, which shed 4 basis points to end the year at 3.48%. The comparable rate on loans to NFCs dropped, by a marginal 2 basis points, to 3.91%.

As in previous years, the decline in lending rates during 2017 was smaller than the decrease on interest rates on deposits. Consequently, the spread between the lending and the deposit rate widened to 326 basis points, from 320 basis points a year earlier.

### *Euro area resident balances with local MFIs decrease*

Total deposits held by euro area residents outside Malta with local MFIs dropped marginally during 2017, after almost doubling in the previous year. As with Maltese residents' deposits, euro area residents generally substituted time deposits with overnight deposits during the year under review. Nonetheless, unlike Maltese residents' deposits, the largest share of euro area residents' deposits with local MFIs was held in time deposits rather than in overnight deposits.

As regards credit developments, growth in credit extended by resident MFIs to euro area residents outside Malta remained robust, though the annual rate of growth decelerated to 3.6% at the end of 2017 from 7.3% a year earlier. This expansion was wholly driven by a rise in loans to entities outside the general government sector, as credit to general government continued to contract.

### *Credit market conditions remain broadly stable*

According to the Bank Lending Survey (BLS), which reveals credit market conditions from the perspective of credit institutions, credit standards applied to enterprises and households in Malta generally remained stable over the course of the year. However, one participating bank reported a slight easing in credit standards applied to enterprises during the second quarter, while another bank reported an easing in standards for house purchases during the third quarter.

With regard to demand for loans, half of the participating banks reported an increase in the demand for loans by firms in the first six months of the year, while all banks reported unchanged demand for these loans in the second half of the year. Some increase in demand for loans by households for house purchases was reported in the second and the third quarter. Meanwhile, the reporting banks assessed the demand for consumer credit to have remained largely unchanged during the year.

In reply to a series of ad hoc questions, most banks participating in the BLS reported no changes in market access to wholesale and retail funding, and their transfer capability as a result of the prevailing situation in financial markets. Only one bank consistently reported some impact on its retail funding operations and the unsecured segment of its inter-bank money market. Half of the participating banks felt that the European Central Bank's (ECB) negative deposit facility rate did not have an impact on their lending to households and for house purchases, while the remaining banks reported some reductions in interest rates on higher lending volumes to selected groups of customers.

Banks were also asked to gauge the impact of the expanded asset purchase programme (APP) on their assets and liquidity. The majority of banks reported an unchanged position in their total assets, capital and funding conditions as a result of this programme. Almost all banks claimed that increased liquidity had a negligible impact on their operations.

During the second quarter of 2017, participating banks were asked about the impact of the targeted longer-term refinancing operations (TLTRO) conducted by the Eurosystem between September 2014 and June 2016, as well as the TLTRO-II operations conducted between June 2016 and March 2017. While the majority of banks felt that they enjoyed a comfortable liquidity position and felt no need to participate, one bank reported that it had participated in the most recent TLTRO-II due to its attractive conditions.

*Survey on Access to Finance continues to suggest that this is not a major source of concern*

Between September and October 2017, the ECB and the European Commission conducted jointly the Survey on Access to Finance, with the aim of providing information on the financing conditions of small and medium-sized enterprises (SME). According to the results, which refer to the period from April to September 2017, only 6% of surveyed firms in Malta considered access to finance as a major problem. In contrast, 35% of participating firms were concerned about the availability of skilled staff.

During this period, 16% of respondents stated that they applied for a bank loan other than overdrafts. This is a lower share compared with the 26% reported in the 2016 survey. Around a third of respondents said that they had preferred not to apply because of sufficient internal funds and 43% did not apply for other reasons. A very small share of respondents claimed that they had refrained from applying for a bank loan due to fear of rejection.

The majority of respondents reported unchanged or higher interest rates and other costs of financing, as well as unchanged or tighter collateral requirements. Meanwhile, a positive net balance of firms reported an increase in the size and maturity of loans and credit lines available over the preceding six months.

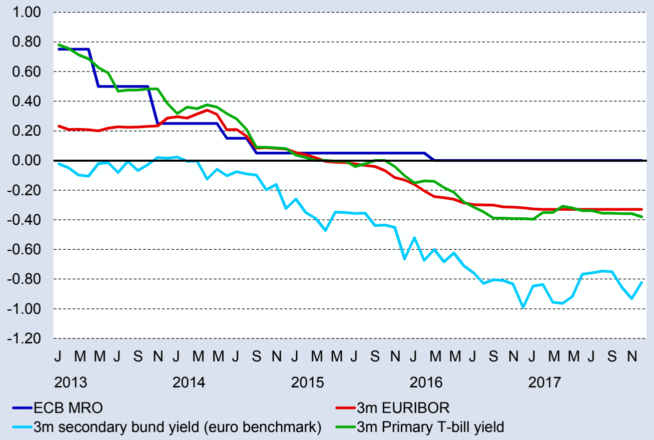
### The money market

The ECB maintained its loose monetary policy stance during 2017, with the interest rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility unchanged at 0.00%, 0.25% and -0.40%, respectively. As a result, money market rates in the euro area remained in negative territory, with the three-month EURIBOR ending 2017 at -0.33%, marginally below the rate of -0.32% at the end of 2016 (see Chart 2.5).

Meanwhile, in the domestic primary market, the yield on three-month Treasury bills rose slightly to -0.38% at the end of December, from -0.39% a year earlier. In total, the Treasury issued €588.6 million worth of bills in

2017, a significantly smaller amount compared with issues of €971.0 million in 2016. Moreover, the amount issued was lower than the amount of maturing bills, which stood at €665.6 million in 2017. The majority of bills issued had a maturity of three months, followed by those with a maturity of six months. New bills issued with a longer maturity made up around a fifth of all bills.

**Chart 2.5**
**MONEY MARKET INTEREST RATES**
*(percentages per annum; end of month rates)*




Sources: Central Bank of Malta; ECB; Reuters.

In the secondary market, the yield on three-month German government securities, which acts as a benchmark for euro area yields, increased by 17 basis points, to -0.82% from -0.99% at the end of 2016. Consequently the spread between the domestic rate and the euro benchmark narrowed to 44 basis points from 60 basis points a year earlier, also reflecting the upgrade of Malta's credit rating during the year.

## The capital market

In the capital market, total issues of long-term debt by the Government and by the private sector fell to €597.5 million in 2017, from €997.9 million in 2016. Taking into account the amount of redemptions and roll-overs made over the year, net issues of long-term debt in 2017 stood at €151.9 million, significantly lower than the €575.7 million net issues in 2016. Both net private and government issues were lower than a year earlier.

### *Malta Government Stocks issues fall substantially*

In 2017 the Government issued €258.9 million in long-term debt, but redeemed €268.4 million, such that net issues for the year were negative (see Table 2.5). New bond issues took place in February and August,

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

| | 2015 | 2016 | 2017 |
|---|---|---|---|
| **Government** | | | |
| Total issues[(3)] | 475.2 | 598.6 | 258.9 |
| Redemptions and roll-overs[(4,5)] | 349.2 | 232.0 | 268.4 |
| Net issues | 126.0 | 366.6 | -9.5 |
| **Corporate sector** | | | |
| Total issues | 205.0 | 399.2 | 338.6 |
| Redemptions, roll-overs and buybacks[(5,6)] | 65.0 | 190.2 | 177.5 |
| Net issues | 140.0 | 209.0 | 161.4 |
| **Total net issues** | **266.0** | **575.7** | **151.9** |

[(1)] Banks, non-monetary financial institutions and public non-financial corporations are included with corporate issuers. Long-term securities are those with an original term to maturity exceeding one year, and include preference shares.

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

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

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

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

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

Sources: Central Bank of Malta; MSE; Treasury.

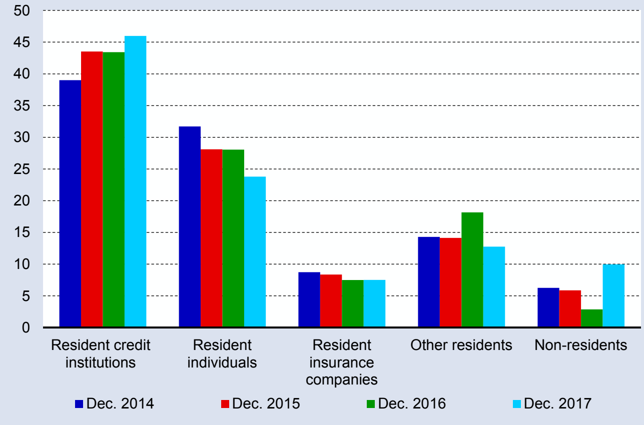
with maturity dates ranging from 10 years to 18 years. Around 7% of all issues were taken up by retail investors, mainly resident individuals and stockbrokers acting on behalf of clients. The rest were allotted through competitive auction, mainly to resident credit institutions. Demand for MGS was strong, with all issues being oversubscribed.

In line with these developments, the amount of outstanding MGS fell to €5.1 billion at the end of 2017, of which 90.0% were held domestically. Resident credit institutions remained the main holders of outstanding MGS, with their share rising to 45.6% in December. The share of MGS held by resident individuals stood at 23.8%. Holdings of non-residents were equivalent to 10.0% of total outstanding MGS (see Chart 2.6).

Secondary market turnover of MGS fell further during 2017. It stood at €403.8 million, compared with €551.8 million a year earlier. Turnover declined progressively during the year.

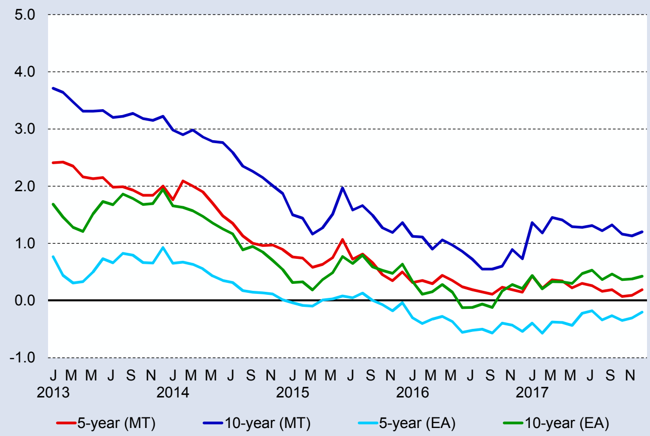
Secondary market yields on domestic MGS rose during 2016, with the five and ten-year yields rising by 5 and 47 basis points, respectively, to 0.19% and 1.20% as at end-December (see Chart 2.7). Similarly, in the euro area, the benchmark five-year yield increased by 34 basis points on its end 2016 level, to close the year at -0.2%. The euro area ten-year yield went up by 22 basis points to 0.42%. While the spread between the five-year yields in Malta and their euro area benchmark narrowed during the year, the ten-year spread widened. At the end of 2017, the spread on the five-year and ten-year yields stood at 39 and 78 basis points, respectively.

**Chart 2.6**
**OUTSTANDING MGS BY INVESTOR BASE(1)**
*(percentages)*




(1) Incorporates both fixed-rate and floating-rate MGS.
Sources: Central Bank of Malta, MSE.

**Chart 2.7**
**GOVERNMENT BOND YIELDS**
*(percentages per annum; end of month)*




Sources: Central Bank of Malta; ECB.

## *Corporate bond issues lower than a year earlier*

In the corporate bond market, new issues of long-term private debt listed on the MSE stood at €338.6 million in 2017. As the amount of redemptions, roll-overs and buybacks amounted to €177.5 million, net issues stood at €161.4 million. This figure was lower by €47.6 million than the net issues recorded in the preceding year, which were exceptionally large. 12 private companies, including one bank, had new bonds listed on the MSE during 2017.

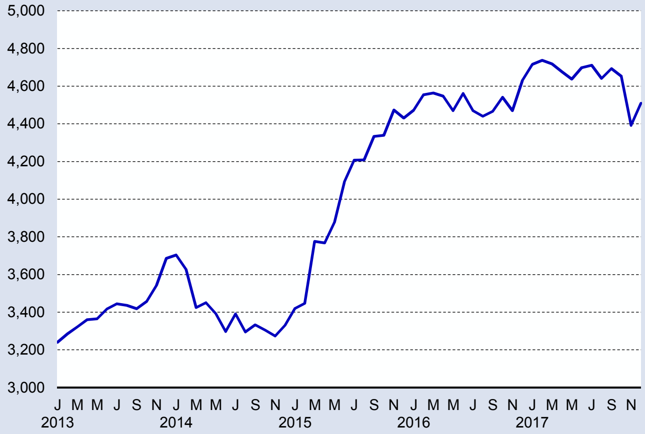
Turnover in the secondary corporate bond market rose significantly during 2017, up to €80.3 million from €57.9 million in the previous year.

*MSE index falls*

Likewise, during the year, turnover in the equity market rose to €88.0 million, from €77.8 million a year earlier. Around 40% of turnover was dominated by the banking sector. The MSE Equity Price Index, which is a measure of share prices in Malta, fell by 2.6% during 2017, to end the year at 4,508.98 (see Chart 2.8). Only nine out of the 22 equities in the index registered an increase in prices in 2017.

The MSE Equity Total Return Index, which accounts for changes in equity prices and dividends, fell by 1.5% from the level at end-December 2016.

**Chart 2.8**
**MALTA STOCK EXCHANGE SHARE INDEX**
*(end of month)*




Source: MSE.

## BOX 1: A FINANCIAL CONDITIONS INDEX FOR THE MALTESE ECONOMY[1]

A financial conditions index (FCI) provides a summary measure of domestic financial conditions by combining several financial variables that influence economic activity. These financial variables comprise a wide array of interest rates, asset prices and bank balance sheet indicators that capture the various channels through which the monetary policy transmission mechanism affects economic activity and, ultimately, prices. Such an index is commonly used for financial surveillance and as a forecasting tool.

This Box updates the FCI developed in Micallef and Borg (2016) to evaluate recent developments in financial conditions in Malta until the second quarter of 2017. The index is constructed using interest rates, bank balance sheet indicators, asset prices, as well as external variables. The weights are derived applying the Principal Component Analysis (PCA), a statistical approach intended to collapse a large set of variables into a single indicator. In addition, the results are cross-checked using simulations from STREAM, the Central Bank of Malta's macro-econometric model.

### Methodology

The importance of the various transmission channels depends, to a large extent, on the structure of the financial system. For instance, firms in Malta are relatively more dependent on bank financing than their counterparts in the euro area, where the corporate bond and equity markets play a more important role. According to the Survey on Access to Finance of Enterprises (SAFE), in 2015, around 75% of Maltese SMEs considered bank financing as the most relevant source of external financing compared to around 55% of European SMEs.[2] Domestic SMEs are also more dependent on bank overdrafts, credit lines and credit card facilities than their European counterparts.

The dataset utilised to construct the FCI attempts to replicate the primary features of the Maltese financial system, which in turn determines the state of financing conditions. The weights were derived using the principal component analysis.[3]

1 Prepared by Brian Micallef and Ian Borg. Mr Micallef is Manager within the Research Department and Mr Borg is a Senior Economist in the Economic Analysis Department. Comments and suggestions by Dr Aaron G. Grech are gratefully acknowledged. Any errors, as well as the views expressed here, are the authors' sole responsibility.

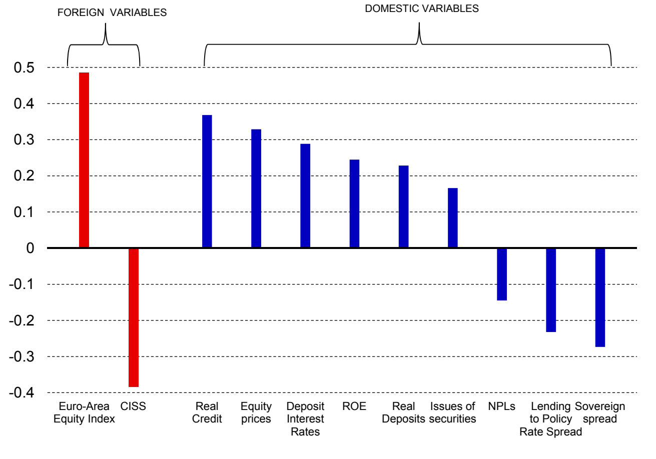
2 Zerafa, S. (2016), "Survey on access to finance (SAFE) in 2015", *Quarterly Review* 2016:1, pp. 80-88, Central Bank of Malta.

3 As is typical in these exercises, we started with a fairly large dataset which was subsequently reduced using the two following criteria: (1) on the basis of economic theory the sign corresponding to the first principal component has to be meaningful; (2) the time span should start from the mid-1990s to capture the tight financial conditions of the early 2000s.

The weights include both domestic and foreign variables. Ten domestic variables are included in the index: real credit, real deposits, real equity prices, issues of securities and shares, the non-performing loans (NPL) ratio, real house prices, the retail interest rate on deposits, the spread between the lending rate and the policy rate, the spread between Malta's ten-year government bond yield and the ten-year bund yield (defined below as the 'Sovereign spread') and the return on equity of the banking system. Foreign influences are captured through the Composite Indicator of Systemic Stress (CISS), which is intended to capture systemic stress in the euro area's financial system and the Eurostoxx 50 as a measure of equity prices in the euro area.[4] Trending variables were transformed into stationary ones by taking the year-on-year growth rates. Additionally, all variables were standardised.

Chart 1 plots the updated factor loadings derived from the PCA. The foreign variables have a relatively large weight in Malta's FCI reflecting the open nature of the Maltese economy. In terms of the domestic variables, given the importance of bank financing in Malta's financial system, real credit has the largest positive weight, while interest rate spreads have the largest negative weight.

**Chart 1**
**FACTOR LOADINGS**

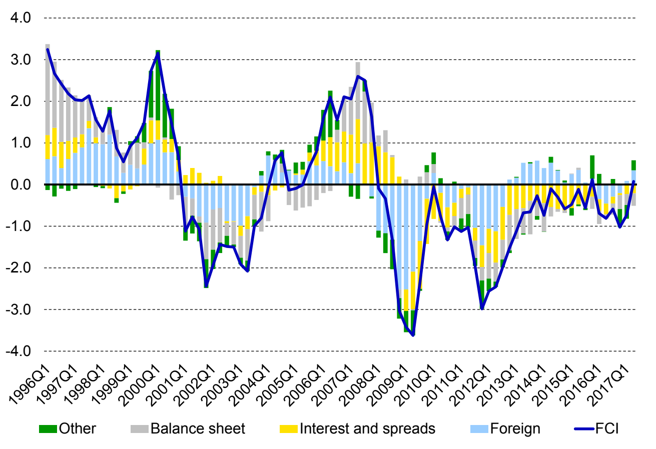



Source: Authors' calculations.

## Financial conditions index based on PCA

Chart 2 plots the FCI and the contributions of the financial variables to the first principal component. The individual sub-indicators are grouped into four categories, covering the external variables (CISS and euro area equity prices), bank balance sheet indicators (bank credit and deposits, return on equity (ROE), and NPLs), interest rates and spreads (deposit interest rate, sovereign spread and the spread between the lending and the policy rate) and other indicators (equity prices and issues of NFC securities).

**Chart 2**
**CONTRIBUTIONS TO THE FINANCIAL CONDITIONS INDEX**
*(percentage point contributions)*




Source: Authors' calculations.

Financing conditions in the mid-to-late 1990s were

[4] Hollo, D., Kremer, M., & Lo Duca, M. (2012), "CISS - a composite indicator of systemic stress in the financial system", *Working Paper* 1426, European Central Bank.

accommodative, boosted by strong real credit growth and benign conditions from abroad. Buoyant equity prices played an important role at the turn of the millennium. The FCI tightened in the early 2000s as the economy was hit by a combination of demand and supply shocks, which resulted in a drop in credit growth and an increase in NPLs, also following the introduction of stricter regulatory requirements. Moreover, the external factors affecting financing conditions also tightened considerably during this period as the bursting of the dot-com bubble and the terrorist attacks of 9/11 heightened international financial stress, which in turn depressed equity markets, both locally and abroad.

Conditions started to improve again in the pre-crisis cyclical upswing before being tightened considerably in 2008, driven by the onset of the financial crisis, with heightened stress in international markets, as well as the drop in real credit growth and the rise in the risk premium.

After recovering in 2010, domestic financing conditions tightened again in 2012-2013 primarily due to the decline in credit growth, as well as the intensification of the sovereign debt crisis in the euro area. The decline in credit growth was not driven by demand-related factors since economic performance during this period was relatively robust. Focusing primarily on NFC credit, a study by the Central Bank of Malta finds that a significant negative 'credit gap' opened up between 2012 and 2014.[5] In this regard, a number of important policy initiatives have been put in place, including the introduction of a Central Credit Register (CRR) to address information asymmetries in the banking sector, and the setting up of a Development Bank which is expected to focus on large-scale infrastructural projects and lending to SMEs. Moreover, the relatively tight financing conditions experienced in 2013 were in part also related to the impaired transmission mechanism of monetary policy, reflected in wider spreads.[6]

Financial conditions improved significantly since 2012 driven by the reduction in foreign stress, and facilitated by additional monetary easing by the European Central Bank. On the other hand, domestic variables generally continued to weigh down as the negative contribution of credit growth, the increase in NPLs and wider credit spreads persisted, and were only partly offset by improvements in real deposit growth.

The improvements in the FCI have generally stalled in 2016, mirroring negative developments in each of the categories. In particular, foreign financing conditions were weighed down by growth concerns in China and uncertainty related to the UK referendum. In the second half of 2016, foreign financing conditions improved as uncertainty related to China and the United Kingdom receded, while the outlook for the euro area improved. Moreover, domestic financing conditions also contributed to the tightening in 2016. In particular, despite the improvement in NPLs, which have declined considerably during the year, credit growth to NFCs remained negative. Furthermore, despite some declines in lending rates in 2016, these were offset by even stronger declines in short-term rates, thus leading to wider spreads.

Financing conditions recovered considerably in the first half of 2017, ending the second quarter at neutral levels. In particular, international markets continued to improve substantially during the first half of 2017, reflecting positive macroeconomic developments in the euro area. On the other hand, domestic financing conditions remained in negative territory due to continued declines in credit growth to NFCs, which were only partially offset by declines in NPLs.

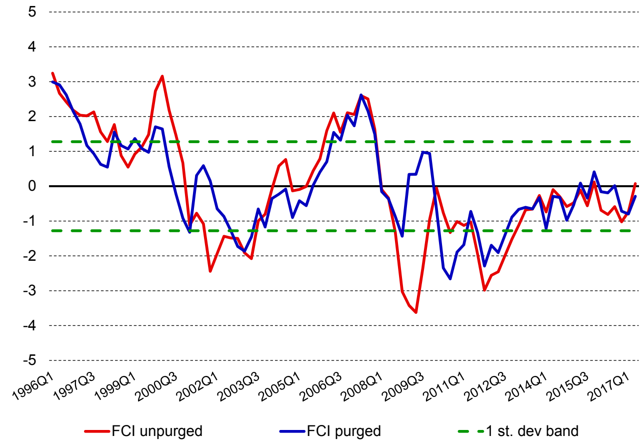
The derived first principal component reflects both the impact of demand and supply on the evolution of the financial variables. However, financing conditions should be interpreted as a representation of financial shocks and therefore, the FCI should be stripped from the feedback of economic activity.

[5] Micallef, B. (2015), "Estimating a Credit Gap for Non-Financial Corporations in Malta", *Working Paper* 04/2015, Central Bank of Malta.

[6] Micallef, B., Rapa, N., & Gauci, T. (2016), "The role of asymmetries and banking sector indicators in the interest rate pass-through in Malta", *Journal of Advanced Studies in Finance, Volume VII*, Issue 1(13), Summer 2016.

This endogeneity problem is addressed in the second stage of the estimation, when we purge the first principal component of this feedback by regressing it on current GDP growth in Malta and the euro area.[7] The residual of this regression is taken as our estimated FCI measure for Malta. As a result, the 'purged' FCI reflects only the exogenous shifts in the financial conditions.

Chart 3
FCI - PURGED AND UNPURGED
*(index)*




Source: Authors' calculations.

Chart 3 plots the unpurged and purged FCI. The differences between the two series are minimal in most instances, except in two periods. In 2001-2002, the unpurged FCI goes into negative territory, signalling tight financing conditions, while the FCI purged from macro-economic influences remains broadly neutral. Similarly, in 2009, the unpurged FCI drops very strongly, but the decline in the purged FCI is much more muted. The main reason behind these differences is that some of the decline experienced in these two periods is explained by deterioration in economic activity, both domestic and abroad. Hence, the decline in the unpurged FCI in these two instances is partly demand-related rather than driven by financial supply shocks.

Moreover, Chart 3 plots the two FCIs within a one standard deviation range to assess historical episodes in which financial conditions deviated substantially from its mean. Among these episodes, the mid-1990s as well as the period 2006-2007 were clearly characterised by accommodative financial conditions. On the contrary, financial conditions were tight after the financial crisis and, to a lesser extent, in the early 2000s. The period after 2013 is characterised by generally normal financing conditions, albeit biased towards the low end of the distribution.

### Financial conditions index based on STREAM

The PCA is only a statistical technique intended to capture variations among a large set of variables, and therefore it is not always clear whether the derived weights are consistent with what one would expect for a particular economy. In addition, some variables may be statistically significant but display an incorrect sign to that expected on the basis of economic theory and would therefore have to be excluded.

As a sensitivity analysis, we develop an alternative index using simulations from STREAM, the Central Bank of Malta's macro-econometric model of the Maltese economy, which in recent years has been enriched with detailed fiscal and financial blocks.[8] STREAM can thus be characterized as a medium-scale model, which strikes a reasonable balance between containing sufficient detail to capture the key economic relationships underpinning the domestic economy, and being tractable and manageable.

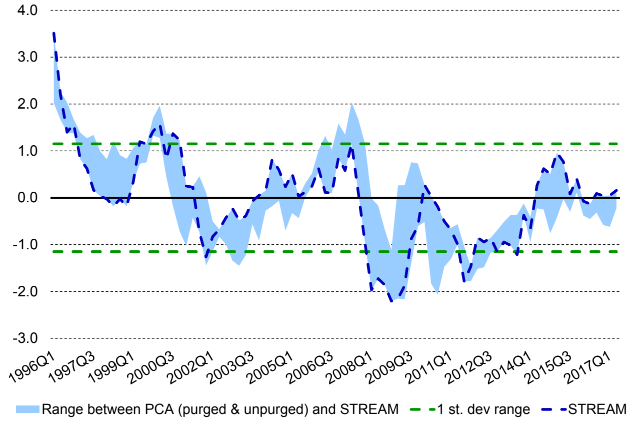
The weights were derived from the response of real GDP growth after four to six quarters following a one standard deviation shock to each variable. The main difference with respect to the PCA

[7] Gumata, N., Klein, N., & Ndou, E. (2012), "A financial conditions index for South Africa", *Working Paper* 12/196, International Monetary Fund.

[8] Grech, O., & Rapa, N. (2016), "STREAM: a structural macro-econometric model of the Maltese economy", *Working Paper* WP/01/2016, Central Bank of Malta.

method outlined above is the inclusion of the real effective exchange rate, which was excluded from the PCA as it did not display the correct sign. The following variables (with weights in brackets) were used: real credit to the private sector (25%), the real effective exchange rate (17%), real house prices (12%), real deposits (5%), real equity prices (5%), interest rates (6%) and the NPL ratio (5%). These variables are intended to capture the various channels – interest rates, exchange rate, asset prices, lending conditions – through which financing conditions affect the real economy. One limitation of STREAM is the absence of foreign financial variables, which are usually found to exert an important influence on domestic financing conditions in open economies. Given the small and open economy characteristics of the Maltese economy, we introduce CISS to capture systemic stress in the euro area, with its weight calibrated to 25%.

**Chart 4**
**SENSITIVITY ANALYSIS**
*(index)*




Source: Authors' calculations.

Chart 4 illustrates the range between the results obtained from the PCA (purged and unpurged) and the version from STREAM, together with the one-standard deviation bands. The FCI using STREAM broadly follows the dynamics from the PCA. The divergence in the period 2014-2015 is mostly explained by the depreciation of the exchange rate, which is excluded from the PCA approach. The exchange rate then appreciated in 2016 and the first half of 2017, which contributed negatively to the FCI. Similar to the FCI using PCA, it indicates broadly neutral financing conditions by the second quarter of 2017.

## Conclusion

This Box has updated indicators of financial conditions in Malta until the second quarter of 2017. The indices were computed using two approaches, principal components and simulations using STREAM, the Bank's macro-econometric model. Both indicators include a mix of domestic and foreign variables, reflecting the open nature of the Maltese economy.

Financial conditions were relatively tight in the aftermath of the financial crisis, initially due to international factors but subsequently mainly reflecting domestic ones. All the methods indicate that financing conditions have improved since 2013, though to different degrees, reflecting differences in the indicators and weights used in these indices. Since last year, domestic factors have continued to somewhat dampen financing conditions, while the declines related to foreign factors have been largely reversed in the first half of 2017. As financial conditions do affect economic activity, addressing the relatively domestic-induced tightening could be beneficial to growth.

## 3. OUTPUT, EMPLOYMENT AND PRICES[1]

*The Maltese economy continued to grow strongly during 2017, with real gross domestic product (GDP) accelerating compared to the previous year. Economic activity was primarily driven by net exports. Domestic demand also supported economic expansion, although its contribution was moderate by comparison as positive contributions from private consumption and changes in inventories were partly offset by reductions in government consumption and investment.*

*Sector data continue to point towards services as the main driver of growth in gross value added (GVA). The strongest contributions stemmed from sectors specialising in professional, scientific and technical activities as well as that incorporating wholesale and retail trade. The sector comprising manufacturing, mining, quarrying and utilities as well as construction also contributed positively to GVA growth in 2017.*

*Labour Force Survey (LFS) data for the first three quarters of 2017 show that, against the backdrop of a buoyant economy, employment continued to rise and unemployment declined further. Indeed, the LFS unemployment rate averaged 4.1% over the first three quarters of the year, with the reading for the third quarter standing at a new record low of 4.0%. These favourable labour market developments are corroborated by data based on administrative sources, which show that in 2017 the number of registered unemployed fell by 1,073, to an average of 2,501 persons.*

*Consumer price inflation rose during 2017, albeit still at a relatively low level, with the annual growth rate of the Harmonised Index of Consumer Prices (HICP) standing at 1.3% and annual inflation based on the Retail Price Index (RPI) at 1.4%. Inflation remains contained both from a historical perspective and relative to other countries, as it was below the levels observed in the euro area. Similarly, domestic cost pressures picked up, with the annual average rate of change in the Producer Price Index (PPI) reaching 1.6% in 2017.*

*As regards competitiveness, Malta's Harmonised Competitiveness Indicators (HCI) continued to indicate a decline in competitiveness, mostly reflecting unfavourable exchange rate movements. On the other hand, Malta's ULC index remained stable during the year, as growth in compensation per employee was matched by an increase in productivity.*

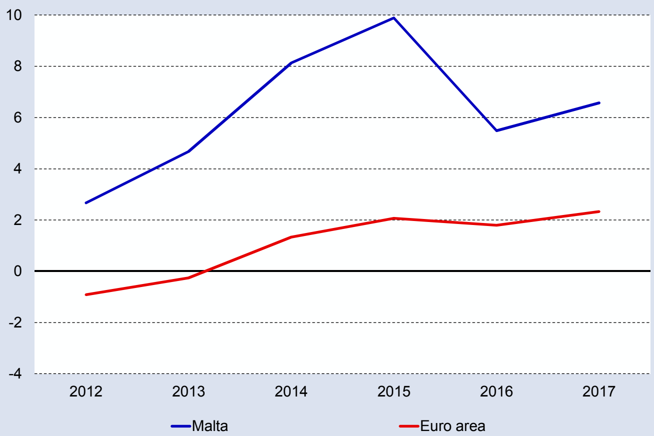
### Gross domestic product

*Real GDP growth accelerates*

Real GDP increased at a faster pace during 2017. It rose by 6.6%, after growing by 5.5% in the previous year (see Table 3.1). This rate of growth was almost three times that recorded in the euro area (see Chart 3.1).

The increase in economic activity was primarily supported by net exports, as domestic demand posted a moderate increase. During 2017, exports of goods and services increased by 1.6%, a lower rate than the 4.5% recorded in the previous year. However, imports of goods and services contracted by

**Chart 3.1**
**REAL GDP GROWTH**
*(annual percentage changes)*




Sources: NSO; Eurostat.

[1] The analysis of GDP in this Chapter of the *Annual Report* is based on data in NSO *News Release* 038/2018, released on 8 March 2018.

**Table 3.1**
**GROSS DOMESTIC PRODUCT**[(1)]

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| | | | *Annual percentage changes* | | | |
| Private final consumption expenditure | -0.5 | 2.1 | 2.7 | 5.6 | 3.0 | 4.2 |
| Government final consumption expenditure | 5.7 | -0.4 | 6.6 | 3.7 | -2.7 | -0.3 |
| Gross fixed capital formation | 1.5 | 1.3 | 6.8 | 58.2 | 1.6 | -7.4 |
| **Domestic demand** | **-0.5** | **3.4** | **2.9** | **16.3** | **1.3** | **0.9** |
| Exports of goods and services | 7.0 | 0.9 | 3.2 | 3.5 | 4.5 | 1.6 |
| Imports of goods and services | 5.0 | 0.0 | -0.2 | 7.1 | 1.5 | -3.0 |
| **Gross domestic product** | **2.7** | **4.7** | **8.1** | **9.9** | **5.5** | **6.6** |
| | | | *Percentage point contributions* | | | |
| Private final consumption expenditure | -0.3 | 1.2 | 1.5 | 2.9 | 1.4 | 2.0 |
| Government final consumption expenditure | 1.1 | -0.1 | 1.3 | 0.7 | -0.5 | 0.0 |
| Gross fixed capital formation | 0.3 | 0.2 | 1.2 | 10.1 | 0.4 | -1.8 |
| Changes in inventories | -1.6 | 1.9 | -1.2 | 0.7 | -0.1 | 0.6 |
| **Domestic demand** | **-0.5** | **3.2** | **2.7** | **14.3** | **1.2** | **0.7** |
| Exports of goods and services | 11.2 | 1.5 | 5.1 | 5.3 | 6.2 | 2.1 |
| Imports of goods and services | -8.0 | 0.0 | 0.3 | -9.7 | -1.9 | 3.7 |
| **Net exports** | **3.2** | **1.5** | **5.4** | **-4.4** | **4.3** | **5.9** |
| **Gross domestic product** | **2.7** | **4.7** | **8.1** | **9.9** | **5.5** | **6.6** |

[(1)] Chain-linked volumes, reference year 2010.

Sources: NSO; Central Bank of Malta calculations.

3.0% after a 1.5% increase in 2016. As exports rose and imports declined, net exports added almost 6 percentage points to real GDP growth. This strong positive net export contribution reflected trade in services, where exports continued to outpace imports by a wide margin. In contrast, the deficit on goods persisted, although it narrowed somewhat compared to 2016.

The rise in domestic demand was mainly driven by a strong increase in private consumption expenditure, which continued to benefit from favourable labour market conditions and strong growth in wage income. Changes in inventories also supported the expansion. In contrast, gross fixed capital formation and government consumption declined.

Private final consumption growth reached 4.2%, against 3.0% in 2016, and contributed 2.0 percentage points to GDP growth. Nominal data show higher spending across all main commodity types. The household sector continued to benefit from strong, if moderating, growth in compensation of employees, while employment prospects remained very favourable.

Government consumption expenditure recorded the second consecutive decrease. In 2017, it fell by 0.3%, following a 2.7% decline in 2016. Although the two principal components of government consumption – intermediate consumption and compensation of employees – increased in 2017, sales, which are netted against expenditure in the national accounts, also rose significantly. In turn, this increase in sales mainly resulted from inflows under the Individual Investor Programme (IIP).

Following a rise of 1.6% in 2016, gross fixed capital formation contracted by 7.4% in 2017 and shed 1.8 percentage points from real GDP growth. The swing to negative territory was due to a fall in the transport equipment component, which had been boosted by exceptionally high capital outlays in the aviation sector in 2016. On the other hand, investment in other machinery and equipment, as well as in dwellings, non-residential construction and intellectual property increased. Nominal data show that private investment contracted during 2017, while public sector investment increased after declining strongly in the previous year.

*Nominal data continue to show a services-led economic expansion*

In nominal terms, GDP rose by an annual 9.0% in 2017, after increasing by 7.1% in the previous year (see Table 3.2).

This acceleration mirrored that in GVA, which increased by 8.8% in 2017, following a rise of 7.0% in the previous year, and contributed 7.8 percentage points to nominal GDP growth.[2]

Services remained the primary driver of the expansion in GVA, pushing up nominal GDP by 6.7 percentage points. The strongest contributions came from the sectors comprising of professional and scientific activities as well as wholesale and retail trade. Together, these two sectors accounted for almost three-fifths of the increase in GVA. Other significant contributions were recorded in the arts and entertainment sector and in the sector that includes public administration.

The manufacturing and construction sectors also supported the expansion, with GVA in these sectors going up by almost a tenth in annual terms, and their joint contribution rising five-fold over 2016. The sector comprising mining and quarrying, and utilities kept its contribution constant at 0.2 percentage point from the previous year, while the sector of agriculture, forestry and fishing had a negligible impact on growth.

Looking at the distribution of GDP by factor income, growth in profits increased strongly in 2017. Gross operating surplus and mixed income rose by 10.5%, after increasing by 6.9% in the previous year and contributed 4.9 percentage points to nominal GDP growth (see Chart 3.2). In absolute terms, the majority of sectors noted a rise in their gross operating surplus in 2017, with the largest increases recorded in the sector comprising of administrative and support services activities, professional, scientific and technical activities as

**Table 3.2**
**CONTRIBUTION OF SECTORIAL GROSS VALUE ADDED TO NOMINAL GDP GROWTH**
*Percentage points*

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| Agriculture, forestry and fishing | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 |
| Mining and quarrying; utilities | -0.9 | 1.2 | 0.0 | 0.2 | 0.2 | 0.2 |
| Manufacturing | 0.1 | -0.9 | 0.2 | -0.2 | 0.2 | 0.7 |
| Construction | -0.1 | 0.3 | 0.1 | 0.3 | 0.0 | 0.3 |
| Services | 5.6 | 5.6 | 8.8 | 11.1 | 5.8 | 6.7 |
| *of which:* | | | | | | |
| Wholesale and retail trade; repair of motor vehicles; transportation; accommodation and related activities | 1.6 | 1.8 | 1.3 | 3.6 | 0.9 | 1.3 |
| Information and communication | 0.1 | -0.1 | 1.3 | 1.1 | 0.6 | 0.4 |
| Financial and insurance activities | 1.1 | 0.0 | -0.3 | 0.4 | 0.4 | 0.2 |
| Real estate activities | 0.0 | 0.1 | 0.0 | 0.7 | 0.4 | 0.0 |
| Professional, scientific, administrative and related activities | 1.2 | 1.1 | 1.7 | 2.7 | 1.4 | 2.6 |
| Public administration and defence; education; health and related activities | 1.0 | 1.1 | 1.3 | 1.2 | 1.0 | 1.1 |
| Arts, entertainment; household repair and related services | 0.6 | 1.4 | 3.4 | 1.5 | 1.0 | 1.1 |
| **Gross value added** | **4.7** | **6.1** | **9.2** | **11.6** | **6.2** | **7.8** |
| **Net taxation on products** | **0.1** | **0.5** | **1.4** | **1.0** | **0.9** | **1.2** |
| **Annual nominal GDP growth (%)** | **4.8** | **6.7** | **10.6** | **12.6** | **7.1** | **9.0** |

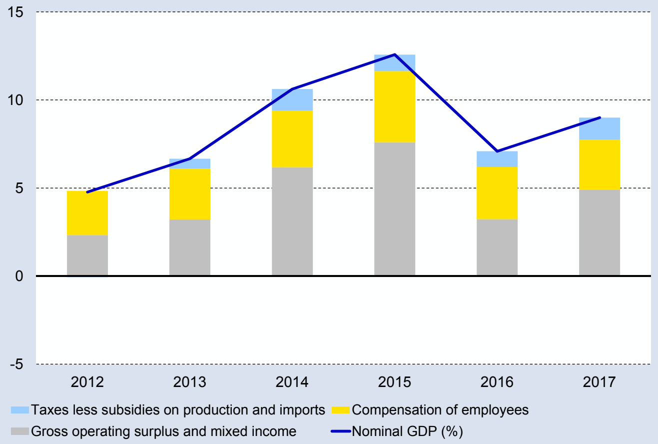
Source: NSO.

[2] The difference between nominal GDP growth and the GVA contribution is made up of taxes on products, net of subsidies.

well as that comprising arts, entertainment and recreation services. These were closely followed by the manufacturing sector.

Compensation of employees increased by 6.8% in 2017, marginally below the 7.1% growth recorded in 2016 and pushed up nominal GDP growth by 2.8 percentage points. In absolute terms, employee compensation rose in all major sectors. The strongest increases however, were recorded in public administration, in the sector comprising professional, scientific and technical activities as well as in the arts and entertainment, and in the sector incorporating wholesale and retail trade.

**Chart 3.2**
**NOMINAL GDP AND ITS MAIN COMPONENTS**
*(percentage point contribution)*




Source: NSO.

## Industrial production[3]

Industrial production grew by 3.7% in 2017, following a contraction of 3.5% in 2016 (see Table 3.3). The manufacturing sector, which has the largest weight in the index of industrial production, registered 3.6% growth following a decline in production in 2016. Output in the energy sector rose at a faster pace. On the other hand, output in the mining and quarrying sector decreased.

The expansion in manufacturing activity in 2017 was mostly attributed to higher production among manufacturers of rubber and plastics, where output rose by 13.6%. Output also rose within the beverages sector and among firms producing computer, electronic and optical products. On the other hand, production declined significantly within the pharmaceutical sector. It also fell among firms involved in the printing and

**Table 3.3**
**INDUSTRIAL PRODUCTION**
*Percentages; annual average percentage changes*

| | Shares | 2015 | 2016 | 2017 |
|---|---|---|---|---|
| **Industrial production** | **100.0** | **6.0** | **-3.5** | **3.7** |
| **Manufacturing** | **83.3** | **6.5** | **-4.5** | **3.6** |
| *Of which:* | | | | |
| Computer, electronic and optical products | 18.4 | 0.5 | -11.3 | 1.5 |
| Basic pharmaceutical products and pharmaceutical preparations | 10.4 | 35.3 | -14.7 | -13.5 |
| Food products | 8.1 | 9.3 | -9.4 | -0.5 |
| Printing and reproduction of recorded media | 5.9 | -2.7 | -14.2 | -3.0 |
| Rubber and plastic products | 4.4 | 4.4 | 7.9 | 13.6 |
| Beverages | 3.9 | 6.0 | 2.9 | 4.6 |
| **Energy** | **16.3** | **3.6** | **0.5** | **4.5** |
| **Mining and quarrying** | **0.4** | **-2.7** | **13.2** | **-10.8** |

Sources: NSO; Eurostat.

