BANK ĊENTRALI TA' MALTA
EUROSISTEMA
CENTRAL BANK OF MALTA

FORTY-NINTH ANNUAL REPORT
AND
STATEMENT OF ACCOUNTS
2016

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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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Deputy Governor

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Mr Peter J. Baldacchino
Member

Dr Romina Cuschieri
Member

**as at 30 March 2017*

THE BOARD OF DIRECTORS*

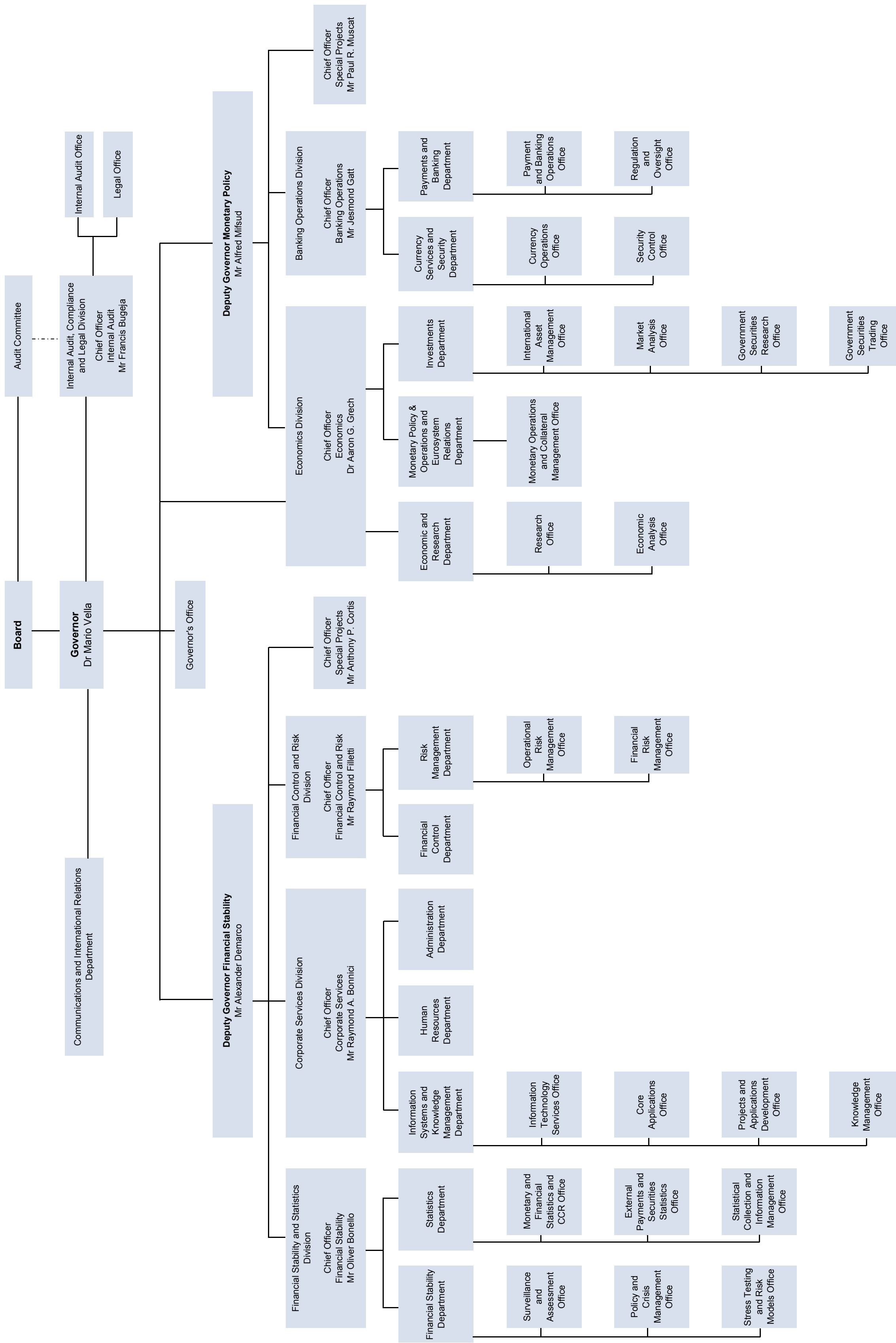
(left to right)

Standing: Mr Victor Busuttil (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 Alfred Mifsud (Deputy Governor).

**as at 30 March 2017*

ORGANISATION CHART*



*as at 30 March 2017

Bank Ċentrali ta' Malta
Eurosistema
Il-Gvernatur

Central Bank of Malta
Eurosystem
The Governor

30 March 2017

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 2016.

Yours sincerely

Mario Vella

Dr Mario Vella

CONTENTS

ABBREVIATIONS

EBRD	European Bank for Reconstruction and Development
ECB	European Central Bank
EONIA	Euro OverNight Index Average
ERM II	Exchange Rate Mechanism II
ESCB	European System of Central Banks
ETC	Employment and Training Corporation
EU	European Union
EUR	euro
EURIBOR	Euro Interbank Offered Rate
GDP	gross domestic product
HICP	Harmonised Index of Consumer Prices
IMF	International Monetary Fund
LFS	Labour Force Survey
LTRO	long-term refinancing operation
MFI	monetary financial institution
MFSA	Malta Financial Services Authority
MGS	Malta Government Stock
MRO	main refinancing operation
MSE	Malta Stock Exchange
NCB	national central bank
NFC	non-financial corporation
NPISH	non-profit institutions serving households
NSO	National Statistics Office
RPI	Retail Price Index
TARGET	Trans-European Automated Real-time Gross settlement Express Transfer system
TLTRO	targeted longer-term refinancing operation
ULC	unit labour costs

GOVERNOR'S STATEMENT

Despite the surge in political uncertainty during 2016, the global economy continued to recover, albeit at a modest pace, with growth slowing down in key advanced economies. Inflationary pressures remained contained worldwide, though oil prices recovered from the extremely low levels seen at the beginning of the year.

Similarly, in the euro area, economic activity extended its gradual upturn since mid-2013 and labour market conditions improved. However, although inflation edged up slightly, at just 0.2% over the year as a whole it remained considerably below the European Central Bank's (ECB) price stability objective.

Monetary policy in the euro area continued to address the very subdued inflation outlook. Indeed, in March 2016 the Governing Council of the ECB adopted a package of measures aimed at providing further monetary stimulus to the economy. Key policy rates were lowered, the size of the Asset Purchase Programme (APP) was increased, a programme to buy corporate bonds was launched and a new series of Targeted Longer-term Refinancing Operations (TLTRO) was introduced. In December, the duration of the APP was extended by a further nine months, though the volume of monthly purchases was to be reduced as from April 2017. The strengthening of the economic recovery in the euro area and an improvement in inflation prospects suggest that this accommodative monetary policy stance is bearing fruit.

In contrast with the generally subdued developments abroad, the Maltese economy maintained a rapid rate of growth, with real gross domestic product expanding by 5.0%. Increased economic activity was driven by the services sector, which also contributed strongly to a positive export performance. Employment continued to rise and unemployment fell further, with the number of registered unemployed reaching historical lows. Against this backdrop, the fiscal position improved. Meanwhile, price pressures remained contained, with the inflation rate, based on the Harmonised Index of Consumer Prices, averaging 0.9%.

During 2016 the Bank continued to implement the Eurosystem's monetary policy stance in Malta through standing facilities, regular liquidity-providing operations and the Public Sector Purchase Programme (PSPP). Given ample liquidity, credit institutions established in Malta increased the level of excess funds placed overnight with the Bank using the deposit facility. At the same time, participation in the regular liquidity-providing operations decreased. Through the PSPP, the Bank bought approximately €700 million worth of Maltese government securities by the end of the year.

Also reflecting the injection of liquidity through the PSPP, the Bank's balance sheet expanded further during 2016, with total assets rising to €5.5 billion at the end of the year, from €4.5 billion twelve months earlier. The low-interest rate environment continued to weigh on the Bank's financial performance, with net interest income decreasing slightly over the previous year. Nevertheless, operating profit before transfers to provisions and reserves edged up to €76.4 million from €75.0 million over the previous year. The Bank added €20.0 million to its provisions and a further €6.4 million to reserves, leaving an unchanged amount of €50.0 million payable to the Government of Malta.

As part of its mandate to ensure financial stability, the Bank continued to monitor the health of the financial system, assessing systemic risks and imbalances and formulating relevant policy recommendations. During 2016, the Joint Financial Stability Board, which is chaired by the Governor and includes senior officials from the Bank and the Malta Financial Services Authority, met four times. Extensive work was carried out on the quality of banks' assets to address issues related to non-performing loans. In April 2016, the Bank launched a Central Credit Register containing granular information on bank credit to households and firms. Apart from providing more comprehensive information for the Bank's own financial stability related assessments, the register also supports banks in their assessment of the creditworthiness of existing or prospective borrowers. Towards the end of the year, the Bank stepped up its contribution to the work of the Ministry for Finance teams working on EU legislation related to the financial sector in preparation for Malta's EU Council Presidency during the first half of 2017.

The Bank also stepped up its efforts to monitor and assess economic and financial developments in Malta and abroad. For instance, during 2016 the Bank began to engage directly with a selection of large companies and public sector entities to assess more directly prevailing business conditions. The Bank's economic publications were overhauled, so as to give more prominence to research findings, while a collection of papers on the Maltese economy was launched during an international symposium on small euro area countries hosted in June.

During 2016, the Bank further pursued its capital investment programme. Works on a new building – which will host the Library, conference facilities, offices and a data centre – gathered pace. At the same time, upgrades to its IT infrastructure in statistics as well as its accounting, treasury management and retail banking systems progressed.

On behalf of the Board of Directors, I would like to thank Professor Josef Bonnici, who ended his term as Governor at the end of June. Professor Bonnici guided the Bank successfully at a time when the Eurosystem was passing through challenging times, and also helped enhance the analytic and research capabilities of the institution, whilst launching several major projects. I also wish to thank the Bank's staff for all the work they conducted during the year, which is summarised in this *Annual Report*.

Mario Vella

Dr Mario Vella

PART I

FINANCIAL AND

ECONOMIC DEVELOPMENTS

1. THE EURO AREA AND THE EXTERNAL ENVIRONMENT

During 2016, gross domestic product (GDP) growth in the United States and the United Kingdom moderated, when compared with the previous year.

Price pressures began to pick up in these two economies, with the annual rate of consumer price inflation approaching, or even, breaching the 2% target of the respective central banks. In this environment the Federal Reserve raised the official federal fund target rate in December. On the other hand, the Bank of England (BOE) approved a package of measures to stimulate economic activity as a response to the referendum vote to leave the European Union.

GDP growth in the euro area increased by 1.7% in 2016, a slower pace than the 2.0% registered in 2015. Consumer price inflation rose. However, it remained moderate from a historical perspective, averaging 0.2% over the year.

To facilitate the return of inflation in the euro area towards levels that are below but close to 2%, the European Central Bank (ECB) cut its key interest rates in March, taking the interest rate on main refinancing operations (MRO), the marginal lending facility and the deposit facility down to 0.00%, 0.25% and -0.40%, respectively. During the year, the Governing Council of the ECB also introduced further non-standard monetary policy measures, including an expansion of the Asset Purchase Programme (APP) and a new series of targeted longer-term refinancing operations (TLTRO II) with a maturity of four years. The Governing Council also confirmed its expectation that key ECB interest rates will remain at present or lower levels, for an extended period of time.

Meanwhile, Brent crude prices increased significantly over the year, in the run up to a deal between oil producing countries to restrain supply.

Key advanced economies

Growth in the US economy decelerates

During 2016, real GDP growth in the United States grew by 1.6%, following a 2.6% increase in 2015 (see Table 1.1).

This deceleration was in part due to slower growth in private consumption. Government expenditure also decelerated in 2016, driven by slower growth in outlays by state and local government. At the same time, growth in gross private investment turned negative, as non-residential investment contracted. Meanwhile, residential investment rose at a slower pace. A downturn in private inventory investment also contributed. In contrast, the contribution of net exports to GDP growth was less negative compared with 2015, as exports picked up, while imports increased at a slower rate.