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

reproduction of recorded media, as well as in the food sector, although the declines in these sectors were relatively smaller.

Data on manufacturing sales also point to an expansion in turnover of 2.0% during the first eleven months of 2017, following a decline in 2016.[4] This rise in turnover reflects increased sales to both the domestic and export markets.

## Tourism

Activity in the tourism sector remained buoyant during 2017, with tourist arrivals, nights stayed and expenditure all exceeding the levels recorded a year earlier.

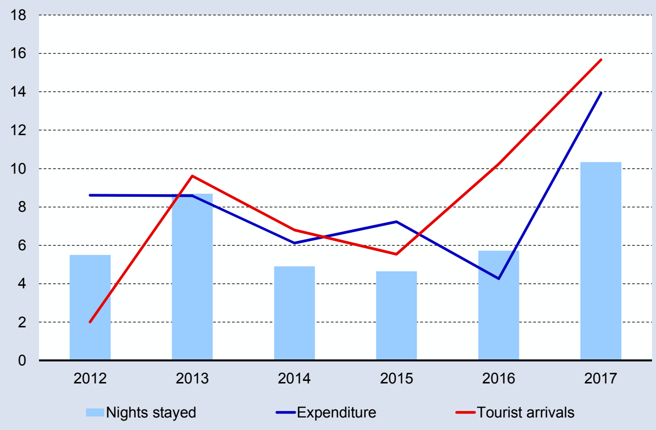
During the year under review, tourist arrivals were up by 15.7% after increasing by 10.2% in 2016 (see Chart 3.3). The total number of tourists exceeded 2.2 million, 307,909 visitors more compared with the preceding year.

Nearly two million tourists visited Malta for leisure purposes in 2017. This represented an increase of 247,263 or 14.6% on 2016. Those coming to Malta for business purposes totalled 180,560, an increase of 43,790 or 32.0% on the preceding year, with this strong increase partly reflecting the impact of Malta's EU Presidency in the first half of the year. Meanwhile, 154,821 persons visited for educational, religious, health and other purposes, a rise of 16,856 or 12.2%.

In the year under review, the number of tourist nights spent in Malta reached 16.5 million, a rise of 10.3% on 2016. Around two-thirds of this growth was reflected in a rise in nights spent in private accommodation. These were up by 16.7% on the preceding year. At the same time, nights spent in collective accommodation increased by 6.0%.[5] As private accommodation gained further popularity, its share in the overall nights spent by tourists in Malta edged up further, reaching 43.0%.

In 2017, tourist expenditure rose further reaching €1.9 billion, a gain of 13.9% on 2016.[6] Higher expenditure was registered in all expenditure categories, with the highest increase in absolute terms reported in the "other" category, which rose by 17.3%. Spending on non-package holidays increased by 19.8% and that on package holidays rose by a more modest 3.2%. Growth in this expenditure component was dampened by lower spending by UK visitors in Malta, partly affected by the depreciation of sterling. As tourist expenditure increased at a slower pace compared with arrivals, expenditure per capita fell. It decreased to €856 from €869 in 2016. This partly reflected a shorter length of stay, which fell to 7.3 nights from 7.6 nights in 2016.

**Chart 3.3**
**TOURISM INDICATORS**
*(annual percentage changes)*




Source: NSO.

[4] Data on manufacturing sales are sourced from Eurostat.

[5] Private accommodation includes self-catering apartments, farmhouses, and private residences. As per Eurostat recommendation, timeshare accommodation is classified as "private accommodation". Collective accommodation comprises hotels, aparthotels, guesthouses, hostels and tourist villages.

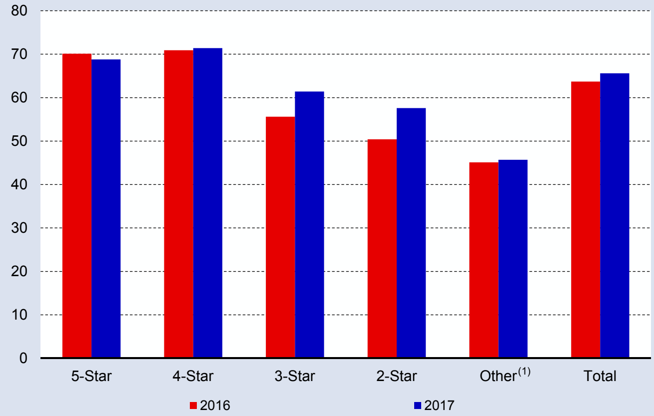
[6] Total expenditure is split into package, non-package and "other" with the latter component capturing any additional expenditure by tourists during their stay in Malta, such as expenditure on excursions and entertainment.

The United Kingdom and Italy remained Malta's most important source markets, accounting for 24.7% and 16.0% of total visitors, respectively. Germany and France remained the next most important markets. All these main markets registered very strong gains, bar the United Kingdom, where the number of visitors rose only negligibly compared with 2016. Growth was strong and broad-based across new market segments, with most recording double-digit growth, partly reflecting the extension of new routes. Belgium, which traditionally was a less important market for Malta, also registered an extraordinary gain of over 75% in 2017, partly reflecting an influx of visitors from this country while Malta had the EU Presidency during the first half of the year.

Malta's performance compared positively with other countries. According to the World Tourism Barometer, arrivals in Southern and Mediterranean European countries grew by an annual rate of 12.6%, while the global tourism industry registered a 6.7% increase in 2017.

The total average occupancy rate in collective accommodation establishments edged up to 65.6% in 2017, from 63.7% in 2016 (see Chart 3.4). Two-star and three-star establishments reported the largest increases while occupancy in four-star hotels and the "other collective" accommodation establishments increased only marginally. At the same time, although nights spent in five-star hotels increased, the occupancy rate in this category was marginally lower than in 2016. This was attributable to an increase in available bed capacity in 2017, as a number of five-star establishments had temporarily reduced their capacity for refurbishment purposes a year earlier.

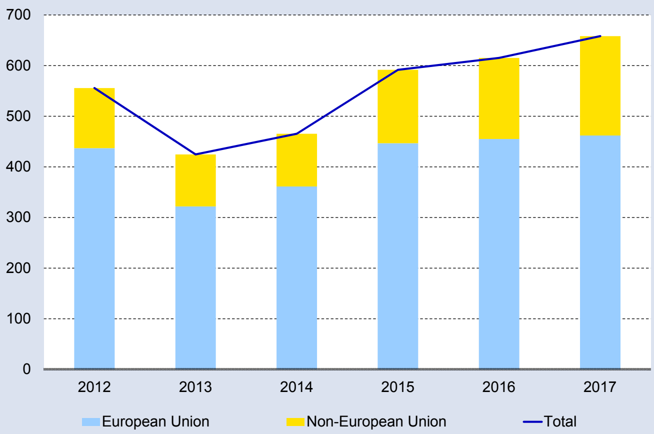
**Chart 3.4**
**AVERAGE OCCUPANCY RATES**
*(per cent)*




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

In 2017, the number of foreign cruise liner passengers rose further reaching 658,203, an increase of 7.0% on 2016 (see Chart 3.5). Most of the increase stemmed from passengers coming from the United Kingdom and the United States. In aggregate though, visitors from non-EU countries increased more strongly than those from the European Union. EU passengers totalled 461,955, a rise of 1.5% in annual terms. Non-EU passengers totalled 196,248, up by 22.6% compared with 2016. The number of cruise liner calls in 2017 totalled 342, 26 more than in 2016.

**Chart 3.5**
**CRUISE LINER PASSENGERS**
*(thousands)*




Source: NSO.

## Construction

In 2017, the number of permits issued for the construction of residential dwellings reached a ten-year high. The increase in permits issued reflected the rate of expansion seen in the construction sector. In fact, national accounts data show that activity in this industry strengthened during the year under review, as value added rebounded and investment increased at double-digit rates. Apart from buoyant activity in the residential segment, this also reflected construction works in the business sector. In contrast, government expenditure on infrastructural products contracted. Jobsplus data also point to a rise in employment in construction in the first nine months of the year.[7]

### *Construction activity grows at a brisk pace*

The number of permits for residential units issued by the Planning Authority continued to increase strongly. In 2017, it rose for the fourth consecutive year, reaching a ten-year high. Permits issued stood at 9,822, up from 7,508 in the previous year (see Table 3.4).

The highest rise was recorded in permits for the construction of apartments, which is the largest category and accounted for 87% of total residential permits issued in 2017. Permits issued for maisonettes also rose during the year under review and accounted for almost 10% of all residential permits issued during the year. On the other hand, permits issued for terraced houses and other dwellings declined over the year.

Construction investment increased by 23.4% in nominal terms, after declining by 12.4% in 2016. Both residential and non-residential construction increased at a fast pace, with the former rising by 41.4%, following a 31.6% increase in the previous year. Meanwhile, non-dwelling investment rose by 11.0%, after declining by 28.8% in 2016.

GVA of the construction industry also recovered during 2017. It rose by 8.3% after falling by 0.4% in the previous year (see Table 3.5).

**Table 3.4**
**PERMITS ISSUED FOR THE CONSTRUCTION OF DWELLING**

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| Apartments | 2,489 | 2,062 | 2,221 | 3,019 | 6,316 | 8,513 |
| Maisonettes | 298 | 350 | 414 | 471 | 706 | 919 |
| Terraced houses | 202 | 209 | 204 | 342 | 297 | 277 |
| Other | 75 | 84 | 98 | 115 | 189 | 113 |
| **Total** | **3,064** | **2,705** | **2,937** | **3,947** | **7,508** | **9,822** |

Source: Planning Authority.

**Table 3.5**
**CONSTRUCTION ACTIVITY INDICATORS[(1)]**

| | 2015 | 2016 | 2017 |
|---|---|---|---|
| **Gross value added (EUR millions)** | **330.2** | **328.9** | **356.4** |
| Share of gross value added in GDP (%) | 3.5 | 3.2 | 3.2 |
| **Total employment** | **10,508** | **10,806** | **11,107** |
| of which private employment | 9,383 | 9,774 | 10,151 |
| Share in total gainfully occupied population (%) | 6.1 | 6.0 | 5.8 |

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

[7] Jobsplus assists and trains jobseekers, promotes workforce development and helps employers in their recruitment and training needs. It supersedes the Employment and Training Corporation (ETC), as per Act XXVII of 2016, which amended the *Employment and Training Services Act*.

Jobsplus data for the first nine months of 2017 show that total employment in the construction sector rose by 301, or 2.8%, compared with the same period of 2016 (see Table 3.5). Private sector employment in construction increased by almost 4.0%, but was partly offset by a fall in employment in the public sector.

As growth in other economic sectors was faster in 2017, the construction industry's share in total gainfully occupied fell to 5.8% from 6.0% in 2016.

Within the industry, compensation of employees increased strongly, rising by 5.6%, following an increase of 1.2% in the preceding year.

## The labour market[8]

*Employment continues to grow in the first three quarters of 2017*
During the first three quarters of 2017, employment expanded at an average annual rate of 2.8%, as against 3.1% during the corresponding period of 2016 (see Table 3.6). Although the pace of job creation eased slightly compared with that recorded a year earlier, it remained relatively robust from a longer historical perspective (see Chart 3.6).

The increase in the number of jobs during the first three quarters of the year was underpinned by a rise in full-time employment, which went up by 5,680 persons. On the other hand, the number of part-time employees fell by 346, or 1.2%.

The labour force expanded by 2.0% over its average level in the first nine months of 2016. As a result, the activity rate went up to 69.9%, adding 0.9 percentage point on a year earlier.[9] The female activity rate

**Table 3.6**
**LABOUR MARKET INDICATORS BASED ON THE LABOUR FORCE SURVEY[(1)]**
*Persons; annual percentage changes*

| | 2016 (revised) Jan.-Sep. | 2017 Jan.-Sep. | Annual change % |
|---|---|---|---|
| **Labour force** | **201,142** | **205,107** | **2.0** |
| Employed | 191,366 | 196,700 | 2.8 |
| *By type of employment:* | | | |
| Full-time | 163,005 | 168,685 | 3.5 |
| Part-time | 28,362 | 28,016 | -1.2 |
| Unemployed | 9,776 | 8,407 | -14.0 |
| **Activity rate (%)** | **69.0** | **69.9** | |
| Male | 82.0 | 82.3 | |
| Female | 55.5 | 56.9 | |
| **Employment rate (%)** | **65.6** | **67.0** | |
| Male | 78.1 | 79.0 | |
| Female | 52.6 | 54.3 | |
| **Unemployment rate (%)** | **4.8** | **4.1** | |
| Male | 4.6 | 3.9 | |
| Female | 5.2 | 4.4 | |

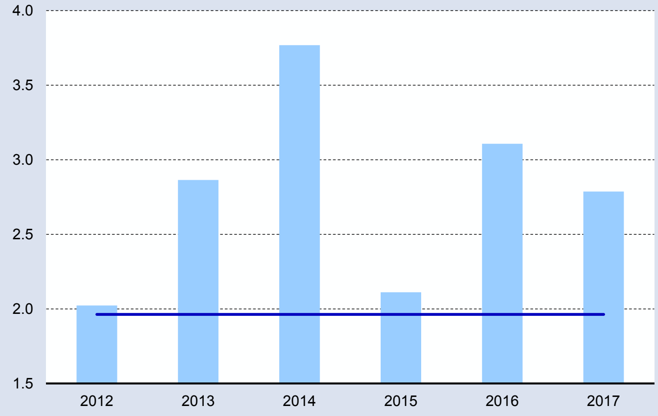
(1) Figures are based on averages for the first three quarters.
Source: NSO.

8 This Section draws mainly on labour market statistics from two sources: the LFS, which is a household survey conducted on a quarterly basis by the National Statistics Office (NSO) on the basis of definitions set by the International Labour Organization and Eurostat, and administrative records compiled monthly by the Jobsplus (previously, the Employment and Training Corporation) according to definitions established by domestic legislation on employment and social security benefits.

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

posted the strongest gain, while the male participation rose marginally. The former increased by 1.3 percentage points to 56.9%, while the rate for males rose by 0.3 percentage point to 82.3%. Meanwhile, the average employment rate rose by 1.4 percentage points to 67.0%.[10] Both activity and employment rates reached the highest levels recorded since the first time the survey was conducted in Malta.

**Chart 3.6**
**EMPLOYMENT GROWTH BASED ON THE LABOUR FORCE SURVEY: Q1-Q3**
*(Q1-Q3 annual percentage changes)*




Source: NSO.

Apart from buoyant economic conditions, additions in activity and employment rates partly reflect the continuation of active labour market policies. These were aimed at increasing employment among the more challenged jobseekers, as well as encouraging inactive persons to join the labour market.

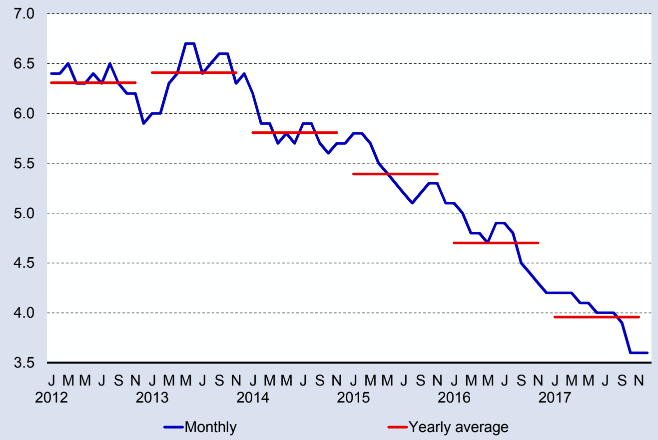
### *Unemployment reaches a new low*

LFS data show that the number of unemployed declined on a year earlier, reflecting a growing demand for labour.[11]

Data for the first three quarters of 2017 show that, at 8,407, the number of jobseekers was around 1,369 less than the average for the first nine months of 2016. The unemployment rate averaged 4.1% between January and September 2017, or 0.7 percentage point below the rate in the same period a year earlier (see Table 3.6).

The seasonally adjusted unemployment rate published by Eurostat, which takes into account more recent developments in administrative data, averaged 4.0% in 2017, significantly lower than the average of 4.7% recorded in 2016 (see Chart 3.7).[12]

**Chart 3.7**
**UNEMPLOYMENT RATE**
*(seasonally adjusted; per cent)*




Source: Eurostat.

Indeed, in 2017 the number of unemployed based on Jobsplus data fell by 1,073 persons, or almost one-third over that prevailing in 2016 (see Chart 3.8). Apart from a growing demand for labour in the context of robust economic growth, the drop in the number of registered unemployed reflected

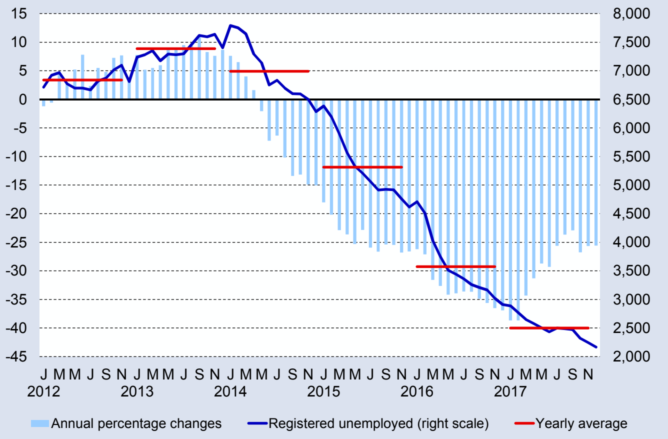
[10] The employment rate measures the number of persons aged 15-64 years, employed on a full-time or part-time basis as a proportion of the working-age population, which is defined as all those aged 15-64 years.

[11] According to the LFS, the unemployed comprise persons above 15 years of age who are without work, available for work and who have actively sought to work during the four weeks preceding the survey. In contrast, the number of unemployed on the basis of Jobsplus data includes only those persons registering for work under Part 1 and Part 2 of the unemployment register.

[12] Based on Eurostat calculations.

the extension of previously introduced measures aimed at facilitating the transition from inactivity to activity and improving the employability of specific target groups. Such schemes include the Tapering of Benefits Scheme, the Access to Employment (A2E) Scheme, the Youth Guarantee Scheme and the Mature Workers Scheme. The drop in the number of unemployed was broad-based across age groups, but the greatest decrease was registered among those aged 45 and over. The duration of unemployment also decreased, with the most significant decline recorded among those who had been registering for less than 21 weeks, although unemployment among other groups also declined significantly from already low levels.

**Chart 3.8**
**REGISTERED UNEMPLOYED**
*(annual percentage changes; persons)*




Source: NSO.

## BOX 2: REVISIONS IN POPULATION PROJECTIONS AND THEIR IMPLICATIONS FOR THE GROWTH OF THE MALTESE ECONOMY[1]

National statistics offices usually focus their limited resources on gathering information on the past and recent periods. The only exception is in the area of demography, where there is a long-standing tradition that population estimates are accompanied with population projections. It is important to note that projections differ from forecasts in that the former are “a conditional calculation showing what the future population would be if a particular set of assumptions were to hold true”.[2] On the other hand, a forecast represents a specific judgement on the validity of the underlying data and assumptions, rather than simply a scenario. In fact, it has become quite common for national statistics offices to present a set of population projections encompassing an array of assumptions on the major determinants, such as the fertility rate, life expectancy and migration. At a time when there have been major fluctuations in important demographic determinants, namely unexpected migration flows and improvements in life expectancy, population projections have tended to influence the appropriateness of policy stances.

### Revisions in population projections for Malta

Since joining the European Union, population projections for Malta have been prepared by Eurostat, in consultation with Malta’s NSO.[3] The first set of projections, published in 2005 had predicted that by 2050 Malta’s population would reach 508,000, constituting the fourth largest increase in the European Union. The latest set of projections, EUROPOP-2015, which was published last year suggests a slight upward revision to 513,000.[4] However over this decade, population projections for Malta have fluctuated significantly. For instance, the EUROPOP-2010 projection had implied a 427,000

[1] Prepared by Dr Aaron G. Grech, Chief Officer – Economics, and Ian Borg, Senior Expert within the Economic and Research Department. The views expressed are the authors’ own and do not necessarily represent those of the Bank.

[2] See George M.V., Smith S.K., Swanson D.A. & Tayman, J., “Population Projections”, in Shyrock, H. S., & Siegel, J. S. (eds.), *The Methods and Materials of Demography*, Washington DC: US Census Bureau (1973). A comprehensive review of population projections methods can be found in an updated version of this publication, published in 2004 by the same editors.

[3] There are other sources of population projections for Malta, notably those made by the United Nations Population Division (see https://esa.un.org/unpd/wpp/).

[4] For a technical overview of the Europop-2015 projections, see Eurostat, *Summary methodology of the 2015-based population projections*. (http://ec.europa.eu/eurostat/cache/metadata/Annexes/proj_esms_an1.pdf).

population for 2050, or 17% less than the latest projection. This had mainly reflected an assumption of strong outward migration till 2015, followed by very small inflows of migrants thereafter. This assumption turned out to be significantly incorrect by subsequent events. Eurostat (2017), in fact, noted that in 2015, relative to the size of the resident population, Malta had the second-highest rate of immigration (30 immigrants per 1000 persons), six times the EU average.[5] Furthermore, on 12 February 2018, the NSO published a significant benchmark revision in Malta's population statistics, reflecting methodological improvements in the compilation of migration flows data for EU and regular Third Country Nationals migrants for the period 2012 to 2016.[6]

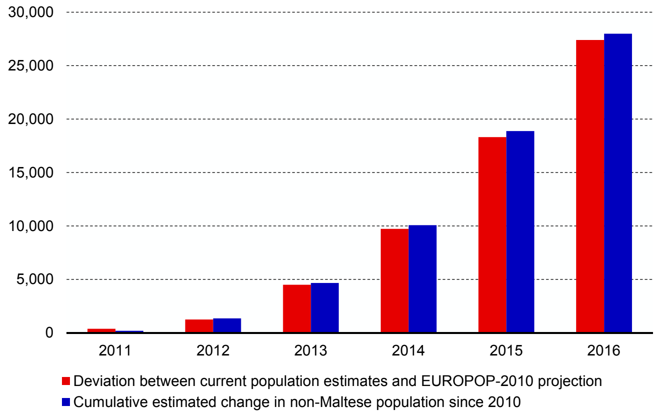
Chart 1 shows that by 2016, the EUROPOP-2010 projection was off the mark by nearly 27,400 persons when compared to the current population estimate for that year, constituting an underestimation of 6.5%. This difference mirrors the growth observed in the non-Maltese population over that time. The two subsequent sets of EUROPOP projections reversed the short-term assumption of net outward migration, such that the latest set of projections assumes an average net immigration of nearly 2,600 each year till 2025.

Such abrupt reversals in assumptions used in population projections are not uncommon, even for larger countries. For instance, Office for National Statistics (2016)[7] documents how UK projections made in the mid-1950s failed to foresee the 1960s baby boom, producing an estimate for 1995 that was five million below the actual figure. By contrast the projections made in the 1960s projected that the spike in fertility would continue, leading to a projection for 2001 that proved to be 16 million over the actual estimate for that year.

In the case of small countries, changes in assumptions can have very dramatic implications. EUROPOP-2010 showed Luxembourg's population at 0.6 million in 2030. EUROPOP-2015 now indicates that this level will be reached before 2020, and that by 2030 it will be nearly a third higher than envisaged in the projections made five years earlier.

Returning to the Maltese population case, the EUROPOP-2015 projection outlines a scenario where total population is expected to continue to grow rapidly over the next 20 to 25 years. Total population growth between 2015 and 2025 was projected at around 0.5% on average in EUROPOP-2010, whereas in the latest projections this has been revised upwards to 0.9%. In terms of persons, the upward revision in population growth means that total population by

**Chart 1**
**SOURCE OF DEVIATION OF CURRENT POPULATION ESTIMATES FROM EUROPOP-2010 PROJECTIONS**
*(number of persons)*




Source: Authors' calculations using Eurostat and NSO Demographic Review data.

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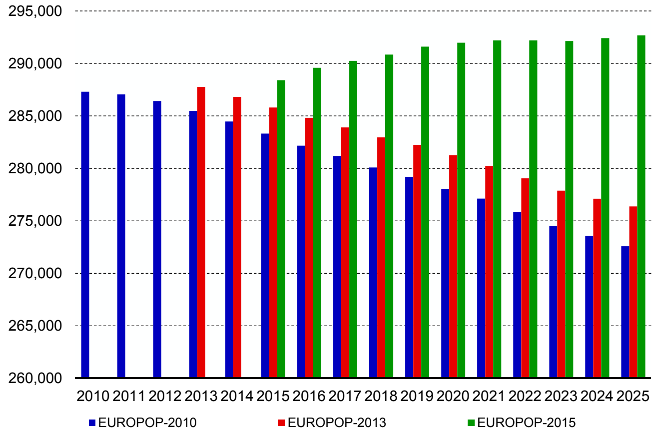
5 See http://ec.europa.eu/eurostat/statistics-explained/index.php/Migration_and_migrant_population_statistics#Migration_flows.
6 See National Statistics Office (2018), *Population Statistics (Revisions): 2012-2016*, Press Release 022/2018.
7 See Office for National Statistics (2016), *National population projections accuracy report*. (https://www.ons.gov.uk/file?uri=/peoplepopulationandcommunity/populationandmigration/populationprojections/methodologies/nationalpopulationprojectionsaccuracyreport/uknppaccuracyreport2015tcm774127221.pdf).

2025 is estimated to be 24,000, or 5.4%, higher than previously projected. Compared to EUROPOP-2010, the upward revision is of around 38,000 persons, or 8.8%. In fact, the population projection which EUROPOP-2010 had for 2025 had already been reached in 2016 due to the high migration flows of recent years.

Chart 2 shows the projected working age population (15-64) for the period 2010 to 2025 implied by the three most recent set of EUROPOP projections. Both EUROPOP-2010 and EUROPOP-2013 had shown a declining path for the potential labour supply. By 2016, EUROPOP-2010 had implied a decline of 5,140, or 1.8%, in Malta's working age population, while EUROPOP-2013 showed a 2,941, or 1%, fall. In actual fact, the working age population grew by 2,464, or 0.9%, between 2010 and 2016. EUROPOP-2015, taking account of this trend, shows a slightly rising profile for this variable, with an implied growth of 3,089 persons, or 1.1%, by 2025. Compared with EUROPOP-2010, the working age population in 2025 is now expected to be nearly 20,100 persons higher, or 7.4% above the projection made five years earlier.

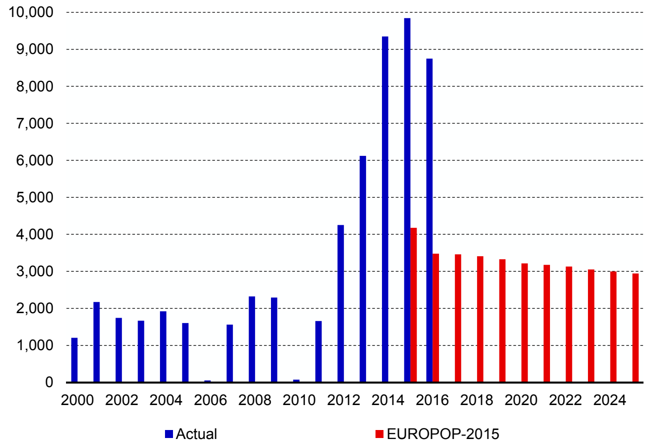
While this upward revision represents a break from the previous rounds of projections, at 0.9%, the projected annual average rate of growth for the next decade is well below the 1.3% annual average seen over the last ten years. It is important to note that the EUROPOP-2015 projection was finalised before the benchmark revision in migration flows was published in 2018. In fact, EUROPOP-2015 is already underestimating the working age population in the second year of the projection, by nearly 18,400 persons or 6.0%. Net migration in 2016 was 8,748, or two and a half times the EUROPOP-2015 assumption. Nevertheless, while migration in recent years was quite significant, the EUROPOP-2015 migration assumption compares well with flows seen over the medium term (see Chart 3).

Chart 2
PROJECTED WORKING AGE POPULATION
*(number of persons)*




Sources: Eurostat and NSO.

Chart 3
NET MIGRATION: ACTUAL AND PROJECTED
*(number of persons)*




Source: Eurostat.

## The impact of revisions in population projections for Malta's potential growth

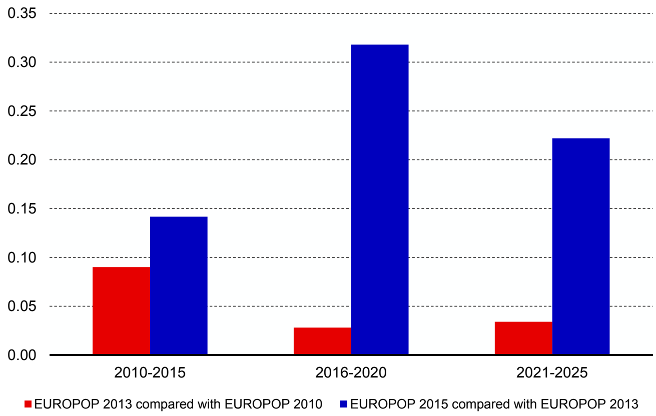
Domestic output essentially depends on three main factor inputs, namely, capital, labour, and total factor productivity. Capital stock is a function of investment flows, while total factor productivity refers to the portion of output unexplained by changes in the amount of labour and capital. The labour component is a function of the working age population, hours worked, the participation rate, and a measure of structural employment. Population projections are therefore crucial to the estimation of both historical and future developments in supply, and hence, revised population projections have a direct impact on this estimate.

In this section we estimate the impact that these revisions in population had on Malta's potential output growth over the period 2010-2025, by applying the different working age population projections corresponding respectively to the EUROPOP-2010, 2013, and 2015 vintages. EUROPOP-2015 includes three scenarios: low migration, baseline projections and high migration. In the first part of this section we will use the baseline projections, providing some sensitivity with the different scenarios later on. All other variables, excluding the working age population, are kept constant across the three estimations in order to isolate the impact of working age population projection vintages.[8]

Chart 4 shows the average impact of the different vintages of population projections on potential output growth, in three different periods.[9] In each case, working age population projections were revised upward, and hence each new projection vintage implies an upward revision to potential output growth. When comparing the EUROPOP-2013 projection with EUROPOP-2010, the largest positive impact occurred in the period 2010-2015, primarily driven by strong upward revisions in the working age population estimates of 2012 and 2013. During this period, the impact of the revised projections stood on average at around 0.09 percentage point. Going forward however, the impact of EUROPOP-2013 working age projections was marginal and at around 0.03 percentage point on average, for both the 2016-2020 and 2021-2025 periods.

The largest impact on potential output growth occurred with the release of EUROPOP-2015, which revised upwards substantially net migrant flows. On average, the impact for the period 2010-2015 stands at around 0.14 percentage point, driven in large part by a significant acceleration in net migrant flows during 2015. The peak impact is attained for the period 2016-2020, which implies an upward revision in potential output growth of around 0.32 percentage point. With regard to the medium-term

**Chart 4**
**IMPACT OF REVISED PROJECTIONS ON POTENTIAL OUTPUT**
*(percentage point deviations)*(1)



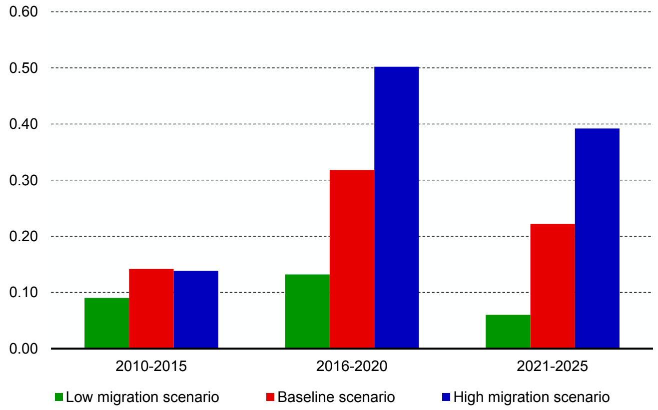

(1) Figures reported here are in terms of annual average growth deviations for each period.
Source: Authors' estimates.

8 The assumptions utilised in this study are derived directly from Micallef, B., & Ellul, R., "Medium-term Estimates of Potential Output Growth in Malta", in Grech, A. G., & Zerafa, S. (eds.), *Challenges and Opportunities of Sustainable Economic Growth in Malta: the Case of Malta*, Central Bank of Malta, 2017. https://www.centralbankmalta.org/books.

9 The impacts presented in this Section are defined as the annual average growth deviations related to the different periods. For example: an average of 0.1 percentage point deviation for the period 2016-2020 implies a cumulative impact of 0.5 percentage point.

impact of the latest population projections, this stands at around 0.22 percentage point for the period 2021-2025.

Chart 5
**DIFFERENT MIGRATION SCENARIOS: EUROPOP 2015**
*(percentage point deviations from EUROPOP 2013)*(1)




(1) Figures reported here are in terms of annual average growth deviations for each period.
Source: Authors' estimates.

EUROPOP-2015 includes three migrant scenarios in order to cater for the fact that net migrant flow projections have become the main source of error in population projections. Chart 5 plots the impact on potential output growth according to different scenarios of migrant flows, compared to EUROPOP 2013. The potential output impact of the low migrant scenario is quite small, peaking at around an average of 0.13% in the period 2016-2020, which is less than half the estimated impact derived from the baseline scenario. Moreover, the high migrant scenario peak impact in the period 2016-2020 averages at around 0.50%, while for the period 2021-2025 the potential output growth impact stands at an average of around 0.39%.[10]

Previous studies have utilised EUROPOP-2013 projections to estimate potential output growth. These studies projected on average medium-term potential output growth of around 3.25% for the period 2021-2025, which is 1% less than the period 2016-2020.[11] The estimated impacts shown in Charts 4 and 5 imply that potential output growth for the period 2016-2020 should be revised up to a range of between 4.4% to 4.8%, while for the period 2021-2025 should be closer to a range of between 3.3% to 3.6%.

## Conclusion and policy recommendations

Population projections are surrounded by considerable uncertainty since these depend on a number of assumptions to hold true for a considerably long period of time into the future. As a result, these tend to be revised signifcantly across different projection vintages. For the case of Malta, whereas in both EUROPOP-2010 and EUROPOP-2013 Malta's working age population was expected to fall due to the effects of an ageing population, the latest EUROPOP-2015 projections outline a scenario whereby this is expected to continue growing at steady rates over the next seven years. This implies a further boost to Malta's potential output growth of between 0.3% to 0.5% for the period 2016-2020, and 0.2% to 0.4% for the period 2021-2025. Note, however, that these estimates are based on the assumption that migrant workers, which constitute the bulk of the upwared revision implied in the EUROPOP-2015 projection, have the same productivity and employment patterns as locals. Grech (2017), on the other hand suggests that migrant workers tend to be more contentrated in the managerial and professional category and work in high-valued services.[12] This may mean that the estimates presented here underestimate the potential impact of higher numbers of foreign workers.

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[10] Note that EUROPOP-2015's high migrant scenario still implies a net migration assumption which would be approximately half the net migration observed since 2014.

[11] See Micallef, B., & Ellul, R., "Medium-term Estimates of Potential Output Growth in Malta", in Grech, A. G., & Zerafa, S. (eds.), *Challenges and Opportunities of Sustainable Economic Growth in Malta: the Case of Malta*, Central Bank of Malta, 2017. https://www.centralbankmalta.org/books.

[12] See Grech, A. G. (2017), "Did Malta's accession to the EU raise its potential output? A focus on the foreign workforce", *Journal of Economic Integration* 32(4), pp. 873-890.

Furthermore, as was already hinted earlier, the EUROPOP-2015 projection is based on relatively conservative assumptions on future migration when compared to the revised data on recent migration flows published by the NSO.

On the other hand, while the rise in potential output growth is welcome, the increase in population growth poses a number of challenges for the Maltese economy. Firstly, the increase in population is likely to add additional stress on infrastructure, which could negatively affect potential output growth in the absence of adequate investment. Furthermore the steep rise in the share of non-Maltese population in the labour supply might add cyclicality in potential output, as foreign workers may be more prone to leave the country in the face of negative economic shocks.[13] These two factors suggest the importance for considerable investment in infrastructure over the coming years, together with additional efforts to further upskill the local workforce to enable it to better accommodate the needs of a Maltese economy diversifying its activity into new sectors. It will also be important to maintain the flexibility achieved in recent years in the labour market, possibly with policies targeted at increasing the employment rates of older workers. That said, the increased degree of reliance on migrant workers also implies that firms will need to get used to higher rates of labour turnover, which could create challenges to maintain and improve productivity. Outlays on training and organisational structures will need to be strengthened.

[13] Recently published migration flow data also suggest a significant churn in the migrant population even during a period of strong economic growth. For instance the number of non-Maltese EU citizens emigrating from Malta more than doubled between 2012 and 2016, while the number of Third Country Nationals emigrating from Malta tripled during the same period.

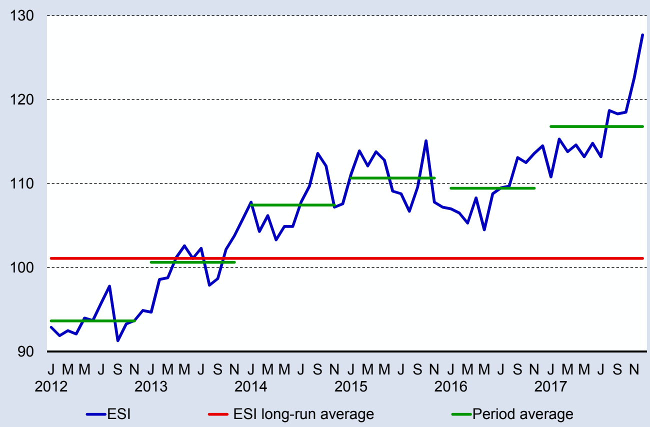
## Business and consumer surveys

### *Economic sentiment reaches a record high in 2017*

During 2017 the European Commission's Economic Sentiment Indicator (ESI) for Malta averaged 117, up from 109 in 2016.[13] This increase was visible across all components, although the strongest gain was recorded in the construction sector. The overall ESI indicator thus rose further above its long-term average of 101, ending the year at its highest level since the survey has been conducted for Malta (see Chart 3.9).[14]

Chart 3.9 shows that the ESI hovered within a narrow range of around 114 in the first half of 2017, before it picked-up strongly in the second half.

**Chart 3.9**
**ECONOMIC SENTIMENT INDICATOR**
*(seasonally adjusted; percentage points)*




Source: European Commission.

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

**Table 3.7**
**SENTIMENT INDICATOR BY SECTOR**
*Annual average; absolute change*

| | 2016 | 2017 | Change |
|---|---|---|---|
| **Economic sentiment indicator** | **109** | **117** | **8** |
| Construction confidence indicator | -8 | 13 | 21 |
| Industrial confidence indicator | 0 | 8 | 8 |
| Consumer confidence indicator | 2 | 8 | 6 |
| Services confidence indicator | 26 | 31 | 5 |
| Retail trade confidence indicator | 7 | 9 | 2 |

Source: European Commission.

Table 3.7 presents the annual average and the change in absolute terms of the confidence indicator for each sector included in the ESI. While the improvement in sentiment was broad-based across sectors, the construction sector posted the strongest gain, with the reading turning positive during the year. Sentiment in industry, among consumers and within the services sector also rose substantially, while confidence among retailers edged up marginally.

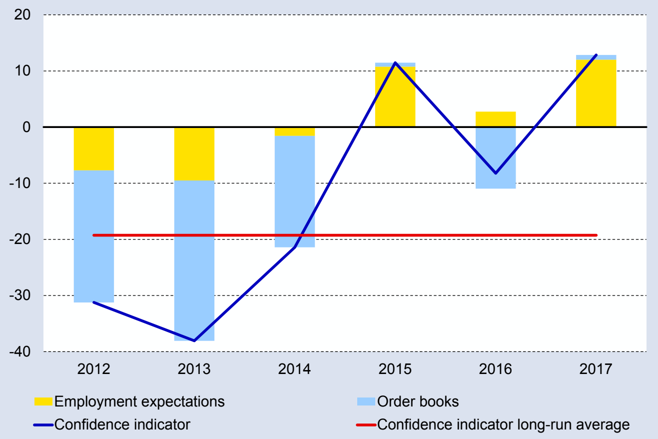
### *Confidence in construction turns positive*[15]

Sentiment in the construction sector averaged 13 during 2017, up from -8 in the preceding year, and above its long-run average of -19 (see Chart 3.10). Both employment expectations and order book levels contributed to the increase in confidence in 2017.

Compared with the previous year, when operators assessed order books to be below normal, order levels in 2017 were slightly above normal. Furthermore, respondents were on average, significantly more optimistic with regard to employment prospects.

Additional survey data show that on balance, more respondents recorded improved building activity. Similarly, during 2017, more respondents on average anticipated increased selling prices for the months ahead.

**Chart 3.10**
**CONSTRUCTION CONFIDENCE INDICATOR**
*(seasonally adjusted; percentage points)*



Source: European Commission.

### *Industrial confidence increases significantly*[16]

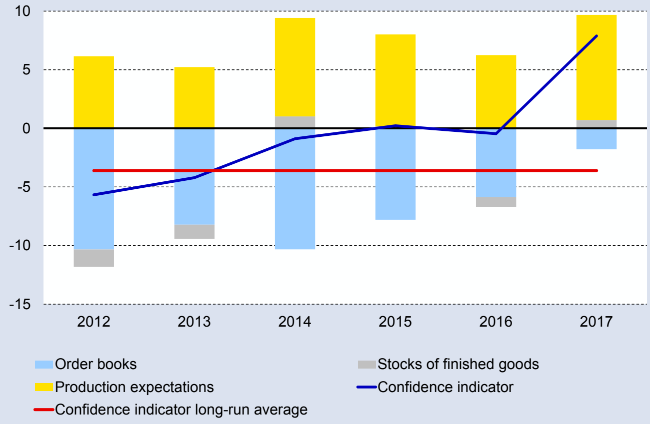
Sentiment among manufacturing firms improved significantly, rising above its long-term mean of -4. All subcomponents contributed to this rise in confidence. Firms' assessment of order book levels was the main contributor, as it was less negative compared with 2016 (see Chart 3.11). Likewise,

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

on balance more firms expected production to rise in the months ahead. At the same time, stocks of finished goods were assessed to be below normal.[17]

Supplementary data indicate that the share of respondents foreseeing a rise in employment was on average higher in 2017 than in 2016. Meanwhile, a smaller share of respondents anticipated a decline in selling prices.

**Chart 3.11**
**INDUSTRIAL CONFIDENCE INDICATOR**
*(seasonally adjusted; percentage points)*

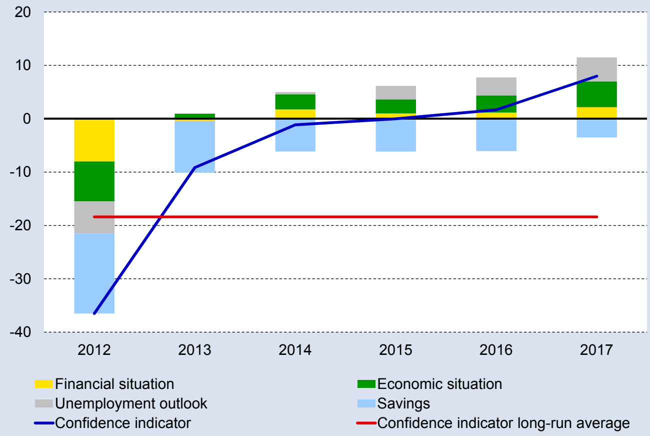



Source: European Commission.