Labour market conditions continued to improve during 2016. The unemployment rate was 4.9% on average during the year, 0.4 percentage point lower than in 2015. Unemployment in the United States maintained its downward momentum during the year, falling to 4.7% by December (see Chart 1.1). Growth in employment

Table 1.1
REAL GDP GROWTH IN SELECTED ADVANCED ECONOMIES
Quarterly percentage changes; seasonally and working day adjusted [(1)]

	2011	2012	2013	2014	2015	2016
United States	1.6	2.2	1.7	2.4	2.6	1.6
Euro area	1.5	-0.9	-0.3	1.2	2.0	1.7
United Kingdom	1.5	1.3	1.9	3.1	2.2	2.0

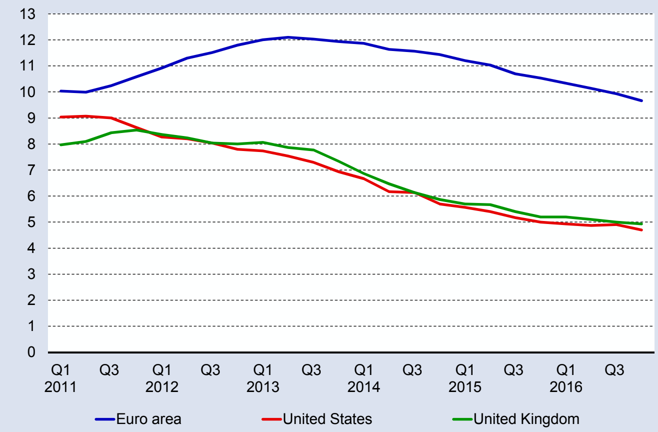
Sources: Bureau of Economic Analysis, US; Eurostat; Office for National Statistics, UK.

averaged 1.7% during 2016, unchanged from a year earlier, while labour force participation rose by 0.1 percentage point, to 62.8%. Sector data indicate that the growth rate of employment in the government sector rose slightly in the year under review. Meanwhile, on average, growth rates of jobs within construction, manufacturing and private service providing sectors all slowed down in 2016.

The annual rate of inflation based on the Consumer Price Index (CPI) made its way back up to the 2% target of the Federal Reserve during 2016. After ending 2015 at 0.7%, inflation rose to 1.4% in January and fluctuated in a narrow range around 1.0% until August (see Chart 1.2). In the second half of the year, CPI inflation rose further, reaching 2.1% in December. The average price increase for the year was 1.3%, significantly higher than the previous year's 0.1%. This rise in inflation was mostly driven by energy inflation, which was significantly less negative compared with 2015. At the same time prices of other services increased at a faster rate. These movements offset lower inflation on food and beverages. CPI inflation excluding food and energy averaged 2.2% in 2016, 0.4 percentage point higher than in the previous year.

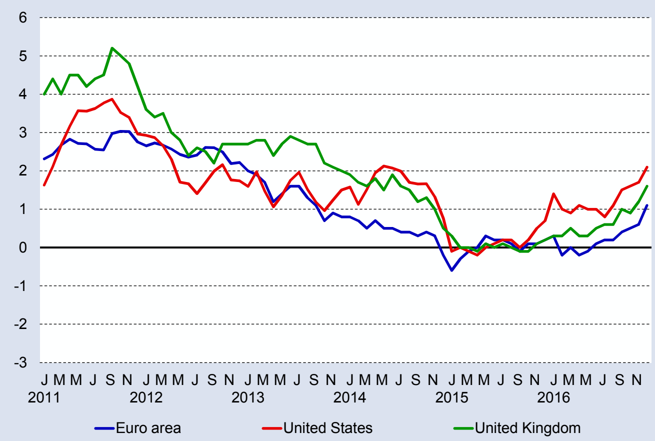
During 2016, the Federal Reserve maintained an accommodative monetary policy stance. Nevertheless, it increased the federal fund target rate to a range between 0.50% and 0.75% in December (see Chart 1.3). The Federal Open Market Committee decided in favour of this increase as the US labour market continued to strengthen and inflation continued its progress towards the target of 2% in the medium term. The Committee also maintained its existing policy of reinvesting principal payments from

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



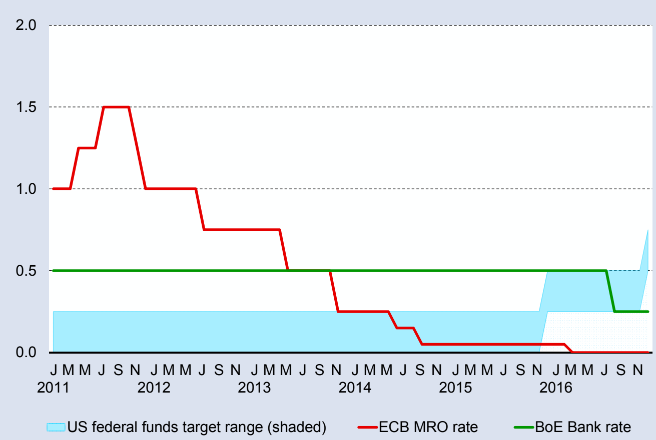
Sources: Eurostat; US Bureau of Labor Statistics; Office for National Statistics, UK.

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.

its agency debt and agency mortgage-backed security holdings in agency mortgage-backed securities, and rolling over maturing Treasury securities at auction.

Pace of economic activity in United Kingdom moderates slightly

GDP growth in the United Kingdom moderated to 2.0% in 2016, from 2.2% in 2015 (see Table 1.1). This slowdown reflected slower growth in both the production and construction sectors, while the agricultural sector contracted by 0.6%. The services sector was the only one of the four main sectors to grow at a faster pace during the period under review.

The labour market situation in the United Kingdom kept improving, despite the slowdown in the growth of economic activity. Employment rose by 1.4% in 2016, following a 1.6% increase in 2015. Meanwhile, the rate of unemployment averaged 5.0% in 2016, down from the 5.5% a year earlier. The unemployment rate remained on a downward path during most of the year, falling to 4.9% by December (see Chart 1.1).

Similarly to developments in other major economies, inflation in the United Kingdom rebounded in 2016, after turning negative during part of 2015. The CPI hit a low of 0.3% in April, but by December inflation reached 1.6%, taking the average for the whole year to 0.7%. This compares with an inflation rate of 0% in 2015. This increase was mainly a result of developments in the prices of energy and goods, which declined at a slower pace in 2016. At the same time, the prices of services increased at a slightly faster pace than a year earlier. The annual rate of inflation based on the CPI excluding food and energy rose to 1.3%, from 1.1% a year earlier.

The BOE remained accommodative in its monetary policy stance. During the first half of the year under review, it maintained the Bank's rate at 0.50% (see Chart 1.3). Following the referendum on EU membership, the Monetary Policy Committee of the BOE cut the Bank Rate to 0.25%. It also increased the purchasable stock of UK government bonds by GBP 60 billion, to GBP 435 billion. The BOE also introduced a term funding scheme to reinforce the transmission of the lower Bank Rate to the real economy. It also began to purchase non-financial investment-grade corporate bonds denominated in sterling.

The euro area

Euro area GDP growth moderates

Following a 2.0% increase in 2015, real GDP growth in the euro area economy eased to 1.7% in 2016 (see Table 1.2).

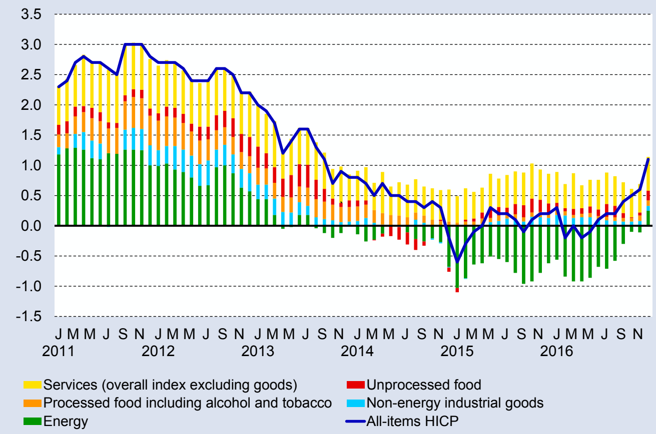
Table 1.2
REAL GDP GROWTH IN THE EURO AREA
Chain-linked volumes

	2013	2014	2015	2016
	Annual percentage changes			
Private consumption	-0.6	0.8	1.8	2.0
Government consumption	0.3	0.6	1.3	1.8
Gross fixed capital formation	-2.5	1.5	3.2	2.6
Exports	2.1	4.4	6.5	2.9
Imports	1.3	4.9	6.5	3.5
GDP	**-0.3**	**1.2**	**2.0**	**1.7**
	Percentage point contributions			
Private consumption	-0.4	0.4	1.0	1.1
Government consumption	0.1	0.1	0.3	0.4
Gross fixed capital formation	-0.5	0.3	0.6	0.5
Exports	0.9	2.0	2.9	1.3
Imports	-0.6	-2.0	-2.7	-1.5
GDP	**-0.3**	**1.2**	**2.0**	**1.7**

Source: Eurostat.

The moderate pace of activity reflected a decrease in net exports, as imports increased faster than exports. In contrast, domestic demand picked up, with faster growth in private and government consumption than a year earlier. The contribution of domestic demand to overall growth however, was only marginally higher than that of a year earlier as investment increased at a slower pace when compared with 2015.

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



Source: Eurostat.

Inflation edges up but remains moderate

The annual rate of inflation in the euro area, as measured by the Harmonised Index of Consumer Prices (HICP) averaged 0.2% during 2016, up from 0.0% in 2015 (see Chart 1.4). The rise in inflation in 2016 mainly reflected a weaker decline in energy prices and slightly faster growth in non-energy industrial goods. These movements offset slower rate of increases in the prices of unprocessed food and services. Processed food inflation was unchanged from 2015. The overall inflation rate was close to zero or negative in the first half of the year, but picked up during the second half of the year, reaching 1.1% in December. This pick-up was primarily driven by a slower contraction in energy prices. Indeed, energy inflation in the euro area turned positive in December.

Labour market continues to improve

The labour market conditions in the euro area improved further, with stronger increases in employment during the first three quarters than those recorded in the same period in the previous year, as well as a falling unemployment rate. In fact, the rate of unemployment averaged 10.0% during the year, down from 10.9% in 2015 (see Chart 1.1). By December 2016, the unemployment rate in the euro area had fallen to 9.6%, the lowest rate recorded since June 2009.

Cross-country data show that the unemployment rate fell across most euro area countries, except for Austria and Estonia. Spain, Cyprus, Portugal and Slovakia recorded the steepest declines over 2016. Nevertheless, wide disparities across countries continued to persist. In 2016 the countries with the lowest unemployment rates were Germany and Malta, with 4.1% and 4.8%, respectively. On the other hand, Spain, Greece and Cyprus registered the highest rates of unemployment at 19.6%, 23.5% and 13.3% respectively.

Eurosystem staff projections show recovery is expected to strengthen

According to the ECB staff macroeconomic projections published in March 2017, the economic recovery in the euro area is expected to firm further, at a slightly faster pace than previously projected. Economic activity in the euro area is set to be supported by the expected global economic recovery, an accommodative monetary policy stance by the ECB, improving labour conditions as well as progress with deleveraging across the different sectors of the economy. Following an increase of 1.7% in 2016, real GDP growth is foreseen to edge up to 1.8% in 2017, before it moderates to 1.7% and 1.6% in the subsequent two years (see Table 1.3).

Domestic demand is projected to remain the main driver behind euro area growth over the projected horizon. Private consumption growth is set to remain strong, supported by improving labour conditions and increasing nominal disposable income. The recent high level of consumer confidence together with the low interest rate environment, past deleveraging as well as the projected rise in household net worth should also support private consumption.

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

	2016	2017	2018	2019
GDP	**1.7**	**1.8**	**1.7**	**1.6**
Private consumption	1.9	1.4	1.4	1.4
Government consumption	2.0	1.1	1.0	1.1
Gross fixed capital formation	2.5	2.8	3.2	2.8
Exports	2.9	4.3	4.1	4.0
Imports	3.5	4.6	4.4	4.2
HICP	**0.2**	**1.7**	**1.6**	**1.7**

(1) ECB staff macroeconomic projections (March 2017).
Source: ECB.

Investment is projected to boost real economic growth through a further recovery in residential investment as well as higher business investment. Housing investment is expected to benefit from disposable income growth, very low mortgage rates and limited other investment opportunities. Business investment is set to benefit from improved business confidence, favourable financial conditions as well as strengthening domestic and external demand. Additionally, higher capacity utilisation and the need to modernise the capital stock after years of subdued investment, together with the expected pick up in profit margins shall also boost investment. Government consumption growth is set to moderate in 2017 and then keep a relatively stable growth rate over the rest of the forecast period.

On the external side, exports are set to increase strongly in response to the recovery in global demand as well as a small depreciation in the euro exchange rate. Foreign demand is expected to remain robust, although subdued import growth from the United Kingdom is expected to dampen euro area foreign demand. Imports are set to outpace exports over the forecast horizon, with net exports making a very small positive contribution to GDP growth over the forecast horizon.

Compared with the Eurosystem staff projections published in December 2016, euro area GDP growth was revised upwards by 0.1 percentage point in 2017 and 2018, mainly reflecting stronger growth in exports, a weaker euro and more favourable economic sentiment. These factors more than offset the negative impact of higher international oil prices.