### *Consumer confidence continues to increase*[18]

In line with developments in the construction and industrial confidence indicators, the consumer confidence indicator increased in 2017. Over the year as a whole the index averaged 8, up from the previous year's average of 2, and well above its long-term average of -18 (see Chart 3.12). All sub components contributed to the improved sentiment.

**Chart 3.12**
**CONSUMER CONFIDENCE INDICATOR**
*(seasonally adjusted; percentage points)*




Source: European Commission.

The rise in confidence in 2017 was mainly propelled by respondents' savings prospects and their expectations of the general economy for the subsequent 12 months. On balance more consumers expected their financial situation in the following year to improve, while their unemployment expectations fell further.[19]

Additional survey information suggest that the share of consumers that considered the timing to make major purchases appropriate, given the existing economic situation, increased compared with 2016. Also, a smaller share of respondents indicated that they would spend less money on major purchases in the subsequent 12 months. Overall, more consumers expected inflation to rise during the year ahead, while a marginally smaller share of consumers perceived inflation to have increased in the preceding 12 months.

[17] A decrease in stock levels indicates higher turnover and affects the overall indicator in a positive way. Such increases are thus represented by bars above the 0 mark in Chart 3.11.

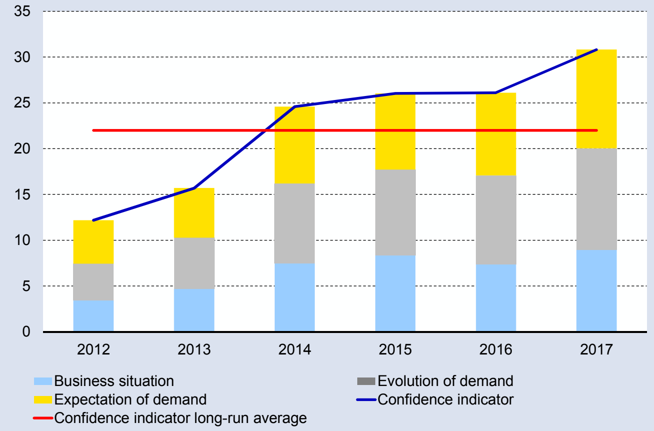
[18] The consumer confidence indicator is the arithmetic average of the seasonally adjusted balances (in percentage points) of replies to a subset of survey questions relating to households' financial situation, their ability to save, the general economic situation and unemployment expectations over the subsequent 12 months.

[19] A fall in unemployment expectations has a positive effect on the overall indicator and is thus represented by positive bars in Chart 3.12.

*Services confidence improves*[20]

Confidence within the services sector also rose, reaching 31 in 2017 from 26 in the preceding year, and stood above its long-run average of 22 (see Chart 3.13).

**Chart 3.13**
**SERVICES CONFIDENCE INDICATOR**
*(seasonally adjusted; percentage points)*

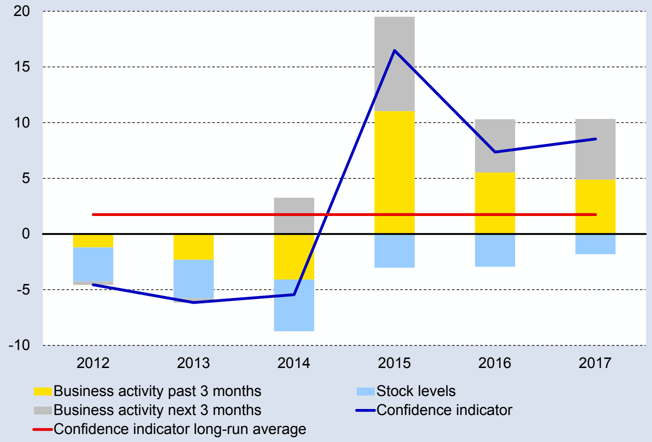



Source: European Commission.

Firms' demand expectations for the three months ahead and their assessment of the business situation were the main contributors to the rise in confidence. Respondents' assessment of demand also edged up.

Supplementary data indicate that both employment prospects and expectations improved in 2017. Similarly, a larger share of firms expected their selling prices to increase in the following three months.

**Chart 3.14**
**RETAIL CONFIDENCE INDICATOR**
*(seasonally adjusted; percentage points)*




Source: European Commission.

*Confidence in retail sector edges up*[21]

The retail confidence indicator edged up to 9 in 2017 from 7 in the preceding year, thus remaining positive and well above its long-term average (see Chart 3.14). Retailers continued to report above normal stock levels. This score stood lower than that reported in 2016, and thus was a key factor behind the improved reading in this sector. Similarly, more respondents anticipated improved business activity in the months ahead. On the other hand, fewer respondents reported improved sales in the preceding months compared with 2016.

Additional survey data indicate that fewer retailers reported improved order levels and selling price expectations, though both indicators remained positive when compared with the preceding year. Similarly, a smaller share of respondents expected employment to increase in the following months.

## Residential property prices

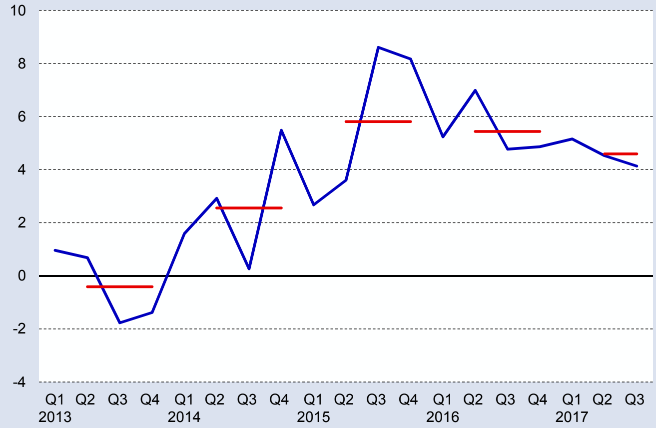
Residential property prices continued to increase during the first three quarters of 2017. The NSO's Property Price Index, which is based on actual transactions involving apartments, maisonettes and terraced houses,

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

[21] 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.

increased at an average annual rate of 4.6% during the first nine months, which is slower than the 5.4% recorded in 2016 as a whole (see Chart 3.15).[22]

Chart 3.15
MOVEMENTS IN RESIDENTIAL PROPERTY PRICES




Source: Eurostat.

House prices are being supported by a number of factors, most notably continued strong employment growth underpinned by inward migration, together with a prolonged low interest rate environment, which makes property more attractive as an investment. The Government's scheme for first-time buyers also provided some support to house prices.[23] Strong growth in disposable income has also contributed, as did the IIP, although the latter's impact was limited in extent and to the high-end segment of the market.

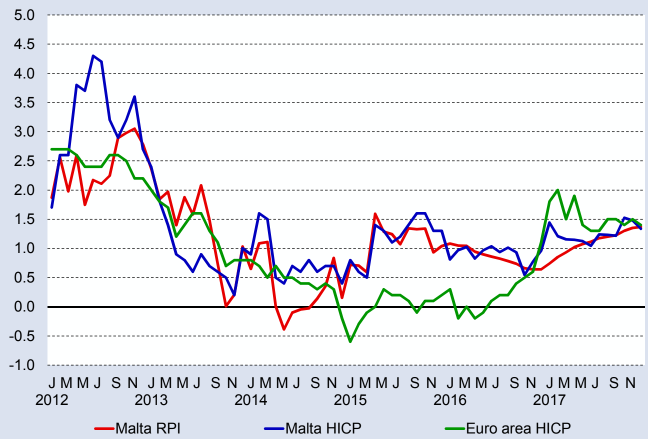
The moderation in house price inflation in 2017 could reflect the response in housing supply, as reflected by strong growth in building permits since 2016, to the recent surge in demand for residential property and resulting recovery in property prices and rental rates.

## Consumer price inflation

*Price pressures pick up but remain contained*

The annual rate of inflation based on the HICP averaged 1.3% during 2017. Although higher than the 0.9% registered in 2016, inflation remained contained from a historical perspective (see Chart 3.16).[24] It also stood slightly below the 1.5% inflation rate recorded in the euro area.

Chart 3.16
INFLATION RATES IN MALTA AND IN THE EURO AREA
*(annual percentage changes)*




Sources: NSO; Eurostat.

Energy prices were the main driver behind the pick up in price pressures in Malta (see Chart 3.17 and Table 3.8). The contribution of this component turned positive,

[22] 'Apartments' are defined as dwellings with self-contained rooms or a suite of rooms that have a separate entrance accessible from a common passage way, 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. Further information is available in NSO *News Release* 089/2016.

[23] The government scheme for first-time buyers, which was introduced in 2013 and subsequently extended, provides relief from the duty on documents due on the first €150,000 of the total value paid for the purchase of eligible property.

[24] The HICP weights are revised on an annual basis to reflect changes in household consumption patterns. In 2017 the weight allocated to energy stood at 6.6%, while that of non-energy industrial goods was 28.9%. Services accounted for 44.2% of the index, while the share of food stood at 20.3%.

**Table 3.8**
**HICP INFLATION RATES**
*Average annual rate of change*

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| Unprocessed food | 8.5 | 6.4 | -0.4 | 4.3 | 2.8 | 2.6 |
| Processed food including alcohol and tobacco | 3.6 | 3.7 | 2.7 | 2.0 | 2.2 | 2.4 |
| Energy | 4.6 | -0.7 | -7.6 | -6.5 | -4.2 | 1.1 |
| Non-energy industrial goods | 1.1 | 0.5 | 1.0 | 1.1 | 0.9 | 0.4 |
| Services (overall index excluding goods) | 3.2 | -0.2 | 1.8 | 1.7 | 1.0 | 1.2 |
| **HICP (annual average inflation rate)** | **3.2** | **1.0** | **0.8** | **1.2** | **0.9** | **1.3** |

Source: ECB.

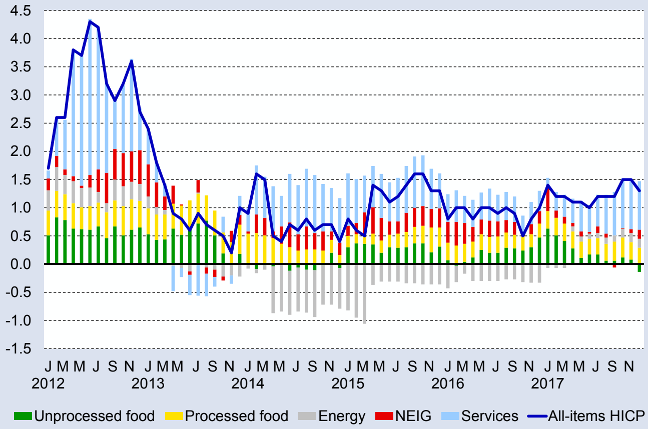
rising by 0.4 percentage point to 0.1 point, on account of increases in the prices of transport fuels and gas during 2017.

Services inflation also accelerated during the year, mainly reflecting developments in recreational and cultural services, as the strong drops in the prices of package holidays, evident in 2016, levelled off during 2017 (see Chart 3.18). The contribution of services inflation to overall HICP inflation thus rose by 0.1 point, to 0.6 percentage point.

Meanwhile, the contribution of food inflation remained relatively unchanged in 2017 at 0.5 percentage point. Unprocessed food inflation eased slightly compared with 2016. Although it was very strong at the start of the year, it then generally followed a downward path, mainly mirroring developments in vegetable prices (see Chart 3.19). At the same time, increases in meat prices were more moderate compared with those seen in 2016.

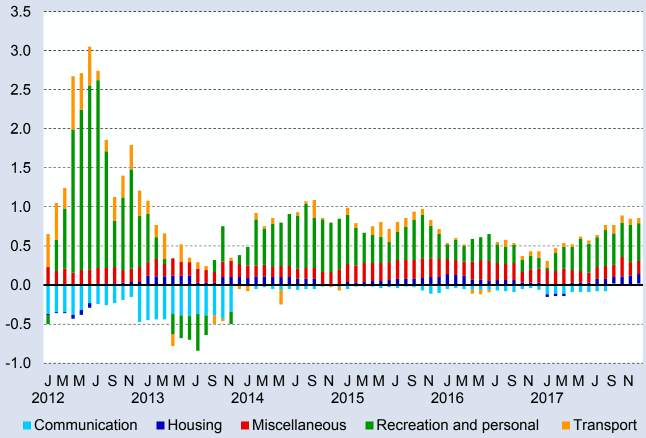
Processed food price inflation edged up slightly. During the year, faster growth was observed in subcomponents such as oils and fats, sugar and confectionary, and miscelleneaous food products. These were offset by slower growth in the prices of alcohol and tobacco.

**Chart 3.17**
**CONTRIBUTIONS TO YEAR-ON-YEAR HICP INFLATION**
*(percentage points; annual percentage change)*




Source: Eurostat.

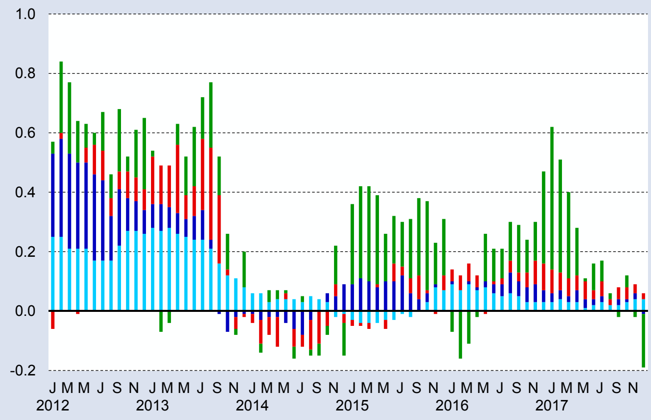
**Chart 3.18**
**CONTRIBUTIONS FROM SERVICES TO HICP INFLATION**
*(percentage points)*




Source: Eurostat.

Inflation in non-energy industrial goods (NEIG) moderated during 2017, with price pressures particularly weak in the semi-durable and non-durable goods categories. Indeed, prices of non-durables were broadly unchanged in annual terms, while those for semi-durables fell at a faster pace. This reflects developments in a number of items. As regards non-durable products, weak price pressures partly mirrored lower prices for certain household goods, as well as slower growth in the prices of materials for the repair of dwellings. The semi-durable component was in turn somewhat influenced by declines in prices of clothing and those of toys, sports equipment and books. Overall, the contribution of NEIG inflation to the overall HICP index dropped by 0.2 point, to 0.1 percentage point during 2017. The recent weakness in NEIG inflation could in part reflect external factors, such as weak imported inflation from trading partners and the appreciation of the euro against the pound sterling.

**Chart 3.19**
**CONTRIBUTIONS FROM UNPROCESSED FOOD TO HICP INFLATION**
*(percentage points)*

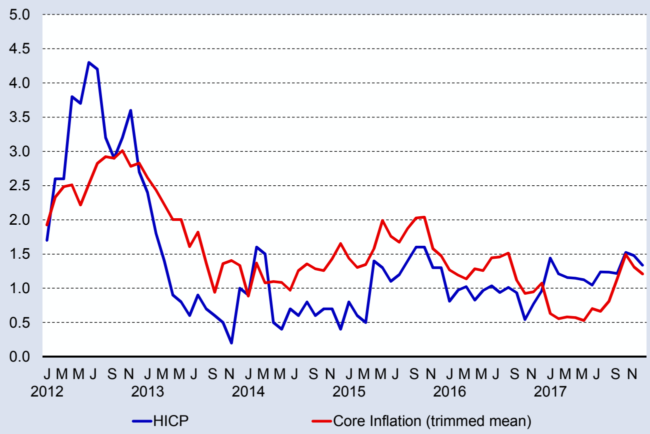



Source: Eurostat.

### *Core inflation remains moderate*

Core HICP inflation, as measured by the Bank's "trimmed mean" method, averaged 0.8% during 2017, down from 1.2% a year earlier (see Chart 3.20).[25] This contrasts with movements observed in overall HICP inflation. The difference between this measure of inflation and the headline rate was most pronounced during the first half of 2017. The gap closed in the final months of the year. This suggests that while overall inflation in the first half was supported by strong growth momentum in a few selected subcomponents, price increases became more broad-based as the year progressed.

**Chart 3.20**
**HICP IN MALTA: OVERALL AND CORE MEASURE**
*(annual percentage change)*




Sources: Eurostat; Central Bank of Malta estimates.

### *RPI inflation accelerates*

The acceleration in HICP inflation during 2017 was also reflected in the RPI.[26] The 12-month moving average RPI inflation rate rose to 1.4%, from 0.6% a year earlier. The biggest upward movement came from the transport and communications category, although prices of food, and prices for recreation and culture services rose faster (see Table 3.9). The differences between the component contributions in the HICP and RPI indices mainly reflects differences in the consumption baskets and weights assigned in the measurement process.

[25] The Central Bank of Malta uses a "trimmed mean" approach to measuring core inflation, whereby the more volatile components of the index are removed from the basket of consumer goods 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.

[26] 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.

**Table 3.9**
**CONTRIBUTIONS TO RPI INFLATION(1)**
*Percentage points (annual averages)*

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| Food | 1.0 | 1.0 | 0.1 | 0.6 | 0.5 | 0.7 |
| Beverages and tobacco | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 |
| Clothing and footwear | -0.1 | 0.0 | 0.1 | 0.1 | -0.1 | -0.2 |
| Housing | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 |
| Water, electricity, gas and fuels | 0.0 | 0.0 | -0.5 | -0.2 | 0.0 | 0.0 |
| Household equipment and house maintenance costs | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| Transport and communications | 0.5 | -0.5 | -0.1 | -0.3 | -0.5 | 0.1 |
| Personal care and health | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Recreation and culture | 0.1 | 0.2 | 0.3 | 0.2 | 0.1 | 0.2 |
| Other goods and services | 0.3 | 0.0 | 0.0 | 0.2 | 0.1 | 0.0 |
| **RPI (annual average inflation rate)** | **2.4** | **1.4** | **0.3** | **1.1** | **0.6** | **1.4** |

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

## Costs and competitiveness

### *Producer prices pick up*

Producer prices, as measured by the Industrial PPI, picked up during 2017. Producer price inflation was particularly strong in the second half of the year.[27] PPI inflation averaged 1.6% during the year under review, up from -0.6% in 2016, reversing a trend that had lasted for a number of years.

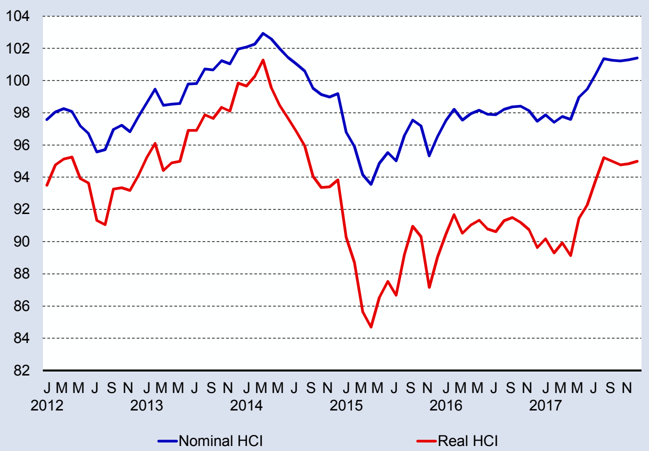
The main driver behind the acceleration in PPI inflation was the intermediate goods component, for which the annual average contribution rose from 0.1 to 1.8 percentage points. This is the largest component in the PPI index, and includes items such as electronics, computers, and optical products.

With regard to the other main components of the index, the negative contribution of energy receded, as the impact of previous cuts in electricity tariffs for business petered out. The contributions of the other components of PPI inflation, namely consumer goods and capital goods, remained unchanged when compared with 2016, at -0.2 and 0.1 percentage point respectively.

### *HCIs indicate a further deterioration in external competitiveness*

Malta's nominal HCI, which reflects euro exchange rate movements against the currencies of international trading partners, grew by an average of 1.7% during 2017, compared with 2.3% in 2016 (see Chart 3.21).[28] At the same time, the real HCI, which also takes into account relative prices, gained

**Chart 3.21**
**HARMONISED COMPETITIVENESS INDICATORS**
*(May 2004 = 100)*




Source: ECB.

27 The Industrial PPI measures the prices of goods at the factory gate and is commonly used to monitor inflationary pressures at the production stage.

28 The nominal HCI tracks movements in the country's exchange rate against the currencies of its main trading partners, weighted according to the direction of trade in manufactured goods. The real HCI incorporates both exchange rate changes and the relative inflation of a country vis-à-vis its main trading partners. A higher (or lower) score in the HCI indicates a deterioration (or improvement) in a country's international price competitiveness.

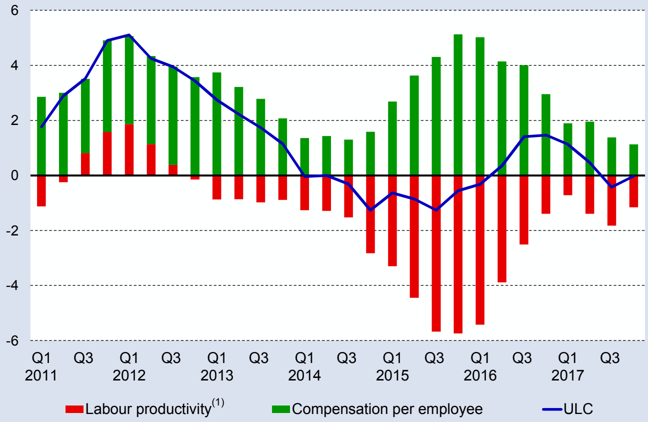
1.8%, compared with 3.3% in 2016. Overall, this points to a further deterioration in Malta's international competitiveness during 2017, although at a more moderate pace, and almost entirely driven by exchange rate movements.

During the first few months of 2017, Malta's HCIs declined in response to favourable exchange rate movements of the euro against other major currencies, such as the dollar and the yen. These movements were reversed in the second half of 2017, as the euro began to strengthen against other major currencies when compared with a year earlier. These competitiveness losses were amplified by relative price movements against trading partners. However, the HCIs still closed the year below the peak recorded at the start of 2014.

### *Unit Labour Costs*

Following a moderate increase in 2016, Malta's Unit Labour Costs (ULC) stabilised in 2017 (see Chart 3.22).[29] After growing by 1.5% in 2016, ULC remained virtually unchanged during the year under review. This deceleration in ULC growth was mainly driven by developments in compensation per employee. Growth in this component decelerated to 1.1%, from 3.0% a year earlier. Labour productivity growth stood at 1.2%, down only slightly from 1.4% in 2016.

**Chart 3.22**
**DECOMPOSITION OF UNIT LABOUR COSTS IN MALTA**
*(annual percentage change; four-quarter moving average)*




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

## BOX 3: ECONOMIC PROJECTIONS: 2018:1

### Economic outlook[1]

The Central Bank of Malta's latest economic projections show that economic growth is expected to remain strong from a historical perspective, though somewhat lower than in 2017 (see Table 1). Growth is expected to average 5% over the period 2018 to 2020.

Domestic demand is envisaged to be the main source of growth in economic activity over the projection horizon. However, net exports are also expected to continue contributing significantly to GDP growth in the next three years.

Domestic demand will be supported by a recovery in private investment, following a dip recorded in 2017, together with continued strength in private consumption, in the context of favourable labour

[1] The Bank's outlook for the Maltese economy is based on information available up to 1 February 2018 and is conditional on technical assumptions sourced from the European Central Bank. These projections were carried out in the context of the December 2017 ESCB staff macroeconomic projections and published on the Central Bank of Malta's website: https://www.centralbankmalta.org/economic-projections. On balance, these point to some downside risks to activity in 2018.

[29] 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. "Unit labour costs, wages and productivity in Malta: a sectoral and cross-country analysis" Policy Note, August 2015, available at https://www.centralbankmalta.org/en/working-papers-2015, and Rapa, N. "Measuring international competitiveness" in *Quarterly Review* 2016:1, Central Bank of Malta, pp. 53-63.

**Table 1**
**PROJECTIONS FOR THE MAIN MACROECONOMIC AGGREGATES FOR MALTA**[(1)]

| | 2018 | 2019 | 2020 |
|---|---|---|---|
| **Real economic activity (% change)** | | | |
| GDP | 6.2 | 4.8 | 4.0 |
| Private consumption expenditure | 4.2 | 3.6 | 3.5 |
| Government consumption expenditure | 7.7 | 7.5 | 6.8 |
| Gross fixed capital formation | 8.6 | 5.4 | 3.1 |
| Exports of goods and services | 2.6 | 2.7 | 2.9 |
| Imports of goods and services | 2.0 | 2.5 | 2.8 |
| **Contribution to real GDP growth (in percentage pts)** | | | |
| Final domestic demand | 5.0 | 4.1 | 3.4 |
| Net exports | 1.1 | 0.7 | 0.6 |
| Changes in inventories | 0.0 | 0.0 | 0.0 |
| **Labour market (% change)**[(2)] | | | |
| Total employment | 3.7 | 3.2 | 3.0 |
| Unemployment rate (% of labour supply) | 4.0 | 4.1 | 4.2 |
| **Prices and costs (% change)** | | | |
| Overall HICP | 1.6 | 1.8 | 2.0 |
| **Public Finances(% of GDP)**[(3)] | | | |
| General government balance | 1.6 | 1.1 | 0.6 |
| General government debt | 49.1 | 46.5 | 44.6 |

[(1)] Data on GDP were sourced from NSO *News Release* 193/2017 published on 6 December 2017.

[(2)] Data on the number of employed are consistent with national accounts data. The unemployment rate is based on the number of unemployed and employed as reported in the Labour Force Survey.

[(3)] Central Bank of Malta calculations based on NSO *News Release* 193/2017 (published on 6 December 2017) and *News Release* 8/2018 (published on 18 January 2018).

market conditions. Government consumption is also expected to rise at a relatively quick pace, as its main components (compensation of employees and intermediate consumption) are expected to keep growing steadily.

On the other hand, net exports are envisaged to contribute positively but less than in the last few years, reflecting the expected pick-up in investment growth and the stabilisation of import shares, which recently had fallen significantly due to the low import intensity of fast expanding services sectors.

In line with the expected moderation in economic activity, the pace of employment growth is projected to ease somewhat. The unemployment rate is expected to remain at a record low in 2018, reflecting continued increases in labour supply due to favourable net migration flows. In subsequent years, the unemployment rate is foreseen to rise marginally, but to remain low from a historical perspective.

HICP inflation is set to accelerate gradually over the projection horizon, and reach 2.0% by 2020. This primarily reflects an expected pick-up in commodity prices, and some envisaged intensification of wage pressures.

The headline budget balance is expected to remain in surplus throughout the forecast horizon. Moreover, the general government debt-to-GDP ratio is projected to decline, driven by high primary balances and a favourable interest-growth differential.

Risks to these GDP growth projections are tilted slightly to the downside in the near term, reflecting carry-over effects from the weaker than expected growth in 2017. Risks are more balanced towards the end of the projection horizon. Upside risks relate to further buoyancy in services exports, continued declines in import shares, and potential stronger than expected wage inflation. Downside risks relate to geopolitical uncertainties, rising protectionism, and delays in major construction projections.

On the other hand, the latest data suggest that risks to the inflation projections are broadly balanced as upside risks from domestic cost pressures may be counterbalanced by a stronger euro.

Finally, risks to the public finances are tilted on the upside (i.e. balance-improving), especially in the outer years of the forecast horizon, stemming from possible delays in locally-financed projects.

## 4. BALANCE OF PAYMENTS

*During the first three quarters of 2017 the current account in the balance of payments posted a higher surplus than in the comparable period of 2016. This improvement was almost entirely attributable to a rise in net services receipts and a narrowing in the merchandise trade gap. Movements related to primary income and secondary income transactions were small and broadly offset each other.*

*Meanwhile, net inflows on the capital account more than doubled on a year earlier, while the financial account posted smaller net lending flows when compared to the first nine months of 2016.*

*When measured as a four-quarter moving sum, the current account registered a surplus equivalent to 11.5% of gross domestic product (GDP), almost six percentage points higher than in the year ending September 2016. On this basis, the significant increase in the surplus was attributable to a lower trade deficit and higher net services receipts. In contrast, net inflows from secondary income decreased as a share of GDP, while net outflows related to primary income widened.*

*Between January and September, net inflows on the capital account increased on a year earlier, while higher net lending was recorded on the financial account.[1] Net errors and omissions turned negative when compared with the twelve months ending in September 2016, and were small when expressed as a share of GDP.[2]*

### The current account

Between January and September 2017, the current account recorded a surplus of €1,070.4 million, a rise of €602.4 million on the same months of a year earlier (see Table 4.1). This improvement was largely driven by a rise in net services exports. A narrowing in the merchandise trade gap also contributed significantly to a higher surplus on the current account. Movements related to primary and secondary income transactions were minimal and broadly offset each other.

In the four quarters to September 2017, the surplus on the current account stood at €1,260.7 million, or 11.5% of GDP, up from 5.7% of GDP a year earlier (see Chart 4.1). This improvement was on account of a higher

**Table 4.1**
**BALANCE OF PAYMENTS**
*EUR millions*

| | 2014 | 2015 | 2016 | 2016 Q1-Q3 | 2017 Q1-Q3 |
|---|---|---|---|---|---|
| **Current account** | **744.1** | **424.3** | **658.2** | **468.0** | **1,070.4** |
| Goods | -1,212.3 | -1,931.6 | -1,909.3 | -1,505.9 | -1,289.5 |
| Services | 2,226.5 | 2,612.7 | 3,028.2 | 2,310.5 | 2,697.6 |
| Primary income | -475.6 | -465.1 | -685.6 | -506.2 | -514.1 |
| Secondary income | 205.4 | 208.4 | 224.9 | 169.6 | 176.5 |
| **Capital account** | **142.8** | **167.3** | **79.3** | **42.5** | **93.5** |
| **Financial account(1)** | **443.9** | **413.8** | **1,351.3** | **1,091.0** | **1,059.5** |
| **Errors and omissions** | -443.0 | -177.8 | 613.7 | 580.4 | -104.4 |

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

1 Following the adoption of BPM6, increases in both assets and liabilities are recorded with a positive sign. Conversely, decreases in assets and liabilities are recorded with a negative sign.

2 Negative net errors and omissions imply an overestimation of the current and capital account surplus and/or an underestimation of net lending.

surplus from trade in services and a lower merchandise trade deficit (see Chart 4.2). Over the same period, net inflows on the secondary account decreased marginally as a share of GDP, while net outflows on the primary account were higher.

### *Goods deficit narrows*

Balance of payments data show that in the first three quarters of 2017 the merchandise trade deficit narrowed to €1,289.5 million, an improvement of €216.4 million on the corresponding period of 2016. This was due to a contraction of €153.4 million in imports that outweighed a drop of €87.4 million in exports.

Expressed as a four-quarter moving sum, the merchandise trade gap stood at 15.5% of GDP, down from 19.3% in the year to September 2016 (see Chart 4.3).[3]

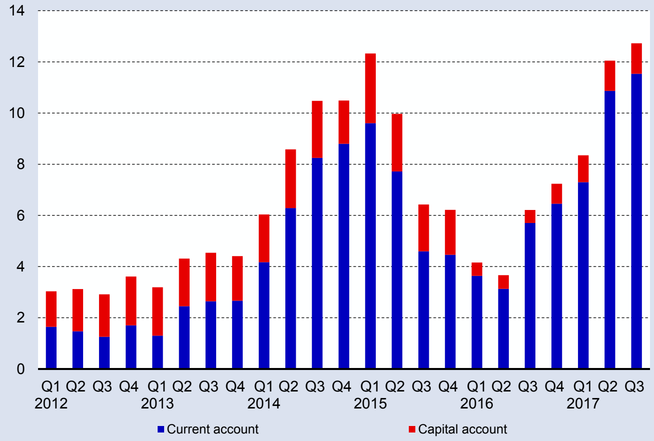
### *Surplus on services widens*

The net positive balance on services increased further in the first nine months of 2017, adding €387.1 million on the same period of 2016, reaching €2,697.6 million. This improvement was driven by a rise in receipts which outpaced higher payments. Higher net receipts were recorded in the remote gaming, travel, transport, and professional and management consulting services industries.

Partly reflecting developments in the first nine months of 2017, the positive balance on the services account in the year to September 2017 climbed to €3,415.3 million, or 31.3% of GDP, an increase of 2.5 percentage points on a year earlier (see Chart 4.4).

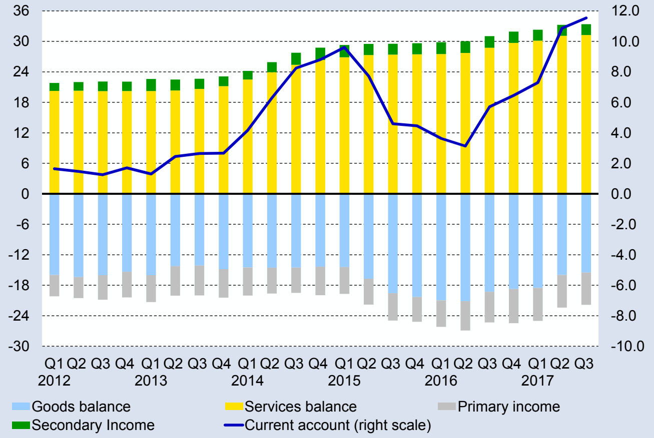
The increased surplus on the services balance mirrored favourable developments in all the main subcomponents. The "other services"

**Chart 4.1**
**CURRENT AND CAPITAL ACCOUNT BALANCES**
*(four-quarter moving sums as a percentage of GDP)*



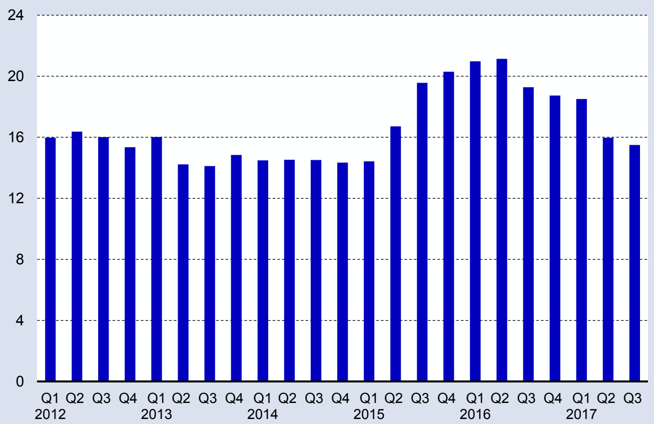

Source: NSO.

**Chart 4.2**
**COMPOSITION OF CURRENT ACCOUNT**
*(four-quarter moving sums as a percentage of GDP)*




Source: NSO.

**Chart 4.3**
**GOODS DEFICIT**
*(four-quarter moving sums as a percentage of GDP)*

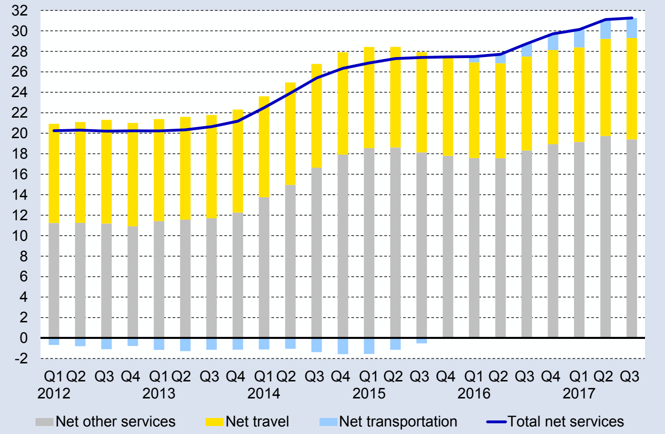


Source: NSO.

[3] In the compilation of balance of payments statistics, customs data on merchandise trade are adjusted for coverage, valuation and timing. During the period reviewed, these methodological differences were especially pronounced with regard to trade in fuel, as well as imports of capital goods, mainly related to the registration of boats and aircraft.

component explains approximately a half of this improvement as its share in GDP rose by 1.1 percentage points in annual terms. This amelioration was driven by higher net receipts from remote gaming and, to a lesser extent, from the "other business" sector, which include professional and management consulting services. By contrast, net payments on telecommunication services increased; whereas net receipts from financial services declined marginally.

**Chart 4.4**
**SERVICES BALANCE**
*(four-quarter moving sums as a percentage of GDP)*




Source: NSO.

A buoyant tourism sector also continued to boost the services balance. During the year to September 2017 the net surplus on travel stood at €1,081.1 million, €161.8 million more than a year earlier, as tourism receipts continued to outpace spending by Maltese residents travelling abroad. This widening was equivalent to 0.7% of GDP.

Higher net exports were also registered on the transport account. With receipts outpacing payments, the net balance in transportation reached €213.8 million in the year to September 2017, which was €88.5 million more than a year earlier, with this increase equivalent to 0.7% of GDP.

### *Net outflows related to primary income increase[4]*

Between January and September 2017, net primary income outflows stood at €514.1 million, an increase of €7.9 million on the same nine months of 2016. Movements on the primary income account continued to be strongly influenced by internationally-oriented firms, including SPEs and subsidiaries of foreign banks, which transact predominantly with non-residents. When measured on a four-quarter cumulative basis, net outflows on this component reached 6.3% of GDP, 0.3 percentage point more than in the four-quarters to September 2016. Higher net outflows were partly driven by lower net portfolio income.

### *Net inflows from secondary income edge up*

During the first nine months of 2017, net inflows on the secondary income account amounted to €176.5 million, up by €6.9 million on the comparable period of a year earlier. This increase was principally in the form of higher net government receipts. The latter continued to be heavily influenced by timing differences between tax receipts and refunds related to companies engaged in international business.

When measured over the year to September 2017, net inflows on the secondary income account stood at €231.8 million, or 2.1% of GDP, 0.2 percentage point less when compared with the four quarters to September 2016.

## The capital and financial accounts

The capital account recorded net inflows of €93.5 million in the first three quarters of 2017, more than twice the flows recorded a year earlier (see Table 4.1). A significant increase was also observed on a four quarter moving sum. This expansion was mostly attributable to higher transfers to government, which in turn were propelled by the timing of funds received under EU financing programmes.

Meanwhile, in the first nine months of 2017 the financial account showed a net lending position of €1,059.5 million. This compares with net lending of €1,091.0 million in the same period of 2016. However, when the balance on this account is expressed as a four-quarter sum, net lending flows were higher on a year earlier. Movements on this account are heavily influenced by transactions of internationally-oriented financial institutions.

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

# 5. GOVERNMENT FINANCE

*In the first three quarters of 2017, the general government surplus increased significantly compared to the previous year. When measured on a four-quarter moving sum basis, the general government balance-to-GDP-ratio reached a surplus of 3.2%, from 1.1% in 2016. General government debt declined, falling to 53.4%, from 56.2% in 2016.*

## General government

### *General government balance improves substantially*

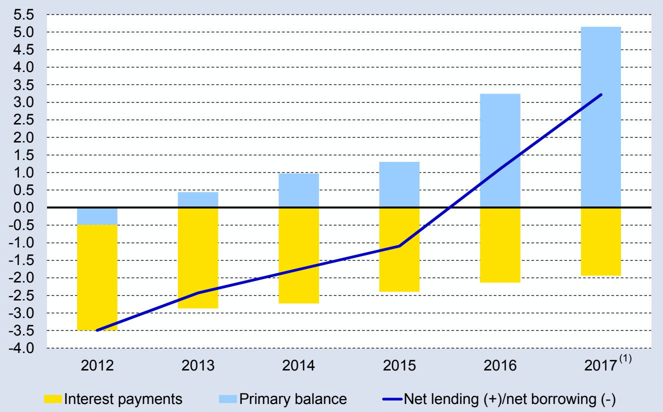
In the first three quarters of 2017, the general government surplus improved considerably compared to the previous year. Its ratio to GDP, measured as a four-quarter moving sum, increased by 2.1 percentage points to reach 3.2% by the third quarter of the year (see Chart 5.1). These developments were mainly a result of an improvement in the primary balance, which excludes interest payments from government expenditure. The primary surplus-to-GDP ratio rose to 5.2%, from 3.2% at the end of 2016. Interest payments also decreased slightly during this period. These amounted to 1.9% of GDP in the third quarter of 2017, 0.2 percentage point lower when compared with 2016.

The improvement in the general government balance ratio was driven almost exclusively by higher current revenue, as capital revenue and expenditure items largely kept pace with GDP growth (see Chart 5.2). In contrast, the improvement in the balance in 2016, though of a similar magnitude, was also brought about by declining spending ratios.

When measured on a four-quarter moving sum basis until September 2017, current revenue as a share of GDP increased by 2.0 percentage points compared with 2016. On the other hand, the capital revenue ratio declined slightly, by 0.1 percentage point, reaching 0.6%. Current expenditure increased at a slower pace than nominal GDP as its ratio declined by 0.2 percentage point to 33.7%. Meanwhile, the share of capital expenditure remained unchanged at 3.2%.

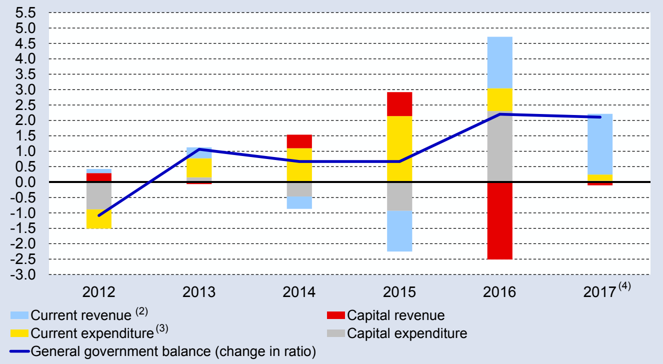
In level terms, the general government balance registered a surplus of €222.6 million in the first nine months of 2017, an increase of €238.4 million over the deficit registered in the same period of

**Chart 5.1**
**GENERAL GOVERNMENT BALANCE**
*(% of GDP)*




(1) Four-quarter moving sums; period ending 2017Q3.
Source: NSO.

**Chart 5.2**
**IMPACT ON GENERAL GOVERNMENT BALANCE(1)**
*(percentage points)*




(1) Revenue items: +ve sign represents higher revenue and vice versa. Expenditure items: +ve sign represents lower expenditure and vice versa.
(2) 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.
(3) The term 'current expemditure' mainly represents spending on wages, social benefits and operational and maintenance expenses. 'Capital expenditure' mainly represents spending on investment and capital transfers.
(4) Four-quarter moving sums; period ending 2017Q3.
Sources: NSO; Central Bank of Malta.

**Table 5.1**
**GENERAL GOVERNMENT BALANCE**
*EUR millions*

| | 2012 | 2013 | 2014 | 2015 | 2016 | Q1 - Q3 2016 | Q1 - Q3 2017 | Change Q1-Q3 Amount | Change Q1-Q3 % |
|---|---|---|---|---|---|---|---|---|---|
| **Revenue** | **2,811.7** | **3,021.5** | **3,345.7** | **3,715.0** | **3,892.5** | **2,729.8** | **3,214.4** | **484.6** | **17.8** |
| Taxes on production and imports | 941.0 | 988.8 | 1,106.9 | 1,190.2 | 1,276.1 | 899.3 | 1,037.0 | 137.6 | 15.3 |
| Current taxes on income and wealth | 934.9 | 1,043.3 | 1,155.4 | 1,237.5 | 1,383.9 | 974.0 | 1,120.5 | 146.5 | 15.0 |
| Social contributions | 504.3 | 524.8 | 560.3 | 596.3 | 639.3 | 460.5 | 507.0 | 46.5 | 10.1 |
| Capital and current transfers receivable | 181.0 | 182.3 | 244.5 | 336.3 | 97.0 | 63.9 | 58.1 | -5.8 | -9.1 |
| Other[1] | 250.4 | 282.3 | 278.5 | 354.8 | 496.2 | 332.1 | 491.9 | 159.7 | 48.1 |
| **Expenditure** | **3,061.9** | **3,207.1** | **3,494.5** | **3,819.1** | **3,779.5** | **2,745.6** | **2,991.8** | **246.2** | **9.0** |
| Compensation of employees | 922.7 | 977.8 | 1,049.9 | 1,115.8 | 1,182.1 | 889.4 | 949.4 | 60.0 | 6.7 |
| Intermediate consumption | 483.3 | 471.2 | 519.7 | 592.4 | 636.6 | 436.2 | 545.2 | 109.0 | 25.0 |
| Social benefits | 924.9 | 964.2 | 1,010.3 | 1,041.2 | 1,086.0 | 800.7 | 841.2 | 40.5 | 5.1 |
| Subsidies | 76.9 | 80.3 | 105.0 | 110.6 | 129.2 | 96.3 | 90.9 | -5.4 | -5.6 |
| Interest | 215.1 | 219.2 | 230.9 | 228.4 | 217.9 | 163.7 | 157.5 | -6.2 | -3.8 |
| Other current transfers payable | 130.8 | 176.4 | 186.8 | 200.8 | 196.1 | 128.2 | 157.3 | 29.1 | 22.7 |
| Gross fixed capital formation | 232.7 | 219.8 | 300.7 | 402.3 | 250.8 | 162.8 | 174.0 | 11.3 | 6.9 |
| Capital transfers payable | 67.1 | 95.4 | 94.6 | 134.6 | 79.3 | 65.9 | 77.7 | 11.8 | 17.9 |
| Other[2] | 8.5 | 3.0 | -3.3 | -6.9 | 1.6 | 2.4 | -1.4 | -3.8 | - |
| **Primary balance** | **-35.1** | **33.6** | **82.0** | **124.4** | **330.8** | **147.9** | **380.1** | **232.2** | **-** |
| **General government balance** | **-250.2** | **-185.6** | **-148.9** | **-104.1** | **112.9** | **-15.8** | **222.6** | **238.4** | **-** |

[1] "Other" revenue includes market output as well as income derived from property and investments.
[2] "Other" expenditure principally reflects changes in the value of inventories and in the net acquisition of valuables and other assets.
Source: NSO.

2016. This was a result of government revenue outpacing expenditure, in particular primary expenditure (see Table 5.1). In fact, the primary balance grew by €232.2 million over the first three quarters of 2016, to reach €380.1 million.

### *Revenue sustained by a dynamic economy and the Individual Investor Programme*

Between January and September 2017, general government revenue rose by €484.6 million or 17.8% over the corresponding period of 2016, reaching €3,214.4 million. The composition of revenue shifted towards non-tax income. In fact, the share of the 'other' component of revenue increased by 3.4 percentage points to 15.0% (see Table 5.2). The share of taxes on production and imports and the share of current taxes on income and wealth also edged up slightly. Meanwhile, the share of capital and current transfers receivable in total revenue declined by 3.5 percentage points, while the share of social contributions also decreased.

The 'other' component of revenue registered the highest increase in level terms from all revenue categories. It rose by €159.7 million over the first nine months of 2016, largely on the back of higher intakes from the Individual Investor Programme (IIP).

During the period under review, current taxes on income and wealth maintained their upward trend. These rose by €146.5 million, or 15.0%, on the back of higher income tax receipts from financial services and households. Favourable labour market conditions contributed towards a €46.5 million increase in social contributions. Taxes on production and imports also rose significantly as they grew by €137.6 million. This was due to higher intakes from VAT returns and higher duties from petroleum and the property market, in line with the buoyant consumption recorded for the period.

Meanwhile, capital and current transfers received was the only revenue component which declined in annual terms, as it fell by €5.9 million or 9.1%. This decrease occurred as a rise in capital taxes was offset by lower grants from the European Union (EU).

**Table 5.2**
**COMPOSITION OF GOVERNMENT FINANCE ITEMS**
*Percentage points*

| | | | | | | Q1 - Q3 | | Change |
|---|---|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2016 | 2017 | Q1-Q3 |
| **Share in total revenue** | | | | | | | | |
| Taxes on production and imports | 33.5 | 32.7 | 33.1 | 32.0 | 32.8 | 31.9 | 32.3 | 0.4 |
| Current taxes on income and wealth | 33.3 | 34.5 | 34.5 | 33.3 | 35.6 | 34.8 | 35.0 | 0.1 |
| Social contributions | 17.9 | 17.4 | 16.7 | 16.1 | 16.4 | 16.2 | 15.7 | -0.5 |
| Capital and current transfers receivable | 6.4 | 6.0 | 7.3 | 9.1 | 2.5 | 5.5 | 2.1 | -3.5 |
| Other(1) | 8.9 | 9.3 | 8.3 | 9.6 | 12.7 | 11.6 | 15.0 | 3.4 |
| **Share in total expenditure** | | | | | | | | |
| Compensation of employees | 30.1 | 30.5 | 30.0 | 29.2 | 31.3 | 30.6 | 30.9 | 0.2 |
| Intermediate consumption | 15.8 | 14.7 | 14.9 | 15.5 | 16.8 | 17.0 | 18.5 | 1.5 |
| Social benefits | 30.2 | 30.1 | 28.9 | 27.3 | 28.7 | 27.9 | 28.0 | 0.1 |
| Subsidies | 2.5 | 2.5 | 3.0 | 2.9 | 3.4 | 3.2 | 3.1 | -0.2 |
| Interest | 7.0 | 6.8 | 6.6 | 6.0 | 5.8 | 5.8 | 5.3 | -0.6 |
| Other current transfers payable | 4.3 | 5.5 | 5.3 | 5.3 | 5.2 | 4.8 | 5.6 | 0.8 |
| Gross fixed capital formation | 7.6 | 6.9 | 8.6 | 10.5 | 6.6 | 7.7 | 6.5 | -1.2 |
| Capital transfers payable | 2.2 | 3.0 | 2.7 | 3.5 | 2.1 | 3.1 | 2.3 | -0.8 |
| Other(2) | 0.3 | 0.1 | -0.1 | -0.2 | 0.0 | -0.2 | -0.1 | 0.1 |

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

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

Source: NSO.

### *Spending increases across all main expenditure items*

In the first nine months of 2017, total general government expenditure rose by €246.2 million, or 9.0%, when compared with the corresponding period a year earlier. The composition of government expenditure shifted more towards recurrent expenditure. The main driver towards this change was intermediate consumption, as its share in total spending increased by 1.5 percentage points (see Table 5.2). The share in spending of compensation of employees, social benefits and other current transfers also increased. These developments offset a decline in the share of subsidies and interest payments. Meanwhile, the share of capital expenditure in total expenditure declined as the share of gross fixed capital formation and capital transfers payable declined by 1.2 and 0.8 percentage points respectively.

In level terms, intermediate consumption showed the strongest increase among all expenditure components. It rose by €109.0 million or 25.0%, mainly on account of higher expenditure in the health sector as well as higher outlays related to Malta's EU presidency.

Compensation of employees increased by €60.0 million, or 6.7%. This mainly reflects higher staff costs related to the health and educational sectors. Meanwhile, social benefits increased by €40.5 million or 5.1%, driven by higher spending on pensions. Other current transfers paid were also on the rise as they increased by €29.1 million.

On the other hand, the remaining recurrent expenditure components, namely interest paid and subsidies payable fell by €6.2 million and €5.4 million, respectively. The former declined due to lower financing needs and the prevailing low interest rate environment. Meanwhile, the drop in subsides in part reflects the lower provision of incentives to the film sector.

Higher capital expenditure contributed to the rise in government spending. Capital transfers payable increased by €11.8 million, partly due to payments related to the Depositor Compensation Scheme as well as an increase in investment incentives. Gross fixed capital formation rose by €11.3 million, mainly due to higher absorption of EU funds.

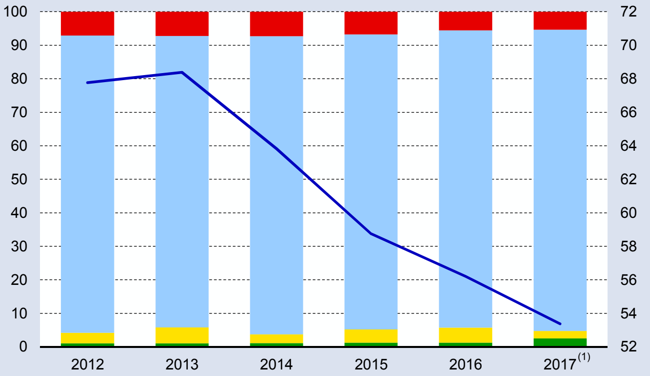
### *Government debt ratio maintained its downward trend*

At the end of September, the stock of general government debt amounted to €5,831.6 million, €103.6 million higher when compared with December 2016. However, the rise in GDP was more pronounced than the rise in government debt. As a result the general government debt-to-GDP ratio maintained its downward trend as it declined by 2.8 percentage points since 2016, to reach 53.4% (see Chart 5.3).

The decline in the debt ratio was mainly underpinned by positive developments in the primary balance (see Chart 5.4). Moreover, strong economic growth also contributed positively as the rate of gross domestic product (GDP) growth surpassed the effective rate of interest paid by the government on its debt. These developments were in part offset by a positive deficit-debt adjustment that mostly reflected an increase in financial assets held by the government.

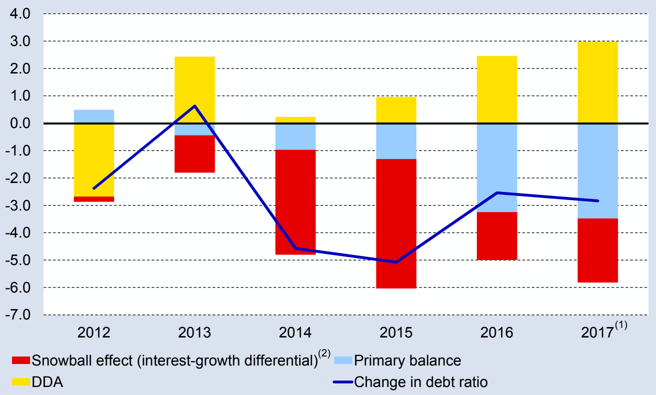
In September, the stock of long-term securities (made up of Malta Government Stocks) increased when compared with their level at the end of 2016. Consequently, their share in total debt increased by 1.1 percentage points, to reach 89.9%. Meanwhile, the share of currency and deposits almost doubled, to 2.5% of total debt. This reflects the introduction of the 62+ Government Savings bonds which were launched in the third quarter of 2017 and which are classified as deposits according to the ESA methodology. These developments were partly offset by lower short-term securities (made up of Treasury Bills) and loans held with domestic banks. The share of short-term securities halved from 4.4% to 2.2%, while the share of loans fell by 0.2 percentage point, to 5.4%.

**Chart 5.3**
**GENERAL GOVERNMENT DEBT**




(1) GDP measured on the basis of four-quarter moving sums; period ending 2017Q3.
Source: NSO.

**Chart 5.4**
**CONTRIBUTION TO CHANGE IN DEBT**
*(percentage points)*




(1) Period ending September 2017.
(2) Difference between effective interest rate (interest payments at year t relative to debt outstanding at year t-1) and GDP growth.
Sources: NSO; Central Bank of Malta.

## BOX 4: THE SUSTAINABILITY OF MALTESE GOVERNMENT DEBT: 2018Q1 UPDATE[1]

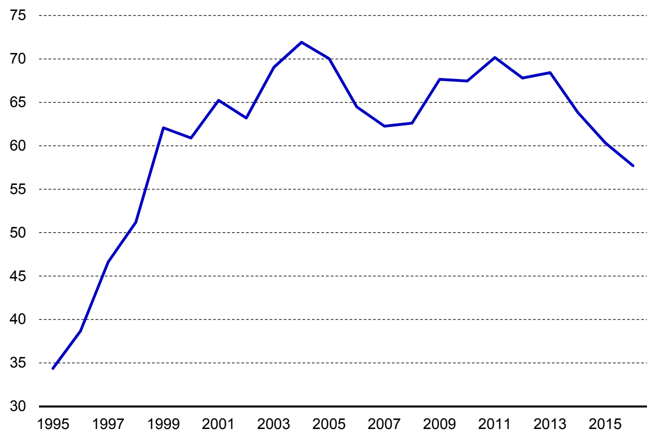
The global financial and economic crisis, as well as the European sovereign debt crisis, have placed a significant strain on public finances in a number of advanced economies. Concerns over countries' ability to finance their rising debt commitments have led to an increased level of attention directed towards public debt sustainability, especially since sound public finances are a crucial foundation for price stability, financial stability and economic growth.

This Box provides an update of the Maltese government debt sustainability analysis found in Farrugia and Grech (2017) and thus assesses public debt sustainability over the next decade.[2] Although the government debt-to-GDP ratio in Malta is currently at its lowest level since the late 1990s, the study of debt sustainability remains highly relevant – regular sustainability assessments are appropriate since they allow any vulnerabilities to be identified in a timely manner.

### Government debt developments in Malta

Chart 1 shows the evolution of the government debt-to-GDP ratio in Malta since the mid-1990s.[3] It is possible to distinguish between four distinct periods. Between 1995 and 2004, the debt ratio more than doubled, rising sharply from 34.4% to 71.9% of GDP. In the following three-year period, the debt ratio witnessed a substantial improvement, declining to 62.3% by 2007. However, it deteriorated once again over the 2008 to 2011 period, climbing to 70.2%. Between 2012 and 2016, government finances entered another phase of consolidation, with the debt ratio decreasing considerably to 57.7%, thus falling for the first time since EU membership to below the 60% threshold established by the Maastricht Treaty. As at 2016, Malta had the sixth lowest debt ratio out of all 19 euro area countries, and its debt ratio stood at around 31 percentage points lower than the average for the euro area.

**Chart 1**
**MALTESE GOVERNMENT DEBT RATIO**
*(per cent of GDP)*




Source: NSO.

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[2] See Farrugia, J. and Grech, O., "The Sustainability of Maltese Government Debt Revisited", in Grech, A.G., and Zerafa, S. (eds.), *Challenges and Opportunities of Sustainable Economic Growth: the Case of Malta*, Central Bank of Malta, 2017.

[3] This study uses the 2017Q3 vintage of national accounts and general government statistics, published in December 2017 and January 2018, respectively. Therefore, this debt sustainability exercise makes use of an additional year of data in comparison to our previous assessment.

The evolution of the debt ratio largely reflects the various stages of Maltese fiscal policy throughout the years: substantial budget deficits between the mid-1990s and early 2000s, fiscal consolidation shortly after EU accession, a looser fiscal stance following the onset of the global financial and economic crisis, and another period of fiscal tightening thereafter.

### The concept of fiscal sustainability

The starting point for assessing debt sustainability is the government budget constraint – an equation that governs the evolution of government debt. It can be expressed as:

$$d_t = \frac{1 + r_t}{1 + g_t} d_{t-1} - pb_t + dda_t$$

and shows that the debt-to-GDP ratio ( $d_t$) is equal to the debt ratio inherited from the previous period ($d_{t-1}$) multiplied by the "snowball effect" – which captures the joint impact of the real effective interest rate ( $r_t$ ) and the real GDP growth rate ( $g_t$) – less the primary balance-to-GDP ratio ( $pb_t$), plus the deficit-debt adjustment-to-GDP ratio ($dda_t$).[4]

If the government budget constraint is solved forward, one can derive a condition for debt sustainability, known as the inter-temporal budget constraint, which reveals that, for debt to be sustainable, the original debt and the interest accumulated over time will eventually have to be paid through sufficiently large surplus primary balances.[5]

This facet of sustainability, referred to as solvency, is a medium- to long-term concept. There is, however, another side to sustainability. As was highlighted by the recent European sovereign debt crisis, to be in a sustainable position, governments must also be liquid. Liquidity measures the government's ability to access financial markets, allowing it to meet all upcoming obligations in the short term. These two dimensions of sustainability are both necessary and are closely interconnected.

### Debt sustainability analysis for Malta

The scope of this study is to assess the sustainability of Maltese government debt over the next decade. In light of the theoretical framework discussed above, and in line with the International Monetary Fund's (IMF) definition, sovereign debt is sustainable if the country is able to finance its policy objectives and service the resulting debt without having to resort to unduly large adjustments, which could otherwise compromise its stability.

We divide the debt sustainability exercise into two parts. First, we assess the government's liquidity position, that is, whether its debt is sustainable in the short term. Second, we examine its solvency position, namely whether government debt is sustainable over the medium and long term.[6,7]

#### *Short-term sustainability: Liquidity*

To assess short-term sustainability, we examine the composition of government debt along various dimensions as well as the evolution of government bond yields. In particular, we decompose Maltese

4 The real effective interest rate is the nominal effective interest rate net of inflation.

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

6 For an overview of the alternative methodologies employed in the literature to assess government debt sustainability, see European Commission (2011), "Public Finances in EMU – 2011", *European Economy* 3/2011; and Amador, J., Braz, C., Campos, M., Sazedj, S., & Wemans, L. (2016), Public Debt Sustainability: Methodologies and Debates in European Institutions, Occasional Paper 01/16, Banco de Portugal.

7 Relatively recent assessments of the sustainability of Maltese government debt include IMF (2018), Malta: 2017 Article IV Consultation Staff Report, Country Report No. 18/19; Farrugia, J. and Grech, O., "The Sustainability of Maltese Government Debt Revisited", in Grech, A.G., and Zerafa, S. (eds.), *Challenges and Opportunities of Sustainable Economic Growth: the Case of Malta*, Central Bank of Malta, 2017; and European Commission (2015), Fiscal Sustainability Report, *European Economy Institutional Paper* No. 18, European Commission. This study, however, relies on more recent data.

government debt by maturity (short-term vs long-term), by holder (resident vs non-resident), by currency (domestic currency vs foreign currency) and by instrument (fixed interest rate vs floating interest rate).

The data reveal that a substantial share of government debt has a residual maturity greater than one year. The share of longer-term maturity debt has risen over time and stood at around 94% in 2016. Consequently, debt needs to be rolled over rather infrequently and thus refinancing risks are more contained.

The share of government debt held by residents of Malta is significantly high. In 2016, more than 90% of debt was held by residents, with this share broadly increasing over time. Higher shares of debt held by residents are generally preferred since residents are likely to be less sensitive to developments in global financial markets because they usually have access to more accurate and timelier information than non-residents on domestic economic conditions.

Since 2004, virtually all debt has been denominated in the domestic currency and therefore there is almost no exposure to exchange rate risk.

Prior to 2009, all longer-dated government debt was subject to a fixed interest rate. Since 2009, the Government started to issue longer-term debt instruments that carry a variable interest rate. Although the share of longer-dated debt with a variable interest rate has risen over time, in 2016 it stood at less than 5%. As a result, interest rate risk is also largely contained.

In recent years, Maltese government bond yields converged to those for the euro area at low rates and stood below the yields of several other euro area countries. Moreover, domestic government bond yields have historically been rather stable. Market participants therefore perceive Maltese government debt as being relatively low risk.

### *Medium- to long-term sustainability: Solvency*

To gauge sustainability over the medium to long term, we employ scenario analysis which forms the basis of conventional debt sustainability analysis (DSA). Starting from the government budget constraint, it involves assuming paths for the determinants of the evolution of the debt ratio ( $g_t, i_t, \pi_t, pb_t, dda_t$) over a medium- to long-term horizon, to generate a trajectory of the debt ratio. In the light of the definition of sustainability presented above, projected paths for public debt are considered to be sustainable if they are unlikely to require 'major readjustments'.[8] This study generates three separate scenarios for Maltese government debt over a ten-year horizon, spanning from 2017 to 2026, which explore different fiscal policies the Government is likely to pursue over this horizon. The assumptions underlying these scenarios are explained below and average values are provided in Table 1.

**Table 1**
**SCENARIO ASSUMPTIONS: AVERAGES 2017-2026**
*Per cent*

| | Real GDP growth | Nominal interest rate | Inflation | Primary balance-to-GDP ratio | Deficit-debt adjustment-to-GDP ratio |
|---|---|---|---|---|---|
| Scenario 1 | 4.3 | 3.7 | 2.0 | 2.1 | 1.0 |
| Scenario 2 | 4.3 | 3.7 | 2.0 | 0.8 | 1.0 |
| Scenario 3 | 4.3 | 3.6 | 2.0 | 1.7 | 0.6 |

Source: Authors' calculations.

[8] See Blanchard, O. J. (1990), "Suggestions for a New Set of Fiscal Indicators", Department of Economics and Statistics, *Working Paper* No. 79, OECD.

*Scenario 1*

The assumptions underlying the first scenario are based on the Bank's latest projections over the 2017-2020 period.[9] Thereafter, assumptions that are commonly employed in conventional DSA exercises are generally adopted to generate the paths for the input variables. Since the current positive output gap is expected to close by 2021, over the rest of the projection horizon real GDP growth is set to equal the Bank's latest potential real GDP growth estimates. This produces a gradually declining profile for real GDP growth that falls to 3.2 % by 2026.

The nominal interest rate is defined as an effective rate, that is, interest payments paid in the current year as a percentage of the previous year's debt. The interest payments reflect projections of interest rates at different maturities and the maturity structure of government debt.[10] The projected interest rates are derived by applying a spread on euro area interest rate projections provided by the European Central Bank (ECB), while the maturity structure of government debt projected for 2020 is assumed to persist throughout the rest of the projection horizon.[11]

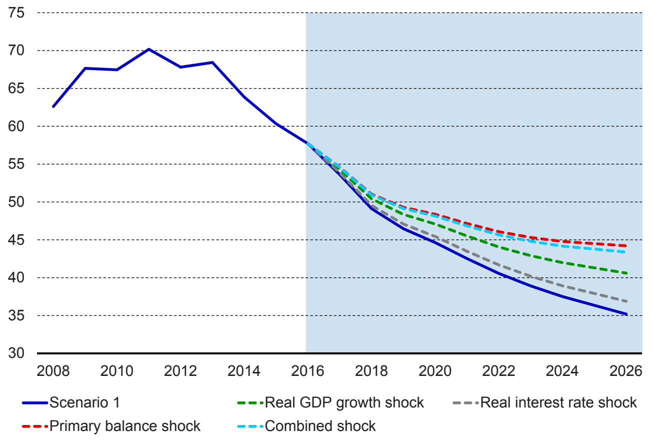
Inflation, as measured by growth in the GDP deflator, is assumed to remain at 2% beyond 2020, broadly in line with the ECB's objective of euro area inflation that is below, but close to, 2% over the medium term.

Between 2021 and 2026, the structural component of the primary balance as a percentage of GDP is assumed to gradually converge towards its long-run average. Since the output gap is closed over this period, the cyclical component is equal to zero. It is also assumed that there will be no temporary measures. Together, this produces a primary balance ratio that is set to deteriorate gradually but remain positive.[12] This implies that the overall balance-to-GDP ratio is expected to worsen to -0.2% by 2026, which would largely be brought about through the decline in the primary balance ratio since movements in the nominal interest rate are expected to be minimal.

From 2021 onward, the deficit-debt adjustment is set to equal its long-run average.

As Chart 2 reveals, these assumptions produce a trajectory for the debt-to-GDP ratio that is set to decline steadily by more than 22 percentage points over the course of the next decade, from 57.7% in 2016 to 35.2%

**Chart 2**
**MALTESE GOVERNMENT DEBT RATIO UNDER SCENARIO 1**
*(per cent of GDP)*




Source: Authors' calculations.

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9 These projections, which use the 2017Q3 vintage of national accounts and general government statistics, published in December 2017 and January 2018, respectively, can be found in Chapter 3 of this publication.

10 We distinguish between four maturities: three months, one year, five years and more than five years.

11 The euro area interest rate projections were provided by the ECB as part of the common set of assumptions underlying the Eurosystem's December 2017 Broad Macroeconomic Projection Exercise (BMPE).

12 The primary balance is equal to the structural primary balance plus the cyclical primary balance and temporary measures. Since under this scenario the latter two components are equal to zero between 2021 and 2026, the primary balance is equal to the structural primary balance over this period.

in 2026. This improvement in the Government's fiscal position largely mirrors robust real GDP growth, reinforced by large primary balances.

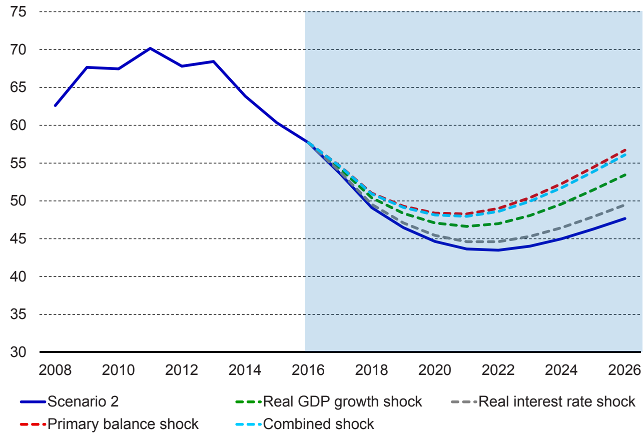
*Scenario 2*

The assumptions behind the second scenario are identical to those for the first scenario, except in one respect: the path the primary balance ratio is assumed to take between 2021 and 2026.[13] While the projections for the primary balance ratio covering the 2017-2020 period are taken from the Bank's latest projections and are thus the same as those employed under the first scenario, thereafter the dynamics of the primary balance ratio are governed by a fiscal reaction function. The fiscal reaction function is estimated on the basis of historic data and suggests that, in Malta, the Government generally counteracts rising debt levels by improving the primary balance, and vice-versa.[14]

Consequently, between 2021 and 2026, the primary balance deteriorates in response to past improvements in the debt ratio, going into deficit from 2022 onwards. However, this worsening of the primary balance acts as a strain on the debt ratio, causing the primary balance to deteriorate at a diminishing rate. The fiscal reaction function thus offers an alternative path for the primary balance ratio that is less favourable than that presented under the first scenario. This translates into an overall balance ratio that worsens considerably to -3.3% by the end of the projection horizon. This would again mainly be the result of a weakening primary balance position since changes in the nominal interest rate are projected to be marginal.

Nonetheless, these assumptions together generate a path for the debt ratio that is set to fall by around 10 percentage points over the projection horizon, from 57.7% in 2016 to 47.7% in 2026, as shown in Chart 3. This improvement in public finances is largely brought about by strong real economic activity and primary surpluses recorded until 2021.

**Chart 3**
**MALTESE GOVERNMENT DEBT RATIO UNDER SCENARIO 2**
*(per cent of GDP)*




Source: Authors' calculations.

*Scenario 3*

Under the third scenario, the assumptions for real GDP growth and inflation are identical to those underlying the first and second scenarios, while the assumed paths for the nominal interest rate, the primary balance-to-GDP ratio and the deficit-debt adjustment-to-GDP ratio

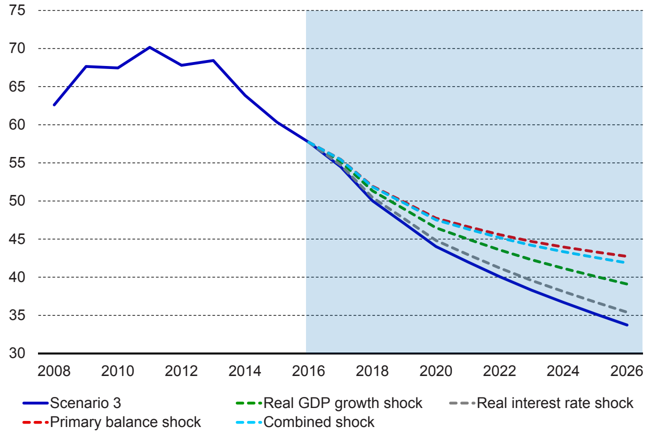
[13] Note that while the assumptions relating to the nominal interest rate are the same as those under the first scenario, the data for the nominal interest rate might itself be different since this depends on the level of debt, which is different between the two scenarios.

[14] For further details on fiscal reaction functions, including the one underlying this scenario, see Farrugia, J. and Grech, O., "The Sustainability of Maltese Government Debt Revisited", in Grech, A.G., and Zerafa, S. (eds.), *Challenges and Opportunities of Sustainable Economic Growth: the Case of Malta*, Central Bank of Malta, 2017, and references therein.

differ in some respects. Between 2017 and 2020, the projections for the latter three variables are those found in the Government's budget for 2018.[15]

Thereafter, the assumptions behind the nominal interest rate are the same as those found in the other scenarios.[16]

Chart 4
**MALTESE GOVERNMENT DEBT RATIO UNDER SCENARIO 3**
*(per cent of GDP)*




Source: Authors' calculations.

From 2021 onwards, the budget in structural terms is set to be in balance, in line with the medium-term objectives laid out in the Stability and Growth Pact. The assumptions behind the cyclical component of the primary balance and temporary measures are the same as those found under the first scenario. This produces a positive primary balance ratio that declines only slightly between 2021 and 2026 and an overall balance ratio that is virtually in balance over this period.

Similar to the other scenarios, beyond 2020, the deficit-debt adjustment is assumed to take its long-run average value.

Overall, the trajectory of the primary balance ratio is less favourable than that underlying the first scenario, but more optimistic than that assumed under the second scenario. The paths of the nominal interest rate and the deficit-debt adjustment ratio are slightly more favourable than those found in the previous scenarios. As shown in Chart 4, these assumptions translate into a debt ratio that is set to decline markedly from 57.7% in 2016 to 33.7% by 2026, thus falling by 24 percentage points over the next decade. This strengthening of the Government's fiscal position is largely driven by robust economic growth, but also by considerable primary surpluses.

*Sensitivity analysis*

In order to assess the robustness of the projected debt trajectories, each scenario is subjected to four adverse shocks. The shocks show how the debt trajectories would change if the macroeconomic or fiscal environment is less favourable than assumed under the three scenarios. The first three are adverse single-variable shocks to the real GDP growth rate, the real interest rate and the primary balance ratio, calculated as the baseline projection minus 0.5 of a historical standard deviation in the case of the real GDP growth and primary balance ratio shocks, and plus 0.5 of a historical standard deviation in the case of the real interest rate shock. Since an economic shock generally affects the real GDP growth rate, the real interest rate and the primary balance ratio simultaneously, the fourth

[15] The projections for real GDP growth and inflation are not taken from the Government's budget for 2018 because these were based on a national accounts vintage which was later subject to substantial revisions.

[16] See footnote 13.

shock is an adverse multi-variable shock of 0.25 of a historical standard deviation in all three variables.[17] The shocks are all permanent ones, that is, they persist throughout the 2017-2026 period.[18,19]

As shown in Charts 2-4, the sensitivity analysis reveals that under many of the shock scenarios, the debt ratio remains on a downward trajectory. Moreover, in those cases where the shock eventually pushes the debt ratio along an upward path, increases in the ratio are very moderate and it remains below the current level throughout the projection horizon.

### Is Maltese government debt sustainable?

What can one infer about the sustainability of Maltese government debt? One should recall that overall debt sustainability requires the debt to be sustainable in both the short run, as well as the medium to long run. Starting with the short-term, the composition of Maltese government debt is highly favourable for sustainability considerations since a substantial portion of the debt is longer-dated, held by residents, denominated in domestic currency and subject to a fixed interest rate. In addition, Maltese government bond yields have been low and stable in recent years.

Turning to medium- to long-term sustainability, within the context of scenario analysis, projected debt paths are deemed to be sustainable if they are unlikely to require 'major readjustments', such as substantial increases in taxation, major cuts in government spending or outright default. This exercise does not point towards a likely need for drastic adjustments. First, the three principal scenarios suggest that the debt-to-GDP ratio is set to decline markedly over the next ten years. Since the Government can sustain the current debt ratio, it is unlikely to face difficulties in servicing lower debt ratios in the absence of significant changes to the current economic landscape. Second, sensitivity analysis reveals that the need for major adjustments will be unlikely even if substantial shocks materialise since debt ratios will still remain below the current level.

In the light of the foregoing, Maltese government debt appears to be sustainable in both the short and the medium to long run. In other words, the Government's fiscal position is both liquid and solvent. However, this is subject to a number of caveats.

The results are subject to limitations associated with the methodology employed. Firstly, although the empirical literature points towards interdependencies between these variables, this tool does not usually capture such feedback effects. Secondly, scenario analysis only delivers reliable results to the extent that the assumed paths set for the macroeconomic, fiscal and financial variables used as inputs are realised. The sustainability of Maltese government debt hinges on the assumption that there will be fiscal rigour over the medium to long term, with the Government registering primary surpluses or moderate primary deficits. It is therefore important for the Government to adhere to its commitment towards fiscal discipline, particularly during economic upturns. Fiscal discipline is also vital to provide sufficient fiscal space – that is, buffers that allow room for fiscal manoeuvre – to counter adverse shocks. The verdict of sustainability also rests on the assumption of robust economic growth over the projection horizon. Thus, it is imperative that the Government pursues policies geared towards solid and sustained economic growth through, for example, further labour market reforms, investment in education, infrastructure and technology, financial deepening and improved efficiency and effectiveness of public institutions.

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[17] The historical standard deviations are based on data covering the 2000-2016 period.

[18] The nature of these shocks, including their magnitude, is commonly found in the literature.

[19] The economic activity shock translates into real GDP growth that is 1.3 percentage points lower in each year of the projection horizon. Under the interest rate shock, real interest rates are 0.4 percentage point higher throughout, while the fiscal shock is equivalent to primary balance-to-GDP ratios that are 1.0 percentage point lower in all years. The combined shock translates into real GDP growth that is 0.7 percentage point lower, real interest rates that are 0.2 percentage point higher and primary balance ratios that are 0.5 percentage point lower in each year.

In addition, this analysis is based on explicit government liabilities only. However, there are other liabilities that could have to be borne by the Government, such as contingent liabilities, implicit liabilities and other off-budget liabilities.[20]

Contingent liabilities, in the form of government guarantees, could pose a long-term fiscal risk. Government-guaranteed debt in Malta has been relatively high in recent years. As at 2016, it stood at 14.1% of nominal GDP, one of the highest rates recorded among EU countries. Nearly three-fourths of this debt was issued to just four entities, while more than two-thirds of it is concentrated among corporations within the energy sector.[21]

The ongoing restructuring of public corporations is, however, contributing towards restoring profitability which, in turn, reduces the risk associated with these liabilities. Moreover, towards the end of 2017, a large guarantee in the energy sector, amounting to around 3.3% of GDP was withdrawn, after the entity concerned repaid all debt for which the Government acted as guarantor. Consequently, government guaranteed debt is expected to be lower in the coming years. Going forward, this debt could be lowered further through improved governance and additional restructuring of public corporations.

Another long-term fiscal risk stems from implicit liabilities, in the form of ageing costs (pensions, healthcare and long-term care). Malta is projected to have the highest increase in age-related spending in the EU between 2013 and 2060.[22] Over this span, pension spending is expected to increase by 3.2 percentage points of GDP, while healthcare and long-term care costs are expected to rise by 2.1 and 1.2 percentage points, respectively, for a total increase in ageing costs of 6.5 percentage points, which is 4.7 percentage points higher than the EU average. However, Malta's spending on social security as a proportion of GDP is currently well below the EU average and is expected to remain so till at least 2040.[23,24] These risks can be mitigated by, for example, addressing at a sufficiently early stage the projected increase in ageing-relating expenditures associated with an ageing population through further pension and healthcare reform.[25]

In conclusion, the global financial and economic crisis and the European sovereign debt crisis were a bitter reminder that sustainable public finances are a crucial pillar of a healthy economy. Its absence threatens price stability, financial stability and economic growth. It is therefore crucial that a sound fiscal framework that supports the sustainable evolution of public finances, which in turn safeguards the stability and prosperity of the broader economy, is in place at all times.

[20] Contingent liabilities are future liabilities that only arise if a particular event materialises, an example being the guarantees the Government has given to cover borrowings by public non-financial corporations. Implicit liabilities relate mostly to entitlements that fall due in the future, such as pensions, healthcare and long-term care spending associated with an ageing population. Off-budget liabilities are liabilities that originally do not fall under the definition of general government but could eventually become classified as government debt. This may arise from, for example, the reclassification of state-owned enterprises as part of general government. A case in point is the reclassification of Malta Shipyards Limited in 2008.

[21] Additional details can be found in National Audit Office Malta (2017), Annual Audit Report – Public Accounts 2016.

[22] See European Commission (2015), The 2015 Ageing Report, European Economy Paper No. 3/2015, European Commission for further details.

[23] In 2016, social security spending in Malta amounted to 10.9% of GDP, whereas the figure for the EU stood at 20.9%, nearly double that of Malta.

[24] The key results presented in this study are in line with those put forward by IMF (2018), Malta: 2017 Article IV Consultation Staff Report, Country Report No. 18/19; and European Commission (2015), Fiscal Sustainability Report, *European Economy Institutional Paper* No. 18.

[25] See Farrugia, J. and Grech, O., "The Sustainability of Maltese Government Debt Revisited", in Grech, A.G., and Zerafa, S. (eds.), *Challenges and Opportunities of Sustainable Economic Growth: the Case of Malta*, Central Bank of Malta, 2017, for further details on these caveats.

# PART II

# BANK POLICIES,

# OPERATIONS AND ACTIVITIES

# 1. THE CONDUCT OF MONETARY POLICY AND FINANCIAL MARKET OPERATIONS

## Monetary policy operations

The Central Bank of Malta implements the monetary policy decisions of the Eurosystem in Malta.[1] Thus, the Bank regularly conducts open market operations with credit institutions established in Malta. It also offers standing facilities administers the minimum reserve system and participates in the asset purchase programme (APP).

### *Open market operations*

Standard policy measures include open market operations, aimed at managing the level of liquidity in the money market and at steering short-term market interest rates close to the European Central Bank (ECB) official rates. The Eurosystem has various types of open market operations at its disposal.

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

Throughout 2017, the Eurosystem continued to provide eligible credit institutions established in Malta with liquidity through fixed-rate tender procedures with full allotment, through MROs and LTROs. Moreover, on 26 October 2017, the Governing Council decided that MROs and three-month LTROs will continue to be conducted as fixed rate tender procedures with full allotment as long as necessary, and at least until the end of the last reserve maintenance period of 2019.

During 2017, the ECB conducted 51 MROs. In the context of ample excess liquidity, participation by eligible credit institutions established in Malta was limited. These credit institutions bid for €270.9 million in aggregate, compared with €188.9 million in the previous year (see Table 1.1).

The ECB also conducted 12 regular three-month LTROs with full allotment and at a fixed rate equal to the average of the MRO rate during the lifetime of the operations. Credit institutions established in Malta did not participate in the three-month LTROs during 2017, whereas they had obtained €68.1 million through such operations in 2016 (see Table 1.1).

**Table 1.1**
**PARTICIPATION OF ELIGIBLE MALTESE CREDIT INSTITUTIONS IN EUROSYSTEM OPEN MARKET OPERATIONS[(1)]**
*EUR millions*

| Type of operation | 2016 | 2017 |
|---|---|---|
| Main refinancing operations | 188.9 | 270.9 |
| Long-term refinancing operations | | |
| - Three-month longer-term refinancing operations | 68.1 | - |
| - Targeted longer-term refinancing operations | 43.6 | 39.7 |
| US dollar collateralised operations (USD millions) | | |
| - Seven-day | 245.0 | 301.0 |

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

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

During 2017, credit institutions established in Malta took up a total of €39.7 million through targeted longer-term refinancing operations (TLTRO).[2] At the same time, they repaid part of the outstanding TLTRO amounts that had been taken up earlier.

During 2017 the ECB continued the weekly provision of US dollar liquidity-providing operations with a one-week tenor through collateralised lending in conjunction with the US Federal Reserve. During the year under review, credit institutions established in Malta participated for a total amount of USD 301.0 million.

### *Standing facilities*
Eligible counterparties may utilise two standing facilities on their own initiative to obtain overnight liquidity against eligible collateral or to place overnight deposits with the Eurosystem.

In the context of rising liquidity, during 2017 counterparties continued to place excess funds with the Eurosystem through the overnight deposit facility. Recourse to this facility by Maltese credit institutions amounted to a daily average of €2.9 billion in 2017, an increase of €1.3 billion compared to the 2016 average. On the other hand, Maltese credit institutions did not use the marginal lending facility during 2017.

The rates on the deposit facility, on the MROs and on the marginal lending facility stood at -0.4%, 0.0% and 0.25%, respectively throughout the year.

### *Reserve requirements*
The ECB requires credit institutions established in the euro area to hold reserve deposits with their respective national central bank (NCB). The objective of the Eurosystem's minimum reserve system is to contribute to the stability of money market interest rates and to help ensure the efficient operation of the Eurosystem as a liquidity supplier. Each credit institution established in Malta is accordingly obliged to hold minimum reserve deposits, equivalent to a fraction of certain liabilities, mainly deposits, with the Central Bank of Malta. During 2017 this reserve requirement ratio remained unchanged at 1.0%.

### *Asset purchase programmes*
Throughout the year, the Central Bank of Malta participated in the Public Sector Purchase Programme (PSPP), which is part of the APP. During 2017 the Bank purchased €245.7 million worth of Maltese sovereign bonds. Since inception, the total securities purchased under the PSPP portfolio amounted to €948.1 million[3] at the end of the year. The Bank's holdings had a weighted average remaining maturity of 10.63 years at end-December 2017. The Bank conducted two reverse auctions during the year in the context of the PSPP, but no offers were received.

The Bank did not participate in the private-sector programmes, which also form part of the APP, owing to the absence of eligible securities in domestic markets.

## Collateral management
All Eurosystem credit operations take place against collateral. The Central Bank of Malta is responsible for assessing the eligibility of domestic marketable securities that can be used as collateral in Eurosystem monetary operations and for reporting them to the ECB. As at end-December 2017, the nominal outstanding volume of eligible domestic marketable assets amounted to €5.4 billion, compared with €5.6 billion a year earlier.