According to the March projections, HICP is set to accelerate from 0.2% in 2016 to 1.7% in 2017. It is expected to stay around this level in 2018 and 2019. Compared with the December projections, inflation was revised strongly upwards in 2017 and to a lesser extent in 2018, primarily due to the recent rise in oil prices. The latter is also the main factor driving the pick-up in HICP from 2016. Inflation projections were revised upwards by 0.4 percentage point in 2017 and by 0.1 percentage point in 2018. The forecast for 2019 remains unchanged.

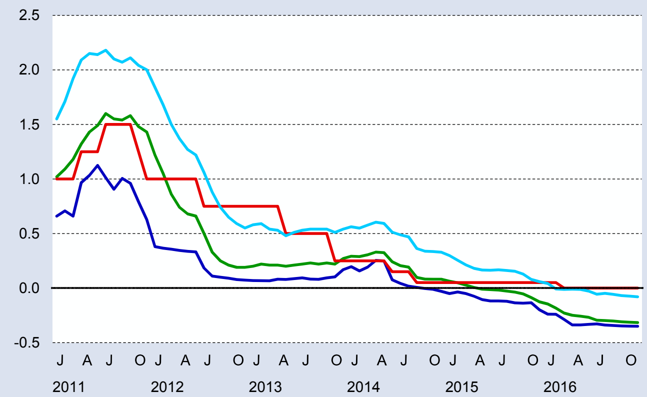
HICP excluding food and energy is also set to pick up over the forecast horizon, reflecting higher expected unit labour costs, as well as higher production costs and strong increases in profit margins.

The ECB's monetary policy stance remains accommodative

The Governing Council of the ECB maintained an accommodative monetary policy stance during 2016, to secure a sustained convergence of the euro area inflation towards levels below, but close to, 2% over the medium term. In March, the Governing Council lowered the interest rate on marginal refinancing operations (MRO) by 5 basis points to 0.00%. Additionally, the marginal lending facility and deposit facility were lowered by 5 and 10 basis points respectively, to 0.25% and -0.40% (see Chart 1.3). The Council also announced that it expected these rates to remain at current or lower levels for an extended period of time, and well past the horizon of the net asset purchases.

During the same meeting, the Governing Council also expanded the monthly purchases under the APP from €60 billion to €80 billion until, at least, end of March 2017. It also decided to increase the issuer and issue share limits for purchases of securities issued by eligible international organisations and multilateral development banks from 33% to 50%. The Council also decided to expand the APP to include investment grade euro-denominated bonds issued by non-bank corporations established in the euro area under a new corporate sector purchase programme (CSPP). Purchases under the new programme started in June 2016. Moreover, the Council launched a new series of four TLTRO II, each with a maturity of four years.

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



Source: ECB.

In December, the Council confirmed that asset purchases under the APP will continue at a monthly pace of €80 billion until the end of March 2017. Such purchases would then be undertaken at a monthly pace of €60 billion and are intended to continue until at least the end of December 2017. The Council also announced further changes that broadened the set of securities eligible under the APP.[1]

Money market rates reach historical lows

In the light of the aforementioned accommodative monetary policy stance, money market rates in the euro area declined further into negative territory during 2016, with all benchmark rates attaining new historical lows. The three-month EURIBOR reached a low of -0.32% by the end of the year. The 12-month EURIBOR turned negative for the first time in February, falling to -0.08% by December (see Chart 1.5). The EONIA also continued to decline, ending the year at -0.35%.

Euro area bond yields decline

Yields on ten-year government bonds in the euro area declined on average during 2016, with most of this decline occurring during the first three quarters of the year. Downward pressure on yields partly reflected expectations of further monetary policy stimulus by the ECB. In the last quarter, yields began to increase again, amidst higher inflation expectations.

The monthly average ten-year yield in Germany turned negative in June, but rose to 0.25% by December, 0.3 percentage point lower than the same period in the previous year. The yield on French bonds exhibited a similar pattern, though it remained positive throughout the year. In December, the latter stood at 0.75%, 18 basis points lower when compared with its level in December 2015. The ten-year yield also fell even more substantially in Greece, going from 8.21% to 6.94% over this period. Greek bonds benefited from positive sentiment as the country was granted an extension of loans by international creditors. On the other hand, yields in Portugal and Italy were both higher in annual terms, reflecting political uncertainty in Portugal, while Italian yields were influenced by concerns about the health of its banking sector as well as the implications of the constitutional referendum in December.

1 Please refer to the Financial Policy Calendar for further details. The Governing Council kept the key interest rates unchanged during its January and March 2017 meetings.

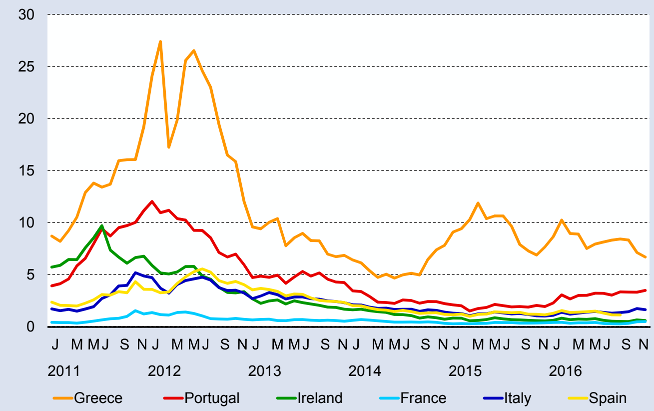
Within the euro area, spreads between yields on ten-year German bonds and on those issued by other governments generally widened over the year (see Chart 1.6). Conversely, the spread of Greek bond yields narrowed.

The euro strengthens in effective terms

After having declined for two consecutive years, the euro exchange rate increased during most of 2016, with the NEER gaining 1.9% by the end of the year.[2] The euro appreciated strongly against currencies of major trading partners in the first quarter. It then remained relatively stable before losing some ground towards the end of the year. This appreciation was mainly driven by movements against the pound sterling and, to a lesser extent, the Chinese yuan renminbi, which offset losses against other currencies, including the US dollar.

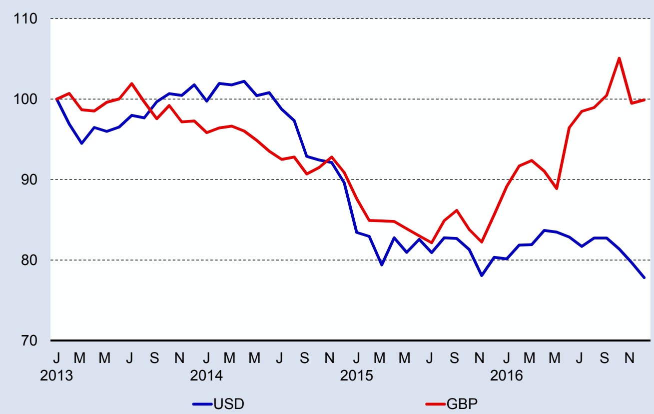
On a bilateral basis, the euro gained 16.7% against the sterling over the year. This was primarily due to concerns about the repercussions of the United Kingdom's vote to leave the European Union (see Chart 1.7). On the other hand, over the year, the euro lost 3.2% against the US dollar, reflecting diverging monetary policy stances by the ECB and the Federal Reserve.

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. 2013=100; an increase in the index implies euro appreciation)



Source: Eurostat.

Commodities

Commodity prices increase

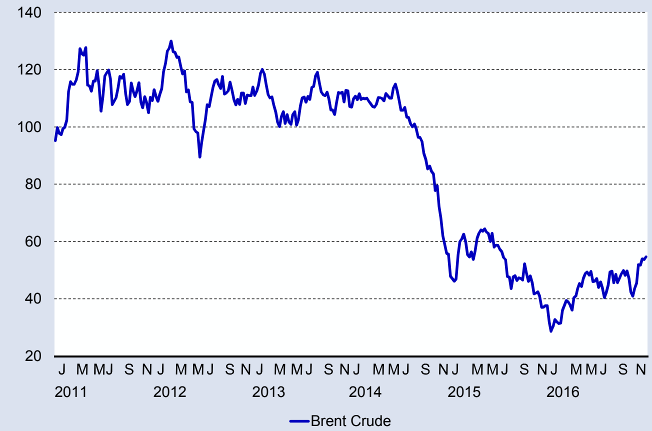
The price of Brent crude oil stood at USD 54.7 per barrel at the end of 2016, 45.4% higher than its level at the end of the previous year (see Chart 1.8). After a significant fall since the start of 2014, the dollar price of Brent crude dropped further in 2015, ending the year at USD 37.6 per barrel. The decline persisted in the first few months of 2016, with the price reaching a low of USD 25.8 per barrel on 20 January, off the back of persistent oversupply in the market and a slowing Chinese economy. Subsequently, the price of Brent crude oil started its recovery on prospects of a deal between oil producing countries to restrain supply. The price fluctuated between the USD 40.0 and USD 50.0 marks for most of the year until December,

[2] 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.

when it broke above USD 50.0 per barrel following an announcement by members of the Organization of the Petroleum Exporting Countries (OPEC) that they had agreed upon supply restrictions.

Non-energy commodities also edged up during 2016, although this increase was less pronounced compared with that in oil price. World Bank data show that non-energy prices rose by 9.7% during the year under review. This was driven by increases in the prices of food items as well as the prices of minerals and 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 2016, driven by increases in the assets of core domestic banks. Deposits remained the main source of funding for resident MFIs, yet balances belonging to residents of Malta grew less rapidly when compared with 2015. The shift to overnight deposits persisted, illustrating a continued preference for liquidity. Growth in credit granted to Maltese residents also slowed in 2016, driven by slower growth in credit to general government. 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.

Turning to the money market, domestic primary market yields fell during 2016. Yields on five-year and ten-year Maltese government bonds also edged down, mirroring movements in those on the corresponding euro area yields. Both net private and government bond issues were higher in 2016 than in the preceding year. In the equity market the Malta Stock Exchange (MSE) share index closed the year 4.5% higher compared with December 2015.

Monetary aggregates and their counterparts

Total assets pertaining to the Maltese banking system rose by €73.7 million year-on-year in December 2016. Significant growth in assets held by domestic banks was partially offset by contractions in the asset holdings of international banks. More specifically, the total assets of core domestic banks rose by €1.1 billion during 2016 or 5.3% while assets held by non-core domestic banks rose by €129 million, representing an annual growth rate of 5.5%. These developments were somewhat countered by a decline in assets held by international banks, which contracted by €2.3 billion.

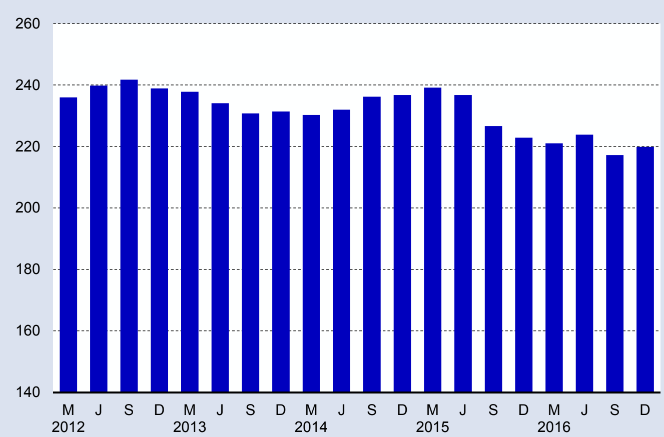
In light of these developments, the core domestic bank assets share in gross domestic product (GDP) dropped to 219.9% at the end of 2016, from 222.1% in December 2015 (see Chart 2.1).[1,2] This decline was a result of GDP growing at a faster rate than the total assets of core domestic banks.

Residents' deposits grow strongly

Deposits belonging to residents of Malta held with local MFIs grew strongly during 2016, albeit at a slower pace compared with 2015. During the year under review, these rose by €1.1 billion, or 6.7%, following a 12.9% increase in the previous year (see Table 2.1). The latest increase was driven by overnight deposits, which rose by €1.4 billion, offsetting a contraction of €0.3 billion in the other categories of deposits, particularly deposits with agreed maturity up to 2 years.

Households were the main driver behind the increase in total deposits observed in 2016. These added 8.1% and accounted for over 60% of the overall increase, with non-bank financial institutions accounting for most of the remaining 40%. Balances belonging to non-financial corporations (NFC) contributed in a limited way to the expansion in overall deposits in 2016.

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



Sources: Central Bank of Malta; NSO.

1 The core domestic banks are APS Bank Ltd, Banif Bank (Malta) plc, Bank of Valletta plc, HSBC Bank Malta plc, Lombard Bank Malta plc, Mediterranean Bank plc and Mediterranean Corporate Bank.