At the end of the year the market value, after haircuts, of securities pledged by eligible Maltese counterparties with the Central Bank of Malta stood at €397.1 million. This consisted of both domestic and foreign

[2] On 5 June 2014, the Governing Council of the ECB decided to conduct eight TLTROs. These are Eurosystem operations that provide financing to credit institutions for periods of up to four years. They offer long-term funding, linked to banks' lending behaviour, to help ease private sector credit conditions and stimulate bank lending to the real economy. On 10 March 2016, the Governing Council decided to launch another four TLTROs, with more attractive conditions, with the last such operation taking place in March 2017.

[3] This figure does not reflect the securities' amortisation under the PSPP portfolio. Purchases of securities which matured during 2017 are included in the presented figure.

securities, though debt instruments issued by the Maltese government accounted for the bulk of the securities pledged.

On 14 December 2017, the ECB decided on changes to the collateral eligibility criteria applicable to unsecured debt instruments issued by credit institutions or investment firms or their closely-linked entities (UBBs). UBBs that are subject to statutory, contractual or structural subordination (e.g. UBBs issued by bank holding companies) have become ineligible as collateral.

However, UBBs issued by entities, which are on the list of agencies eligible for the ECB's PSPP and government-guaranteed bank bonds will remain eligible until maturity provided that they are not subject to contractual or structural subordination and that they have been issued before 31 December 2018. Moreover, senior (preferred) UBBs not subject to subordination will remain eligible as collateral. UBBs, which are currently eligible as collateral but do not fulfil the new eligibility criteria, will remain eligible until 31 December 2018.

## Liquidity management

The Bank continued to provide the ECB with daily forecasts of items on its balance sheet that are unrelated to monetary policy instruments, such as banknotes in circulation, government deposits, net foreign assets and net assets denominated in euro. This information enables the Eurosystem to determine liquidity needs, even if the current full allotment policy ensures ample liquidity.

## Reserve management

The Central Bank of Malta manages an investment portfolio of approximately €2.5 billion, comprising both euro and foreign denominated assets. The EUR portfolio represents 65% of assets under management, while the remaining 35% are predominantly invested in USD denominated securities. The Bank's main investment objective is to maximize the return on the portfolio within the safety and liquidity parameters approved by the Board of Directors and the Investments Policy Committee (IPC). The investment portfolio comprises money market instruments, fixed income securities and fixed income derivatives. The fixed income asset classes include sovereign bonds, securities issued by supranational and national government agencies, bank covered bonds and senior unsecured debt.

The two existing external investment management mandates started in 2013 and continued in 2017. The parameters of such external mandates were gradually shifted to focus on asset classes beyond the core competence of internal resources in order to achieve more diversification in reserves management. For this purpose the Bank also continued its investment in the Bank for International Settlements Investment Pool Sovereign China Fund. During the year, extensive work has been carried out to launch a third external investment mandate in 2018.

The IPC, which formulates the investment strategy of the Bank's investment portfolios, is chaired by the Governor and includes the Deputy Governors and senior officials of the Bank. The IPC monitors the performance of the Bank's financial assets, evaluates the implementation of investment strategies, reviews reserve-management practices and assesses the overall investment policy. The Committee is also responsible to set the Tactical Benchmark for the actively-managed funds. The IPC met on a monthly basis during 2017.

In order to further strengthen the portfolio's diversification, the Bank has this year increased its exposure to foreign assets denominated in other G10 currencies, apart from the EUR and USD.

The Bank continued to co-manage its portion of US dollar reserves on behalf of the ECB by way of a pooling mechanism jointly with the Central Bank of Ireland. During the year, International Asset Management Office worked closely with the Central Bank of Ireland counterparts to review the investment strategy, discuss trades and analyse the portfolio's performance.

The Bank continued to transmit to the ECB information on its foreign-exchange transactions and holdings as well as on the EUR denominated portion of the investment portfolio.

The Bank continued to manage the Investor and Depositor Compensation Schemes on behalf of the Malta Financial Services Authority. There were no changes related to the ERM II intervention regime.

Outright and spot foreign currency purchases including customer transactions amounted to €704.0 million in 2017, compared to €538.0 million in 2016. Outright and spot foreign currency sales including customer transactions amounting to €744.0 million were transacted in 2017 (€546.0 million in 2016).

In 2017, FX swap purchases decreased to €17.3 billion from €18.4 billion in 2016 whereas FX swap sales rose to €3.1 billion from €2.1 billion the previous year.

### Market-making operations

The Central Bank of Malta through the Government Securities Office (GSO) continued to provide market-making facilities by quoting daily bid and offer prices for the listed Malta Government Stocks (MGS) on the Malta Stock Exchange (MSE).

The Central Bank of Malta maintained its position as the main market player in the Maltese sovereign bond market, when compared with the other individual stockbrokers. In 2017, the Central Bank of Malta Market Making function effected 56.06% (53.6% in 2016) of the total on-exchange deals, whilst the Inter brokers effected the remaining 43.94% between them.

In nominal terms, the Bank's market-making function effected a total of €198.97 million (€140.4 million purchases; €58.57 million sales), lower than the €254.24 million registered in 2016.

There was no secondary market activity in the Treasury bill market.

As part of its mandate, the Central Bank of Malta is obliged to provide liquidity in the MGS Market. Consequently, the Bank had to buy MGSs on offer, priced at the prevailing Central Bank of Malta price or lower (depending on supply), whilst putting on offer MGSs in order to provide a two way trading. The Bank also acted as an agent on behalf of institutional clients, namely the Foundation for Church Schools.

As from 16 April 2017, the MSE prolonged all securities' trading hours with trading in the MGS market extended until 14:30. The Central Bank of Malta, through GSO, had to reassess its processes in order to cater for such an extension, with prices being reviewed during the day when necessary.

The Bank assisted the Treasury in the selection of maturities to offer in the primary market, in order to attract sufficient demand while limiting the refinancing risk.

## 2. FINANCIAL STABILITY

The Financial Stability Department fulfils the Bank's statutory mandate to monitor financial stability by carrying out surveillance and assessment of the financial sector in Malta, backed by stress tests to gauge its vulnerabilities, risks and resilience to shocks. This analysis feeds into the implementation of macroprudential policy initiatives through the Joint Financial Stability Board (JFSB). The implementation of certain policy initiatives is also jointly undertaken with the Malta Financial Services Authority (MFSA).

The Bank published its risk assessments, stress test results and work related to macroprudential policy in its *Financial Stability Report 2016* and its *Interim Report* covering the first half of 2017. These reports assessed the vulnerabilities of the domestic financial system to risks arising within and outside the Maltese financial system, as well as the outlook for the near term. Against a backdrop of an expanding economy, the banking sector remained resilient on the back of adequate capital levels and ample liquidity. The health of the banks' balance sheets also improved as credit risk abated further, while profitability remained healthy. Stress test results have reaffirmed the core and non-core domestic banks' adequacy in their loss absorption capacity to extreme, yet plausible shocks.

The stress test for vulnerabilities arising in the property market was refined and now employs the Bank's macroeconometric model (STREAM) to determine the response of non-performing loans to the assumed shock to house prices. In addition, a new stress test was developed to quantify the change in Net Interest Income in the six interest rate scenarios prescribed by the Basel Committee for Banking Supervision (BCBS) in the guidelines on interest rate risk in the banking book published in April 2016.

During 2017, the Single Supervisory Mechanism (SSM) also conducted a sensitivity analysis of interest rate risk in the banking book of supervised entities, the results of which will be integrated in 2017 Supervisory Review and Evaluation Process (SREP) as part of Pillar 2 requirements and Pillar 2 guidance (P2G). Moreover, the European Banking Authority (EBA) published detailed individual bank data on capital positions, risk exposure amounts and asset quality for a sample of 132 European banks, including three domestic credit institutions, as part of the 2017 EU-wide Transparency Exercise and is now finalising the preparatory phase of the 2018 EU-wide stress test exercise for the European banking sector.

The domestic insurance companies and investment funds continued to operate prudently limiting any excessive risk-taking in spite of the challenging low interest rate environment. The outlook for the near term is positive both for the bank and the non-bank financial sectors, though institutions are encouraged to continue building their capital buffers.

The Financial Stability Committee met three times during the year and pursued discussions relating to various financial stability issues as well as the approval of the Financial Stability Reports.[1] The JFSB met five times in 2017, to approve macro-prudential policy measures, to discuss institution specific topics, overall potential risks to the financial sector as well as potential risks emerging from certain services which could impact financial stability through the Depositor Compensation Scheme.[2]

The Domestic Standing Committee for the management of financial crisis situations, composed of representatives of the Bank, the MFSA and the Ministry for Finance, also held regular meetings during the year. During these meetings, discussions focused on the domestic preparation for an IMF Financial Sector Assessment Programme, the Minimum Requirements for Eligible Liabilities and own funds (MREL) and resolution plans for domestic banks, and on progress in addressing the findings of the domestic financial crisis simulation exercise. The Forum for Financial Stability met once in 2017 and exchanged views on subjects such as the main risks facing the domestic financial system, bank profitability, Malta's recovery and resolution framework, with a focus on the MREL and the European Systemic Risk Board (ESRB) recommendations on reciprocity and real estate data gaps.

1 The Financial Stability Committee is chaired by the Governor and includes a number of senior officials of the Bank.

2 The JFSB is chaired by the Governor, and includes two other representatives of the Bank and two representatives of the MFSA. The Minister for Finance attends the meetings as observer.

The Bank in collaboration with Fintrail London hosted a Workshop for participants from the banking sector entitled "Building resilience to the de-risking agenda". The Workshop dealt with correspondent banking relationships and gave the participants the opportunity to exchange views and share knowledge on the topic.

The Bank, in collaboration with the MFSA, continued to monitor the impact of the Basel III requirements on a sample of Maltese banks through the Quantitative Impact Survey Exercise coordinated by the EBA. Furthermore, the Bank conducted four rounds of the European Central Bank's (ECB) Bank Lending Survey with the objective to monitor trends in credit standards and demand for credit by non-financial corporates and households.

The Bank and the MFSA assessed domestic banks for their other systemically important institutions (O-SII) status in the fourth quarter of 2017.[3] Subsequently, the Bank and the MFSA published a Statement of Decision, re-confirming Bank of Valletta Group, HSBC Group Malta, and MeDirect Group as O-SIIs, with calibrated capital buffers of 2%, 1.5% and 0.5%, respectively. The capital buffers are subject to a transitional period of four years with equal annual increments, starting in January 2016.

In accordance with the Central Bank of Malta Directive No. 11, the Bank announces on its website each quarter the setting of the countercyclical capital buffer rate, based on a quarterly assessment of risks, related to excessive credit growth. The countercyclical capital buffer rate remained unchanged at 0% throughout 2017.

During the year, senior Bank officials participated in a number of meetings of the ESRB and ECB, as well as in the activities of their related sub-structures. The Bank was also an observer on the Board of Supervisors of the EBA and on the Supervisory Board of the ECB. Furthermore, discussions on financial stability issues were held with the International Monetary Fund in terms of Article IV mission visits, the European Commission and credit rating agencies.

In the first half of 2017, four officers from the Financial Stability Department contributed to the Maltese Presidency of the European Union, specifically as members on two EU Council Working Groups on Financial Services namely (i) on the Risk Reductions Measures and (ii) the European Deposit Insurance Scheme both under the auspices of the Ad Hoc Working Party on the Strengthening of the Banking Union.[4,5] Progress on these dossiers was published in a Presidency Progress Report.[6] Two General Approaches were attained on the transition to the accounting standard IFRS 9 and Large Exposures, and Bank Creditor Hierarchy.[7]

The Bank also initiated preparatory work since Malta will undertake a Financial Sector Assessment Program (FSAP) carried out by the International Monetary Fund (IMF) in 2018. The goal of the FSAP is to gauge the stability and soundness of the financial sector and to assess its potential contribution to growth and development. The FSAP is a key instrument of the IMF's surveillance and provides input to the Article IV consultations on Malta. Given the Bank's tasks of ensuring financial stability and macroprudential mandate, the Bank will provide the relevant input to the IMF mission alongside other relevant authorities.

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[3] Central Bank of Malta and MFSA (Dec. 15): "Policy document on the methodology for the identification of other systemically important institutions and the related capital buffer calibration".

[4] European Commission proposal for Risk Reduction Measures:
- a Regulation of the European Parliament and of the Council amending Regulation (EU) No. 575/2013 on prudential requirements for credit institutions and investment firms;
- a Directive of the European Parliament and of the Council amending Directive (EU) as regards exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures;
- a Regulation of the European Parliament and of the Council amending Regulation (EU) No. 806/2014 on minimum requirement for bail in liabilities;
- a Directive of the European Parliament and of the Council amending Directive 2014/59 on creditor hierarchy, moratorium tools and minimum requirement for bail in liabilities.

[5] European Commission Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No. 806/2014 in order to establish a European Deposit Insurance Scheme (EDIS).

[6] Council of the European Union (12 June 2017). Strengthening of the Banking Union/Risk-reduction measures – Presidency Progress Report – http://data.consilium.europa.eu/doc/document/ST-9484-2017-REV-1/en/pdf.

[7] The European Council adopted the creditor hierarchy and IFRS 9/large exposures rules on 7 December 2017. http://www.consilium.europa.eu/en/policies/banking-union/risk-reduction-european-deposit-insurance-scheme/.

## 3. ECONOMICS AND RESEARCH

The Central Bank of Malta monitors and assesses economic developments and prospects in support of its key policy-making function. At the same time, the Bank carries out research on economic issues and develops and maintains a suite of econometric models.

During 2017, staff continued to provide input into the monetary policy process by briefing the Governor on related issues ahead of his participation in the Governing Council of the European Central Bank (ECB). Staff continued to provide similar support to the Bank's senior management in the context of the work of the General Council of the ECB, as well as external bodies, such as the European Commission, the International Monetary Fund, and credit rating agencies.

As in previous years, a comprehensive projection exercise was carried out twice during the year, as part of the Eurosystem's Broad Macroeconomic Projection Exercise, while a more detailed short-term projection of inflation developments was prepared every quarter. The Bank also prepared detailed fiscal forecasts as part of the ESCB forecast exercises. Further work was carried out during the year to improve the Bank's estimates of potential output and to develop additional tools that could supplement the Bank's core macro-econometric model in the forecasting processes.

In 2017, the Bank continued to meet a growing number of companies and public sector institutions in Malta to obtain a better gauge of economic conditions and prospects. The responses collected were taken into account in the Bank's projection exercises.

The Bank published its analysis of domestic and foreign economic and financial developments in its *Quarterly Review* and *Annual Report*.[1] During the year, the Bank also released a monthly *Economic Update*, providing a commentary on the latest economic and financial developments in Malta. As from this year, the *Economic Update* features a monthly index of business conditions, compiled by the Bank.

Following organisational changes in the beginning of the year, the Bank's Economics and Research Department also began to fulfil new responsibilities in the area of macroeconomic and government finance statistics. In this regard, the Department enhanced its contacts with statistical compilers in other institutions and began to participate in a number of ECB fora which report to the ECB's Statistics Policy Committee as well as in fora, which bring together national compilers.

Staff undertook specialised research, which resulted in four working papers and five policy notes, published on the Bank's website. A total of seventeen articles appeared in the Bank's regular publications. The working papers dealt with structural changes in the Maltese production structure using input-output techniques, presented new estimates of fiscal multipliers for Malta and studied the correlation between sovereign bond yields in Malta and other euro area countries. Another working paper documented the main findings of the second wave of the Household Finance and Consumption Survey that was carried out in 2013. The policy notes focused on income convergence, the impact of Brexit, access to finance for businesses, the financing of firms and the economic effects of structural reforms in the energy sector.

In 2017, the Bank also hosted a research symposium focusing on the competitiveness and medium-term challenges in small open economies, with a special session on the challenges posed by Brexit for economies with close links to the United Kingdom. As foreign speakers, the symposium featured the Governor of the Central Bank of Estonia and an academic from the University College Dublin. During the symposium, the Bank launched the publication *Challenges and opportunities of sustainable economic growth: the case of Malta*. The publication consists of five articles, which assess in detail the sustainability of Malta's growth model. The articles focus on the medium term growth prospects of the Maltese economy, the sustainability of recent trends in public finances and the current account surplus and another two studies assessing macro-financial conditions.

[1] The Bank's publications can be found on its website at: https://www.centralbankmalta.org/publications.

As part of a series of events organised to debate current trends in investment in different EU Member States, the European Investment Bank (EIB) and the Central Bank of Malta hosted a conference entitled *Investment and Investment Finance: The case of Malta* held in Valletta. During this conference the EIB presented the results of an investment survey it carried out amongst Maltese firms, while the Central Bank of Malta presented research on how firms are financing their operations in Malta. The conference was also addressed by the Minister for Finance, the Vice President of the EIB and the Deputy Governor (Monetary Policy) and Governor of the Central Bank of Malta. There were panel discussions involving officials from Malta Enterprise, the major banks and government.

Research by staff was also presented internationally. Five articles were published in foreign peer-reviewed journals, while two economists contributed to an ECB *Occasional Paper* on low inflation in euro area. Staff also gave input to a number of ECB task forces on the interaction between real and financial cycles, structural reforms in the euro area, the exchange rate pass through and potential output growth. In addition, the Bank continued to participate in two ECB research networks, the Wage Dynamics Network and the Household Finance and Consumption Network. Staff also participated in the 65th Economic Policy Panel meeting, which was organized in Malta by the Centre for Economic and Policy Research (CEPR) in collaboration with the Central Bank of Malta.

Besides holding internal seminars, staff members presented the findings of their research to external stakeholders, such as the Malta Financial Services Authority (MFSA), the Building Industry Consultative Council (BICC), the Malta Fiscal Advisory Council (MFAC) and the Malta Council for Economic and Social Development (MCESD). These presentations focused on financial conditions, the housing market, medium-term growth prospects in Malta and the sustainability of the pension system. Staff also delivered four presentations in national conferences: the National Conference on New Growth Areas for the Maltese Economy, the fiscal conference jointly organized by the MFAC and the European Commission, and a conference on the construction sector and the property market organised by KPMG. Staff members also delivered two presentations in foreign specialized conferences in Italy and Greece. Another two economists delivered presentations in ECB working groups and workshops. These presentations focused on the economic impact of hotel height extensions, medium-term growth estimates, the Bank's macro-econometric model and tax administration, respectively.

The Central Bank of Malta's programme of technical cooperation with Banca d'Italia led to a two week internship by a staff member to Banca d'Italia. This internship resulted in the extension of a detailed fiscal block to MEDSEA, the calibrated structural model for Malta developed in recent years that is especially useful for policy analysis and simulations.

In addition, a PhD student from a leading UK university was seconded for a short period of time to the Bank's Economic Analysis Office to assist in the development of the Bank's analytical tools to improve its short-term forecasting capability.

Research plans for 2018 include studies on the changing structure of the Maltese economy, topics related to the business cycle, demographics and inequality, macro-financial linkages and fiscal policy. Furthermore, the Bank will continue to allocate resources to develop econometric and structural models to complement its forecasting toolkit in order to enhance its research capacity.

In addition, efforts are already underway for an international conference in 2018 and a related publication to commemorate the Bank's 50th anniversary.

## 4. STATISTICS

The Bank is primarily responsible for the compilation of monetary, financial, payments, securities, financial stability and financial institutions' statistics in Malta. It also collects other statistical information, such as prudential supervisory and macroeconomic data for internal policy making purposes. The Bank also contributes to the compilation of the balance of payments (BoP)/international investment position statistics, financial accounts statistics and government finance statistics in cooperation with the National Statistics Office (NSO). The Bank fulfils international statistical reporting obligations, mainly to the European Central Bank (ECB) and the International Monetary Fund (IMF). The Bank participates in the IMF's Special Data Dissemination Standard and the General Data Dissemination System, as well as in various surveys conducted by the IMF.

The Bank continued to operate its Central Credit Register (CCR) to provide credit risk information relating to borrowers to both credit institutions and natural and legal borrowers. Directive No. 14 empowers the Bank to organise and operate the Register in pursuit of its objectives regarding financial system stability, monetary policy research and analysis and the processing of statistical information. Since its inception in April 2016, credit institutions have made ample use of the register, with the queries on prospective and existing clients increasing substantially in 2017. Meanwhile, the Working Group on the Central Credit Register Enhancement, which is chaired by the Bank and includes representatives from credit institutions and the Malta Bankers' Association (MBA), continued to meet during the period under review. The Working Group seeks to enhance the national credit register by broadening credit information to beyond what is provided by domestic credit institutions and through the issuance of credit scores.

The Bank continued to participate in the ESCB's Anacredit project which aims to provide a harmonised set of credit and credit risk data across participating euro-area countries in line with the respective ECB Regulation. Meanwhile, the Bank continued to transmit the required granular credit statistics to the ECB, based on the Anacredit project's 'short-term approach'. In conjunction with Banca d'Italia, the Bank embarked on an entirely new IT solution to handle this project, which will be part of the Central Bank of Malta's integrated statistical information solution (INFOSTAT). The project is currently on track, aiming to fulfil in full the respective ECB Regulation in the latter half of 2018. During the first quarter of 2017, the Bank organised three seminars for the reporting credit institutions to inform them on the reporting requirements and the data transmission methodology. A dedicated webpage on AnaCredit was specifically created for respondents and their IT consultants. Moreover, the Bank continued to enhance Maltese securities data quality, held within the ECB's Centralised Securities Database (CSDB).

Data on securities holdings continued to be transmitted to the ECB on a quarterly basis. Following the amendment in the respective ECB regulation, as from 2018 Malta will have to collate security-by-security data held by the reporting banking groups. Since the Bank decided to use the shared infrastructure developed by the ECB in collaboration with the Bundesbank, in October a joint ECB/Deutsche Bundesbank mission visited the Bank to introduce the new statistical requirements and the infrastructure to the prospective respondents. During the year, the Bank also continued to collaborate to enhance the BOP data quality, particularly to fulfil the recommendations of the ECB and Eurostat.

In preparation for the forthcoming ECB Regulation on the statistical reporting requirements for pension funds, the Central Bank of Malta and the Malta Financial Services Authority (MFSA) held meetings to discuss the latest developments regarding the draft Regulation, the public consultation organised by the ECB, and the planned implementation of such a Regulation in Malta. A dedicated webpage was created to inform pension funds registered in Malta about this public consultation. Meanwhile, the Bank continued to collect and process the European Insurance and Occupational Pensions Authority's Solvency II regulatory returns, mainly for the purposes of financial stability analysis. The data collected also includes the statistical reporting requirements for the insurance corporations in line with ECB Regulation.

During 2017, the Bank continued to enhance the indicators based on the Bank's financial accounts and which are required for the *Macroeconomic Imbalance Procedure*. The Bank published on its website "From Whom-to-Whom" tables, which explain the financial linkages between the country's institutional sectors. This dataset is examined by international organisations, such as the IMF and the ECB, as well as various other national users. The Bank also collected granular data on non-financial corporations spanning back to 2008, which were used for internal statistical, research and analysis purposes.

Collaboration continued with the Banca d'Italia on the implementation of the statistical processes identified during the investigation phase in INFOSTAT. A number of business processes were successfully implemented by the end of the year, such as investment funds, which commenced uploading their statutory returns directly in the INFOSTAT portal earlier in the year. The remaining processes, including newly identified statistical projects, will continue to be migrated in 2018. An essential part of the INFOSTAT project involved the creation of an integrated data dictionary and the development of a specific XML generator, embedded into the main returns received by the Statistics Department. A general re-engineering process and an upgrading of skills in the area of statistical information management is also being undertaken through various training events and seminars addressed to users. A help desk was also set up to provide on-going technical assistance for both internal and external users.

The internal Statistics Committee, supported by its sub-structure, continued to meet to define and implement the policy on statistical information within the Bank. The Forum for CBM Statistics, which is chaired by the Bank and includes representatives from credit institutions, MFSA, NSO and the MBA, continued to meet to promote dialogue on monetary and financial statistics among stakeholders, mainly focussing on the Anacredit project during 2017.

At a national level the Bank continued to be represented on the Committee on Statistical Matters, chaired by the Ministry for Finance and on the Government Finance Statistics Committee, which also includes officials from the NSO and the Ministry for Finance and is responsible for the reporting of government finance statistics related to the EU Commission's Excessive Deficit Procedure notification. It also continued to contribute in the Building Industry Consultative Council (BICC) and in the BICC's Property Market Working Group.

## 5. CURRENCY, PAYMENT SYSTEMS AND BANKING SERVICES

The Central Bank of Malta is responsible for the issue and circulation of euro banknotes in accordance with the legal framework of the European System of Central Banks (ESCB), the European Central Bank (ECB) and of the Central Bank of Malta Act. The Bank issues coins on behalf of the Government through a Memorandum of Understanding. Moreover, the Bank is responsible for the regulation and oversight of the payment and securities settlement systems in Malta.

### Currency operations

Currency Operations Office provides an adequate supply of banknotes to meet the demand of the banking system, ensuring the high quality and authenticity of the currency in circulation (see Tables 5.1 and 5.2). All currency returned to the Central Bank of Malta is processed by ECB accredited machines. Counterfeit banknotes and coins are withdrawn while those found to be unfit for circulation are destroyed. Data on stocks and flows of banknotes and coins are reported on a daily and monthly basis to the ECB through the Currency Information System.

In terms of the obligations laid down under CBM Directive No. 10, Currency Operations Office monitors recycling activities performed by commercial banks and other professional cash handlers. Annual monitoring tests are performed on banknote handling machines and other monitoring checks are undertaken on an ad-hoc basis at branches of commercial banks.

The Currency Surveillance Unit (CSU) within the office analyses banknotes and coins suspected to be counterfeit and also provides expert evidence related to counterfeit currency in terms of the obligations laid down under Article 54 of the Central Bank of Malta Act (Cap. 204).

#### *Circulation of notes and coins*

During 2017, the Bank inspected 91.8 million notes with a value of approximately €2.1 billion, compared with 93.3 million notes with a value of around 2.2 billion in 2016. The proportion of destroyed banknotes decreased from 27% in 2016 to 11% in 2017. This substantial decrease in notes destroyed is mainly related

**Table 5.1**
**BANKNOTES ISSUED BY AND PAID INTO THE CENTRAL BANK OF MALTA IN 2017**
*EUR millions*

| | Notes | | | |
|---|---|---|---|---|
| 2017 | Issued by Central Bank of Malta | Paid into Central Bank of Malta | Net issue | Issued and outstanding |
| January | 160.0 | 172.9 | -12.9 | 1,021.5 |
| February | 169.6 | 147.0 | 22.6 | 1,044.1 |
| March | 199.7 | 177.9 | 21.8 | 1,065.9 |
| April | 186.4 | 176.9 | 9.5 | 1,075.4 |
| May | 204.7 | 198.8 | 5.9 | 1,081.3 |
| June | 217.6 | 184.6 | 33.0 | 1,114.3 |
| July | 204.9 | 208.4 | -3.5 | 1,110.8 |
| August | 213.2 | 215.7 | -2.5 | 1,108.3 |
| September | 200.1 | 197.0 | 3.1 | 1,111.4 |
| October | 212.1 | 206.7 | 5.4 | 1,116.8 |
| November | 196.3 | 191.7 | 4.6 | 1,121.4 |
| December | 219.5 | 173.2 | 46.3 | 1,167.6 |
| **Total 2016** | **2,188.0** | **2,127.6** | **60.4** | **1,034.4** |
| **Total 2017** | **2,384.0** | **2,250.8** | **133.3** | **1,167.7** |

Source: Central Bank of Malta.

**Table 5.2**
**COINS ISSUED BY AND PAID INTO THE CENTRAL BANK OF MALTA IN 2017**
*EUR millions*

| | Coins | | | |
|---|---|---|---|---|
| 2017 | Issued by Central Bank of Malta | Paid into Central Bank of Malta | Net issue | Issued and Outstanding |
| January | 2.5 | 3.1 | -0.6 | 74.3 |
| February | 2.6 | 2.6 | 0.0 | 74.3 |
| March | 3.5 | 3.0 | 0.5 | 74.8 |
| April | 3.2 | 2.6 | 0.6 | 75.4 |
| May | 4.1 | 3.2 | 0.9 | 76.3 |
| June | 4.0 | 2.9 | 1.1 | 77.4 |
| July | 4.7 | 3.4 | 1.3 | 78.7 |
| August | 4.5 | 3.4 | 1.1 | 79.8 |
| September | 3.2 | 3.2 | 0.0 | 79.8 |
| October | 3.6 | 3.3 | 0.3 | 80.1 |
| November | 3.8 | 3.1 | 0.7 | 80.8 |
| December | 2.9 | 2.5 | 0.4 | 81.1 |
| **Total 2016** | **41.8** | **35.9** | **5.9** | **74.8** |
| **Total 2017** | **42.6** | **36.4** | **6.3** | **81.1** |

Source: Central Bank of Malta.

to the fact that in 2017, following the issue of the new ES2 €50 banknote, the old series of €50 banknotes was not destroyed and continued to be reissued together with the new series banknotes.

The new €50 banknotes in the Europa second series of banknotes started circulating on 4 April 2017.

The volume of euro coins issued and outstanding as at end 2017 increased by 8.5% to approximately €81.1 million (see Table 5.2). A total of 59.2 million euro coins equivalent to €34.8 million were processed by the Central Bank of Malta.

During 2017, no coins were demonetised or ceased to be exchangeable at the Bank.

In the last quarter of 2017, the Bank extended the use of Cash SSP stock management system for coins. All coin stocks are recorded in the system, and commercial banks can now also use the 'My Cash' system for coins.

No new regulatory or legal standards came into force during the course of 2017. Nonetheless, the Bank continued to work on the implementation and monitoring of existing legal frameworks.

During 2017, Currency Operations Office also provided informative sessions to students and retailers with the collaboration of GRTU – Malta Chamber of Small and Medium Enterprises (SME).

Counterfeit awareness was raised through participation in programs on local TV stations. During the annual *Notte Bianca* event a dedicated counterfeit desk was set up together with the distribution of related informative material.

Currency Operations Office also continued with the certification of professional cash handlers. In collaboration with the Ministry for Education, 'Know your banknotes' module was inserted in the national curriculum and a group of teachers were certified to effectively teach this module to their Home Economics students. During 2017, 785 Sixth Year pupils from various schools attended this training.

During the European Money Week, the Money Matters program included an element of banknote security features. During the fieldwork, pupils were given access to counterfeit and specimen genuine banknotes provided by the Bank.

### *Collection and disposal of Maltese lira banknotes*

A total of 65,263 Maltese lira banknotes with a value of €1.5 million were exchanged at the Bank during 2017. A total of 3.03 million Maltese lira banknotes remained in circulation at end-2017, equivalent to €37.4 million.

### *Numismatic and commemorative coins*

In January 2017, a silver numismatic coin, commemorating the first Maltese Presidency of the Council of the European Union, was issued. In February 2017, a gold and silver numismatic coin was issued under the Europa Coin Programme, which carried the theme 'The Age of Iron and Glass'. The Maltese coins featured a detail of a wrought iron and glass house, known as "The Conservatory", attributed to Andrea Vassallo (1856-1928), dismantled in 1981.

A euro coin set dated 2017 was issued in May, consisting of the eight Maltese euro circulation coins together with a €2 commemorative coin.

In July 2017, a €2 commemorative coin featuring the Ħaġar Qim temples was issued. This was the second in a series of seven coins featuring Maltese prehistoric structures, listed as UNESCO World Heritage Sites. The coin was issued in rolls of 25 coins each as well as individually in coin cards.

In August 2017, a silver numismatic coin commemorating the 75th anniversary of Operation Pedestal, better known as the 'Santa Maria' Convoy, was issued. This coin paid tribute to an important milestone in Malta's fight for survival during the Second World War.

A medal was issued to mark more than 100 years of maritime aviation in Malta, coinciding with the Como to Malta Seaplanes Rally, held between the 6 and 7 October 2017.

Another €2 commemorative coin featuring, 'Peace', the winning design of a competition for secondary school students, was issued in November 2017. The coin was issued in rolls of 25 coins each as well as individually in coin cards.

In December 2017, the Central Bank of Malta issued a silver numismatic coin 'Voting Rights for Women' commemorating the 70$^{th}$ year since Maltese women obtained the constitutional right to vote.

### *Anti-counterfeit measures*

During 2017, approximately 91.8 million banknotes with a value of €2.1 billion were examined at the Note Examination Room. Around 81.3 million banknotes equivalent to €1.9 billion were found suitable for re-issue. About 10.4 million banknotes equivalent to €249.0 million were destroyed during 2017.

During 2017, a total of 59.2 million euro coins, with a value of €34.8 million were examined by the Bank. There were no significant changes in the volume of coin examinations from the previous year.

During the year, the Central Bank of Malta continued to closely monitor credit institutions and other professional cash handlers. Monitoring tests were performed on each type of banknote handling machine and authentication device. Several unannounced inspections at branches of commercial banks were undertaken to ensure compliance with the ECB directive on authenticity and recirculation of banknotes.

Quarterly meetings with credit institutions continued to be held during 2017 to keep members updated on currency matters.

The CSU within Currency Operations is responsible for the coordination of counterfeit analysis in Malta. During 2017, 893 counterfeit notes and 513 counterfeit coins were analysed and classified and findings were uploaded into the ECB's Counterfeit Monitoring System (CMS). CSU personnel were also asked to provide expert evidence during several court cases.

During 2017, two press releases were issued to inform the public on the status of counterfeit notes in the Eurosystem in general and more specifically on the local situation.

### Payment and securities settlement systems

The Bank's responsibility to carry out regulation and oversight activities stems from Article 34 of the Central Bank of Malta Act, whereby the Bank, also as part of the Eurosystem, is responsible for regulating and overseeing payment systems, securities clearing and settlement systems (SSS). Besides participating in Oversight Assessments carried out on Target2 (T2) and Target2-Securities (T2S), the Bank is responsible to oversee MaltaClear (the Malta Stock Exchange (MSE) SSS) as well as the Malta Clearing House (MCH) which is designated as an Other Retail Payment System (ORPS) by the ECB, following a payment system classification exercise.

The two major regulatory developments regarding payments and settlements systems during 2017 were the revised Payment Services Directive (PSD2) and the Central Securities Depositories Regulation (CSDR).

### The revised Payment Services Directive

While the original Payment Services Directive (PSD) created a single market for payments and the legal foundation for a Single Euro Payments Area (SEPA), PSD2 is designed to strengthen consumer protection, enhance security, foster innovation, promote competition and regulate new market players. PSD2 came into force on 13 January 2016 and both the Bank and the Malta Financial Services Authority (MFSA) have been designated as competent authorities for the national transposition of this Directive.

The Bank held a number of meetings with the MFSA in order to coordinate the national transposition of PSD2. Furthermore, since Article 99 of PSD2 mandates that national competent authorities to provide a complaints channel to payment service users (PSU) regarding alleged infringements of provisions emanating from PSD2 by payment service providers (PSP) and given that the Office of the Arbiter for Financial Services (OAFS) already has a similar mandate through the Arbiter for Financial Services Act, the Bank also held a number of meetings with the OAFS in order to collaborate on this matter.

On 9 June 2017, the Bank issued a public consultation on the revised CBM Directive No. 1 on the Provision and Use of Payment Services (CBM Directive No. 1), which has the purpose of transposing the provisions of PSD2 falling under the remit of the Bank. A number of market participants provided their feedback in relation to the public consultation. After careful assessment of all the responses received from market participants, the Bank held a number of meetings with some of the respondents to clarify certain misconceptions which became apparent in the public consultation and a number of revisions were made to the revised CBM Directive No. 1.

The Bank expects to publish the post-consultation document and the final text of the revised CBM Directive No. 1 early in 2018, with this Directive entering into force on 13 January 2018.

### Central Securities Depositories Regulation

The Regulatory Technical Standard (RTS) on authorisation, supervisory and operational requirements for Central Securities Depositories (CSD) stemming from CSDR was adopted in March 2017. This Regulation mandates that all relevant CSDs should submit an authorisation application within six months in line with the requirements set out in CSDR. Following confirmation from the Competent Authority (MFSA) about the completeness of the application, a six-month authorisation process will commence. As a Relevant Authority, the Bank is responsible to assess within five weeks whether the MSE should be authorised to continue its operations. Upon finalisation, this view will be communicated to the MFSA accordingly. It is envisaged that the authorisation process will commence at the beginning of February 2018 as the MSE has until the end of January to provide the fully completed authorisation application.

With the introduction of the authorisation process, the Eurosystem concluded that the current User Assessment Framework will be phased out in order to avoid any additional burden on the relevant Financial Market Infrastructures. Hence, initial discussions and preparatory work for the phasing out of the User Assessment Framework will commence in the beginning of 2018.

## Oversight Assessments

Since all recommendations stemming from the Comprehensive User assessment on MaltaClear and its links carried out by the Bank were sufficiently addressed during 2017, the overseer considered such assessment as closed, and informed the Eurosystem accordingly.

The Oversight Assessment[1] on the Malta Clearing House was presented to the operators at the beginning of 2017. Currently, the operators are working to address the issued recommendations. Given that the Central Bank of Malta has also been assigned the responsibility of second assessor of the Irish Paper Clearing Company as part of its Eurosystem obligations, such assessment was concluded and finalised in the beginning of 2017.

During 2017, the Bank was also involved in a Cyber Resilience exercise carried out by the Eurosystem on relevant Financial Market Infrastructures (FMI), which in Malta's case was the MSE. Following a review of the responses, the Bank, together with the Eurosystem was able to assess whether the currently implemented cyber resilience measures are sufficient given today's ever-growing cyber threats. Upon finalisation of a cyber-resilience report, results will be shared with the MSE in order to address any recommendations.

## Malta Clearing House

The MCH meets every morning at the Bank's premises to physically exchange the cheques that were negotiated during the previous working day by each member on behalf of the other members. During the year, a new credit institution joined the MCH, while another two institutions merged into one, bringing the total number of direct participants to 12.

The total number of cheques cleared experienced a decrease of 4.1% whilst the total value increased by 5.1% over the previous year, as shown in Table 5.3.

**Table 5.3**
**NUMBER AND VALUE OF CHEQUES PROCESSED BY THE MALTA CLEARING HOUSE, 2016 AND 2017**

| | Number of cheques cleared | Value (EUR millions) |
|---|---|---|
| 2016 | 4,960,584 | 9,121 |
| 2017 | 4,758,008 | 9,582 |
| Change | (202,576) | 461 |
| Percentage change | (4.1) | 5.1 |

Source: Central Bank of Malta.

[1] This was performed as part of the obligations to carry out assessment procedures on payments systems under the ECB SIPS Regulation.

## TARGET2-Malta

During 2017, the operation of TARGET2-Malta continued to be stable in terms of performance and availability. During the year, two new credit institutions joined TARGET2-Malta, bringing the total number of direct participants to 11.

Payments traffic on TARGET2-Malta in 2017 registered a 24.3% increase in terms of volume and an increase of 121.7% in terms of value, when compared to 2016. Although, both customer payments and inter-bank payments registered an increase in volume and value terms, the main increase in volume can be related to a higher number of customer payments, while the surge in value is related to inter-bank payments. The total volume of payments processed during 2017 was 113,944 for a total value of €839.8 billion. The volume of customer payments was 94,255 for a total value €6.6 billion, and the volume of inter-bank payments was 19,689 for a total value of €833.1 billion.

## Banker to the public sector

During the year under review, the range of banking services provided by the Bank to the Government was similar to that of previous years. These mainly consisted of the maintenance of various accounts in euro and foreign currencies, the encashment of cheques drawn on Central Bank of Malta and issued by Government Departments, deposits of cash and cheques, SEPA credit transfers, safe deposit facility, safe custody and payments through TARGET2.

As at end 2017, the Bank processed 2.6 million SEPA credit transfers, for a total value of €3.2 billion. These figures represent an increase over 2016, where 2.5 million transactions for a total value of €2.9 billion were processed. The increase points out to a higher usage of this payment instrument by the Government.

During 2017, the number of cheques drawn on the Bank by the public sector decreased by 7.7%, whilst their value increased slightly by 1.3% (see Table 5.4). The efforts by government departments to use more efficient forms of payments during the last years have resulted in a constant decrease in the issuance of cheques.

The range of foreign exchange services offered to the Government and public sector organisations during 2017 included the sale and purchase of foreign cash, outward and inward payments by SWIFT, encashment of drafts in foreign currency and maintenance of foreign currency accounts.

Throughout 2017, the Bank continued to effect payments in connection with servicing of the Government's external debt. Capital repayments amounted to €7.9 million, which is 24.5% lower than last year's amount of €10.4 million. The associated interest paid in 2017 was €0.7 million, which is 45.9% lower than last year's amount of €1.3 million.

The total value of funds transferred to external debt sinking funds by debit of the Government account during 2017 amounted to €9.9 million.

**Table 5.4**
**NUMBER AND VALUE OF CHEQUES DRAWN ON THE CENTRAL BANK OF MALTA BY THE PUBLIC SECTOR**

| | Number of cheques | Value (EUR millions) |
|---|---|---|
| 2016 | 682,105 | 620 |
| 2017 | 629,687 | 628 |
| Change | (52,418) | 8 |
| Percentage change | (7.7) | 1.3 |

Source: Central Bank of Malta.

## Banker to the banking system

The Central Bank of Malta continued to serve the role of banker to the rest of the banking system by providing deposit facilities to credit institutions. These institutions maintain balances at the Bank mainly to meet their reserve deposit requirements. They generally hold reserve accounts, margin call accounts and accounts pledged in favour of the Depositor and Investor Compensation Schemes.

## Other financial services

In 2017 the Bank maintained its portfolio management services to the Investor Compensation and Depositor Compensation Schemes on the parameters set by the respective Management Committees appointed by the MFSA.

## Payment Habits Survey

In 2017, Regulation and Oversight Office started the preparatory work to carry out a survey of Maltese payment habits. A similar Survey was conducted in 2013 as the first step towards gaining an understanding of Maltese payment habits. Results from the Survey will be used to analyse whether any changes have been made from 2013 to date in making more use of electronic payments. This analysis will serve as a basis for the Bank to understand how different sectors of society behave with regards to the use of payment instruments. The Bank will also be able to use this information when formulating awareness campaigns to encourage the public to make more use of innovative payment instruments.

The survey will provide a platform through which the Bank will be able to collect data from households related to costs of payments, which will subsequently be used in a survey being co-ordinated by the ECB on the ‘Social Cost of Payments’. The Payment Habits Survey will be carried in the first quarter of 2018 in collaboration with the National Statistics Office. It is envisaged that a detailed report and analysis of this Survey will feature in the 2018 Annual Report of the Central Bank of Malta.

# 6. CORPORATE GOVERNANCE

## Governance

### *Board of Directors*

The Board of Directors is composed of Dr Mario Vella as Governor and Chairman, Mr Alexander Demarco and Mr Oliver Bonello as Deputy Governors, Mr Peter J. Baldacchino, Professor Frank Bezzina, Dr Romina Cuschieri and Mrs Philomena Meli as non-executive Directors. Following the resignation of Mr Alfred Mifsud on 1 July 2017, formerly Deputy Governor responsible for monetary policy, Mr Alexander Demarco, previously Deputy Governor responsible for financial stability became responsible for monetary policy, while Mr Oliver Bonello was appointed Deputy Governor of the Central Bank of Malta responsible for financial stability. The term of office of Mrs Philomena Meli as Director of the Board expired on 23 January 2017. During the same month, she was reappointed for another term as Director. The term of office of Mr Victor Busuttil as Director of the Board expired in December 2017 and he was replaced by Professor Frank Bezzina. All members of the Board are appointed for a statutory term of five years. In terms of the Central Bank of Malta Act (Cap. 204) the Governor and the Deputy Governors are appointed by the President of Malta upon the recommendation of the Prime Minister while the other Directors of the Board are appointed by the Prime Minister. Mr Herbert Zammit LaFerla was Secretary to the Board. Twelve Board meetings were held during 2017.

The Board of Directors is responsible for the policy and general administration of the Bank, except for functions relating to the Treaty on the functioning of the European Central Bank (ECB), or the protocol of the European System of Central Banks (ESCB), or functions which are conferred exclusively on the Governor in terms of the Central Bank of Malta Act (Cap. 204).

### *Management and Internal Organisation*

During 2017, the Board of Directors modified the terms of reference of the Bank's decision-making bodies to align better their respective roles and functions, and to enhance communication between them. The Board of Directors continued to be responsible for the Bank's Mission and Vision, the high level overall structure approving governance responsibilities, the Bank's strategy and policy requirements and the extent to which these are supported and discharged *via* empowerment through delegated authority.

In May 2017, the Board decided on a review of the objectives and *modus operandi* of the Management Committee and the Policy Advisory Committee, the latter being renamed Executive Committee.

The following amendments were implemented:

(i) The Executive Committee is responsible, with the support of the Management Committee, for the development of the high-level requirements of the Board into more detailed, lower-level strategic objectives and plans for their realisation within the policy parameters set by the Board and translated into lower-level guiding principles. The Executive Committee is now responsible for overseeing the Bank's performance in terms of its strategic and operational goals.

(ii) The Management Committee has become responsible for all the day-to-day management of the Bank's operations with a view of achieving the strategic and operational targets assigned to it. It provides regular feedback to the Executive Committee and raises issues which may need further consideration. The Management Committee also functions as a think-tank on policy development for the Executive Committee.

The Executive Committee and the Management Committee hold periodic joint meetings, also as and when may be required with the Board of Directors.

In May 2017, the Board also resolved on a restructuring of the Finance Department. The restructuring involved the distinction of two offices: the Budgeting and Accounts Management Office and the Business Systems and Financial Reporting Office.

In September 2017, the Board decided on further restructuring of the Internal Audit Office to reinforce its independence and to create separate but complementary responsibilities for risk based audits, governance and compliance audits.

In 2017, the Economics Division took up a dual reporting role such as the Economic and Research Department reports directly to the Governor through its Chief Officer; Investments Department and Monetary Policy & Operations and Eurosystem Relations Department report to Deputy Governor Monetary Policy.

The Information Systems and Knowledge Management Department now comprises four offices: IT Services Office, the newly established Core Applications Office, Projects and Applications Development Office and Knowledge Management Office.

In 2017, the Government Securities Research Office and the Government Securities Trading Office were merged into one office, namely Government Securities Office.

Moreover, during 2017, the Governor continued to be supported by the Governor's Office and by the two Deputy Governors. Moreover, the Governor is directly responsible for Communications and International Relations Department, Internal Audit, Compliance and Legal Division and Economics Division.

### *Governor's activities in Malta*

The Governor served as a member of the Board of Governors of the Malta Financial Services Authority during the year. He participated in the proceedings of the Malta Council for Economic and Social Development.

In 2017, the Governor made the following interventions:

- Speech "The euro area economy, monetary policy and structural reforms", Eurofi High Level Seminar.
- Opening remarks, High level policy dialogue between Eurosystem and Mediterranean central banks, European Central Bank and Central Bank of Malta.
- Panel discussant, conference "The EU & FDI: Love Lost?" organised by Malta Enterprise.
- Presentation, Central Bank of Malta's *Annual Report* 2016, press launch.
- Speech "What monetary policy cannot do", Grant Thornton Europe Regional meeting.
- Speech "Assessing the sustainability of growth in Malta", "Competitiveness and medium-term challenges in small open economies – the challenge of Brexit for a small open economy with close links to the UK", Central Bank of Malta Research conference.
- Key-note intervention "The Happiness and Unhappiness of Forward Guidance: The Performativity of Monetary Economics", University of Malta conference "Engaging the Contemporary 2017: Issues in Contemporary Political and Social Philosophy".
- Speech "Leveraging Better Our Current Economic Success", annual dinner of the Institute of Financial Services.
- Presentation on the latest developments in the economic and banking sectors, Economic and Financial Affairs Committee.

In addition, the Governor was interviewed by various news media. The Governor welcomed a number of visiting personalities, including foreign diplomatic representatives. He also welcomed Mrs Ruth Bader Ginsburg, Associate Justice of the Supreme Court of the United States.

### *Governor's international engagements*

In 2017, the Governor made the following interventions:

- Speech "Towards benchmarking of national reforms fostering sustainable growth and jobs: exchange of views on best practices", Interparliamentary Conference on "Stability, Economic Coordination and Governance in the European Union", European Parliamentary Week, Brussels.
- Speech "EMU governance – a reality check", Centre for European Policy Studies (CEPS) Forum "Reconstructing the Union", Brussels.

- Key-note speech "The role of central banks at present. Monetary policies and exchange rates in the Mediterranean countries", European Institute of the Mediterranean (IEMed) Forum "The Mediterranean economies in a changing world. Lessons learned in economic and financial instability: what scenarios can we envisage?", Barcelona.

## Social Research Unit

The Social Research Unit (SRU) was set up in June 2017 and is currently responsible for a major project, analysing the issue of poverty in Malta.

The first part of this on-going research focused on "Housing Affordability: Low Income Earners Access to Bank Credit for Housing" and established an analytical research plan, methodology, review of literature, choice of appropriate research methods and techniques.

Moreover, obtaining all relevant data led to a detailed quantitative analysis. Preliminary research findings were presented to the Parliamentary Secretary for Social Accommodation, Hon. Roderick Galdes in September 2017.

In 2018, the SRU will develop further their research project to include qualitative aspects, allowing for a more holistic approach of the study.

## Audit Committee

The Audit Committee, chaired by Mr Victor Busuttil and comprising also Mr Peter J. Baldacchino and Dr Romina Cuschieri, convened seven times during 2017. At each meeting Chief Officer Internal Audit briefed the Committee mostly on governance, risk management and control matters whilst the Chief Risk Officer was invited to give an update on both operational and financial issues. The meetings were regularly attended by the Bank's external auditors, PricewaterhouseCoopers (PwC).

## External Auditors

During 2017 PwC carried out the statutory audit for the financial year ending 31 December 2016. They expressed their opinion on the financial statements and presented their Management Letter to the Board.

## Internal Audit Office

Internal Audit continued to provide assurance through the conduct of risk-based audits, carried out in line with the Annual Audit Plan as approved by the Audit Committee and noted by the Board of Directors. The vast majority of such engagements assessed the effectiveness of governance, risk management and control processes implemented across a number of business areas. As aspects of methodological developments introduced in recent years, the internal auditors continued to tender opinions not just on risk-averse operational effectiveness but also on the level of efficiency demonstrated in the use and deployment of resources applied during the discharge of processes reviewed. A number of audits were also conducted on areas which are deemed more inherently susceptible to fraud.

Quarterly status reports, providing opinions both bank-wide and at divisional and individual business area level, were provided on perceived risks and presented to the Audit Committee and Board of Directors by way of high-level assurance reporting.

As a member of the Internal Auditors Committee (IAC) in Eurosystem, ESCB and SSM compositions, Internal Audit performed two IAC audits, and continued to participate in the Audit Task Force on Information Technology (ATF-IT), which is one of the IAC substructures. Between 6 and 17 March, a Joint IAC Audit Team (JAT) visited the Bank to conduct an on-site audit review of the Bank's compliance with the Eurosystem monetary policy (collateral) framework. Internal Audit provided logistical support to the JAT members during their stay.

In the second half of the year, the Internal Audit function underwent an Internal Quality Self-Assessment which, amongst other aims, confirmed its conformity both in form and substance with the IIA Standards and Code of Ethics regarding its set-up and all activities undertaken during the review period. The results of this Quality Assessment were communicated to the Audit Committee and the Board of Directors and ultimately made available to the IAC.

The internal audit function was involved in a number of consultancy engagements covering different aspects and business areas within the Bank. These included a series of sessions with related business areas involved to enhance the bank's disaster recovery procedures; continuous work in the setting up of a newly established Compliance Committee; involvement, mostly in the capacity of observers, both in the implementation of a new accounting system and the enhancement of INFOSTAT. Chief Officer Internal Audit was involved in a review of the *modus operandi* of the decision making bodies of the Bank and contributed to a revised set of terms of reference and operational procedures to ensure greater efficiency and clearer accountability of these bodies.

As part of its fraud awareness programme, internal auditors continued to regularly deliver presentations to staff members, especially new recruits, on the Bank's anti-fraud policy.

## Risk management

The Risk Committee met six times during 2017. A regular review of all risks was performed by Committee members, focusing on risks related to the Bank's operations, on assets under management, the Public Sector Purchase Programme portfolio, the Malta Government Securities portfolio and various legal issues. Mitigation measures related to the identified risks and arising incidents were discussed and their implementation monitored. On a quarterly basis, the Chief Risk Officer updated the Audit Committee members with the activities of the Risk Committee and highlighted any issues requiring their attention. An annual review of the Committee activities will be presented to the Board of Directors.

The second cycle of the Operational Risk Management (ORM) exercise was finalised. The risk status of the various business areas was reported on a regular basis to the Risk and Audit Committees.

During 2017, each business area continued with its review of the Business Continuity Plans (BCP) of critical and important operations. Regular resilience testing was carried out by the business areas together with members from the Operational Risk Management Office. A review of the Business Continuity Policy and Framework was carried out. These will be submitted to the Board of Directors for approval in the first quarter of 2018.

Following the decision taken by the Governing Council in December 2012, the ESCB Internal Audit Committee performs JAT reviews on the overall compliance with the Eurosystem monetary policy collateral framework in three to four national central banks (NCB) each year. In the first half of 2017, the IAC reviewed the respective processes at the Central Bank of Malta.

Monthly Investment Policy meetings were held where performance measurement is presented based on the strategic benchmark prepared in the beginning of the year and rebalanced every month. The Strategic Asset Allocation for 2018 was prepared and presented to the Board of Directors during December 2017.

## Legal issues

During 2017, the Bank's Legal Office was involved in amending or drafting new legislation as follows:

- The revised CBM Directive No. 1 transposed Titles III and IV of Directive EU 2015/2366 of the European Parliament and of the Council of 25 November 2015 on the payment services in the internal market, amending Directive 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No. 1093/2010, and repealing Directive 2007/64/EC (more commonly referred as the PSD2). The revised CBM Directive applied from 13 January 2018 and is aimed at improving the payment services industry, and reinforces consumer protection by providing more stringent provisions on strong customer authentication and secure communication.

- Another legislative intervention was Legal Notice 211 of 2017, by virtue of which the Minister for Finance made an order under article 8 of the Membership of the International Monetary Fund Act (Cap. 209 of the Laws of Malta), declaring that as a member of the Fund, Malta will enter into a bilateral loan agreement wherein the Central Bank of Malta will lend to the Fund an SDR-denominated amount up to the equivalent of two hundred and sixty million Euro (€260,000,000).
- CBM Directive No. 8 was amended, with the revised version entering into force on 21 July 2017. The amendments were introduced by Guideline (EU) 2017/1362 of the ECB of 18 May 2017 amending Guideline (EU) 2015/510 of the ECB on the implementation of the Eurosystem monetary policy framework (ECB/2017/12), and deal with the ineligibility of access of wind-down entities in the Eurosystem monetary policy operations and the discretion granted to the Eurosystem in suspending, limiting or excluding (on the ground of prudence), access to monetary policy operation by counterparties which channel Eurosystem liquidity to non-eligible wind-down entities.
- Amendments to CBM Directive No. 6, in accordance with Guideline (EU) 2017/2082 of the ECB of 22 September 2017 amending Guideline ECB/2012/27 on a Trans-European Automated Real-Time Gross settlement Express Transfer system (TARGET2) (ECB/2017/28), concerned the ancillary systems connected to TARGET2. In particular, the definition of 'ancillary system' was replaced and a new Annex entitled 'Settlement Procedures for Ancillary Systems' was included.
- CBM Directive No. 11 was amended, with a revised version entering into force on 03 January 2018, in order to establish two new requirements when maintaining a systemic risk buffer. More specifically, the amendments concern compliance with the requirement to maintain a systemic risk buffer and transpose article 133 paragraph 10 of Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EU and repealing Directives 2006/48/EC and 2006/49/EC ("CRD IV").

The Bank's legal office advised on diverse legal, contractual and operational matters, as well as on issues related to the Bank's governance structure, including:

- Legal advice concerning regulation of credit bureaux in Malta.
- The leading of a Bank-wide General Data Protection Regulation readiness assessment.
- Supported relative business areas in revising a number of the Bank's policies and procedures.
- Review of several tenders issued by the Bank and advice on the procurement process.
- Legal advice on the World Bank Doing Business Report of 2017.
- Participation in the Crisis Management Task Force under the Domestic Standing Committee and relative provision of legal advice over the Framework for the Management of Domestic Financial Crises, a number of MoUs, Terms of Reference and other ancillary documentation.
- Extensive legal advice and vetting of contracts entered into by the Bank with service providers and other third parties.
- Legal advice and presentations on smart contracts and the state of play of Member States and third countries on virtual currencies.

The compliance monitoring exercise was initiated with the appointment of a Third Party Auditor in terms of the Bank's Policy on the Abuse of Insider Information.

The Legal Office continues to participate in a number of the Bank's Committees, including the Management Committee, the Risk Committee and the ESCB Committee. The Bank's Executive Committee secretariat was assigned to Legal Office. Established by the Bank's Board of Directors, the Executive Committee advises the Board and the Governors in the fulfilment of their responsibilities under the law.

Throughout this year, the Bank continued to invest in its legal team through participation in various local and overseas training programmes.

An important part of the work carried out by the Bank's Legal Office relates to the ECB, the ESCB and the Eurosystem. In 2017, the legal team continued to participate in various ESCB Committees and sub-Committees, amongst which the ECB's Legal Committee, the Financial Law Experts Group, the Ethics Framework Task Force, and the PSD2 Implementation Working Group. The Bank's lawyers were involved in a number of ECB-related activities and projects, including the 8th ESCB Legal Counsels' Seminar, the Annual ECB Legal Conference, and the Annual Conference on European Data Protection Law.

## Human resources

By the end of 2017, the Bank had 327 full-time equivalent employees, one more than in 2016. The number of full-time positions remained unchanged between 2016 and 2017 and stood at 346 at the end of 2017, while the number of part-timers was nine.

Table 6.1 shows the number of Bank employees who hold an academic qualification at MQF level 6 and above as at the end of 2017.

During 2017, the Bank recruited 36 employees (two non-clericals as Maintenance Assistant, one of whom had been sponsored by the Bank under an MCAST Apprenticeship scheme; five Officers I; 28 Officers II and one Assistant Executive). 26 employees resigned from the Bank. Ten employees retired from the Bank upon reaching their pensionable age.

In 2017, seven employees were seconded to offices within the public sector and one employee to a charitable organisation. One staff member was seconded to the ECB for a period of five months between August and December within the Directorate General Economics. Another two employees who had been granted unpaid leave for three years in 2014 to join the SSM resigned from the Bank to take up full time employment with the ECB. Another employee who was seconded to the ECB for three years between 2014 and 2017 resumed duties at the Bank. Work placements were offered to 11 interns while finalising their final year at University under an internship programme. The Bank offered a three-month internship to a Doctorate student in Economics at the School of Economics and Finance of Queen Mary University of London to work on a project identified by Economics and Research Department.

The Bank offered a period of work practice in the Library within Knowledge Management Office to a student as part fulfilment of the requirements of the Diploma in Library and Information Science from the University of Malta.

### *Training and development*

As in previous years, the Bank allocated resources to staff training, both within the Bank and through courses organised by local and foreign providers.

The internal training programme consisted of 41 different courses mainly in IT, economics, statistics, and an information session on the policy for the prevention of abuse of insider information and the updated code of ethics. Induction programmes were organised for all new employees.

**Table 6.1**
**STAFF ACADEMIC QUALIFICATIONS**

| Qualification | No of employees | % of total employees[1] |
|---|---|---|
| MQF 8 | 4 | 1 |
| MQF 7 | 98 | 31 |
| MQF 6 | 93 | 29 |
| | **195** | **61** |

[1] Excluding support staff.

Source: Central Bank of Malta.

**Table 6.2**
**STAFF TRAINING DURING 2017**

| Type of training | Number of courses/seminars | Number of participants |
|---|---|---|
| Internal | 41 | 239 |
| External | 147 | 253 |
| Local | 98 | 203 |
| Foreign | 49 | 50 |

Source: Central Bank of Malta.

**Table 6.3**
**ACADEMIC AND PROFESSIONAL COURSES DURING 2017**

| Type of degrees | Number of employees | |
|---|---|---|
| | Completed degrees | Ongoing studies |
| Postgraduate | 3 | 27 |
| Undergraduate (Honours) | 1 | 3 |
| Diploma | 1 | 1 |

Source: Central Bank of Malta.

As shown in Table 6.2, 147 staff members participated in external training programmes in 2017. These courses were provided by local training organisations and professional institutions, the ECB, other central banks and financial institutions.

During the year a number of employees benefited from the Bank's study programmes (see Table 6.3). Three staff members completed their postgraduate education, while a total of 27 continued their enrolment in postgraduate degree programmes. Another employee completed an undergraduate degree while three others are still reading such qualifications.

The Heading for Leadership Programme, which is one of the ECB's open training events, was again hosted by the Bank. In 2017 the Bank hosted 'Module A' of the Heading for Leadership Programme. One staff member attended this learning event. The programme was attended by 14 participants from 14 different NCBs, including the ECB.

## Information Systems and Knowledge Management

### *Information systems*

The department remit covers information in both electronic and documentary formats. Technology related offices manage the Bank's IT infrastructure to deliver Information Services based on bespoke software applications developed in-house or off-the-shelf software solutions. Such services support most of the Bank's business processes whilst also delivering specialised services to external stakeholders.

In order to meet the growing business services demand the department carried out a restructuring of the technology services office. Two new functions, namely operations and technical support are managed separately.

The department continued to participate in ESCB IT Committees and substructures in order to effectively coordinate ESCB information systems and projects. Several ESCB systems were updated to the latest releases.

Projects and Applications Development Office supported several ESCB initiatives where major enhancements and releases took place. During 2017, the Collateral Management System experienced major upgrades to support latest business requirements and demands in the industry. This impacted several other supporting and collaborating applications which align their business demands on the same architecture.

The Laparelli Building now hosts a new data centre in line with international standards.

The continued increase of SharePoint infrastructure has prompted a review of the portal in order to support further initiatives in enabling business areas to meet their changing demands. The restructured portal introduces additional security enhancements and provides several tools to improve document management and search capabilities.

During 2017, SEPA application supported more than 44 governmental entities and processed almost 2.5 million transactions for a total of €3,129 million.

Following worldwide developments on the SWIFT environment, several teams have been collaborating to follow up on the SWIFT Customer Security Controls Framework which establishes a set of mandatory and advisory security controls for SWIFT users. Internal effort was conducted to develop a new SWIFT infrastructure.

In 2017, major efforts were devoted to the network infrastructure upgrade implementation. The network upgrade is at an advanced stage with the core network components spanning all three Bank buildings already in place and fully tested.

The in-house development team also collaborated with other departments to ensure the smooth migration to the new environments envisioned by the INFOSTAT and IBGL programmes. During first quarter the Bank supported Fondazzjoni Patrimonju Malti by developing a new site to promote the Victor Pasmore exhibition.

Throughout the year the Core Applications team was heavily involved in the preparatory work and infrastructure setup to host the new IBGL environment. The setup included the relevant technical infrastructure. IT officials formed part of the project's implementation team which coordinated a corporate-wide effort to migrate onto the newly created environment in a smooth manner at the end of the financial year. Once the IBGL project becomes operational in January 2018, a fine-tuning exercise will be carried out.

The department has continued to develop the Security function as more sophisticated malware attacks and hacking continued to focus on payment infrastructures and financial services. Cybersecurity is now an integral function of the department.

In 2017, the IBGL steering Committee formally requested a risk assessment exercise to be conducted for the IBGL system upgrade. The first part of the risk assessment process was completed and presented to the IBGL steering Committee for approval as system owner. The second part of the exercise, which is the risk treatment process, will be continued in 2018.

The security team was heavily involved in the ESCB cyber security audit and the SWIFT Customer Security Framework. Some of the findings which emerged from these audits have already been addressed in 2017 while others will be closed by 2018. The IT security team successfully coordinated the yearly ESCB Self-Assessment exercise.

Throughout the year, the security team ensured that Central Bank of Malta staff was kept abreast on security best practices through various awareness e-mails and induction presentations when new staff members were recruited. The security team was a point of reference in times of doubt and user difficulties on information security items.

### *Knowledge Services*

The Library of the Central Bank of Malta specialises in topics such as banking, finance and economics. Information services are available in conventional and electronic form. The library continued to provide comprehensive information resources and services in support of the research and information needs of the Central Bank of Malta employees in the pursuit of the Bank's mission and objectives. These services are also provided to students and experts. The Library has built its collections in the appropriate formats to satisfy the users' needs for information and knowledge.

During this year, the library launched a new electronic platform on the Bank's website, which offers remote extensive search capabilities, including a library catalogue, an electronic journal database and a collection of e-books.

Knowledge Management continued to implement efficient and effective archive and records management practices, which assist the Bank in meeting its statutory objectives and overall business responsibilities. Of particular importance is the protection of confidential documents and records in all formats. Through Archives Management this Office provided for the secure storage of and controlled access to archived documents and for the disposal of records as per designated retention periods stipulated by the Management Committee on the recommendations of the Archives Standing Committee.

The Office continued to participate and contribute in the Knowledge Management sphere at ESCB level particularly through the participation in the annual Information Management Meeting. Through the contacts established with other European central banks and the information obtained, internal policies and procedures were updated to reflect modern guidelines and practices in the field.

In 2018, Knowledge Management will start implementing the first phase of the Bank's Knowledge Management strategy whereby SharePoint Portals will be used to replace networked shared drives.

### Premises and procurement

The most significant development during the year was the completion and the commissioning of the Laparelli building which enabled the Bank to have purpose-built meeting and conference facilities as well as additional office space, a data centre, a new library and modern archiving facilities. During the year, apart from the completion of the interior infrastructure, extensive works were also undertaken on the unique façade, with its *brise-soleil*, which, apart from blending with the surrounding fortifications, is also intended to shield the building from the elements, thus rendering the edifice more environmentally efficient.

The Bank also continued with its programme of maintenance, upgrading and embellishment works. These included the finalisation of the refurbishment of restroom facilities at the Ġlormu Cassar building, which are now more environmentally friendly. Another environmentally oriented project was the installation of heat reflective membrane on the roof of the Bank's main building, which is expected to reduce air conditioning costs while, at the same time, provide the necessary waterproofing protection. In the earlier part of the year the Bank also upgraded the infrastructure within its note examination facilities following the acquisition of new, more sophisticated processing equipment for this business area. The Bank also continued to improve its electrical systems and their distribution networks with the aim of maximising efficiency and ensuring robust business continuity.

With regards to procurement, the Bank issued 11 calls for tenders and 48 calls for quotations during the year. Apart from the tenders for the supply of furniture for the Laparelli building and the laying of membrane on the roof of the main building, the Bank issued calls for tenders for various services, including architectural and engineering consultancy, health screening and haulage.

The Bank also continued to participate in the Eurosystem Procurement Coordination Office (EPCO), which enables Eurosystem members to benefit from efficiencies in joint procurement exercises, mainly in areas related to software and market data. The Bank's participation in this common platform became even more cost-effective during the year since the costs of participation for the smaller central banks were substantially reduced.

Following the completion of the Laparelli building, the Bank would be able to commence the re-structuring and refurbishment of its other buildings, and finally a re-allocation of a number of offices. This refurbishment will be undertaken within the Bank's commitment towards environmental efficiency and cost savings.

The Health and Safety Committee continued to meet on a quarterly basis focusing on the Bank's obligations arising from local Occupational Health and Safety legislation. The Committee continued to work on a new Health and Safety portal to be launched in 2018.

### Corporate Social Responsibility

In 2017, the Bank maintained its paper recycling exercises and sent 6.4 tonnes of paper for recycling.

Moreover, the Bank reaffirmed its policy of planting trees in various parts of the island. During the year, in cooperation with the Directorate for Parks, Afforestation and Countryside Restoration within the Ministry for Sustainable Development, the Environment and Climate Change, the Bank planted 20 trees in Swatar.

The Bank continued to provide financial support through donations and sponsorships to institutions and various philanthropic non-government organisations. The Bank sponsored once again the Central Bank of Malta Chair in Economics at the University of Malta through the Research, Innovation and Development Trust. In the cultural sphere, the Bank assisted various heritage organisations. Assistance was also provided to various charities, particularly to the Malta Community Chest Fund.

The Bank also participated in the Pink October, with the funds collected used for the various Pink October causes. Moreover, the Bank sponsored the participation of staff members in the 2017 edition of the President's Charity Fun Run.

The Staff Social Club continued to contribute towards the Bank's Corporate Social Responsibility programme through charitable donations, as well as through community service. The Social Club organised three Blood Drive events during 2017. Monetary donations were provided to the Malta Community Chest Fund during the annual fundraising telethon whereby the Bank donated the sum of €12,000.

During the year, the Central Bank of Malta Staff Social Club also supported a staff member who volunteered to join the Foundation Reaching Cambodia mission. Moreover, following calls by Hospice Malta, the Social Club actively participated in the Midnight Walk and contributed towards the Grand Lottery campaign organised late in 2017. Another event sponsored by the Social Club was a gathering for refugee and homeless children during a philanthropic event organised by a staff member. Other beneficiaries in 2017 included the Foodbank of St. Andrew's Church in Valletta where staff members donated a full week of food supplies to Chairman Reverend Kim Hurst and a monetary contribution to ALS Malta Foundation following a talk organised at the Bank by the Cultural sub-Committee.

During 2017, a full-time employee continued to be seconded to a charitable organisation under the Bank's corporate social responsibility initiative. Another staff member participated in the Kilimanjaro Challenge organised by the Moviment Missjunarju Gesu fil-Proxxmu, registered under VO/0140 in terms of the Voluntary Organisations Act. The collected funds financed the construction of a kindergarten school and a flour mill in Jemu area, Ethiopia.

### Information and public relations

The Bank provides the general public with information on its policies, operations and activities, both in printed and electronic form on its website. The Communications and International Relations Department is responsible for the desktop publishing and distribution of the Bank's official publications: the Annual Report, the Financial Stability Report, the Quarterly Review, the Monthly Economic Update and the Macroeconomic Forecasts. These publications were made available online, while the Annual Report and the Financial Stability Report were also available in print format. In addition, the online remote library service project, which accesses the EBSCO Discovery Service, was completed.

Communications and International Relations Department responds to media requests and coordinates interviews with the Governors and senior management. In addition, the Department manages official visits to the Bank by local and foreign guests.

During 2017, the Bank organised two campaigns, related to the new EUR 50 banknote and the exchange Maltese Lira Fifth Series banknotes. Moreover, the Bank together with the ECB co-hosted a High-Level Policy Dialogue meeting between the central banks of the Eurosystem and of North Africa, Middle Eastern countries including Turkey. High-level ECB officials, including President Mario Draghi and Vice President Vítor Constâncio attended the meeting together with representatives of the European Commission and the European Investment Bank. The Bank also co-hosted a conference with the European Investment Bank entitled “Investment and Investment Finance – the Case of Malta”. The Minister for Finance Edward Scicluna, the Governor of the Central Bank of Malta Mario Vella, and EIB Vice President Dario Scannapieco participated in this event. Moreover, the Bank organised the CEPR – 65th Economic Policy Panel Meeting. In 2017, the Bank published two ad hoc publications, namely “Challenges and Opportunities of Sustainable Economic Growth: The Case of Malta”, edited by Dr Aaron G. Grech and Sandra Zerafa, and “The Road to Women’s Suffrage and Beyond”, written by Dr Carmen Sammut and edited by Nadia Abdilla. Both were published in printed format.

During 2017, the Central Bank of Malta also organised several promotional activities. The Bank participated in this year’s edition of *Notte Bianca*.

The Bank organized a number of initiatives, related to a coin issued in commemoration of the 70th Anniversary of Women’s Voting Rights. These included an event in Gozo with the participation of the Minister for Gozo, a public lecture delivered by Dr Carmen Sammut and an interview with the author of the book “The Road to Women’s Suffrage and Beyond”, published in The Sunday Times of Malta and The Malta Independent.

# 7. INTERNATIONAL RELATIONS

In 2017, the Central Bank of Malta continued to be active within the Eurosystem, the European System of Central Banks (ESCB), and continued to collaborate closely with the European Central Bank (ECB). The Bank also maintained strong relations with international institutions, notably the European Commission (EC), the International Monetary Fund (IMF), the World Bank Group, the European Bank for Reconstruction and Development (EBRD) and the Asian Infrastructure Investment Bank (AIIB).

## Eurosystem and European System of Central Banks

The Governor is a member of the Governing Council of the ECB, which is the main decision-making body of the ECB. The Governing Council is made up of the members of the ECB's Executive Board and the national central bank (NCB) Governors of the euro area Member States. The Governing Council is responsible for monetary policy in the euro area and decides on the implementation of tasks entrusted to the Eurosystem, which comprises the ECB and the euro area NCBs.

During 2017 the Governing Council held 20 physical meetings, with eight being focused on monetary policy. Two meetings were also held by teleconference. Furthermore, a significant number of Governing Council decisions were taken by means of written procedures. Additionally, in connection with the ECB's responsibilities in the area of banking supervision, the Governing Council approved numerous draft supervisory decisions prepared by the ECB's Supervisory Board.

The Governor is also a member, and attended the quarterly meetings, of the General Council of the ECB. The General Council, which is made up of the President and Vice-President of the ECB, and the NCB Governors of all Member States of the European Union (EU), mainly performs an advisory role. The Governor also participated in the four sessions dedicated to the Macroprudential Forum held jointly by the Governing Council and the ECB's Supervisory Board every quarter.

The Governing Council and the General Council are supported by a number of committees, working groups and other structures, in which various Bank officials participated actively throughout the year. These officials play a key role in briefing the Governor on issues being discussed in both the Governing Council and the General Council.

Furthermore, the Deputy Governor for Financial Stability sits on the ECB's Supervisory Board together with the Director responsible for banking supervision at the Malta Financial Services Authority (MFSA).

During 2017 the Governor signed the TARGET2 Simulator Agreement on behalf of the Bank. The agreement updates the TARGET2 Simulator Agreement to ensure the efficient functioning and the oversight of TARGET2 on the basis of transaction-level data.

## European Systemic Risk Board

The Governor took part in the meetings of the European Systemic Risk Board's (ESRB) General Board.

During the year, the Board discussed various issues of a macro prudential nature largely revolving around potential vulnerabilities and risks within the EU financial system, proposing policy options when necessary. Senior officials of the Bank also participated in meetings of the ESRB's Advisory Technical Committee and its substructures.

Throughout the year, the ESRB continued to publish its risk dashboard, occasional papers, working papers and macro prudential commentaries.

## Other EU institutions

During 2017, the Governor and the Deputy Governor for Monetary Policy participated in the informal meetings of the Economic and Financial Affairs Council (ECOFIN), held in Malta in April and in Tallinn in September.

Furthermore, the Deputy Governors for Monetary Policy and Financial Stability regularly participated in meetings of the Economic and Financial Committee (EFC) when issues relevant to central banks were discussed.

In particular, during 2017, the Bank engaged in EFC discussions on issues related to developments in financial markets and the regular monitoring of financial stability risks in the EU prior to the formulation of appropriate policy responses. Other discussions related to strengthening the Banking Union, accelerating the Capital Market Union, sovereign debt related issues, and the European Deposit Insurance Scheme (EDIS). Furthermore, the EFC discussed the review of the European supervisory framework and the implementation of the newly established resolution and recovery framework.

The EFC continued to play a crucial role in the preparation of common European positions at the G-20 meetings and other international fora, such as the IMF and the Financial Stability Board (FSB).

Other officials also participated in meetings of a number of EFC sub-committees, where matters of relevance to central banks, such as sovereign debt, currency issues and IMF-related issues were discussed.

Apart from participating in the EFC and its sub-structures, Bank staff took part in a number of other EU committee structures related to central banking functions. Bank officials also accompanied the representatives of the MFSA at meetings of the European Banking Authority (EBA). The Bank also continued to contribute extensively, through consultations on matters of an economic and financial nature, to the participation of Malta's representatives within various EU decision making bodies.

## European Bank for Reconstruction and Development

In view that the Governor is the Alternate Governor for Malta on the Board of Governors of the EBRD, the Bank continued to collaborate closely with the Ministry for Finance on issues related to Malta's membership in this institution. In particular, the Bank provided advice to the Ministry on various resolutions that required decisions by the EBRD's Board.

The EBRD constituency of which Malta forms part is led by Austria and includes Bosnia and Herzegovina, Cyprus, Kazakhstan and Israel. The annual constituency meeting was held in Vienna in March to discuss current developments ahead of the EBRD Annual Meeting. For this meeting the Central Bank of Malta was represented by the Deputy Governor for Monetary Policy. In May, the Deputy Governor for Monetary Policy also attended the EBRD Annual Meeting in Nicosia, during which discussions focused on targeting green and inclusive growth and meeting regional and global challenges.

## International Monetary Fund

In the IMF, Malta forms part of the IMF constituency headed by Italy and which also includes Albania, Greece, Portugal and San Marino.

In February 2017, the Governor, who was at the time Malta's Governor on the Board of Governors of the IMF, attended the joint IMF/World Bank Constituency meeting in Rome and also attended in April the joint IMF/World Bank Spring meeting in Washington. On this occasion, the Governor was accompanied by the Bank's Deputy Governor for Monetary Policy as the Fund's Alternate Governor for Malta. In August, the Prime Minister appointed the Minister for Finance as Governor of the IMF Board of Governors for Malta and the Governor of the Central Bank of Malta as the Alternate Governor. In this capacity, the Governor of the Bank attended in October the joint IMF/World Bank Annual Meetings in Washington, accompanied by the Deputy Governor Monetary Policy. During the year, the Governor voted on a number of Resolutions proposed by the Fund's Executive Board.

In November, IMF staff members visited Malta in connection with the 2017 Article IV consultation with Malta. The IMF mission held a number of meetings with senior officials of the Central Bank of Malta, the Government, the MFSA and other entities. Later that month, the IMF released a concluding statement about its mission to Malta and its findings.

During 2017 Malta's net cumulative allocation of SDRs, which is computed in proportion to its quota share, remained unchanged at SDR95.4 million. The Bank's holdings declined to SDR87.2 million when compared to SDR87.5 million a year earlier which reflected sales under the Bank's two-way voluntary arrangement with the Fund. Transactions under such an arrangement are subject to limits so that Malta's SDR holdings are no less than 65%, but no more than 117% of its net cumulative allocations.

The Bank also continued to carry out transactions related to the IMF's operational budget. Following the 2010 IMF quota review and governance reforms, which became effective in 2016, Malta's quota in the Fund increased by SDR66.3 million to SDR168.3 million. During 2017, Malta's reserve tranche position declined by SDR4.3 million to SDR26.9 million on account of repayments. Correspondingly, the Fund's holdings of the national currency with the Bank increased to the equivalent of SDR141.5 million[1] by the end of the year.

The 2012 bilateral loan agreement between the Bank and the IMF expired in January 2017. During the term of the loan no drawings were affected. A new loan agreement was negotiated with the Fund which was endorsed by the Governor in September 2017. The loan is for an SDR-denominated amount of up to the equivalent of €0.26 billion, the amount being the same as that for the previous loan agreement.

### World Bank Group

Although Malta is represented in the World Bank by the Minister for Finance, throughout the year the Bank continued to assist the Ministry in monitoring developments within the World Bank Group and by providing advice on particular initiatives from the Group. During 2017, the Bank provided the Ministry with background documentation and recommendations on various resolutions that required to be voted upon.

### Asian Infrastructure Investment Bank

The Bank, together with the Ministry for Finance, started monitoring developments in the AIIB, following the acceptance of the ratification instrument for Malta in January 2016. The Maltese Parliament had approved the ratification of the articles of agreement, which establish the AIIB as an international organisation in December 2015.

Malta is represented on the AIIB's Board of Governors by the Minister for Finance, with the Governor of the Central Bank of Malta as the Alternate Governor. Malta forms part of the euro area constituency which also includes Austria, Finland, France, Germany, Italy, Luxembourg, the Netherlands, Portugal, Spain and Ireland.

During the year, the Bank advised the Ministry for Finance on a number of AIIB resolutions, related to the formation and administration of the newly set up AIIB including applications for new membership.

During the year a number of constituency meetings were also held. The Deputy Governor Monetary Policy attended the meeting in March 2017, held in Paris. On other occasions Malta was represented by its diplomatic missions with the support of the Bank. At the AIIB Annual Meeting which was held in Korea between 16 and 18 June, Malta was represented by Malta's Ambassador in Beijing.

### Commonwealth Small States Trade Finance Facility

One Bank official formed part of a Working Group set up under the auspices of the Commonwealth to establish a trade finance facility for the small states of the Commonwealth. During 2017, the Working Group prepared the legal documentation relating to this facility. In March, the Commonwealth Trade Finance Facility Co Ltd was incorporated by the Government of Malta and the grants pledged by four Commonwealth Member States were subsequently received by this company. The facility is expected to begin operating in 2018.

### Other international institutions

The Bank set up an internal task force, chaired by the Governor, to monitor developments related to the exit of the United Kingdom from the European Union and to co-ordinate work on the economic and financial implications of Brexit.

[1] Figures for the reserve tranche position and the Fund's holdings of national currency do not add up to SDR168.3 million (quota), owing to rounding.

# PART III

# FINANCIAL STATEMENTS

# FOR THE YEAR ENDED

# 31 DECEMBER 2017

## Directors' report

The Directors present their report and the audited financial statements of the Central Bank of Malta (the Bank) for the year ended 31 December 2017.

### Presentation of the financial statements

These financial statements have been prepared so as to give a true and fair view of the state of affairs of the Bank as at 31 December 2017, and of its profit for the year then ended. The financial statements have been prepared in accordance with the provisions established by the Governing Council of the European Central Bank under Article 26.4 of the Statute of the European System of Central Banks and of the European Central Bank and in accordance with the requirements of the Central Bank of Malta Act (Cap. 204). The provisions established by the Governing Council of the European Central Bank are outlined in the Guideline of 3 November 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (recast) (ECB/2016/34).

### Financial results

The Bank's financial statements for the year ended 31 December 2017 are set out on pages A-8 to A-42 and disclose a profit for the year of €35.0 million (2016: €56.4 million) which is payable to the Government of Malta (2016: €50.0 million).

### Board of Directors

The members of the Board of Directors during the year ended 31 December 2017 and up to the date of authorisation for issue of the financial statements were:

Dr Mario Vella – Governor
Mr Alexander Demarco – Deputy Governor Monetary Policy
Mr Oliver Bonello – Deputy Governor Financial Stability (appointed 1 July 2017)
Mr Alfred Mifsud – Deputy Governor Monetary Policy (up to 30 June 2017)
Ms Philomena Meli
Mr Peter J. Baldacchino
Dr Romina Cuschieri
Professor Frank Bezzina (appointed 1 January 2018)
Mr Victor Busuttil (up to 31 December 2017)

During the financial year under review, Mr Herbert Zammit LaFerla was Secretary to the Board.

### Statement of Directors' responsibilities in respect of the financial statements

The Board of Directors is responsible for ensuring that the financial statements are drawn up in accordance with the requirements of the Central Bank of Malta Act (Cap. 204). The Bank is required to prepare financial statements in accordance with the requirements of the Guideline of 3 November 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (recast) (ECB/2016/34).

The Board of Directors is responsible for ensuring that these financial statements give a true and fair view of the state of affairs of the Bank as at 31 December 2017 and of the profit for the year then ended.

In preparing the financial statements, the Directors are responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

The Directors are also responsible for designing, implementing and maintaining internal controls relevant to the preparation and the fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error, and that comply with the requirements set out above. They are also responsible for safeguarding the assets of the Bank and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The financial statements of the Central Bank of Malta for the year ended 31 December 2017 are included in the Annual Report 2017, which is published in printed form and is made available on the Bank's website.* The Directors are responsible for the maintenance and integrity of the Annual Report on the website in view of their responsibility for the controls over, and the security of, the website. Access to information published on the Bank's website is available in other countries and jurisdictions, where legislation governing the preparation and dissemination of financial statements may differ from requirements or practice in Malta.

## Auditors

PricewaterhouseCoopers were appointed as the auditors of the Bank with effect from the financial year ended 31 December 2014 and have signified their willingness to continue in office.

By order of the Board.

Dr Mario Vella
Governor

Mr Alexander Demarco
Deputy Governor

Mr Oliver Bonello
Deputy Governor

Central Bank of Malta
Pjazza Kastilja
Valletta VLT 1060
Malta

16 March 2018

* https://www.centralbankmalta.org/annual-reports

## Independent Auditor's report

## To the Board of Directors of the Central Bank of Malta

## Report on the audit of the financial statements

*Our opinion*

In our opinion the Central Bank of Malta's financial statements:

- give a true and fair view of the Bank's financial position as at 31 December 2017, and of the Bank's financial performance for the year then ended in accordance with the requirements of the Accounting Guideline of 3 November 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (recast) (ECB/2016/34); and
- have been prepared in accordance with the requirements of the Central Bank of Malta Act (Cap. 204).

**What we have audited**

The Central Bank of Malta's financial statements, set out on pages A-8 to A-42, comprise:

- the Balance Sheet as at 31 December 2017;
- the Profit and Loss account for the year then ended; and
- the notes to the financial statements, which include a summary of significant accounting policies and other explanatory information.

*Basis for opinion*

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

**Independence**

We are independent of the Bank in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) together with the ethical requirements of the Accountancy Profession (Code of Ethics for Warrant Holders) Directive issued in terms of the Accountancy Profession Act (Cap. 281) that are relevant to our audit of the financial statements in Malta. We have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

*Other Information*

The Directors are responsible for the Other Information. The Other Information comprises the Directors' report, but does not include the financial statements and our auditor's report thereon, which we obtained prior to the date of this auditor's report, and:

- Governor's Statement;
- Financial and Economic Developments;
- Bank Policies, Operations and Activities;

which are expected to be made available to us after that date.