2 GDP statistics are sourced from NSO *News Release* 041/2017, issued on 8 March 2017.

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

	2014 Dec.	2015 Dec.	2016 Dec.	2016 Amount outstanding	2016 Absolute change
Overnight deposits	**29.0**	**24.9**	**13.4**	**11,919.6**	**1,409.0**
of which					
Households	25.4	23.9	17.0	6,563.0	954.5
Non-financial corporations	23.2	25.5	3.7	2,908.6	103.3
Deposits redeemable at notice up to 3 months	**9.3**	**-2.2**	**-15.2**	**103.3**	**-18.5**
of which					
Households	7.2	-7.4	-16.4	80.1	-15.8
Non-financial corporations	9.8	15.0	-49.2	10.2	-9.9
Deposits with agreed maturity up to 2 years	**-2.0**	**-10.9**	**-9.3**	**3,162.0**	**-325.8**
of which					
Households	-0.7	-9.4	-8.7	2,515.2	-238.5
Non-financial corporations	-16.4	-14.7	-20.6	229.6	-59.5
Deposits with agreed maturity above 2 years	**-3.0**	**9.2**	**-0.4**	**1,629.3**	**-6.4**
of which					
Households	-5.1	10.4	-2.4	1,490.7	-36.7
Non-financial corporations	13.9	0.2	18.2	88.7	13.7
Total residents deposits[1]	**14.6**	**12.9**	**6.7**	**16,814.2**	**1,058.4**

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

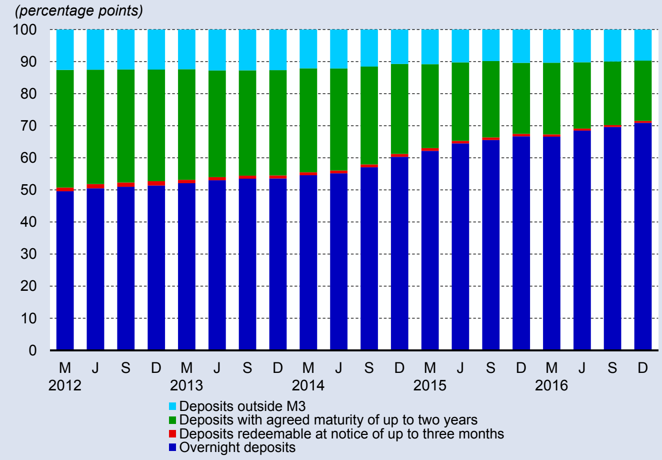
Source: Central Bank of Malta.

Despite recording double-digit growth, which was spread across households, NFCs and non-bank financial institutions (OFI), overnight deposits decelerated over the year. At 13.4%, the annual rate of change was significantly lower than the 24.9% growth rate recorded in 2015. Nonetheless, the share of overnight deposits in total residents' deposits rose during the year, reaching a new high of 70.9% in December (see Chart 2.2).

On the contrary, all three categories of term deposits contracted over the year. Deposits with an agreed maturity of up to two years contracted by 9.3% and accounted for most of the decrease in term deposits. Deposits with an agreed maturity of over two years contracted by a more moderate 0.4%. As a result, these components' share in total residents' deposits fell further, to 18.8% and 9.7%, respectively. The smallest component of residents' deposits, that is, deposits redeemable at a notice of up to three months, declined by 15.2% on a year earlier, such that by the end of the year this category only accounted for 0.6% of all deposits.

The decline in demand for time deposits coupled with an increased preference for overnight accounts confirms the money holding sector's preference for liquid assets in a low interest environment.

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



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

Table 2.2
INTEREST RATES ON OUTSTANDING DEPOSITS BELONGING TO RESIDENTS OF MALTA[(1)]

Percentages per annum; weighted average rates as at end of period

	2014 Dec.	2015 Dec.	2016 Dec.
Total deposits belonging to households and non-financial corporations	**1.03**	**0.69**	**0.48**
Overnight deposits			
Households	0.17	0.12	0.06
Non-financial corporations	0.18	0.11	0.03
Time deposits with agreed maturity up to 2 years			
Households	1.73	1.11	0.79
Non-financial corporations	1.45	0.85	0.65
Time deposits with agreed maturity over 2 years			
Households	3.44	2.99	2.64
Non-financial corporations	2.84	2.26	2.03

(1) Annualised agreed rates on euro-denominated deposits.

Source: Central Bank of Malta.

Interest rates on residents' deposits decline

Interest rates on residents' outstanding deposits continued to fall during 2016, with the composite rate on all deposits belonging to households and NFCs resident in Malta dropping by 21 basis points, to close at 0.48% in December (see Table 2.2).

The decline was particularly evident in rates on longer-term time deposits, and was observed in both household rates and NFC deposit rates. At the end of 2016, the weighted average interest rate on households' deposits with agreed maturity up to two years was 0.79% while that on deposits with longer maturities was 2.64%. These rates were down by 32 and 35 basis points, respectively, on a year earlier. The comparable rates on NFC deposits fell by 20 and 23 basis points during 2016, standing at 0.65% and 2.03%, respectively in December.

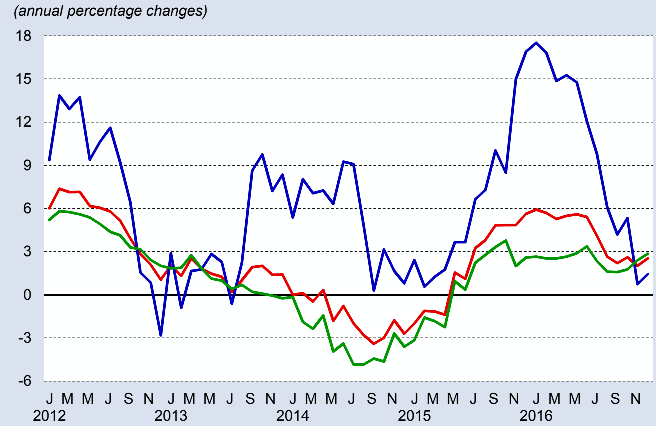
Rates on overnight deposits, which were already low, dropped at a slower pace when compared with time deposits, and by the end of the year were very close to zero. The rate paid to households on such deposits dropped by 6 basis points to 0.06%, while the comparable rate paid to NFCs dropped by 8 basis points to 0.03%.

Credit to residents grows at a more moderate pace

Credit to Maltese residents grew further during 2016. However, the pace of expansion moderated, with the annual rate of growth standing at 2.5% in December, down from 5.6% in the comparable month of the 2015 (see Chart 2.3).

This moderation largely reflected developments in credit to general government. The latter rose rapidly during the first few months of the year yet slowed significantly in the second half. This partly reflects the fact that the amount of new Malta

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



Source: Central Bank of Malta.

Government Stocks (MGS) allotted to MFIs during 2016 was significantly lower on a year earlier, and was concentrated in the first half of the year.

Meanwhile, growth in credit to residents other than general government was similar to that in 2015. The annual growth rate of this component stood at 2.9% in December, only marginally higher than the 2.6% recorded at the end of the previous year. The increase in credit during 2016 was largely driven by increases in loans.

Loans to the private sector grow at a faster pace

Total loans to non-bank Maltese residents rose by 2.4% during the year under review, with loans to non-bank financial institutions and households explaining most of the increase (see Table 2.3). In particular, the latter rose by a robust 5.8% during the year (see Chart 2.4). This figure significantly exceeds the 2.2% growth in household loans registered in the euro area as a whole.

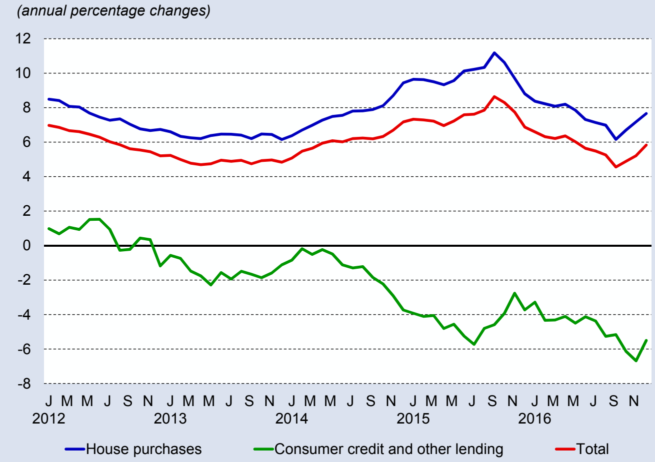
Loans for house purchases, which comprise over 87% of total household loans, continued to grow strongly, although their annual growth rate was slightly weaker than that in the previous year. Low interest rates, favourable labour market conditions and the first-time buyers scheme contributed to this strong growth in loans for house purchases. In contrast, consumer credit and other lending continued to decline, though at a slower pace. In December 2016, such lending was down by 5.5% in annual terms.

Loans to NFCs, which comprise both public and private NFCs also contracted, declining by 4.5% year-on-year in December. This contrasts with the 1.9% annual growth in loans to NFCs recorded in the euro area for 2016. Locally, the decline was driven by contractions in both loans to public and private NFCs. From a sectoral perspective, contractions were recorded across most sectors save for real estate (see Table 2.4). In December loans to OFIs resident in Malta grew by 22.0%, although this is a small component.

Interest rates on loans to residents edge down

Interest rates on loans to residents dropped further during 2016, with the weighted average rate on loans to households and NFCs falling by 13 basis points to 3.68% (see Table 2.5). Nonetheless, as in 2015, this decline was smaller than the decrease on interest rates on deposits. Consequently, the spread

Chart 2.4
LOANS TO HOUSEHOLDS
(annual percentage changes)



Source: Central Bank of Malta.

Table 2.3
LOANS TO RESIDENTS OF MALTA
Annual percentage changes

	2014 Dec.	2015 Dec.	2016 Dec.
Loans to NFCs	2.0	-7.4	-4.5
Loans to OFIs	-26.3	7.3	22.0
Loans to households	7.2	6.9	5.8
for: House purchase	9.4	8.8	7.7
for: Consumer credit and other lending	-3.7	-3.7	-5.5
Total loans	**0.8**	**1.1**	**2.4**

Source: Central Bank of Malta.

Table 2.4
SECTORAL CONTRIBUTIONS TO YEAR-ON-YEAR GROWTH IN LOANS TO NFCs
Percentage points; annual percentage changes

	All NFCs		
	2014	2015	2016
Accommodation and food service activities	-0.7	-0.8	-1.6
Construction	-2.3	-7.0	-0.8
Manufacturing	-0.2	-0.3	-0.4
Real estate activities	1.3	5.1	1.3
Transportation and storage	-0.1	-1.7	-1.3
Wholesale and retail trade	1.7	-0.9	-0.9
Other	2.3	-1.9	-0.9
Total	**2.0**	**-7.4**	**-4.5**

Source: Central Bank of Malta.

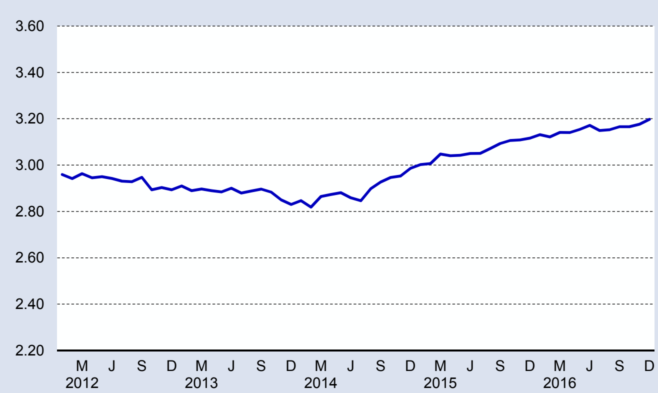
Table 2.5
MFI INTEREST RATES ON OUTSTANDING LOANS TO MALTESE RESIDENTS[(1)]
Percentages per annum; weighted average rates as at end of period

	2014 Dec.	2015 Dec.	2016 Dec.
Total loans to households and non-financial corporations	**4.02**	**3.81**	**3.68**
Households and NPISH	3.70	3.60	3.52
Lending for house purchases	3.22	3.17	3.15
Consumer credit and other lending[(2)]	5.47	5.39	5.29
Non-financial corporations[(2)]	4.41	4.10	3.93

(1) Annualised agreed rates on euro-denominated loans to households and non-financial corporations.
(2) Includes bank overdrafts.
Source: Central Bank of Malta.

between the lending and the deposit rate rose to 320 basis points by the end of 2016, from 312 basis points a year earlier (see Chart 2.5).

Chart 2.5
SPREAD BETWEEN MFIs' INTEREST RATES ON DEPOSITS AND LOANS TO RESIDENTS OF MALTA[(1)]
(percentage per annum; end of period)



(1) Interest rates are based on the MFIs' composite interest rates on outstanding amounts.
Source: Central Bank of Malta.

The drop in lending rates during 2016 was mainly driven by a fall in lending rates to NFCs, which shed 17 basis points to end the year at 3.93%. The comparable rate on loans to households dropped shed 8 basis points to end 2016 at 3.52%. Rates on loans for house purchases and, particularly, consumer credit and other lending, both dipped during the period under review.

Deposits held by euro area residents outside Malta increase

Total deposits held by euro area residents outside Malta with local MFIs almost doubled since December 2015. This mainly reflected a large increase in time deposits with an agreed maturity of up to two years, which had declined significantly the year before. All other components of non-Maltese euro-area residents' deposits registered growth during the period under review, though at a slower pace.