Our opinion on the financial statements does not cover the Other Information, including the Directors' report.

## Independent auditor's report – continued

In connection with our audit of the financial statements, our responsibility is to read the Other Information identified above and, in doing so, consider whether the Other Information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

We are required to report if we have identified material misstatements in the Directors' report and Other Information that we obtained prior to the date of this auditor's report. We have nothing to report in this regard.

When we read Other Information not yet received, referred to and listed above, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance in accordance with the requirements of ISAs.

### *Responsibilities of the Directors and those charged with governance for the financial statements*

The Directors are responsible for the preparation of financial statements that give a true and fair view in accordance with the provisions established by the Governing Council of the European Central Bank outlined in the Accounting Guideline of 3 November 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (recast) (ECB/2016/34) and in accordance with the requirements of the Central Bank of Malta Act (Cap. 204). The Directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for using the going concern basis of accounting in accordance with article 4 of the Accounting Guideline of 3 November 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (recast) (ECB/2016/34).

### *Auditor's responsibilities for the audit of the financial statements*

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Bank's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.

## Independent auditor’s report – continued

- Conclude on the appropriateness of the Directors’ use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Bank’s ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor’s report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor’s report.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

pwc

**PricewaterhouseCoopers**
78, Mill Street
Qormi
Malta

Fabio Axisa
Partner

16 March 2018

## Balance Sheet as at 31 December 2017

| | Assets | **2017 €'000** | 2016 €'000 |
|---|---|---|---|
| **A 1** | **Gold and gold receivables** | **3,363** | **3,413** |
| **A 2** | **Claims on non-euro area residents denominated in foreign currency** | **630,038** | **647,230** |
| A 2.1 | Receivables from the IMF | 135,477 | 151,313 |
| A 2.2 | Balances with banks and security investments, external loans and other external assets | 494,561 | 495,917 |
| **A 3** | **Claims on euro area residents denominated in foreign currency** | **114,205** | **181,834** |
| **A 4** | **Claims on non-euro area residents denominated in euro** | **674,682** | **983,445** |
| A 4.1 | Balances with banks, security investments and loans | 674,682 | 983,445 |
| A 4.2 | Claims arising from the credit facility under ERM II | - | - |
| **A 5** | **Lending to euro area credit institutions related to monetary policy operations denominated in euro** | **113,310** | **54,570** |
| A 5.1 | Main refinancing operations | 30,000 | - |
| A 5.2 | Longer-term refinancing operations | 83,310 | 54,570 |
| A 5.3 | Fine-tuning reverse operations | - | - |
| A 5.4 | Structural reverse operations | - | - |
| A 5.5 | Marginal lending facility | - | - |
| A 5.6 | Credits related to margin calls | - | - |
| **A 6** | **Other claims on euro area credit institutions denominated in euro** | **2,609** | **9,556** |
| **A 7** | **Securities of euro area residents denominated in euro** | **1,570,840** | **1,628,200** |
| A 7.1 | Securities held for monetary policy purposes | 914,579 | 738,603 |
| A 7.2 | Other securities | 656,261 | 889,597 |
| **A 8** | **General government debt denominated in euro** | **-** | **-** |
| **A 9** | **Intra-Eurosystem claims** | **4,386,821** | **1,071,860** |
| A 9.1 | Participating interest in ECB | 15,859 | 15,859 |
| A 9.2 | Claims equivalent to the transfer of foreign reserves | 37,552 | 37,552 |
| A 9.3 | Claims related to the issuance of ECB debt certificates* | - | - |
| A 9.4 | Net claims related to the allocation of euro banknotes within the Eurosystem | - | - |
| A 9.5 | Other claims within the Eurosystem (net) | 4,333,410 | 1,018,449 |
| **A 10** | **Items in course of settlement** | **8,280** | **11,005** |
| **A 11** | **Other assets** | **1,078,752** | **945,271** |
| A 11.1 | Coins of euro area | 114 | 80 |
| A 11.2 | Tangible and intangible fixed assets | 38,323 | 33,970 |
| A 11.3 | Other financial assets | 953,864 | 855,515 |
| A 11.4 | Off-balance sheet instruments revaluation differences | 41,380 | 1,125 |
| A 11.5 | Accruals and prepaid expenses | 34,211 | 43,185 |
| A 11.6 | Sundry | 10,860 | 11,396 |
| **Total Assets** | | **8,582,900** | **5,536,384** |

* Only an ECB balance sheet item

| | Liabilities | 2017 €'000 | 2016 €'000 |
|---|---|---|---|
| **L 1** | **Banknotes in circulation** | **995,109** | **957,284** |
| **L 2** | **Liabilities to euro area credit institutions related to monetary policy operations denominated in euro** | **4,922,080** | **2,916,986** |
| L 2.1 | Current accounts (covering the minimum reserve system) | 1,103,678 | 570,785 |
| L 2.2 | Deposit facility | 3,818,402 | 2,346,201 |
| L 2.3 | Fixed-term deposits | - | - |
| L 2.4 | Fine-tuning reverse operations | - | - |
| L 2.5 | Deposits related to margin calls | - | - |
| **L 3** | **Other liabilities to euro area credit institutions denominated in euro** | **-** | **-** |
| **L 4** | **Debt certificates issued*** | **-** | **-** |
| **L 5** | **Liabilities to other euro area residents denominated in euro** | **1,628,712** | **750,032** |
| L 5.1 | General government | 797,840 | 654,008 |
| L 5.2 | Other liabilities | 830,872 | 96,024 |
| **L 6** | **Liabilities to non-euro area residents denominated in euro** | **18,271** | **122** |
| **L 7** | **Liabilities to euro area residents denominated in foreign currency** | **140,798** | **154,970** |
| **L 8** | **Liabilities to non-euro area residents denominated in foreign currency** | **-** | **-** |
| L 8.1 | Deposits, balances and other liabilities | - | - |
| L 8.2 | Liabilities arising from the credit facility under ERM II | - | - |
| **L 9** | **Counterpart of special drawing rights allocated by the IMF** | **113,299** | **121,599** |
| **L 10** | **Intra-Eurosystem liabilities** | **172,482** | **77,072** |
| L 10.1 | Liabilities equivalent to the transfer of foreign reserves* | - | - |
| L 10.2 | Liabilities related to the issuance of ECB debt certificates | - | - |
| L 10.3 | Net liabilities related to the allocation of euro banknotes within the Eurosystem | 172,482 | 77,072 |
| L 10.4 | Other liabilities within the Eurosystem (net) | - | - |
| **L 11** | **Items in course of settlement** | **-** | **-** |
| **L 12** | **Other liabilities** | **92,441** | **62,046** |
| L 12.1 | Off-balance sheet instruments revaluation differences | 651 | 25 |
| L 12.2 | Accruals and income collected in advance | 10,105 | 17,696 |
| L 12.3 | Sundry | 81,685 | 44,325 |
| **L 13** | **Provisions** | **86,820** | **70,110** |
| **L 14** | **Revaluation accounts** | **16,405** | **20,051** |
| **L 15** | **Capital and reserves** | **361,483** | **356,112** |
| L 15.1 | Capital | 20,000 | 20,000 |
| L 15.2 | Reserves | 341,483 | 336,112 |
| **L 16** | **Profit for the year** | **35,000** | **50,000** |
| **Total Liabilities** | | **8,582,900** | **5,536,384** |

* Only an ECB balance sheet item

## Profit and Loss account for the year ended 31 December 2017

| | | 2017 €'000 | 2016 €'000 |
|---|---|---|---|
| 1.1 | Interest income | 57,149 | 54,624 |
| 1.2 | Interest expense | 6,104 | 1,915 |
| **1** | **Net interest income** | **63,253** | **56,539** |
| 2.1 | Realised gains/losses arising from financial operations | 9,012 | 32,199 |
| 2.2 | Write-downs on financial assets and positions | (4,885) | (2,785) |
| 2.3 | Transfer to/from provisions for foreign exchange rate, interest rate, credit and gold price risks | (16,647) | (19,975) |
| **2** | **Net result of financial operations, write-downs and risk provisions** | **(12,520)** | **9,439** |
| 3.1 | Fees and commissions income | 207 | 205 |
| 3.2 | Fees and commissions expense | (597) | (276) |
| **3** | **Net income/expense from fees and commissions** | **(390)** | **(71)** |
| **4** | **Income from equity shares and participating interests** | **1,118** | **1,138** |
| **5** | **Net result of pooling of monetary income** | **(6,182)** | **(1,893)** |
| **6** | **Other income** | **9,117** | **9,425** |
| | **Total net income** | **54,396** | **74,577** |
| **7** | **Staff costs** | **(12,155)** | **(11,220)** |
| **8** | **Administrative expenses** | **(5,893)** | **(6,000)** |
| **9** | **Depreciation of tangible and intangible fixed assets** | **(1,058)** | **(770)** |
| **10** | **Banknote production services** | **(290)** | **(144)** |
| **11** | **Other expenses** | **-** | **(3)** |
| | **Profit for the year** | **35,000** | **56,440** |
| | **Transfer to reserves for risks and contingencies** | **-** | **(6,440)** |
| | **Payable to the Government of Malta in terms of article 22(2) of the Central Bank of Malta Act (Cap. 204)** | **35,000** | **50,000** |

The financial statements on pages A-8 to A-42 were approved for issue by the Board of Directors on 16 March 2018 and are signed on its behalf by:

Dr Mario Vella
Governor

Mr Alexander Demarco
Deputy Governor

Mr Oliver Bonello
Deputy Governor

Mr Raymond Filletti
Chief Officer
Financial Control and Risk

Mr Robert Caruana
Head
Financial Control

## Notes to the financial statements for the year ended 31 December 2017

### General notes to the financial statements

#### 1 The Eurosystem

On 1 January 2008, the Central Bank of Malta (the Bank) became part of the Eurosystem and took over joint responsibility for monetary policy and for exercising the common strategic goals of the European System of Central Banks (ESCB).[1]

#### 2 Basis of preparation

The Bank is required under article 21(5) of the Central Bank of Malta Act (Cap. 204) (the Act) to prepare its financial statements in accordance with the provisions established by the Governing Council of the ECB under Article 26.4 of the Statute of the European System of Central Banks and of the European Central Bank (the Statute). These provisions are outlined in the Guideline of 3 November 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (recast) (ECB/2016/34) (Guideline ECB/2016/34 (recast)). In the absence of requirements and guidance provided by Guideline ECB/2016/34 (recast), that specifically apply to transactions, other events or conditions, the requirements of International Financial Reporting Standards (IFRS) as adopted by the EU are applied.

These financial statements have been drawn up so as to give a true and fair view of the state of affairs of the Bank as at 31 December 2017 and of its profit for the year then ended. The accounts have been prepared on a historical cost basis, modified to include the revaluation of gold, foreign currency instruments, securities (other than securities classified as held-to-maturity, non-marketable securities, and securities held for monetary policy purposes that are accounted for at amortised cost), as well as financial instruments, both on-balance sheet and off-balance sheet, at mid-market rates and prices.

#### 3 Accounting policies

##### (a) Basic accounting principles and assumptions

The basic accounting principles and assumptions applied by the Eurosystem and the Bank in the preparation of these financial statements are:

- economic reality and transparency;
- prudence;
- materiality;
- consistency and comparability;
- going concern;
- accruals principle; and
- post-balance sheet events.

##### (b) Recognition of assets and liabilities

An asset or liability is only recognised in the balance sheet when it is probable that any associated future economic benefit will flow to or from the Bank, substantially all of the associated risks and rewards have been transferred to or from the Bank, and the cost or value of the asset or liability can be measured reliably.

[1] The European Central Bank (ECB), together with national central banks (NCB), shall constitute the European System of Central Banks (ESCB). The ECB together with the NCBs of the Member States whose currency is the euro, which constitute the Eurosystem, shall conduct the monetary policy of the Union, as per Article 282.1 of the Treaty of the Functioning of the European Union. The Eurosystem and the ESCB will co-exist as long as there are EU Member States outside the euro area.

### (c) Recording of transactions

Foreign exchange transactions, comprising spot and forward deals in gold and foreign currencies, are recorded off-balance sheet on trade date at the prevailing spot exchange rate for ascertaining the average acquisition costs and the realised gains and losses. Accordingly, purchases and sales of foreign currency affect the net foreign currency position on the trade date and realised gains and losses arising from the net reduction in foreign currency positions are calculated on trade date. On settlement date, these transactions are recorded on-balance sheet at the original spot exchange rates. In the case of foreign exchange swaps, spot and forward amounts are translated to euro at the same exchange rate, and accordingly these contracts do not affect foreign currency positions.

All security transactions in foreign currencies are recorded on-balance sheet on settlement date at the applicable exchange rate. Accrued interest, premiums and discounts related to financial assets and liabilities are calculated and booked daily from the settlement date at daily exchange rates, as applicable, and the foreign currency position is affected daily by these accruals denominated in foreign currency.

All other transactions are recorded in the balance sheet at market exchange rates prevailing on the day of the transaction.

### (d) Balance sheet valuation rules

Financial assets and liabilities denominated in foreign currency, including off-balance sheet positions, are revalued at the prevailing mid-market exchange rates at the balance sheet date. Securities and Treasury bills other than those classified as held-to-maturity, non-marketable securities, and securities held for monetary policy purposes that are accounted for at amortised cost, are revalued at the prevailing mid-market prices at the balance sheet date.

Gold balances are revalued at market prices prevailing at the year-end. No distinction is made between price and currency revaluation differences for gold, but a single gold revaluation difference is accounted for on the basis of the euro price per defined unit of weight of gold derived from the euro/US dollar exchange rate at the balance sheet date.

Foreign currency positions (including off-balance sheet transactions) are revalued on a currency-by-currency basis. In the case of securities, revaluation is carried out on a code-by-code basis (same ISIN number/type) and is treated separately from exchange rate revaluation.

All other assets and liabilities are presented at purchase price or, where applicable, at their nominal value. The Bank's participating interest in the ECB is measured at cost.

### (e) Cost of transactions

The average cost method is used on a daily basis for calculating the acquisition cost of assets and liabilities that are subject to price and/or exchange rate movements. The average cost price of securities and/or the average rate of the foreign currency position are adjusted by unrealised losses taken to the profit and loss account at the end of the year.

All securities are initially recorded at acquisition cost. For the purpose of calculating the average purchase cost of a security, all purchases made during the day are added to the cost of the previous day's holding to produce a new weighted average price before applying the sales for the same day.

In the case of long foreign currency or gold positions, net inflows made during the day are added, at the average rate or gold price of the inflows of the day for each respective currency and gold, to the previous day's holding, to produce a new weighted average cost. Where a short position exists, the reverse treatment applies whereby the average cost is affected by net outflows.

## (f) Income recognition

Income and expenses are recognised in the period in which they are earned or incurred.

### *(i) Interest income and expense*

Interest income and expense are recognised in the profit and loss account for all interest-bearing assets and liabilities. Certain financial assets give rise to negative interest income and certain financial liabilities give rise to negative interest expense due to the fact that interest rates remained in negative territory.

With effect from the financial year ended 31 December 2016, the Eurosystem harmonised the presentation of interest income and interest expense arising from monetary policy operations to report interest on a net basis such that positive and negative interest stemming from monetary policy are netted off on a balance sheet (sub-) item level. Net positive interest arising on monetary policy liabilities is presented within interest income and net negative interest on monetary policy assets is presented within interest expense. Accordingly, in 2016, the Bank has adopted the Eurosystem harmonised presentation format to report interest on a net basis, under either 'Interest income' or 'Interest expense' depending on whether the net amount is positive or negative.

Premiums or discounts arising from the difference between the average acquisition cost and the redemption price of securities are presented as part of interest income and are amortised over the remaining term of the security using either the straight-line method or the internal rate of return method. The internal rate of return method is used in the case of discount securities with a remaining maturity of more than one year at the time of acquisition. Interest accruals on foreign currency assets and liabilities are converted at the mid-market rate on each business day and are included in the respective foreign currency position to determine the average book value, as applicable.

Accordingly, interest income includes coupons earned on securities and amortised premiums or discounts on Treasury bills and other instruments. In respect of forward exchange contracts, the difference between the deemed spot exchange rate of the forward contract and the deal rate is considered as interest income or expense and is amortised on a straight-line basis from the trade date to settlement date.

### *(ii) Gains and losses arising from foreign exchange, gold and securities*

Realised gains and realised losses can only arise in the case of transactions leading to a reduction in foreign currency positions or on the sale of securities.

In the case of foreign currency or gold positions, inflows and outflows are compared against each other to determine any realised gains or losses. The resulting net inflow or outflow, apart from changing the position in that currency or gold, will give rise to either a change in the average rate of that currency or the average price of gold. It may also give rise to the realisation of a further profit or loss depending on whether the Bank has a long or short position in a particular currency or gold respectively. On a daily basis, a weighted average rate for foreign currencies and a price for gold are calculated, firstly on inflows and then on outflows. The realised gain or loss is calculated by applying the difference between these average rates and prices to the lower of the day's inflows or outflows.

For long positions, where outflows exceed inflows, a second realised gain or loss is calculated, equating to the difference between the net outflows of the day valued at the average outflow price and at the average cost of the day's opening position. Where inflows exceed outflows, the net inflow is added to the position held at the beginning of the day, thus changing the average cost of the position. For short positions, the reverse accounting treatment is applied.

In the case of securities, realised gains or losses are derived by comparing the transaction value with the average cost of the respective security.

Realised gains and losses are taken to the profit and loss account.

Unrealised revaluation gains and losses arise as a result of the revaluation of assets and liabilities by comparing the market value with the average book value. Unrealised gains are not recognised as income but are transferred directly to a revaluation account. Unrealised losses, except as explained in accounting policy (h) (ii), are taken to the profit and loss account when they exceed previous unrealised gains registered in the corresponding revaluation account. Unrealised losses recorded in the profit and loss account in previous years are not reversed against new unrealised gains in subsequent years. Unrealised losses in any one security or in any foreign currency (including gold holdings) are not netted against unrealised gains in other securities or foreign currency.

### (g) Off-balance sheet instruments

Spot and forward foreign exchange contracts and daily changes in the variation margins of future contracts are included in the net foreign currency position for the purpose of calculating the average cost of currencies and determining realised foreign exchange gains and losses. Futures are accounted for and revalued on an item-by-item basis. Daily changes in the variation margins of open futures contracts, representing realised gains and losses, are recognised in the profit and loss account.

Gains and losses arising from off-balance sheet instruments are recognised and treated in a similar manner to on-balance sheet instruments. Realised and unrealised gains and losses are measured and accounted for in the manner outlined in the accounting policy for (f) 'Income recognition' above.

Unrealised valuation gains or losses on spot and forward foreign exchange contracts are recorded from the trade date to the settlement date under asset sub-item A11.4 'Off-balance sheet instruments revaluation differences' and under liability sub-item L12.1 'Off-balance sheet instruments revaluation differences' as applicable.

### (h) Securities

#### *(i) Securities held for monetary policy purposes*

Securities currently held for monetary policy purposes are accounted for at amortised cost subject to impairment.

#### *(ii) Securities held for other than monetary policy purposes*

Marketable securities classified as held-to-maturity are measured at amortised cost subject to impairment. Held-to-maturity securities are securities with fixed or determinable payments and a fixed maturity, which the Bank intends to hold until maturity. Securities classified as held-to-maturity may be sold before their maturity in any of the following instances:[2]

- if the quantity sold is considered not significant in comparison with the total amount of the held-to-maturity securities portfolio;
- if the securities are sold during the month of the maturity date;
- under exceptional circumstances, such as a significant deterioration of the issuer's creditworthiness.

Marketable securities other than those held-to-maturity and similar assets are valued either at the mid-market prices or on the basis of the relevant yield curve prevailing at the balance sheet date, on a security by security basis. Options embedded in securities are not separated for valuation purposes. For the year ended 31 December 2017, mid-market prices at that date were used.

The Bank holds financial instruments which are designated as part of an earmarked portfolio comprising investments held as a counterpart to the Bank's capital and statutory reserves. The Bank also holds

[2] In accordance with Article 9(6) of the Guideline of 3 November 2016 on the legal framework for accounting and financial reporting in the European System of Central Banks (recast) (ECB/2016/34), OJ L 347, 20.12.2016, p. 37.

securities forming part of another earmarked portfolio comprising Malta Government Stocks (MGS) and Treasury bills purchased on the secondary market in its role as a market maker. These two earmarked portfolios are measured at mid-market prices prevailing at the balance sheet date. Unrealised gains are reflected on-balance sheet under liabilities sub-item L12.3 ‘Sundry’, while unrealised losses are recognised under assets sub-item A11.6 ‘Sundry’.

### (i) Sale and repurchase agreements and lending of securities

Securities sold subject to repurchase agreements (repos) are retained in the financial statements in the appropriate classification on the assets side of the balance sheet; the counterparty liability is included as a collateralised inward deposit on the liabilities side of the balance sheet, as appropriate. Securities purchased under agreements to resell (reverse repos) are recorded as a collateralised outward loan on the assets side of the balance sheet, as appropriate. The difference between the sale and repurchase price is treated as interest and is accrued in the profit and loss account over the term of the agreement on a straight-line basis. Securities lent to counterparties are also retained in the financial statements.

### (j) Claims on the International Monetary Fund (IMF)

The IMF Reserve Tranche Position, Special Drawing Rights (SDR) and other claims on the IMF are translated into euro at the year-end ECB euro/SDR exchange rate. The IMF euro holdings are revalued against the SDR at the prevailing representative rate for the euro as quoted by the IMF at the close of business on the last working day of the year.

The IMF reserve tranche position is presented on a net basis representing the difference between the national quota and the holdings in euro at the disposal of the IMF. The euro account for administrative expenses is included under item L6 ‘Liabilities to non-euro area residents denominated in euro’.

### (k) Euro coins

Subsequent to the agency agreement between the Bank and the Government of Malta, euro coins issued by the Bank give rise to a reserve in the form of a capital contribution by the Government. Deposits of euro coins with the Bank constitute a reversal of the capital contribution.

### (l) Demonetised Maltese lira currency notes

Demonetised Maltese lira currency notes shall, until ten years following the expiration of the period mentioned in the notice of demonetisation, be redeemable by the Bank on demand for euro until 31 January 2018 at the conversion rate of the Maltese lira for the euro of 0.4293 as established by Council Regulation (EC) No 1134/2007 of 10 July 2007 and without charge.

In accordance with article 62(3) of the Act, after the expiration of one year following the end of the period established in the notice, any unpresented demonetised Maltese lira currency notes cease to be included in the Bank’s currency liabilities. The value of such notes, after deducting therefrom the value of any notes which are subsequently redeemed, shall be apportioned to the profits of the Bank over the remaining period until the expiration of the ten-year period.

### (m) Tangible and intangible fixed assets

Tangible and intangible fixed assets are stated at historical cost less depreciation or amortisation, with the exception of land and works of art which are stated at historical cost and not depreciated. Historical cost includes expenditure that is directly attributable to the acquisition of the asset. Subsequent costs are included in the carrying amount of the asset or are recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Bank and the cost of the item can be measured reliably. All repairs and maintenance costs are charged to the profit and loss account during the financial period in which they are incurred.

Depreciation is calculated using the straight-line method to allocate the cost of the assets to their residual values over their estimated useful lives as follows:

| | |
|---|---|
| Freehold buildings | 2% |
| Leasehold property | over the remaining term of the lease |
| Computer equipment and other fixed assets | 10 to 25% |

Tangible and intangible fixed assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The carrying amount of an asset is written down immediately to its recoverable amount if that carrying amount is greater than its estimated recoverable amount.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Gains and losses arising on derecognition are determined by comparing sale proceeds with the carrying amount. These are included in the profit and loss account in the year when the asset is derecognised.

### (n) Provisions

Provisions are recognised by the Bank in accordance with Guideline ECB/2016/34 (recast). Taking into due consideration the nature of its activities, the Bank has established a provision for foreign exchange rate, interest rate, credit and gold price risks and for other purposes within its balance sheet. The Bank decides on the size and use of the provision on the basis of a reasoned estimate of its risk exposure.

### (o) Fixed income investment funds

Fixed income investment funds are measured on a net asset value basis. The underlying assets and liabilities are measured at fair value. Gains and losses arising on measurement of these investment funds are accounted for in accordance with the Guideline ECB/2016/34 (recast) in the manner outlined in the accounting policy 3 (f) ‘Income recognition’ above.

### (p) Post-balance sheet events

The values of assets and liabilities shall be adjusted for events that occur between the annual balance sheet date and the date on which the financial statements are approved by the relevant bodies if they affect the condition of assets or liabilities at the balance sheet date. No adjustment shall be made for assets and liabilities, but disclosure shall be made of those events occurring after the balance sheet date if they do not affect the condition of assets and liabilities at the balance sheet date, but which are of such importance that non-disclosure would affect the ability of the users of the financial statements to make proper evaluations and decisions.

## 4 Capital key

The capital key determines the allocation of the ECB share capital to the NCBs on the basis of population and gross domestic product in equal share. It is adjusted every five years and whenever a new member state joins the European Union in accordance with the requirements of the Statute. The capital key of the Bank during the financial years ended 31 December 2016 and 2017 was 0.0648%.

The Eurosystem capital key, which is the respective NCB’s share of the total share capital held by euro area NCBs, is used as the basis for the allocation of monetary income and the financial results of the ECB among the nineteen Eurosystem NCBs. The Bank's Eurosystem capital key during the financial years ended 31 December 2016 and 2017 stood at 0.0921%.

## 5 Change to the capital key

The last change to the capital key occurred on 1 January 2014, when the ESCB experienced a quinquennial capital key change in accordance with Article 29.3 of the Statute.

## 6 Banknotes in circulation

The ECB and the euro area NCBs, which together comprise the Eurosystem, issue euro banknotes.[3] The total value of euro banknotes in circulation is allocated to the Eurosystem central banks on the last working day of each month in accordance with the banknote allocation key.[4]

The ECB has been allocated a share of 8% of the total value of euro banknotes in circulation, whereas the remaining 92% has been allocated to the NCBs according to their weightings in the capital key of the ECB. During the financial years ended 31 December 2016 and 2017 the Bank had a 0.0850% share of the euro banknotes in circulation in accordance with the banknote allocation key. The share of banknotes allocated to each NCB is disclosed in the balance sheet under liability item L1 'Banknotes in circulation'.

The difference between the value of the euro banknotes allocated to each NCB in accordance with the banknote allocation key and the value of the euro banknotes that it actually puts into circulation, as reduced by banknotes withdrawn from circulation, gives rise to intra-Eurosystem balances remunerated[5] on a daily basis at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations (MRO). If the value of the euro banknotes actually issued is greater than the value according to the banknote allocation key, the excess is recognised in the balance sheet under liability sub-item L10.3 'Net liabilities related to the allocation of euro banknotes within the Eurosystem'. If the value of the euro banknotes actually issued is less than the value according to the banknote allocation key, the shortfall is recognised in the balance sheet under asset sub-item A9.4 'Net claims related to the allocation of euro banknotes within the Eurosystem'.

In the cash changeover year[6] and in the subsequent five years, the intra-Eurosystem balances arising from the allocation of euro banknotes are adjusted in order to avoid significant changes in the NCB's relative income positions as compared to previous years. The adjustments are effected by taking into account the differences between the average value of the banknotes which the NCB had in circulation in the reference period,[7] and the average value of banknotes which would have been allocated to it during that period in accordance with its capital key. The adjustments are reduced in annual stages until the first day of the sixth year after the cash changeover year, when income on banknotes will be allocated fully in proportion to the NCB's paid-up shares in the ECB's capital.

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

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[3] ECB Decision of 13 December 2010 on the issue of euro banknotes (recast) (ECB/2010/29), OJ L 35, 9.2.2011, p. 26, as amended by ECB Decision of 21 June 2013 (ECB/2013/16), OJ L 187, 6.7.2013, p. 13, ECB Decision of 29 August 2013 (ECB/2013/27), OJ L 16, 21.1.2014, p. 51 and ECB Decision of 27 November 2014 (ECB/2014/49), OJ L 50, 21.2.2015, p. 42.

[4] Banknote allocation key means the percentages that result from taking into account the ECB's share in the total euro banknote issue and applying the subscribed capital key to the NCBs' share in such total.

[5] ECB Decision of 3 November 2016 on the allocation of monetary income of the NCBs of Member States whose currency is the euro (recast) (ECB/2016/36), OJ L 347, 20.12.2016, p. 26.

[6] Cash changeover year refers to the year in which the euro banknotes are introduced as legal tender in the respective Member State.

[7] The reference period refers to 24 months which start 30 months before the day on which euro banknotes become legal tender in the respective Member State.

## 7 ECB profit distribution

The Governing Council of the ECB has decided that the seigniorage income of the ECB, which arises from the 8% share of euro banknotes allocated to the ECB, as well as income arising from the securities held under (a) the securities markets programme (SMP), (b) the third covered bond purchase programme (CBPP3), (c) the asset-backed securities purchase programme (ABSPP) and (d) the public sector purchase programme (PSPP) is due to the Eurosystem NCBs in the financial year in which it accrues. Unless otherwise decided by the Governing Council of the ECB, the ECB distributes this income in January of the following year by means of an interim distribution of profit.[8] It is distributed in full unless it is higher than the ECB's net profit for the year and subject to any decisions by the Governing Council of the ECB to make transfers to the provision for foreign exchange rate, interest rate, credit and gold price risks. The Governing Council of the ECB may also decide to charge costs incurred by the ECB in connection with the issue and handling of euro banknotes against income earned on euro banknotes in circulation.

The amount distributed to the Bank is disclosed in the profit and loss account under item 4 'Income from equity shares and participating interests'.

## 8 Intra-Eurosystem balances/Intra-ESCB balances

Intra-Eurosystem balances result mostly from cross-border payments in the EU that are settled in central bank money in euro. They are primarily settled in the Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET2) and give rise to bilateral balances in the TARGET2 accounts of EU central banks. These bilateral balances are netted out and then assigned to the ECB on a daily basis, leaving each NCB with a single net bilateral position vis-à-vis the ECB only. Intra-Eurosystem balances of the Bank vis-à-vis the ECB arising from TARGET2, as well as other intra-Eurosystem balances denominated in euro (e.g. interim ECB profit distributions to NCBs and monetary income results), are presented on the balance sheet of the Bank as a single net asset or liability position and disclosed under A9.5 'Other claims within the Eurosystem (net)' or L10.4 'Other liabilities within the Eurosystem (net)'. Intra-ESCB balances versus non-euro area NCBs not arising from TARGET2 are disclosed either under A4 'Claims on non-euro area residents denominated in euro' or L6 'Liabilities to non-euro area residents denominated in euro'.

Intra-Eurosystem claims arising from the Bank's participating interest in the ECB are reported under A9.1 'Participating interest in ECB'.

Intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem are reported as a single net asset or liability under A9.5 'Other claims within the Eurosystem (net)' or L10.4 'Other liabilities within the Eurosystem (net)' as appropriate (see 'Banknotes in circulation' in note 6 above).

Intra-Eurosystem balances arising from the transfer of foreign reserve assets to the ECB by NCBs joining the Eurosystem are denominated in euro and reported under A9.2 'Claims equivalent to the transfer of foreign reserves'.

[8] ECB Decision of 15 December 2014 on the interim distribution of the income of the European Central Bank (recast) (ECB/2014/57), OJ L 53, 25.2.2015, p. 24 as amended by ECB Decision of 2 July 2015 (ECB/2015/25), OJ L 193, 21.7.2015, p.133.

## Notes to the balance sheet

## Assets

### A 1 Gold and gold receivables

The Bank's gold balances consist of correspondent accounts with foreign banks and holdings with counterparties. During the financial year ended 31 December 2016, the Bank reclassified 1,425 troy ounces of gold related to numismatic coins from A1 'Gold and gold receivables' to A11.6 'Sundry'.

On 31 December 2017, gold was revalued at €1,081.881 (2016: €1,098.046) per fine troy ounce. The resultant unrealised valuation gains of €654,831 (2016: €705,079) are disclosed under L14 'Revaluation accounts'.

| | €'000 | Fine troy ounces |
|---|---|---|
| Balance as at 31 December 2016 | 3,413 | 3,108 |
| Decrease in valuation on 31 December 2017 | (50) | - |
| **Balance as at 31 December 2017** | **3,363** | **3,108** |

### A 2 Claims on non-euro area residents denominated in foreign currency

These claims consist of receivables from the IMF and claims on counterparties resident outside the euro area denominated in foreign currency as follows:

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| US dollar | **359,705** | 463,069 | (103,364) |
| Australian dollar | **18,611** | 123 | 18,488 |
| Canadian dollar | **60,927** | 472 | 60,455 |
| Swedish krona | **33,498** | 10,061 | 23,437 |
| Great Britain pound | **17,442** | 18,366 | (924) |
| Special drawing rights | **135,477** | 151,313 | (15,836) |
| Other | **4,378** | 3,826 | 552 |
| **Total** | **630,038** | 647,230 | (17,192) |

### A 2.1 Receivables from the IMF

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Reserve tranche position (net) | **31,893** | 39,753 | (7,860) |
| SDR holdings | **103,584** | 111,560 | (7,976) |
| **Total** | **135,477** | 151,313 | (15,836) |

### (a) IMF quota

Malta's membership subscription to the IMF as at 31 December 2016 and 2017 was SDR168,300,000.

Up to 25% of the quota must be paid in SDRs (IMF's unit of account) or foreign currencies acceptable to the IMF, while the remainder of the membership subscription is paid in the member's own currency. The former portion constitutes the reserve tranche as a claim on the IMF, while the residual represents balances in euro at the disposal of the Fund. Hence, the reserve tranche position represents the difference between the quota of SDR168,300,000 and the balance in euro at the disposal of the IMF.

During the financial year ended 31 December 2017, the reserve tranche position declined by SDR4,333,333 to SDR26,854,776 (2016: SDR31,188,109) due to repurchases of euro from borrowing members under the IMF Financial Transaction Plan.

### (b) Malta's SDR position in the IMF

In November 2009, the Bank entered into a two-way voluntary trading arrangement with the IMF, whereby the Bank stands ready to buy and sell SDRs against euro, subject to certain limits, in transactions that the IMF arranges between prospective buyers and sellers of SDRs. During 2017, one transaction involving a sale of SDR375,000 was effected under this agreement (2016: nil). Malta's SDR holdings, as at 31 December 2017, including interest received thereon, stood at SDR87,221,165 (2016: SDR87,525,671).

The total SDRs allocated to Malta remained unchanged from 2010 at SDR95,401,757 against which a corresponding liability exists in the form of a restricted demand deposit of the Government of Malta included under liability item L9 'Counterpart of special drawing rights allocated by the IMF' together with other SDRs acquired in accordance with IMF requirements and procedures. SDRs allocated to Malta cannot be withdrawn unless such advice is received from the IMF.

### (c) IMF interest on the SDR position

The net reserve tranche position, SDR holdings and the SDR allocation are subject to SDR interest rates quoted by the IMF on a weekly basis. The IMF current accounts are not subject to interest.

### (d) Bilateral Borrowing Agreement

In January 2013, the IMF and the Bank signed a bilateral borrowing agreement whereby the Bank agreed to lend to the IMF an SDR denominated amount up to €260,000,000. Drawings under this interest-bearing agreement could take place over four years, which expired at the end of January 2017. Up to the expiration of the four year period, no amounts were utilised under this agreement.

A new bilateral borrowing agreement with the Fund was endorsed by the Governor of the Bank in September 2017. The loan is for an SDR-denominated amount of up to the equivalent of €260,000,000. As at 31 December 2017, there were no outstanding balances under this facility.

## A 2.2 Balances with banks and security investments, external loans and other external assets

These assets principally include security investments issued by non-euro area residents and balances with banks.

| | 2017 | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Marketable debt securities other than those held-to-maturity | **244,930** | 286,460 | (41,530) |
| Held-to-maturity debt securities | **232,748** | 197,162 | 35,586 |
| Current accounts and overnight deposits with banks | **16,504** | 11,879 | 4,625 |
| Other external assets | **379** | 416 | (37) |
| **Total** | **494,561** | 495,917 | (1,356) |

## A 3 Claims on euro area residents denominated in foreign currency

These foreign currency assets mainly comprise investments in marketable debt securities issued by euro area residents and balances with banks within the euro area as follows:

| | 2017 | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| US dollar | **111,625** | 181,797 | (70,172) |
| Swedish Krona | **2,458** | 7 | 2,451 |
| Great Britain pound | **21** | 30 | (9) |
| Other | **101** | - | 101 |
| **Total** | **114,205** | 181,834 | (67,629) |

During 2017, the ECB conducted regular US dollar liquidity-providing operations with maturities of one week. Under this programme, the US dollars were provided by the Federal Reserve to the ECB by means of a temporary swap line with the aim of offering short-term US dollar funding to Eurosystem counterparties. The ECB simultaneously entered into back-to-back swap transactions with euro area NCBs, which used the resulting funds to conduct liquidity-providing operations with the Eurosystem counterparties in the form of reverse and swap transactions. During 2017, credit institutions established in Malta participated for a total amount of US$301,000,000 in these operations. The outstanding amount of USD liquidity providing operations as at 31 December 2017 amounted to US$105,000,000 (2016: US$100,000,000).

| | 2017 | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Marketable debt securities other than those held-to-maturity | **23,859** | 72,488 | (48,629) |
| Held-to-maturity debt securities | **2,444** | 14,251 | (11,807) |
| US dollar liquidity-providing operations | **87,551** | 94,868 | (7,317) |
| Current accounts and overnight deposits with banks | **351** | 227 | 124 |
| **Total** | **114,205** | 181,834 | (67,629) |

## A 4 Claims on non-euro area residents denominated in euro

These claims include marketable debt securities issued by non-euro area residents and balances with banks outside the euro area.

| | 2017 | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Marketable debt securities other than those held-to-maturity | **227,503** | 335,337 | (107,834) |
| Held-to-maturity debt securities | **445,197** | 646,509 | (201,312) |
| Current accounts and overnight deposits with banks | **1,982** | 1,599 | 383 |
| **Total** | **674,682** | 983,445 | (308,763) |

## A 5 Lending to euro area credit institutions related to monetary policy operations denominated in euro

This item reflects operations carried out by the Bank within the framework of the single monetary policy of the Eurosystem.

The total Eurosystem holding of monetary policy assets amounts to €764,309,630,000 (2016: €595,873,459,133) of which the Bank holds €113,310,000 (2016: €54,570,000). In accordance with Article 32.4 of the Statute, losses from monetary policy operations (if they were to materialise) would be shared in full by the Eurosystem NCBs in proportion to the prevailing ECB capital key shares.

Losses can only materialise if both the counterparty fails and the recovery of funds received from the resolution of the collateral provided by the counterparty is not sufficient. It should be noted that in relation to specific collateral which can be accepted by NCBs at their own discretion, risk sharing has been excluded by the Governing Council of the ECB.

### A 5.1 Main refinancing operations

Main refinancing operations are regular liquidity-providing reverse transactions carried out by the Eurosystem NCBs with a weekly frequency and a maturity of normally one week, on the basis of standard tenders. Since October 2008, these operations were conducted as fixed rate tender procedures with full allotment. These operations play a key role in achieving the aims of steering interest rates, managing market liquidity and signalling the monetary policy stance.

All counterparties that fulfil the general eligibility criteria may submit bids within a specified timeframe. Participation in MROs requires the availability of eligible collateral.

During 2017, the aggregate MROs carried out with the Bank amounted to €270,900,000 (2016: €188,900,000). As at 31 December 2017, outstanding MROs amounted to €30,000,000 (2016: nil).

On 16 March 2016, the Governing Council of the ECB decided to decrease the MRO rate by five basis points to 0.00%. Throughout the financial year ended 31 December 2017, the MRO rate remained unchanged at the level of 0.00%.

### A 5.2 Longer-term refinancing operations

Longer-term refinancing operations (LTRO) are regular liquidity-providing reverse transactions aimed at providing counterparties with additional longer-term refinancing liquidity. In 2017, LTROs were mainly conducted with a three-month maturity, with one operation having a forty-eight month tenor. Participation in LTROs requires the availability of eligible collateral. Additionally, in 2016 the Governing Council of the ECB introduced a new series of four targeted longer-term refinancing operations (TLTRO II). These operations have a four-year maturity, with a possibility of repayment after two years. The applicable interest rate for TLTRO II operations depends on the individual benchmark of the respective counterparty between the date of allotment and January 2018. The actual rate will be set in 2018 and will be between the MRO rate and the deposit facility rate at the time of the allotment. Given that the actual rate is only known in 2018 and a reliable estimate is not possible until the interest rate setting date, the deposit facility rate has been used for calculating the TLTRO II interest for 2017, as this is deemed a prudent approach.

During the year, the three-month LTROs were conducted as fixed rate tender procedures with full allotment, with the rate fixed at the average rate of the MROs over the life of the respective operation. Moreover, in March 2017, the ECB conducted the last operation from the new series of targeted longer-term refinancing operations announced in 2016.[9]

The aggregate volume of LTROs and TLTROs carried out during 2017 amounted to €39,740,000 (2016: €111,670,000). The outstanding operations at the end of the current year amounted to €83,310,000 (2016: €54,570,000).

### A 5.3 Fine-tuning reverse operations

Fine-tuning reverse operations aim to regulate the market liquidity situation and steer interest rates, particularly to smooth the effects on interest rates caused by unexpected market fluctuations. Owing to their nature, they are executed on an ad hoc basis. No fine-tuning reverse operations were conducted by the ECB during 2016 and 2017.

### A 5.4 Structural reverse operations

These are reverse open-market transactions through standard tenders to enable the Eurosystem to adjust its structural liquidity position vis-à-vis the financial sector. No structural operations were conducted by the ECB during 2016 and 2017.

### A 5.5 Marginal lending facility

Marginal lending facilities may be used by counterparties to obtain overnight liquidity from Eurosystem NCBs at a pre-specified interest rate against eligible assets. During 2016 and 2017, there were no marginal lending facility transactions with the Bank.

On 16 March 2016, the Governing Council of the ECB decided to decrease the marginal lending facility rate by five basis points to 0.25%. Throughout the financial year ended 31 December 2017, the marginal lending facility rate remained unchanged at the level 0.25%.

### A 5.6 Credits related to margin calls

This sub-item refers to cash paid to counterparties in those instances where the market value of the collateral exceeds an established trigger point implying an excess of collateral with respect to outstanding monetary policy operations.

Since the Bank operates a general pooling system, no payments to counterparties are effected.

### A 6 Other claims on euro area credit institutions denominated in euro

This item includes claims on credit institutions within the euro area which do not relate to monetary policy operations, consisting mainly of current accounts and overnight deposits with banks which as at 31 December 2017 amounted to €2,609,461 (2016: €9,555,520).

[9] On 10 March 2016, the ECB issued a press release in respect of a new series of targeted longer-term refinancing operations: https://www.ecb.europa.eu/press/pr/date/2016/html/pr160310_1.en.html.

## A 7 Securities of euro area residents denominated in euro

This item consists of securities held for monetary policy purposes as well as other securities.