On the credit side, growth in credit extended by resident MFIs to euro area residents outside Malta was more contained, rising by 7.6% in December on an annual basis. This expansion was largely driven by a rise in loans to private entities. Credit to the general government sector of other euro area Member States fell during 2016.

Credit market conditions remain broadly stable

According to the Bank Lending Survey (BLS) credit standards applied to enterprises and households in Malta generally remained stable over the course of 2016.

More specifically, credit standards applied to firms remained relatively unchanged when compared with 2015, as only one bank indicated somewhat tighter credit standards during the first quarter of the year. Banks' assessment of demand for loans by enterprises was mixed. One bank broadly reported declines in credit demand by enterprises, with the largest decline occurring at the end of the year. Conversely, two banks reported slight increases in this regard during 2016.

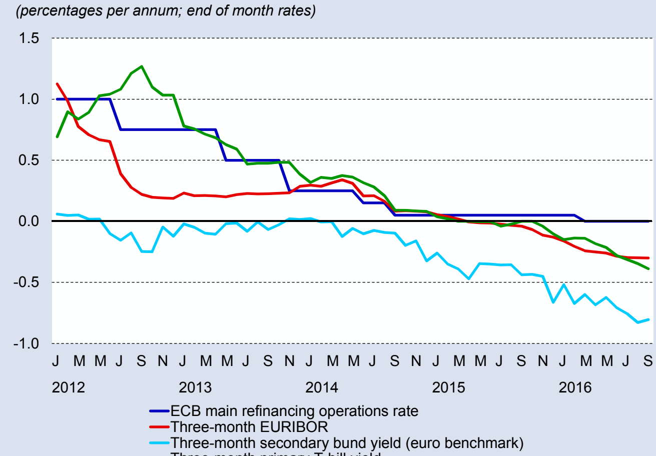
Credit standards and terms and conditions for households generally also remained stable during the year. With regard to demand for loans by households, banks surveyed in the BLS generally noted stable or increasing demand for mortgage loans in 2016 when compared with 2015. Slight declines in demand for consumer credit were reported by three of the four banks at different points throughout the year. Only one bank reported a slight increase in this type of demand during the third quarter of 2016.

Maltese banks made limited use of the European Central Bank's (ECB) targeted longer-term refinancing operations (TLTRO II), in the absence of financing constraints. At the end of the year, only one bank expected to participate in future operations due to the attractive conditions offered. When asked about the impact of the new EU capital requirements legislation, most banks surveyed indicated that the impacts have been minimal thus far. The banks were also asked about their access to wholesale and retail funding; no changes were reported compared with 2015.

Survey on Access to Finance suggests access to finance is not a major problem

The Survey on Access to Finance, conducted jointly by the ECB and the European Commission, provides information on financing conditions from the perspective of small and medium-sized enterprises (SME). The latest edition covers the period April to September 2016. According to the results, only 7% of resident companies surveyed considered access to finance a pressing problem, slightly lower than the percentage reported in the survey conducted a year earlier. Conversely to the last survey round, on balance, respondents reported a decrease in interest rates, suggesting that to some extent they began to benefit from recent ECB policy rate cuts. Costs of other financing, and collateral and other requirements also seem to be on the decline. Despite these improvements, net respondents on balance reported a decline in the size of loans and credit lines available.

Chart 2.6
MONEY MARKET INTEREST RATES
(percentages per annum; end of month rates)



Sources: Central Bank of Malta; ECB; Reuters.

The money market

The ECB maintained its loose monetary policy stance during 2016, with further cuts in its key rates. As a result, money market rates in the euro area moved further into negative territory, with the three-month EURIBOR, which had ended 2015 at -0.13%, closing the year under review at -0.32% (see Chart 2.6).

In Malta these movements were mirrored in the primary market yield on domestic three-month Treasury bills, which ended 2016 at a new low of -0.39%. This signifies a drop of 29 basis points from its end-2015 value of -0.10%. In total, the Treasury issued €971.0 million worth of bills in 2016, €185 million more than in 2015. Moreover, the amount issued was higher than the amount of bills maturing over the year. The majority of bills issued had a maturity of three or six months.

The capital market

In the capital market total issues of long-term debt by the Government and by the private sector stood at €980.4 million in 2016, more than the €678.2 million in 2015. Taking into account the amount of redemptions made over the year, net issues of long-term debt in 2016 stood at €668.0 million, higher than the €596.6 million net issues in 2015. Both net private and government issues were higher in 2016 than in the preceding year.

Malta Government Stocks issues increase

In 2016 the Government issued €597.9 million in long-term debt, while redeeming €228.3 million (see Table 2.6). New bond issues took place in February, March, July and October, with maturity dates ranging from six years to 23 years. Roughly 87% of all issues were taken up by retail investors, mainly resident individuals and stockbrokers acting on behalf of clients, while the rest were allotted through competitive auction, mainly to resident credit institutions. All issues were oversubscribed, with demand for MGS driven by their relatively high return when compared with term bank deposits. Thus, the amount of outstanding MGS rose to €5.4 billion at the end of 2016, of which 94.7% were held domestically. Resident credit institutions remained the main holders of outstanding MGS, however their share declined to 41.9% in December, from 43.5% a year earlier. Resident individuals accounted for a further 27.1%, down from 28.1% in 2015. The declines in these shares were due to an increase in the holdings of other residents (see Chart 2.7).

In 2016 the secondary market turnover of MGS dropped by €225.2 million, to €551.8 million. The lowest turnover was recorded during the first two quarters of the year.

Secondary market yields on domestic MGS continued to fall in 2016, with the five and ten-year yields dropping by 35 and 63 basis points, respectively, to 0.15% and 0.73% as at end-December (see Chart 2.8).

Table 2.6
ISSUES OF LONG-TERM DEBT SECURITIES[1]
EUR millions [2]

	2014	2015	2016
Government			
Total issues[3]	648.8	473.2	597.9
Redemptions[4]	357.3	347.7	228.3
Net issues	291.5	125.5	369.6
Corporate sector			
Total issues	298.5	205.0	399.2
Redemptions[5]	58.1	10.3	80.4
Net issues	240.4	193.3	318.8
Total net issues	**531.9**	**318.8**	**688.4**

(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 include debt securities bought back by the issuer but exclude the redemption of MGSs that were issued directly to the Foundation for Church Schools.
(5) Redemptions include debt securities bought back by the issuer.
Sources: Central Bank of Malta; MSE; Treasury.

In the euro area, the benchmark five-year yield stood at -0.54% at the end of 2016, down by 51 basis points on its end 2015 level. The euro area ten-year yield, on the other hand, went down by 43 basis points to 0.21%. As a result the spread between the five-year yields in Malta and the euro area benchmark widened, whilst that on the ten-year yields narrowed in December. The spread as at year-end on the five-year and ten-year yields stood at 69 and 52 basis points respectively.

Corporate bond issues substantially higher compared with 2015

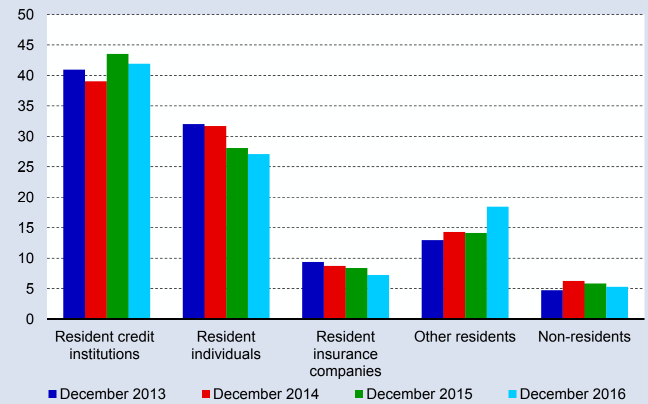
In the corporate bond market, new issues of long-term private debt listed on the MSE stood at €399.22 million in 2016, while €80.4 million was redeemed. As a result, net issues were at €301.1 million. This figure was significantly higher than the net issues recorded in preceding years, suggesting that the current low yield environment is encouraging companies to diversify their funding base. In total, 11 private companies resorted to public market debt financing during 2016, including one bank.

Turnover in the secondary corporate bond market declined slightly in 2016, going to €57.9 million from €59.8 million in the previous year.

MSE index rises

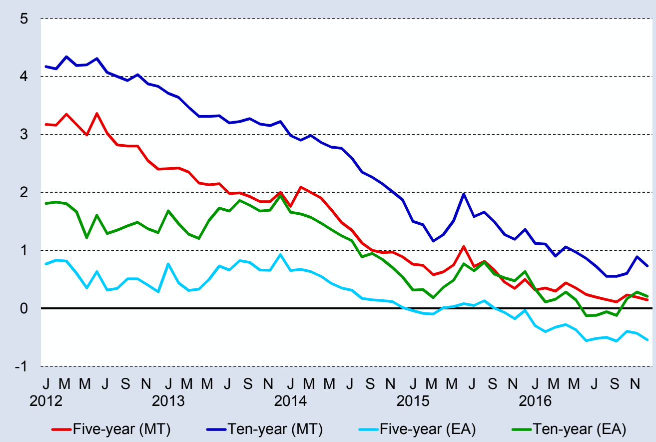
In the equity market, turnover during the year stood at €77.8 million, down from €81.5 million in 2015. Despite this slight decline, the trading turnover remains high from a historical perspective. Following a strong rebound in the previous year, the overall MSE index gained 4.5% in 2016, to end the year at 4,630.88 (see Chart 2.9). Out of the 22 equities in the index, 13 experienced an increase in the price in 2016.

Chart 2.7
OUTSTANDING MGS BY INVESTOR BASE(1)
(percentages)



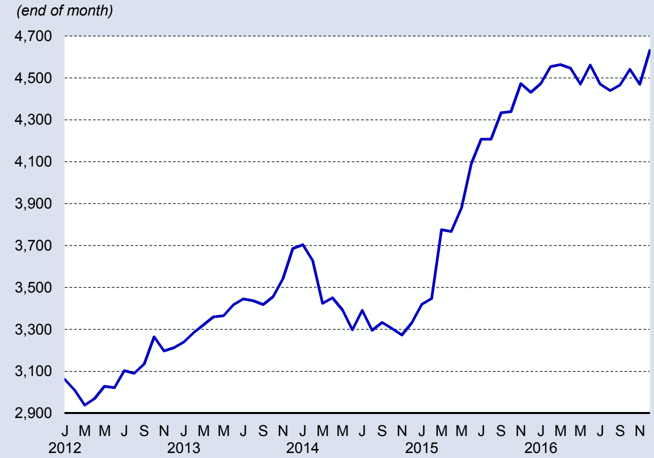
(1) Incorporates both fixed-rate and floating-rate MGS.
Sources: Central Bank of Malta; MSE.

Chart 2.8
GOVERNMENT BOND YIELDS
(percentages per annum; end of month)



Sources: Central Bank of Malta; ECB.

Chart 2.9
MALTA STOCK EXCHANGE SHARE INDEX
(end of month)



Source: MSE.

BOX 1: SECTORAL FINANCIAL LINKAGES USING MALTA'S FINANCIAL ACCOUNTS[1]

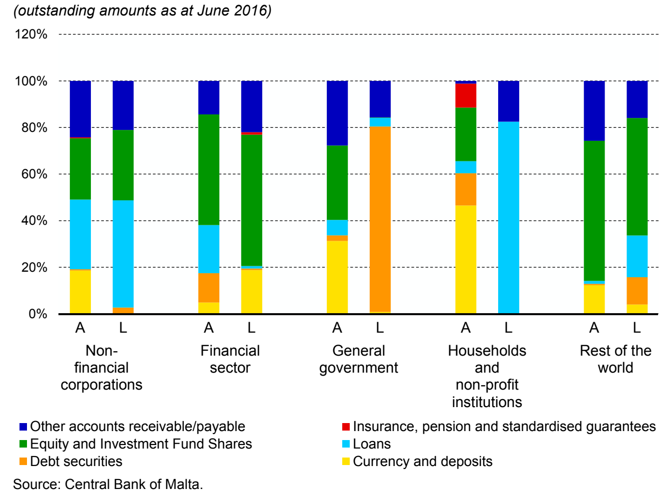
The Financial Account is an integral part of the European System of Accounts (ESA 2010) National Accounts framework.[2] The data within the Financial Accounts dataset, which covers all institutional sectors of the resident economy and the 'rest of the world' sector split by financial instrument, can be beneficial for policy makers and researchers as it allows them to understand the financial linkages between the institutional sectors using what is known as "from-whom-to-whom" data. Such data show the amount of financial assets and liabilities that each sector holds with other sectors. The 2008 financial crisis highlighted the importance of data on interconnectedness between sectors to identify and prevent the transmission of systemic shocks.

Since 2014 the Central Bank of Malta has published on its website the outstanding amounts of financial assets and liabilities for the main institutional sectors and a breakdown thereof by financial instrument.[3] As from 2017, these website data will be complemented with the "from-whom-to-whom" data. These will enrich Malta's Financial Accounts dataset and enable broader analysis and research.

Compilation of Financial Accounts[4]

Financial accounts data are based on the principle of double entry accounting, implying that every liability is matched by a financial asset. The full set of accounts consists of stocks, flows and other changes in volume (mainly reclassifications). Such data are compiled using data collected from two parties for every financial transaction, namely the reporting sector and the counterpart sector.[5] Since in most cases the data obtained from the two parties do not reconcile, a ranking process is needed to establish one source for each transaction. The data are compiled using the building blocks process, whereby a ranking process gives precedence to certain data according to reliability and availability. The ranked data produce the full set of financial accounts for all sectors at market prices and on a non-consolidated basis. A balance sheet covering the main financial instruments for each institutional sector can be obtained as illustrated in Chart 1.

Chart 1
SECTORAL BALANCE SHEET BY MAIN ECONOMIC INSTRUMENT
(outstanding amounts as at June 2016)



Source: Central Bank of Malta.

[1] Prepared by Janica Muscat, Economist Statistician within the Statistics Department of the Central Bank of Malta and Kimberly Mamo, an intern within the same Department. The views expressed are those of the authors and do not necessarily reflect those of the Central Bank of Malta.

[2] The ESA 2010 was introduced in 2014 in line with Regulation (EU) No 549/2013.

[3] Pule', J. (2013), Launching of Malta's Financial Accounts Statistics. *Quarterly Review* 2013(4), Central Bank of Malta.

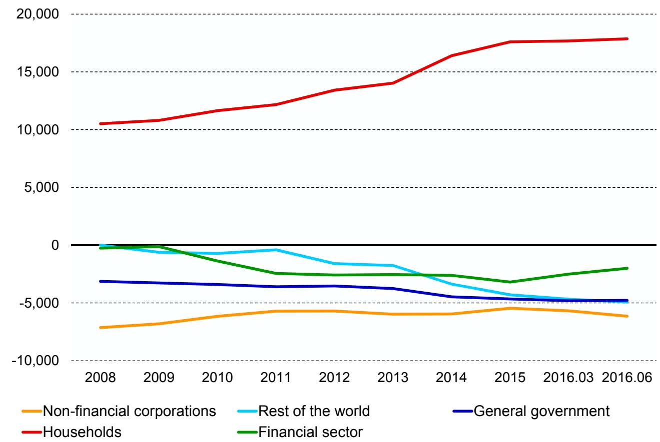
[4] The compilation of Malta's Quarterly Financial Accounts is in line with the Guideline of the ECB (recast) (ECB/2013/24). The data set is also shared with the National Statistics Office. This enables the latter to meet Eurostat's statistical requirements, from which a number of Macroeconomic Imbalance Procedure (MIP) Scoreboard indicators for Malta are derived. Such data are also a requirement of the IMF's SDDS Plus data requirements. These are necessary for various other national and international requirements such as the IMF/FSB G-20 Data Gaps Initiative which were also introduced after the recent international financial crisis.

[5] Primary data for institutional sectors are mainly collected from reporting institutions. The NSO shares balance of payments/international investment position (BOP/IIP) and Government Finance statistics with the Central Bank of Malta. Data are also estimated or obtained indirectly from counterparties, in particular those for households and non-profit institutions serving households.

Sectoral balance sheet of the Maltese Economy

A sectoral level balance sheet can be derived from Malta's Financial Accounts similar to Chart 1. This chart illustrates the outstanding amounts as at June 2016[6] for the main institutional sectors of the economy namely, the financial sector, the general government, NFCs, households and the rest of the world (ROW) sectors, sub-divided by the main financial instruments.

Chart 2
NET FINANCIAL WEALTH
(EUR millions)



Source: Central Bank of Malta.

The asset holdings and liabilities vary across sectors. While the assets of the financial sector are dominated by equity due to the significant amount of holding and international companies classified within Malta's financial sector, the assets of the NFCs are much more broadly balanced between deposits, equity, loans (largely intra-sector loans) and other accounts receivable. Households hold assets primarily in deposits, including cash holdings, followed by securities. Similarly the asset composition of the general government sector mainly includes deposits, equity and other accounts receivable.

With respect to NFCs and households the main liability consists of loans. Households obtain their loans mainly from banks but NFCs borrow both from banks and from other sectors. The main liabilities of the financial sector are currency, deposits and equity, while the general government finances its activities mainly by issuing debt securities. The asset side of the ROW sector reflects the liabilities of the total resident economy with the ROW, where the dominant instrument is equity. Similarly, the liabilities side of the ROW reflects the assets of the resident total economy with the ROW.

Sectoral level balance sheet data can be used to derive the net financial wealth for each economic sector (see Chart 2). The most indebted sectors between 2008 and the second quarter of 2016 are NFCs. On the other hand, households have the highest generally positive net financial wealth, while the financial sector is close to balance given the nature of its business. The total net financial wealth sums up to approximately zero since assets are matched with liabilities.[7]

The new "from-whom-to-whom" tables

Further to the balance sheet data by sector, the Bank will henceforth be placing on a quarterly basis "from-whom-to-whom" data from the quarterly financial accounts on its website (see Tables 1 and 2).[8] This will make it possible to analyse how changes in financial assets and liabilities in one sector of the economy are transmitted to other sectors, which lead to changes in demand for goods and services, eventually affecting economic growth.[9]

[6] Cut-off date for the data was 2 December 2016.
[7] The only exception is for monetary gold as no counterparty data is statistically reported.
[8] Tables 1 and 2 shown in this article are concise verions of the "from-whom-to-whom" data that will be published on a quarterly basis on the Central Bank of Malta website. It will also include further breakdowns by sector.
[9] Ruppercht, M., "Who-to-whom information in German financial accounts – compilation, challenges and its usefulness for monetary policy", *Deutsche Bundesbank Working Paper*, 2015.

The point of view of the asset holder split by instrument and counterpart sector is shown in Table 1, while Table 2 provides the point of view of the borrower, also split by instrument and counterpart sector. Data are on a non-consolidated basis hence intra-sector positions are included. Sector and instrument classifications are in line with ESA 2010.[10]

Table 1
NON-CONSOLIDATED FINANCIAL ASSETS BY COUNTERPARTY (FROM-WHOM-TO-WHOM)[1,2]
EUR millions

Borrowers Holders	Non-financial sector	Financial sector	General government	Total economy	Rest of the world	Total
Non-financial sector	**13,819**	**24,255**	**2,819**	**40,894**	**4,286**	**45,179**
Currency	0	750	0	750	0	750
Deposits	0	13,397	0	13,397	1,025	14,422
Debt securities	379	837	2,018	3,235	229	3,464
Loans	7,056	183	18	7,257	258	7,516
Equity and Investment Fund Shares	3,938	6,343	0	10,282	815	11,096
Insurance, pension and standardised guarantees	0	2,578	0	2,578	0	2,578
Other accounts receivable	2,446	167	782	3,395	1,958	5,353
Financial sector	**10,608**	**8,252**	**4,892**	**23,752**	**218,957**	**242,709**
Monetary gold and SDRs	0	6	0	6	110	116
Currency	0	173	0	173	0	173
Deposits	0	3,545	70	3,615	7,876	11,491
Debt securities	142	184	4,286	4,611	26,003	30,614
Loans	8,752	1,718	103	10,573	39,573	50,146
Equity and Investment Fund Shares	1,031	2,187	0	3,218	111,993	115,210
Insurance, pension and standardised guarantees	0	1	0	1	0	1
Other accounts receivable	683	438	434	1,555	33,402	34,957
General government	**1,283**	**1,727**	**140**	**3,150**	**579**	**3,729**
Currency	0	0	0	0	0	0
Deposits	0	1,166	0	1,166	0	1,166
Debt securities	0	0	90	90	0	90
Loans	20	0	5	25	222	247
Equity and Investment Fund Shares	536	557	10	1,103	88	1,191
Insurance, pension and standardised guarantees	0	0	0	0	0	0
Other accounts receivable	727	4	35	765	270	1,035
Total economy[3]	**25,710**	**34,235**	**7,851**	**67,795**	**223,822**	**291,617**
Monetary gold and SDRs	0	6	0	6	110	116
Currency	0	924	0	924	0	924
Deposits	0	18,109	70	18,178	8,901	27,079
Debt securities	521	1,021	6,394	7,935	26,232	34,168
Loans	15,828	1,901	126	17,855	40,053	57,909
Equity and Investment Fund Shares	5,505	9,087	10	14,603	112,895	127,498
Insurance, pension and standardised guarantees	0	2,579	0	2,579	0	2,579
Other accounts receivable	3,856	609	1,251	5,715	35,630	41,345
Rest of the world	**7,754**	**210,480**	**660**	**218,894**	**0**	**218,894**
Currency	0	0	0	0	0	0
Deposits	0	26,934	0	26,934	0	26,934
Debt securities	212	726	382	1,320	0	1,320
Loans	1,895	604	194	2,693	0	2,693
Equity and Investment Fund Shares	2,685	128,935	0	131,620	0	131,620
Insurance, pension and standardised guarantees	0	0	0	0	0	0
Other accounts receivable	2,962	53,280	85	56,327	0	56,327
Total[4]	**33,463**	**244,715**	**8,511**	**286,689**	**223,822**	**510,511**
Monetary gold and SDRs	0	6	0	6	110	116
Currency	0	924	0	924	0	924
Deposits	0	45,043	70	45,112	8,901	54,013
Debt securities	733	1,747	6,776	9,255	26,232	35,488
Loans	17,723	2,505	320	20,548	40,053	60,601
Equity and Investment Fund Shares	8,190	138,022	10	146,223	112,895	259,118
Insurance, pension and standardised guarantees	0	2,579	0	2,579	0	2,579
Other accounts receivable	6,818	53,889	1,336	62,043	35,630	97,673

[1] As at June 2016.
[2] Data is in line with ESA 2010 and on a consolidated basis. Hence intra sector positions are included.
[3] The total economy is defined in terms of resident units (ESA 2010).
[4] The aggregate of 'Total economy' and the 'Rest of the World' sector.
Source: Central Bank of Malta.

[10] The financial sector includes the Central Bank of Malta, deposit-taking corporations other than the Central Bank of Malta, money market funds, non-MMF investment funds, other financial intermediaries except insurance corporations and pension funds, financial auxiliaries, captive financial institutions and money lenders, insurance corporations and pension funds. The non-financial sector includes non-financial corporations, households and non-profit institutions serving households.

Table 2
NON-CONSOLIDATED LIABILITIES BY COUNTERPARTY (FROM-WHOM-TO-WHOM)[1,2]

EUR millions

Holders / Borrowers	Non-financial sector	Financial sector	General government	Total economy	Rest of the world	Total
Non-financial sector	**13,819**	**10,608**	**1,283**	**25,710**	**7,754**	**33,463**
Currency	0	0	0	0	0	0
Deposits	0	0	0	0	0	0
Debt securities	379	142	0	521	212	733
Loans	7,056	8,752	20	15,828	1,895	17,723
Equity and Investment Fund Shares	3,938	1,031	536	5,505	2,685	8,190
Insurance, pension and standardised guarantees	0	0	0	0	0	0
Other accounts payable	2,446	683	727	3,856	2,962	6,818
Net Financial Assets/Liabilities	0	13,648	1,536	15,184	-3,468	11,716
Financial sector	**24,255**	**8,246**	**1,727**	**34,229**	**210,480**	**244,709**
Currency	750	173	0	924	0	924
Deposits	13,397	3,545	1,166	18,109	26,934	45,043
Debt securities	837	184	0	1,021	726	1,747
Loans	183	1,718	0	1,901	604	2,505
Equity and Investment Fund Shares	6,343	2,187	557	9,087	128,935	138,022
Insurance, pension and standardised guarantees	2,578	1	0	2,579	0	2,579
Other accounts payable	167	438	4	609	53,280	53,889
Net Financial Assets/Liabilities	-13,648	6	3,165	-10,477	8,477	-2,000
General government	**2,819**	**4,892**	**140**	**7,851**	**660**	**8,511**
Currency	0	0	0	0	0	0
Deposits	0	70	0	70	0	70
Debt securities	2,018	4,286	90	6,394	382	6,776
Loans	18	103	5	126	194	320
Equity and Investment Fund Shares	0	0	10	10	0	10
Insurance, pension and standardised guarantees	0	0	0	0	0	0
Other accounts payable	782	434	35	1,251	85	1,336
Net Financial Assets/Liabilities	-1,536	-3,165	0	-4,701	-81	-4,782
Total economy[3]	**40,894**	**23,746**	**3,150**	**67,790**	**218,894**	**286,683**
Currency	750	173	0	924	0	924
Deposits	13,397	3,615	1,166	18,178	26,934	45,112
Debt securities	3,235	4,611	90	7,935	1,320	9,255
Loans	7,257	10,573	25	17,855	2,693	20,548
Equity and Investment Fund Shares	10,282	3,218	1,103	14,603	131,620	146,223
Insurance, pension and standardised guarantees	2,578	1	0	2,579	0	2,579
Other accounts payable	3,395	1,555	765	5,715	56,327	62,043
Net Financial Assets/Liabilities	-15,184	10,488	4,701	6	4,928	4,933
Rest of the world	**4,286**	**218,957**	**579**	**223,822**	**0**	**223,822**
Monetary gold and SDRs	0	110	0	110	0	110
Currency	0	0	0	0	0	0
Deposits	1,025	7,876	0	8,901	0	8,901
Debt securities	229	26,003	0	26,232	0	26,232
Loans	258	39,573	222	40,053	0	40,053
Equity and Investment Fund Shares	815	111,993	88	112,895	0	112,895
Insurance, pension and standardised guarantees	0	0	0	0	0	0
Other accounts payable	1,958	33,402	270	35,630	0	35,630
Net Financial Assets/Liabilities	3,468	-8,477	81	-4,928	0	-4,928
Total[4]	**45,179**	**242,703**	**3,729**	**291,611**	**218,894**	**510,505**
Monetary gold and SDRs	0	110	0	110	0	110
Currency	750	173	0	924	0	924
Deposits	14,422	11,491	1,166	27,079	26,934	54,013
Debt securities	3,464	30,614	90	34,168	1,320	35,488
Loans	7,516	50,146	247	57,909	2,693	60,601
Equity and Investment Fund Shares	11,096	115,210	1,191	127,498	131,620	259,118
Insurance, pension and standardised guarantees	2,578	1	0	2,579	0	2,579
Other accounts payable	5,353	34,957	1,035	41,345	56,327	97,673
Net Financial Assets/Liabilities	-11,716	2,012	4,782	-4,922	4,928	6