### A 7.1 Securities held for monetary policy purposes

As at 31 December 2017 this item consisted of securities acquired by the Bank within the scope of the SMP and the PSPP.

Purchases under the first covered bond purchase programme[10] were completed on 30 June 2010, while the second covered bond purchase programme[11] ended on 31 October 2012. The SMP[12] was terminated on 6 September 2012.

In 2017 the Eurosystem continued its securities purchases under the expanded asset purchase programme (APP),[13] which includes the CBPP3,[14] the ABSPP,[15] the PSPP[16] and the corporate sector purchase programme (CSPP).[17]

The monthly pace of combined net APP purchases by the NCBs and the ECB was €80 billion on average until March 2017 and €60 billion from April 2017 until the end of year. Based on the decision taken by the Governing Council of the ECB in October 2017, these purchases are intended to continue at a monthly pace of €30 billion from January to September 2018 or beyond, if necessary, and, in any case, until the Governing Council of the ECB sees sustained adjustment in the path of inflation that is consistent with its inflation aim. The net purchases will be made alongside reinvestments of the principal payments from maturity securities purchased under the APP.

The Bank participated in the SMP and PSPP. The Bank's PSPP related purchases comprised MGS from the secondary market. The amortised cost of these securities as well as their market values,[18] are as follows:

| | **2017** | | 2016 | | Change | |
|---|---|---|---|---|---|---|
| | **Amortised cost** | **Market value** | Amortised cost | Market value | Amortised cost | Market value |
| | **€'000** | **€'000** | €'000 | €'000 | €'000 | €'000 |
| Securities markets programme | **53,189** | **28,811** | 52,202 | 29,797 | 987 | (986) |
| Public sector purchase programme | **861,390** | **874,693** | 686,401 | 705,243 | 174,989 | 169,450 |
| **Total** | **914,579** | **903,504** | 738,603 | 735,040 | 175,976 | 168,464 |

10 ECB Decision of 2 July 2009 on the implementation of the covered bond purchase programme (ECB/2009/16), OJ L 175, 4.7.2009, p. 18.
11 ECB Decision of 3 November 2011 on the implementation of the second covered bond purchase programme (ECB/2011/17), OJ L 297, 16.11.2011, p. 70.
12 ECB Decision of 14 May 2010 establishing a securities markets programme (ECB/2010/5), OJ L 124, 20.5.2010, p. 8.
13 Further details for the APP can be found on the ECB's website (https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html).
14 ECB Decision of 15 October 2014 on the implementation of the third covered bond purchase programme (ECB/2014/40), OJ L 335, 22.10.2014, p. 22.
15 ECB Decision of 19 November 2014 on the implementation of the asset-backed securities purchase programme (ECB/2014/45), OJ L 1, 6.1.2015, p. 4, as amended by ECB Decision of 10 September 2015 (ECB/2015/31), OJ L 249, 25.9.2015, p. 28.
16 Under this programme, the ECB and the NCBs may purchase, in the secondary market, euro-denominated securities issued by euro area central, regional or local governments, recognised agencies located in the euro area and international organisations and multilateral development banks located in the euro area.
17 Under this programme, the NCBs may purchase investment-grade euro-denominated bonds issued by non-bank corporations established in the euro area.
18 Market values are indicative and were derived on the basis of market quotes. When market quotes were not available, market prices were estimated using internal Eurosystem models.

The Governing Council of the ECB assesses on a regular basis the financial risks associated with the securities held under these programmes. Annual impairment tests are conducted on the basis of the estimated recoverable amounts as at the year-end and are approved by the Governing Council of the ECB. The total Eurosystem NCBs' holding of such securities amounts to €2,157,626,031,851 (2016: €1,493,180,170,937).

In accordance with Article 32.4 of the Statute, losses from holdings of SMP, CBPP3, ABSPP, PSPP and CSPP securities if they were to materialise, would be shared in full by the Eurosystem NCBs, in proportion to the prevailing ECB capital key shares.

As a result of the impairment tests conducted as at 31 December 2017 on securities purchased under the SMP and the PSPP, the Governing Council of the ECB decided that future cash flows on such securities were expected to be received in full.

An impairment test was carried out as at 31 December 2017 on securities purchased under the ABSPP and the three Covered Bond Purchase Programmes. The Governing Council of the ECB identified impairment indicators relating to two securities acquired under the ABSPP for which significant deterioration of the credit quality of the securities was observed. In relation to securities acquired under the three Covered Bond Purchase Programmes, an impairment indicator was triggered for one issuer which was subject to restructuring measures due to financial difficulties. The Governing Council of the ECB considered that the identified impairment indicators for securities purchased under both ABSPP and the three Covered Bond Purchase Programmes had not affected the estimated future cash flows.

As a result of an impairment test conducted on the CSPP portfolio, it was concluded that the holding of one security is impaired. In accordance with the principle of prudence, the Governing Council of the ECB has deemed it appropriate to establish a provision against losses in monetary policy operations (see note 'L13 Provisions' in the notes to the balance sheet).The affected security was sold in January 2018.

## A 7.2 Other securities

This sub-item comprises all the Bank's holdings of debt securities issued by euro area residents that are not used in monetary policy operations and are not part of investment portfolios earmarked for specific purposes.

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Marketable debt securities other than those held-to-maturity | **170,217** | 230,501 | (60,284) |
| Held-to-maturity debt securities | **486,044** | 659,096 | (173,052) |
| **Total** | **656,261** | 889,597 | (233,336) |

## A 9 Intra-Eurosystem claims

This item consists of claims arising from the Bank's share in the ECB's net equity and claims equivalent to the transfer of foreign reserves to the ECB. It may also include net claims related to the allocation of euro banknotes within the Eurosystem and other net claims within the Eurosystem.

## A 9.1 Participating interest in ECB

Pursuant to Article 28 of the Statute, the ESCB NCBs are the sole subscribers to the capital of the ECB. Subscriptions depend on shares which are fixed in accordance with Article 29 of the Statute and are subject to adjustment every five years. The most recent adjustment took effect on 1 January 2014.

As at 31 December 2017, the share that the Bank held in the subscribed capital of the ECB was 0.0648% which amounts to €7,014,605, with no change compared to 31 December 2016.

Sub-item A9.1 ‘Participating interest in the ECB’, also includes the Bank’s share in the ECB’s accumulated net profits amounting to €8,844,497, with no change compared to 31 December 2016.

## A 9.2 Claims equivalent to the transfer of foreign reserves

This asset represents the Bank’s claims arising from the transfer of foreign reserve assets to the ECB, when the Bank joined the Eurosystem. The remuneration of these claims is calculated daily at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations, adjusted to reflect a zero return on the gold component.

The claim of the Bank with respect to the foreign reserve assets transferred to the ECB as at 31 December 2016 and 2017 was €37,552,276.

## A 9.4 Net claims related to the allocation of euro banknotes within the Eurosystem

This sub-item reflects claims which would arise from application of the banknote allocation key (see note 6 ‘Banknotes in circulation’ in the general notes to the financial statements). As at the end of 2016 and 2017, the Bank had no claims in this respect but had a liability which is presented in liability sub-item L10.3 ‘Net liabilities related to the allocation of euro banknotes within the Eurosystem’.

## A 9.5 Other claims within the Eurosystem (net)

As at 31 December 2017, the claim of €4,338,619,928 (2016: €1,019,452,640) comprises balances attributable to the transfers issued and received through TARGET2 by the ESCB NCBs, including the ECB, plus the balances held with the Eurosystem NCBs through correspondent accounts. Also included are balances resulting from the pooling and allocation of monetary income within the Eurosystem pending settlement (see note 5 ‘Net result of pooling of monetary income’ to the profit and loss account), and balances with the ECB in respect of any amounts receivable or refundable, including the amount due to the Bank in respect of the ECB’s interim profit distribution (see note 4 ‘Income from equity shares and participating interests’ to the profit and loss account).

The remuneration of the debit balance in respect of TARGET2 is calculated daily at the latest available interest rate used by the Eurosystem in its tenders for main refinancing operations.

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **€’000** | €’000 | €’000 |
| TARGET2 balance | **4,338,620** | 1,019,453 | 3,319,167 |
| Net result from pooling of monetary income | **(6,119)** | (1,893) | (4,226) |
| ECB profit distribution | **909** | 889 | 20 |
| **Total** | **4,333,410** | 1,018,449 | 3,314,961 |

## A 10 Items in course of settlement

These assets comprise transactions which were not yet settled as at the end of the financial year.

## A 11 Other assets

### A 11.1 Coins of euro area

This sub-item represents the Bank's holdings of euro coins issued by euro area countries.

### A 11.2 Tangible and intangible fixed assets

Tangible and intangible fixed assets principally comprise the Bank's premises, equipment, computer hardware and software.

| | Land and buildings | Computer equipment and other assets | Total |
|---|---|---|---|
| | €'000 | €'000 | €'000 |
| **Cost** | | | |
| As at 31 December 2016 | 32,654 | 10,478 | 43,132 |
| Additions | 3,088 | 2,323 | 5,411 |
| Derecognition of assets | - | (26) | (26) |
| **As at 31 December 2017** | **35,742** | **12,775** | **48,517** |
| **Accumulated depreciation** | | | |
| As at 31 December 2016 | 3,133 | 6,029 | 9,162 |
| Charge for the year | 233 | 825 | 1,058 |
| Derecognition of assets | - | (26) | (26) |
| **As at 31 December 2017** | **3,366** | **6,828** | **10,194** |
| **Net book value** | | | |
| As at 31 December 2016 | 29,521 | 4,449 | 33,970 |
| **As at 31 December 2017** | **32,376** | **5,947** | **38,323** |

The net book value as at 31 December 2017 includes an amount of €15,967,641 (2016: €12,394,933) related to assets which are not yet available for use and which are not being depreciated.

### A 11.3 Other financial assets

Other financial assets comprise debt securities and investments held by the Bank as part of an earmarked portfolio as a counterpart to the Bank's capital and statutory reserves (see note 3 (h) (ii) 'Securities held for other than monetary policy purposes' in the general notes to the financial statements).

The Bank also holds another earmarked portfolio comprising MGS purchased on the secondary market by the Bank in its role as market maker.

The Bank holds investments in two fixed income investment programmes to be managed by external asset managers in the form of contractual funds. The objective of these investment programmes is to achieve higher levels of diversification in investment style and exposure whilst also increasing the volume of assets under management. During the years ended 31 December 2016 and 2017, the Bank's overall investment in these two funds remained unchanged.

The contractual funds are measured in the balance sheet at the net asset value of the respective fund.

| | 2017 | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Earmarked investments | **232,654** | 68,726 | 163,928 |
| Earmarked Malta Government Stocks | **359,339** | 426,404 | (67,065) |
| Fixed income investment funds | **361,871** | 360,385 | 1,486 |
| **Total** | **953,864** | 855,515 | 98,349 |

### A 11.4 Off-balance sheet instruments revaluation differences

This sub-item reflects revaluation gains arising on off-balance sheet positions, mainly foreign exchange swap transactions outstanding as at the balance sheet date. As at 31 December 2017, these gains amounted to €41,379,914 (2016: €1,125,211).

### A 11.5 Accruals and prepaid expenses

As at 31 December 2017, this sub-item reflects accrued interest income of €34,211,084 (2016: €43,148,240) on income-earning assets. At the end of the current financial year, there was no interest attributable to intra-Eurosystem claims (2016: €3,325).

### A 11.6 Sundry

Sundry assets consist mainly of loans and other assets together with realised gains attributable to off-balance sheet positions, principally foreign exchange forward transactions outstanding at the year-end, which gains arose from the conversion of such transactions into their euro equivalent at the respective currency's average cost on the balance sheet date, compared with the euro amounts at which the transactions were initially recorded.

## Liabilities

### L 1 Banknotes in circulation

This item consists of the Bank's share of the total euro banknotes in circulation (see note 6 'Banknotes in circulation' in the general notes to the financial statements).

During 2017, the total value of banknotes in circulation within the Eurosystem increased by 4.0% from €1,126,215,779,445 at 31 December 2016 to €1,170,716,347,615 at 31 December 2017. According to the banknote allocation key, the Bank had an allocated amount of euro banknotes in circulation of €995,108,600 at the end of the year compared to €957,283,600 at the end of 2016.

The value of the euro banknotes actually issued by the Bank in 2017 increased by 12.9% from €1,034,355,705 to €1,167,590,490 at year-end. As this is more than the allocated amount, the difference of €172,481,890 (2016: €77,072,105) is shown under liability sub-item L10.3 'Net liabilities related to the allocation of euro banknotes within the Eurosystem'.

### L 2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro

These interest-bearing liabilities arise from the monetary policy operations conducted by the Bank on behalf of the Eurosystem.

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Current accounts (covering the minimum reserve system) | **1,103,678** | 570,785 | 532,893 |
| Deposit facility | **3,818,402** | 2,346,201 | 1,472,201 |
| **Total** | **4,922,080** | 2,916,986 | 2,005,094 |

### L 2.1 Current accounts (covering the minimum reserve system)

Current accounts contain the credit balances of credit institutions that are required to hold minimum reserves. The minimum reserve requirements have to be met on average over the reserve maintenance period in accordance with the schedule published by the ECB. These balances are currently remunerated at the MRO rate. Since June 2014, the reserve holdings exceeding the required minimum reserves are remunerated at zero per cent or the deposit facility rate, whichever is lower.

### L 2.2 Deposit facility

The overnight deposit facility is available to eligible counterparties to make overnight deposits with Eurosystem NCBs at pre-specified rates. Under normal circumstances, the interest rate on the facility provides a floor for the overnight market interest rate. During 2017, the aggregate volume of such transactions with the Bank amounted to €734,341,573,142 (2016: €419,832,130,088). The outstanding balance as at year-end amounted to €3,818,401,851 (2016: €2,346,200,735).

On 16 March 2016, the Governing Council of the ECB decided to decrease the overnight deposit facility rate by ten basis points to -0.4%. Throughout the financial year ended 31 December 2017, the overnight deposit facility rate remained unchanged at the level of -0.40%.

## L 2.3 Fixed-term deposits

These liabilities relate to liquidity-absorbing fine-tuning operations for a fixed-term at variable rate tenders. No liquidity-absorbing fine-tuning operations were conducted by the ECB during 2016 and 2017. Accordingly, there were no outstanding liquidity-absorbing fine-tuning operations as at 31 December 2016 and 2017.

## L 2.4 Fine-tuning reverse operations

Fine-tuning liquidity-absorbing reverse operations are executed on an ad hoc basis with the purpose of managing the liquidity situation in the market and setting interest rates. Liquidity-absorbing fine-tuning reverse operations are executed, as a rule, through bilateral procedures. Moreover, their frequency and maturity are not standardised. No fine-tuning absorption reverse operations were conducted during 2016 and 2017, and accordingly there were no outstanding operations as at 31 December 2016 and 2017.

## L 2.5 Deposits related to margin calls

This sub-item refers to cash received from counterparties in those instances where the market value of the collateral pledged has fallen below an established trigger point, implying a shortfall of collateral to cover the outstanding monetary policy operations. No instances of deposits related to margin calls were recorded during 2016 and 2017.

## L 5 Liabilities to other euro area residents denominated in euro

## L 5.1 General government

This liability includes current and sinking fund accounts denominated in euro held by the Government of Malta. These balances are repayable on demand and are remunerated in accordance with the provisions established by the Governing Council of the ECB.[19]

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Current accounts | **627,080** | 518,904 | 108,176 |
| Sinking fund accounts | **170,760** | 135,104 | 35,656 |
| **Total** | **797,840** | 654,008 | 143,832 |

## L 5.2 Other liabilities

This sub-item includes current accounts which are repayable on demand and fixed-term deposits denominated in euro held by Maltese public sector corporations and other entities. These balances are remunerated in accordance with the provisions established by the Governing Council of the ECB.[20]

This sub-item includes collateralised inward deposits, which as at 31 December 2017 amounted to €705,000,000 (2016: nil). These liabilities are attributable to securities sold subject to repurchase agreements entered into by the Bank (see note 3 (i) 'Sale and repurchase agreements and lending of securities' in the general notes to the financial statements).

[19] ECB Decision of 20 February 2014 on the prohibition of monetary financing and the remuneration of government deposits by national central banks (ECB/2014/8), OJ L 159, 28.5.2014, p. 54 as amended by ECB Decision (ECB/2015/29); and Guideline of 20 February 2014 on domestic assets and liability management operations by the national central banks (ECB/2014/9), OJ L 159, 28.5.2014, p. 56 as amended by Guideline of 5 June 2014 (ECB/2014/22), OJ L 168, 7.6.2014, p. 118 and as amended by Guideline of 4 September 2015 (ECB/2015/28), OJ L 245, 22.9.2015, p. 13; and ECB Decision of 5 June 2014 on the remuneration of deposits, balances and holdings of excess reserves (ECB/2014/23), OJ L 168, 7.6.2014, p. 115.

[20] See footnote 19.

## L 6 Liabilities to non-euro area residents denominated in euro

This item includes collateralised inward deposits, amounting to €18,203,291 as at 31 December 2017, attributable to securities sold under repurchase agreements entered into by the Bank.

This item also includes balances denominated in euro held by international and supranational organisations and by non-Eurosystem central banks, including the IMF No. 2 current account for administrative expenses (see note 3 (j) 'Claims on the International Monetary Fund' in the general notes to the financial statements). Whereas the IMF account is non-interest bearing, the other balances are remunerated in accordance with the provisions established by the Governing Council of the ECB.[21]

## L 7 Liabilities to euro area residents denominated in foreign currency

Balances held by the Government of Malta which are repayable on demand and other customer deposits are included in this item. Deposits by banks are subject to fixed interest rates. All other balances are remunerated in accordance with the provisions established by the Governing Council of the ECB.[22]

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Government of Malta current accounts | **38,409** | 37,787 | 622 |
| Government of Malta sinking fund accounts | **100** | 123 | (23) |
| Liabilities to banks | **93,599** | 105,652 | (12,053) |
| Other current accounts and fixed-term deposits | **8,690** | 11,408 | (2,718) |
| **Total** | **140,798** | 154,970 | (14,172) |

## L 9 Counterpart of special drawing rights allocated by the IMF

This item represents the counterpart of special drawing rights allocated by the IMF to Malta (see note A2.1 (b) 'Receivables from the IMF' above).

## L 10 Intra-Eurosystem liabilities

This item represents the Bank's liabilities to the ECB and to the other Eurosystem NCBs.

## L 10.3 Net liabilities related to the allocation of euro banknotes within the Eurosystem

This sub-item consists of the liability of the Bank vis-à-vis the Eurosystem relating to the excess of euro banknotes issued by the Bank over and above the amount allocated to the Bank by the ECB in accordance with the banknote allocation key (see note L1 'Banknotes in circulation' above). The increase in the excess euro banknotes reflects the relatively higher increase (12.9%) in additional banknotes issued by the Bank during 2017, as compared to the increase in banknotes put into circulation by the Eurosystem as a whole (4.0%).

## L 10.4 Other liabilities within the Eurosystem (net)

As at 31 December 2016 and 2017, the Bank had a net claim within the Eurosystem as reported under asset sub-item A9.5 'Other claims within the Eurosystem (net)'.

[21] See footnote 19.
[22] See footnote 19.

## L 12 Other liabilities

### L 12.1 Off-balance sheet instruments revaluation differences

This sub-item reflects revaluation losses arising on off-balance sheet positions, mainly foreign exchange swap transactions outstanding as at the balance sheet date.

### L 12.2 Accruals and income collected in advance

These liabilities include the balance of demonetised Maltese lira currency notes which have not been presented, as adjusted for amounts recognised as income in the profit and loss account (see note 3 (l) 'Demonetised Maltese lira currency' in the general notes to the financial statements and note (e) 'Demonetised Maltese lira currency notes' in the other notes to the financial statements). The balance of deferred income, adjusted for demonetised currency notes presented in January 2018, will be recognised as income in the profit and loss account for the forthcoming financial year, as subsequent to 31 January 2018 demonetised currency notes will not be exchangeable at the Bank. This sub-item also includes accrued interest expense on interest-bearing liabilities, and other accrued expenses.

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Deferred income in respect of demonetised | | | |
| Maltese Lira currency notes | **3,890** | 13,397 | (9,507) |
| Accrued interest payable | **777** | 1,122 | (345) |
| Income collected in advance | **-** | 7 | (7) |
| Other | **5,438** | 3,170 | 2,268 |
| **Total** | **10,105** | 17,696 | (7,591) |

### L 12.3 Sundry

Sundry liabilities mainly include unrealised revaluation gains attributable to MGS held as part of the earmarked portfolio amounting to €12,607,164 (2016: €21,872,581) and unrealised revaluation gains attributable to other earmarked portfolios and other investments amounting to €2,344,205 (2016: €446,687). These liabilities also include realised losses attributable to off-balance sheet positions, principally foreign exchange swap and forward transactions outstanding on 31 December 2017, amounting to €35,519,843 (2016: €15,471,233) which losses arose from the conversion of such transactions into their euro equivalents at the respective currency's average cost on the balance sheet date, compared with the euro amounts at which the transactions were initially recorded. This sub-item includes an amount of €406,359 (2016: €1,216,739) reflecting the unrealised revaluation gains on marketable debt securities which formed part of the earmarked portfolio[23] and were transferred to held-to-maturity portfolios. The balance of these unrealised gains is being amortised on a straight line basis over the term of the respective security and is recognised within net interest income (see profit and loss sub-item 1.1 'Interest income'). As at 31 December 2017, this sub-item also includes balances of former credit institutions amounting to €24,816,499.

## L 13 Provisions

This item also includes a provision of €86,757,056 (2016: €70,000,000) approved by the Board of Directors in accordance with the Guideline ECB/2016/34 (recast). In 2015, the Board of Directors resolved to modify the model utilised to calculate this provision to cover risks of adverse economic valuations resulting from shocks

[23] Comprising investments held as a counterpart to the Bank's capital and statutory reserves.

in interest rates, credit quality and foreign exchange. The calculations are based on the universe of investment assets and monetary policy assets using the Expected Shortfall (ES) technique – a risk measure applied in the evaluation of market and credit risks of a portfolio that derives the expected loss at the 99% level of confidence in the worst 1% of cases. The model applies the Monte Carlo simulation technique whereby around ten thousand simulations of systemic and non-systemic returns are generated with the inherent advantage that the output is not reliant on either the normal distribution of returns or on historical data. The underlying distribution chosen to model the simulations is the t-distribution which can be calibrated to have heavier tails than those for the normal distribution. This methodology is the base case scenario adopted by the Eurosystem NCBs and the ECB annually, in order to measure total economic risk and corresponding financial buffers[24] that could be absorbed in the event of such shocks. Full coverage for the resultant shortfall will have to include the Bank's capital and reserves, until sufficient above-the-line buffers have been accumulated.

As a result of the impairment test conducted on the CSPP portfolio, the Governing Council of the ECB has deemed it appropriate to establish a provision totalling €68,870,710 against losses in monetary policy operations, in relation to a security held by an NCB of the Eurosystem. The size of this provision has been calculated taking into account the information regarding the security sale in January 2018. This is in line with the framework and financial reporting in the ESCB for post-balance sheet events.

In accordance with Article 32.4 of the Statute, this provision is funded by all the NCBs in proportion to their subscribed capital key shares in the ECB prevailing in 2017. As a result, a provision for €63,400 equivalent to 0.0921% of the total provision was recognised in these financial statements.

As at 31 December 2016, there were no outstanding Eurosystem provisions.

## L 14 Revaluation accounts

The revaluation accounts include the unrealised revaluation gains arising from the valuation of foreign currency on and off-balance sheet positions, gold, marketable securities and other instruments at year-end.

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Gold | **655** | 705 | (50) |
| Foreign currency positions | **1** | 8 | (7) |
| Securities and other instruments | **15,749** | 19,338 | (3,589) |
| **Total** | **16,405** | 20,051 | (3,646) |

## L 15 Capital and reserves

The following table analyses the movement in capital and reserves of the Bank:

| | Capital €'000 | General reserve fund €'000 | Reserves for risks and contingencies €'000 | Capital contribution €'000 |
|---|---|---|---|---|
| Balance as at 31 December 2016 | 20,000 | 75,505 | 187,776 | 72,831 |
| Net issuance of euro coins | - | - | - | 5,371 |
| **Balance as at 31 December 2017** | **20,000** | **75,505** | **187,776** | **78,202** |

[24] Above-the-line buffers include provisions, profit for the year and revaluation accounts. Below-the-line buffers include capital and reserves.

### L 15.1 Capital

In terms of article 19(1) of the Act, the Bank shall have an authorised capital of €20,000,000. This is fully paid-up and is held exclusively by the Government of Malta.

### L 15.2 Reserves

#### *(a) General reserve fund*

In terms of article 19(2) of the Act, the Bank shall also maintain a general reserve fund which shall be of not less than €20,000,000 and which shall be available for any purpose as may be determined by the Board of Directors. Whenever amounts are drawn from the general reserve fund, these shall be replaced as may be decided by the Board.

#### *(b) Reserves for risks and contingencies*

Reserves for risks and contingencies are maintained in terms of article 22(1) of the Act to cover the broad range of risks to which the Bank is exposed. The major risks in this regard arise from potential movements in market values of the Bank's holdings of domestic and foreign securities and other investments, losses which could arise from support of the financial system in the Bank's role as a lender of last resort and other non-insured losses.

#### *(c) Capital contribution*

This reserve represents the capital contribution made by the Government of Malta to the Bank in respect of the agency agreement between the Bank and the Government relating to the issuance of euro coins. The Bank shall act as agent of the Government and shall retain full responsibility for procurement, storage and issuance of euro coins. This reserve represents seigniorage revenue arising from the issue of euro coins. In terms of the agency agreement, the Government has agreed not to withdraw such revenue and retain these amounts in a reserve account held at the Bank. Allocation of revenue to the reserve account shall be deemed as a capital contribution to the Bank by the Government.

## Notes to the profit and loss account

### 1 Net interest income

This item represents the net result of interest income and interest expense. With the onset of negative interest rates in the past years, certain financial assets have given rise to interest expense rather than interest income and certain financial liabilities have given rise to interest income rather than interest expense.

In 2016, the Bank has adopted the Eurosystem harmonised presentation format in respect of interest income and interest expense arising from monetary policy operations so as to report interest on a net basis, such that positive and negative interest stemming from monetary policy operations are netted off on a balance sheet (sub-) item level. Net positive interest arising from monetary policy liabilities is presented within interest income and net negative interest on monetary policy assets is presented within interest expense (see note 3 (f) (i) 'Interest income and expense' in the general notes to the financial statements).

### 1.1 Interest income

Interest income includes income on foreign reserve assets and euro-denominated portfolios, as well as interest income on intra-Eurosystem claims and monetary policy instruments. Negative interest income generated from financial assets, other than financial instruments attributable to monetary policy operations, is netted off within the amounts presented in the table below. The net negative interest expense attributable to monetary policy operations for the current year amounted to €12,615,712 (2016: €7,035,514).

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Marketable debt securities | | | |
| - In euro | **27,901** | 35,365 | (7,464) |
| - In foreign currency | **10,699** | 8,133 | 2,566 |
| Fixed-term deposits | | | |
| - In foreign currency | **-** | 2 | (2) |
| Current accounts and overnight deposits | | | |
| - In euro | **(27)** | (25) | (2) |
| - In foreign currency | **50** | 26 | 24 |
| IMF | **98** | 22 | 76 |
| Monetary policy operations | | | |
| - Minimum reserves | **910** | 649 | 261 |
| - Overnight deposits | **11,706** | 6,386 | 5,320 |
| - Securities acquired under the SMP | **3,714** | 3,784 | (70) |
| - Securities acquired under the PSPP | **9,590** | 5,651 | 3,939 |
| Intra-Eurosystem claims | | | |
| - Claims arising from the transfer of foreign reserves | **-** | 3 | (3) |
| - Net claims related to the allocation of banknotes within the Eurosystem | **-** | (5) | 5 |
| Forward foreign exchange contracts | **(7,515)** | (5,392) | (2,123) |
| Other interest income | **23** | 25 | (2) |
| **Total** | **57,149** | 54,624 | 2,525 |

### 1.2 Interest expense

Interest expense arises from interest on Government of Malta and other customer accounts, intra-Eurosystem liabilities as well as liabilities to euro area credit institutions related to monetary policy operations. Negative interest expense generated from financial liabilities, other than financial instruments attributable to monetary policy operations, is netted off within the amounts presented in the table below. The net negative interest income attributable to monetary policy operations for the current year amounted to €282,147 (2016: €42,150).

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Government accounts | | | |
| - In euro | **(3,771)** | (2,118) | (1,653) |
| Other customer accounts | | | |
| - In euro | **(499)** | (266) | (233) |
| - In foreign currency | **621** | 299 | 322 |
| Monetary policy operations | | | |
| - Longer-term refinancing operations | **282** | 42 | 240 |
| Intra-Eurosystem liabilities | | | |
| - TARGET2 balances | **-** | 74 | (74) |
| Other interest expense | **(2,737)** | 54 | (2,791) |
| **Total** | **(6,104)** | (1,915) | (4,189) |

## 2 Net result of financial operations, write-downs and risk provisions

### 2.1 Realised gains/losses arising from financial operations

This sub-item includes realised gains/losses arising from the disposals of financial instruments, mainly debt securities, and transactions leading to reductions in foreign currency positions.

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Net gains on disposal of financial instruments | **9,148** | 32,546 | (23,398) |
| Net losses on foreign currency positions | **(136)** | (347) | 211 |
| **Total** | **9,012** | 32,199 | (23,187) |

### 2.2 Write-downs on financial assets and positions

This sub-item comprises unrealised revaluation losses arising from the price revaluation of debt securities and the exchange rate revaluation of foreign currency assets and liabilities, including off-balance sheet positions, by comparing the market value at balance sheet date with the average book value.

| | 2017 €'000 | 2016 €'000 | Change €'000 |
|---|---|---|---|
| Write-downs on debt securities | **(1,200)** | (2,769) | 1,569 |
| Write-downs on foreign currency positions | **(3,685)** | (16) | (3,669) |
| **Total** | **(4,885)** | (2,785) | (2,100) |

## 2.3 Transfer to/from provisions for foreign exchange rate, interest rate, credit and gold price risk

This sub-item consists of movements in provisions (see note L13 'Provisions' in the notes to the balance sheet).

## 3 Net income/expense from fees and commissions

Fees and commissions receivable mainly arise from banking services provided by the Bank. Fees and commissions payable include correspondent account charges, handling fees on cheques drawn on the Bank and TARGET2 connection and participation fees.

## 4 Income from equity shares and participating interests

During 2017, the Bank received €208,852 (2016: €248,236) representing its relative share of the ECB's distributable remaining profits for 2016 in proportion to the Bank's subscribed capital key (see note 4 'Capital key' in the general notes to the financial statements).

Also included under this caption is the amount of €909,271 (2016: €889,482) due to the Bank with respect to the ECB's 2017 interim profit distribution (see note 7 'ECB profit distribution' in the general notes to the financial statements).

## 5 Net result of pooling of monetary income

This item contains the net result of pooling of monetary income for 2017 amounting to an expense of €6,118,776 as compared to an expense of €1,892,777 in 2016. This item also contains the Bank's share in the provision against losses in monetary policy operations of €63,400 (2016: nil), which was established in relation to a security held by an NCB of the Eurosystem in its CSPP portfolio (see note L13 'Provisions' in the notes to the balance sheet).

The amount of each Eurosystem NCB's monetary income is determined by measuring the actual annual income that is derived from the earmarkable assets held against the liability base. The liability base consists mainly of the following items: banknotes in circulation; liabilities to euro area credit institutions related to monetary policy operations denominated in euro; net intra-Eurosystem liabilities resulting from TARGET2 transactions; net intra-Eurosystem liabilities related to the allocation of euro banknotes within the Eurosystem, accrued interest recorded at quarter-end by each NCB on monetary policy liabilities the maturity of which is one year or longer; and liabilities vis-à-vis the ECB backing the claim in relation to swap agreements that earn net income for the Eurosystem. Any interest paid on liabilities included within the liability base is to be deducted from the monetary income to be pooled.

The earmarkable assets consist mainly of the following items: lending to euro area credit institutions related to monetary policy operations denominated in euro; securities held for monetary policy purposes; intra-Eurosystem claims equivalent to the transfer of foreign reserve assets to the ECB; net intra-Eurosystem claims resulting from TARGET2 transactions; net intra-Eurosystem claims related to the allocation of euro banknotes within the Eurosystem; claims on euro area counterparties related to swap agreements between the ECB and non-Eurosystem central banks that earn net income for the Eurosystem; accrued interest recorded at quarter-end by each NCB on monetary policy assets the maturity of which is one year or longer; and a limited amount of each NCB's gold holdings in proportion to each NCB's capital key share.

The amount of each NCB's monetary income shall be determined by measuring the actual income that is derived from the earmarkable assets recorded in its books. As an exception to this, gold is considered to generate no income and the following are considered to generate income at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations (i) securities held for monetary policy purposes under Decision ECB/2009/16 of 2 July 2009 on the implementation of the covered bonds purchase programme, (ii) securities held for monetary policy purposes under Decision ECB/2011/17 of 3 November 2011 on the implementation of the second covered bond purchase programme and (iii) debt instruments issued by central, regional and local governments and recognised agencies and substitute debt instruments issued by public non-financial corporations under Decision ECB/2015/10 of 4 March 2015 on the implementation of the secondary markets public sector asset purchase programme.

Where the value of an NCB's earmarkable assets exceeds or falls short of the value of the liability base, the difference shall be offset by applying to the value of the difference the latest applicable marginal rate for the Eurosystem main refinancing operations.

The monetary income pooled by the Eurosystem is allocated among NCBs according to the subscribed ECB capital key. The pooling and reallocation of monetary income to NCBs leads to certain net reallocation effects. One reason is that the yields earned on certain earmarkable assets and the interest expense paid on certain liability base items may differ to a varying degree among the Eurosystem NCBs. In addition, usually each Eurosystem NCB's share of earmarkable assets and the liability base deviates from its share in the subscribed capital of the ECB. The net result arising from the calculation of monetary income for 2016 and 2017 was a payment by the Bank. This net result is the difference between the net monetary income pooled by the Bank amounting to €16,047,986 (2016: €11,013,231) and the amount redistributed of €9,931,975 (2016: €9,120,778). In 2017, a marginal expense of €2,765 (2016: €323) was paid in relation to an adjustment for the previous year.

## 6 Other income

Other income includes an amount of €8,000,000 (2016: €6,500,000), reflecting the recognition of income in respect of the balance of unredeemed Maltese lira fifth series currency notes, which as at 31 December 2017 amounted to the equivalent of €37,390,322 (2016: €38,897,310). These currency notes were still exchangeable at the Bank until 31 January 2018. The value of unredeemed currency notes, after deducting therefrom the amount of currency notes which have been redeemed until that date, has been apportioned as income in the profit and loss account over the period until 31 January 2018. This accounting treatment is in accordance with the provisions of article 62(3) of the Act (see note 3(l) 'Demonetised Maltese lira currency notes' in the general notes to the financial statements). This item also includes income from the issuance of numismatic coins.

## 7 Staff costs

Staff costs include salaries and other ancillary costs.

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **€'000** | €'000 | €'000 |
| Staff salaries | **10,008** | 9,237 | 771 |
| Other staff costs | **1,219** | 1,058 | 161 |
| Training, welfare and other related expenditure | **928** | 925 | 3 |
| **Total** | **12,155** | 11,220 | 935 |

The full-time equivalent average number of staff employed by the Bank during the year was as follows:

| | **2017** | 2016 | Change |
|---|---|---|---|
| | **Number** | Number | Number |
| Governors | **3** | 3 | - |
| Chief Officers | **7** | 7 | - |
| Heads and executives | **116** | 107 | 9 |
| Officers II and I | **167** | 181 | (14) |
| Non-clerical staff | **33** | 36 | (3) |
| **Total** | **326** | 334 | (8) |

## 8 Administrative expenses

This item consists of operating expenditure incurred by the Bank.

Administrative expenses of €5,892,783 (2016: €5,999,546) mainly comprise maintenance expenditure, professional fees, travelling costs and other services or expense items which are incurred in the course of the Bank's operations. Auditors' remuneration, inclusive of VAT, for the years ended 31 December 2016 and 2017 amounted to €62,000 for each respective year.

Compensation to the members of the Board of Directors for the financial year under review amounted to €209,103 (2016: €234,178). The Governor and Deputy Governors are entitled to such benefits as the use of a leased motor vehicle, health insurance cover and refund of certain other expenses. The other members of the Board of Directors are entitled to health insurance cover and the refund of certain other expenses.

## 9 Depreciation of tangible and intangible fixed assets

Depreciation of buildings, equipment, computer hardware and software was charged to the Bank's profit and loss account according to the depreciation rates disclosed in note 3(m) 'Tangible and intangible fixed assets' in the general notes to the financial statements.

## 10 Banknote production services

This item includes expenditure relating to the procurement and transportation of euro banknotes and other ancillary costs. Accrued expenditure also reflects the expected costs attributable to the consumption of banknotes issued.

## Other notes

### (a) Off-balance sheet instruments

As at 31 December 2017, the Bank had outstanding foreign exchange forward and swap contracts which relate to the forward purchases of €732,074,943 (2016: €730,696,714) against the sale of other currencies (principally the US dollar), and forward sales of €187,500,000 (2016: €219,400,000) against the purchase of other currencies (principally the US dollar). As at 31 December 2017 there were no outstanding foreign exchange contracts for the forward sale or purchase of SDR (2016: net forward sales of SDR16,575,000 against the euro).

There were no unsettled net spot transactions as at 31 December 2017 (2016: €26,000,000).

At the balance sheet date, the Bank had outstanding interest rate future contracts linked to German government securities (net short positions with a notional amount of €111,855,360) and US treasury notes (short positions with a notional amount of US$98,706,360).

### (b) Contingent liabilities and commitments

The Bank's contingent liabilities as at 31 December 2017 consisted of outstanding guarantees, which amounted to €100,110 (2016: €118,110). The Bank's customers with respect to guarantees are mainly public sector corporations and government departments.

As at 31 December 2017, the Bank also had commitments in respect of tangible/intangible fixed assets which extended beyond the balance sheet date. Capital commitments, which amount to €4,430,700 (2016: €8,122,850), are expected to be incurred during the forthcoming financial year and relate mainly to capital expenditure attributable to the building extension and investment in IT infrastructure.

### (c) Transactions with Government

In the course of its operations, the Bank conducts banking transactions with, and provides several banking services to, the Government of Malta, government departments, public sector corporations and other entities owned by the Government. The Bank holds the principal accounts of the Government and maintains accounts for the other entities. Balances held with the Bank by the Government and the other entities as at the balance sheet dates, together with the terms of such instruments, are disclosed in notes L5 'Liabilities to other euro area residents denominated in euro' and L7 'Liabilities to euro area residents denominated in foreign currency' to the balance sheet. The principal impact of banking transactions entered into with the Government and the entities referred to above on the Bank's profit and loss account is net interest on deposits as disclosed in note 1.2 'Interest expense' to the profit and loss account. The Bank provides these entities with foreign exchange and related services, which do not have a significant impact on the Bank's profit and loss account.

### (d) Market maker in Malta Government securities

The Bank acts as market maker in MGS and Treasury bills and ensures their liquidity in the secondary market by being ready to trade in such securities on the initiative of the market (see note A11.3 'Other financial assets' to the balance sheet). Income earned by the Bank from these assets amounting to €5,507,359 (2016: €6,410,829) is included in note 1.1 'Interest income' to the profit and loss account and presented within income from euro marketable debt securities.

### (e) Demonetised Maltese lira currency notes

Maltese lira currency notes were replaced by euro banknotes when Malta became part of the euro area on 1 January 2008. Consequently, Maltese lira currency notes remained legal tender until 31 January 2008 and continued to be redeemed at the conversion rate of the Maltese lira for the euro of 0.4293 and without charge until 31 January 2018.

During 2017, demonetised Maltese lira currency notes presented for redemption amounted to €1,506,988 (2016: €840,067). At 31 December 2017, the value of unpresented demonetised currency notes amounted to €37,390,322 (2016: €38,897,310).

Demonetised Maltese lira currency notes amounting to €961,838 were redeemed during the month of January 2018. The amount of unredeemed Maltese lira currency notes after 31 January 2018 amounted to €36,428,484. These unredeemed demonetised Maltese lira notes are no longer exchangeable by the Bank.

During the financial years 2011 to 2017, the total amount of deferred income recognised in the profit and loss account in connection with the unredeemed Maltese lira currency notes amounted to €33,500,000.

### (f) Investment securities pledged as collateral

As at 31 December 2017, investment securities have been pledged as collateral against the provision of credit lines by a counterparty up to an amount of US$65,000,000 or approximately €54,000,000 (2016: US$65,000,000 or approximately €62,000,000). No amounts were borrowed under these facilities at the balance sheet dates.

### (g) Assets held in custody

As at 31 December 2017, assets held in custody by the Bank in terms of the Insurance Business Act (Cap. 403) amounted to the equivalent of €22,989,443 (2016: €24,683,945).

### (h) Management of funds belonging to the Investor and Depositor Compensation Schemes

In 2003, the Bank was appointed investment manager in respect of funds belonging to the Investor and Depositor Compensation Schemes. The Bank manages these funds on a discretionary basis in accordance with the investment parameters set by the Management Committees of the respective Schemes. As at 31 December 2017, the Investor and Depositor Compensation Schemes had deposits of €382,671 (2016: €68,439) and €8,774,215 (2016: €1,359,238) respectively, with the Bank.

## (i) Statement of the Bank's investments as at 31 December 2017

| | EUR €'000 | USD €'000 | CAD €'000 | SEK €'000 | Others €'000 | Total €'000 |
|---|---|---|---|---|---|---|
| **Cash and balances with banks** | | | | | | **22,939** |
| **Gold balances** | | | | | | **3,363** |
| **Securities by issuer category:** | | | | | | |
| Government | 1,761,458 | 19,744 | 20,546 | - | 321 | **1,802,069** |
| Insurance | 3,232 | 11,968 | - | - | - | **15,200** |
| Monetary financial institutions | 773,787 | 331,580 | 31,869 | 23,151 | 23,578 | **1,183,965** |
| Other financial institutions | 169,664 | 64,336 | 8,210 | 3,039 | 7,510 | **252,759** |
| Non-financial institutions | 9,321 | 4,162 | - | 9,645 | - | **23,128** |
| Supranational | 26,641 | 14,069 | - | - | - | **40,710** |
| | **2,744,103** | **445,859** | **60,625** | **35,835** | **31,409** | **3,317,831** |
| **Claims on the International Monetary Fund** | | | | | | **135,477** |
| **Participating interest in the European Central Bank** | | | | | | **15,859** |
| **Transfer of foreign reserves to the European Central Bank** | | | | | | **37,552** |
| **Fixed income investment funds** | | | | | | **361,871** |
| **Other foreign currency assets** | | | | | | **21,681** |
| **Total investments** | | | | | | **3,916,573** |