(1) As at June 2016.
(2) Data is in line with ESA 2010 and on a consolidated basis. Hence intra sector positions are included.
(3) The total economy is defined in terms of resident units (ESA 2010).
(4) The aggregate of 'Total economy' and the 'Rest of the World' sector.
Source: Central Bank of Malta.

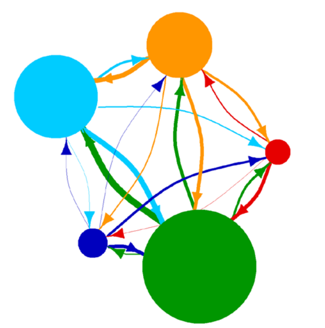
A network of balance sheets' exposure for the Maltese economy

One of the main uses of "from-whom-to-whom" data stems from its granularity, which allows the construction of financial networks across sectors at an instrument level. Network models are able to expose the most vulnerable and systemically important sectors within an economy. They can also be used to examine the propagation of financial shocks acrosss the different economic sectors. Chart 3 illustrates the interlinkages between sectors using (total) liabilities, while Charts 4 and 5 focus on loans and debt securities, respectively.

Households are primarily linked to the financial sector through the liabilities they owe to banks (see Chart 3). The link between households and the general government is mainly due to the former's holdings of government debt securities. Similarly the main linkages of NFCs are with the ROW, the financial sector and with households. The financial sector is strongly linked to the ROW given the high presence of international companies operating from Malta. It is assumed that the latter's transactions are with non-residents.

Analysis on "from-whom-to-whom" data can be made at an instrument level. For instance, Charts 4 and 5 uncover financial linkages through loans and debt securities. The significant number of international companies in the Maltese economy remains a primary feature, as shown by the substantial amount of loans held by non-residents (see Chart 4). Chart 4 also shows that NFCs and households are the main institutional sectors which use loans to finance their activities. Households are granted loans predominantly from banks and, to a lesser extent, in the form of NFC loans to directors. On the other hand, NFCs hold loans with various other counterparties, including the financial sector, intra-sector loans, households (in the form of loans from directors) and loans from non-resident institutions. The general government's

Chart 3
LIABILITIES
(as at June 2016)

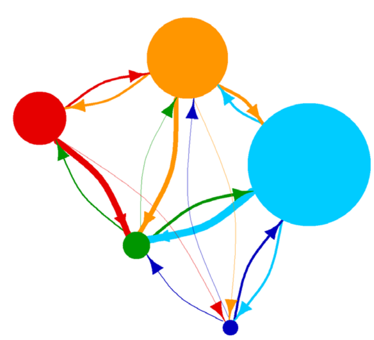


The diameter of the circle is proportional to the total liabilities of the sector and the arrow's width is proportional to their inter-sector relations. The arrow points to the counterpart sector to whom the particular sector owes the liability.

Non-financial corporations | Rest of the world | General government | Households | Financial sector

Source: Central Bank of Malta.

Chart 4
LOANS
(as at June 2016)



The diameter of the circle is proportional to the total loans of the sector and the arrow's width is proportional to their inter-sector relations. The arrow points to the counterpart sector to whom the particular sector owes the loans.

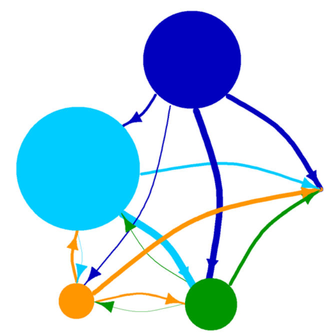
Non-financial corporations | Rest of the world | General government | Households | Financial sector

Source: Central Bank of Malta.

loans are mainly in the form of external loans.

As illustrated in Chart 5, debt securities are mainly issued by the general government, financial sector and non-financial corporations. It also shows that securities issued by the general government are mainly held by resident banks and households.

Chart 5
DEBT SECURITIES ISSUED
(as at June 2016)



The diameter of the circle is proportional to the total debt securities issued by a particular sector and the arrow's width is proportional to their inter-sector relations. The arrow points to the counterpart sector holding the debt securities issued.

Non-financial corporations; Rest of the world; General government; Households; Financial sector

Source: Central Bank of Malta.

Charts 3, 4 and 5 show how network diagrams can be used to identify the spread of shocks across sectors. For instance, if NFCs default on their loans there will be a ripple effect on other sectors: Banks' assets will decrease which in turn will make it difficult to meet their obligations with other sectors.[11] Studies show that contagion effects depend mainly on the location of the original shock and the connectivity of the network. The stronger the connectivity levels between sectors, the higher the speed with which shocks spread within the system.[12]

Concluding remarks

The recent global financial crisis has increased the need to understand the financial interlinkages of systemically important sectors in an economy. Although it is essential for financial analysts to identify possible threats to the financial stability of an economy, modelling and analysing the financial amplification mechanism is challenging as it requires a more granular and disaggrated level of data. The publication of "from-whom-to-whom" data by the Central Bank of Malta is intended to become a vital tool to tackle such analytical challenges, by improving the usefulness of financial accounts data. "From-whom-to-whom" data can be used to support economic and financial stability analysis, allowing the analysis of the current economic situation and the effects of policy decisions on distinct institutional sectors.[13]

[11] Gray, D. and Malone, S. *Macrofinancial Risk Analysis*, Wiley Finance, 2008.
[12] Castrén, O. and Rancan, M., "Macro-networks: An application to the euro area financial accounts", *European Central Bank Working Paper No. 1510*, 2013.
[13] Castrén, O. and Kavonius, I. K., "Balance Sheet Interlinkages and Macro-Financial Risk Analysis in the Euro Area", *European Central Bank Working Paper No. 1124*, 2009.

3. OUTPUT, EMPLOYMENT AND PRICES[1]

The Maltese economy continued to grow robustly during 2016, extending the strong pace of activity recorded in recent years. Growth in real gross domestic product (GDP) was primarily driven by net exports, though domestic demand also contributed to growth, as higher private consumption offset negative contributions from government consumption, investment and changes in inventories.

Sector data show that services continued to be the main driver of growth in gross value added (GVA). The strongest contributions were recorded in the sectors incorporating professional and scientific activities, arts and entertainment, and public administration. The manufacturing sector also contributed positively, though to a lesser extent. In contrast, GVA in the construction sector declined from the peak recorded in 2015, but remained high from a historical perspective.

Labour Force Survey (LFS) data for the first three quarters of 2016 show that, against the backdrop of a buoyant economy, employment continued to rise and unemployment fell further, with the unemployment rate reaching a new low. These favourable labour market developments are corroborated by data based on administrative sources, which show that on average, in 2016 the number of registered unemployed fell significantly on a year earlier.

Price pressures in Malta remained muted compared with historical trends. The average annual rate of inflation based on the Harmonised Index of Consumer Prices (HICP) moderated to 0.9% in 2016, from 1.2% in 2015. Inflation based on the Retail Price Index (RPI) also eased, averaging 0.6% during the year under review, down from 1.1% a year earlier.

Gross domestic product

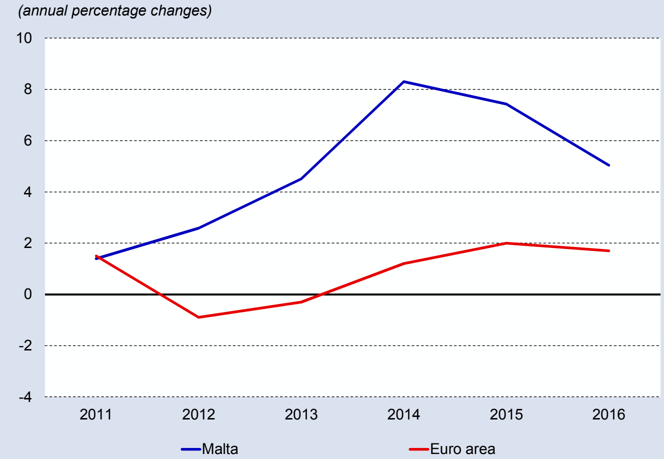
Real GDP growth remains robust

Real GDP increased by 5.0% during 2016, following a 7.4% increase in the previous year (see Table 3.1). Although the pace of expansion moderated, it remained much higher than that registered in the euro area (see Chart 3.1).

The rise in activity was primarily driven by net exports. Domestic demand also contributed positively to economic activity, although to a lesser extent. The increase in domestic demand reflected higher private consumption expenditure, as gross fixed capital formation (GFCF) and government expenditure contracted. Changes in inventories also contributed negatively to GDP growth.

Exports of goods and services rose by 4.0% over 2015, a marginally lower rate of growth when compared with that recorded in the previous year. On the other hand, imports of goods and services increased by 1.1% during the review period, significantly lower than the 7.5% growth recorded in

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* 041/2017, released on 8 March 2017.

Table 3.1
GROSS DOMESTIC PRODUCT[1]

	2011	2012	2013	2014	2015	2016
			Annual percentage changes			
Private final consumption expenditure	3.2	-0.4	2.3	2.8	5.2	3.8
Government final consumption expenditure	3.4	5.8	-0.3	6.5	3.8	-3.1
Gross fixed capital formation	-16.2	1.4	-1.7	8.8	48.8	-1.3
Domestic demand	**-2.1**	**-0.4**	**3.0**	**2.6**	**13.2**	**0.9**
Exports of goods and services	2.0	7.3	1.4	5.3	4.1	4.0
Imports of goods and services	-0.3	5.5	0.4	1.6	7.5	1.1
Gross domestic product	**1.4**	**2.6**	**4.5**	**8.3**	**7.4**	**5.0**
			Percentage point contributions			
Private final consumption expenditure	1.8	-0.2	1.3	1.6	2.7	1.9
Government final consumption expenditure	0.7	1.1	-0.1	1.3	0.7	-0.6
Gross fixed capital formation	-3.5	0.3	-0.3	1.5	8.4	-0.3
Changes in inventories	-1.2	-1.6	1.9	-1.9	-0.3	-0.2
Domestic demand	**-2.1**	**-0.4**	**2.9**	**2.4**	**11.6**	**0.8**
Exports of goods and services	3.0	11.7	2.4	8.3	6.1	5.8
Imports of goods and services	0.5	-8.7	-0.7	-2.4	-10.3	-1.6
Net exports	**3.5**	**3.0**	**1.6**	**5.9**	**-4.1**	**4.2**
Gross domestic product	**1.4**	**2.6**	**4.5**	**8.3**	**7.4**	**5.0**

[1] Chain-linked volumes, reference year 2010.
Sources: NSO; Central Bank of Malta calculations.

2015. As exports grew at a faster pace than imports, net exports pushed up real GDP growth by 4.2 percentage points. This result was driven by trade in services, as goods exports fell faster than goods imports.

Private final consumption increased further during the period under review, rising by 3.8%, against 5.2% in the previous year, and contributed 1.9 percentage points to GDP growth. The slowdown in private expenditure was partly driven by a moderation in employee compensation. Meanwhile, nominal consumption data show higher spending across all main commodity types, with the exception of clothing and footwear, where expenditure declined compared with the previous year.

GFCF contracted by 1.3%, following an increase of 48.8% in 2015. Although capital outlays on dwellings, machinery and equipment, as well as intellectual property increased further, non-residential investment fell sharply on a year earlier, partly reflecting lower government spending on infrastructural projects. The latter declined from the extraordinary levels of spending reached in 2014 and 2015, as projects financed under the 2007-13 EU financing framework reached completion. This was a key factor behind the swing to a negative growth rate in overall GFCF.

Following a rise of 3.8% in 2015, government consumption expenditure declined by 3.1% in 2016. In nominal terms, the two principal components of government consumption – intermediate consumption and compensation of employees – both went up during the year. However, these increases were outweighed by higher sales, which are netted against expenditure in the national accounts. In turn, this increase in sales was largely propelled by inflows under the Individual Investor Programme (IIP).

Nominal data show a services-led economic expansion

In nominal terms, economic activity rose by an annual 6.7% in 2016, after increasing by 10.0% in the previous year (see Table 3.2).

This deceleration mirrored that in GVA, which increased by 6.6% in 2016, after having risen by 10.2% in the previous year, and contributed 5.8 percentage points to nominal GDP growth.[2]

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

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

	2011	2012	2013	2014	2015	2016
Agriculture, forestry and fishing	0.0	0.0	0.0	0.1	0.1	0.1
Mining and quarrying; utilities	-0.9	-0.9	1.2	0.0	0.5	0.1
Manufacturing	0.6	0.1	-0.9	0.1	0.0	0.2
Construction	0.2	-0.1	0.3	0.1	0.6	-0.2
Services	2.7	5.6	5.5	8.8	7.8	5.6
of which:						
Wholesale and retail trade; repair of motor vehicles; transportation; accommodation and related activities	0.8	1.6	1.8	1.2	1.8	0.6
Information and communication	0.7	0.1	0.0	1.4	0.7	0.7
Financial and insurance activities	0.0	1.1	0.0	-0.3	0.5	0.6
Real estate activities	0.3	0.0	0.1	0.0	0.7	0.4
Professional, scientific, administrative and related activities	0.5	1.2	1.1	1.7	1.5	1.3
Public administration and defence; education; health and related activities	0.7	1.0	1.1	1.3	1.1	1.0
Arts, entertainment; household repair and related services	-0.4	0.6	1.4	3.4	1.5	1.1
Gross value added	**2.5**	**4.7**	**6.1**	**9.1**	**9.0**	**5.8**
Net taxation on products	**1.1**	**0.1**	**0.5**	**1.4**	**1.0**	**0.9**
Annual nominal GDP growth (%)	**3.6**	**4.8**	**6.6**	**10.5**	**10.0**	**6.7**

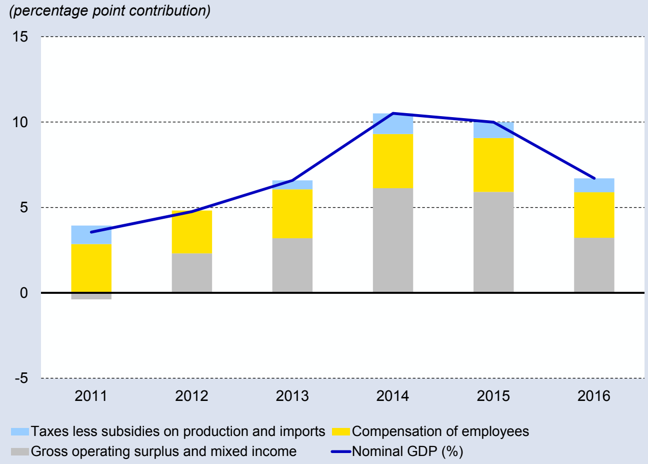
Source: NSO.

Services remained the primary driver of the expansion in GVA, pushing up nominal GDP by 5.6 percentage points. The strongest contributions came from the sectors comprising of professional and scientific activities, arts and entertainment, as well as public administration. Together, these sectors accounted for almost three-fifths of the increase in GVA.

The manufacturing sector contributed 0.2 percentage point to nominal GDP growth during 2016, after it contracted slightly in the previous year. On the other hand, the sector comprising of mining and utilities increased at a slower pace and therefore, reduced its contribution to 0.1 percentage point compared with 2015. Meanwhile, the agriculture, forestry and fishing sector kept its contribution to growth constant at 0.1 percentage point.

Looking at the distribution of GDP by factor income, the rapid growth in profits recorded in 2014 and 2015, eased in 2016. Gross operating surplus and mixed income rose by 7.0%, after increasing by 13.1% in the previous year. This was reflected in a smaller contribution, of 3.2 percentage points, to nominal GDP growth (see Chart 3.2).

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



Source: NSO.

In absolute terms, most sectors noted a rise in their gross operating surplus in 2016, with the largest increases recorded in the sector offering financial and insurance activities, as well as those providing arts, entertainment and recreation services. These were closely followed by the sector of information and communication.

Compensation of employees increased by 6.3% in 2016, pushing up nominal GDP growth by 2.7 percentage points. In absolute terms, employee compensation rose in all major sectors. The strongest increases however, were recorded in the sectors comprising public administration, wholesale and retail, arts and entertainment, as well as those engaging in professional, scientific and technical activities.

Industrial production[3]

Industrial production contracted by 3.2% in 2016, following a 6.0% increase in 2015 (see Table 3.3). The manufacturing sector, which accounts for 83.3% of total industrial output, registered a fall of 4.3%, after registering improved production in 2015. On the other hand, output in the energy and mining and quarrying sectors increased.

The contraction in manufacturing output in 2016 was partly attributed to lower production by the pharmaceutical sector, where output fell by 14.7%. Output also fell significantly among firms that produce computer, electronic and optical products, those involved in the printing and reproduction of recorded media, as well as in the food sector. On the other hand, growth was registered in the rubber and plastics and beverages sub-sectors, where output increased by 7.8% and 2.9% respectively.

Data on manufacturing sales also point to a fall in turnover of 1.8% during 2016, following an expansion in 2015.[4] This decline was driven by sales to both domestic and foreign markets, with the latter having the largest effect.

Table 3.3
INDUSTRIAL PRODUCTION
Percentages; annual average percentage changes

	Shares	2014	2015	2016
Industrial production	**100.0**	**-5.7**	**6.0**	**-3.2**
Manufacturing	**83.3**	**-6.5**	**6.5**	**-4.3**
Of which:				
Computer, electronic and optical products	18.4	-22.8	0.5	-11.3
Basic pharmaceutical products and pharmaceutical preparations	10.4	-30.5	35.3	-14.7
Food products	8.1	7.4	9.3	-7.6
Printing and reproduction of recorded media	5.9	2.4	-2.7	-11.3
Rubber and plastic products	4.4	-1.3	4.4	7.8
Beverages	3.9	8.7	6.0	2.9
Energy	**16.3**	**-1.6**	**3.6**	**0.4**
Mining and quarrying	**0.4**	**-22.0**	**-2.7**	**29.7**

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.

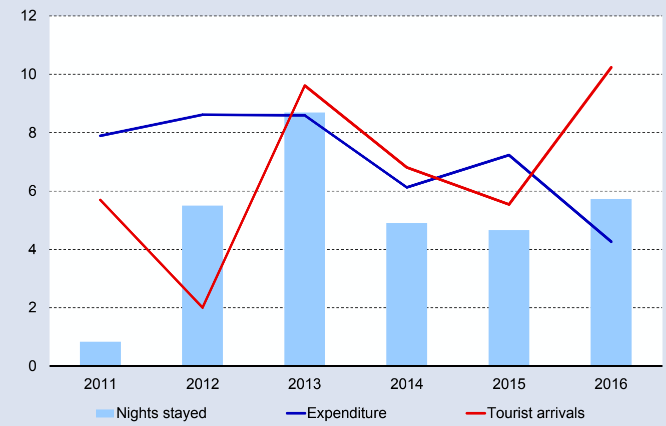
[4] Data on manufacturing sales are sourced from Eurostat.

Tourism

The buoyant performance in the tourism sector observed since 2010 persisted during 2016. NSO data for 2016 show that tourist arrivals, nights stayed and expenditure surpassed the levels recorded in 2015.

Compared with a year earlier, the number of inbound tourists grew significantly during 2016 as it rose at an annual rate of 10.2% compared with a 5.5% growth rate recorded in 2015 (see Chart 3.3). The total number of visitors rose to almost two million, 182,562 tourists more than a year earlier.

Chart 3.3
TOURISM INDICATORS
(annual percentage changes)



Source: NSO.

This improvement was mostly driven by an increase in the number of leisure tourists, though the number of business and professional travellers also rose on 2015. Conversely, the number of persons that visited Malta for educational, religious, health and other purposes fell.

Visitors spent slightly less than fifteen million nights in Malta during the year under review, a 5.7% increase on 2015. Nights stayed in private accommodation recorded the strongest increase as they grew by 724,529, or 13.5%. Nights spent in collective accommodation establishments rose by 85,273, or 1.0%.[5] As private accommodation continued to gain in popularity, its share in the overall nights spent by tourists visiting Malta edged up further, reaching 40.6%.

Tourist expenditure rose at a slower rate during 2016. Compared with a 7.2% growth in 2015, tourist spending added a further 4.3% in 2016, reaching €1.7 billion.[6] Increases were registered in non-package spending as well as the "other" component of tourist expenditure.[7] However these were partly offset by a decline in package expenditure. As tourist expenditure increased at a slower pace when compared with arrivals, expenditure per capita fell. It decreased by €50 to stand at €869. This decline partly reflected a slightly shorter average length of stay, down to 7.6 nights from 7.9 nights in 2015.

The United Kingdom and Italy remained Malta's most important source markets, accounting for 28.5% and 16.0% of total visitors, respectively. Malta's performance compared positively with other competing markets. According to the World Tourism Barometer, arrivals in Mediterranean European countries grew by an annual rate of 1.4%, while the global tourism industry recorded a 3.9% expansion in 2016.

NSO data on occupancy rates for 2016 as a whole show that total average occupancy rate in collective accommodation establishments edged up by 0.2 percentage point on 2015, to 63.7% (see Chart 3.4). This increase was driven by four-star establishments. At 70.9%, occupancy rates in these establishments increased by 0.8 point on a year earlier and marginally exceeded those in five-star hotels, which

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

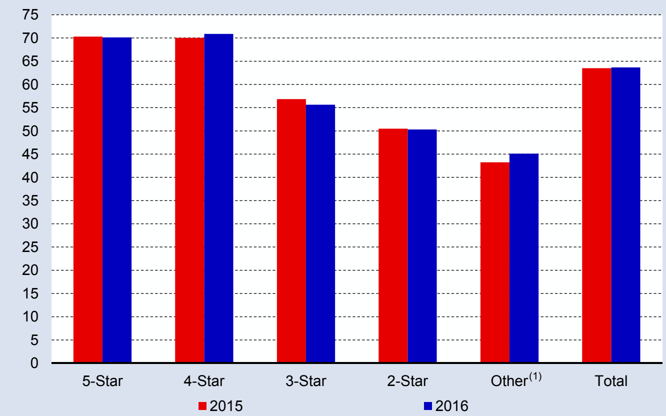
[6] Total expenditure is split into package, non-package and "other".

[7] Non-package holiday expenditure is subdivided into spending on accommodation and travel fares, while the "other" component captures any additional expenditure by tourists during their stay in Malta.

declined marginally on a year earlier. The overall improvement also partly reflected developments in the "other collective" accommodation establishments, which include hostels and guesthouses. At 45.1%, the occupancy rate in this category climbed by 1.8 percentage points, on its 2015 level.

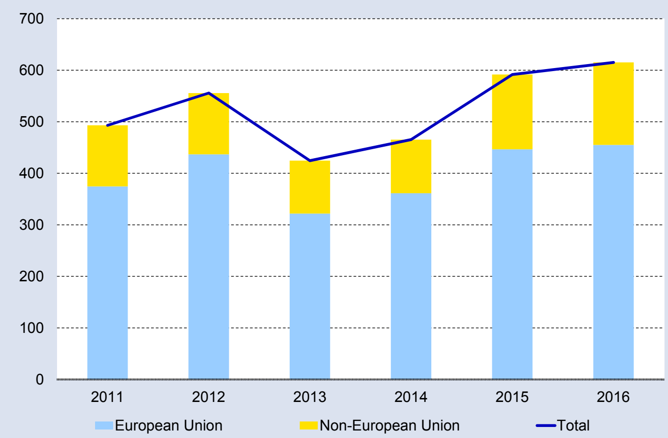
In 2016, the number of foreign cruise liner passengers increased by 4.0%, to 615,198 (see Chart 3.5). A growing number of passengers from both the European Union (EU) and non-EU countries contributed to this increase. Whereas EU passengers registered a growth rate of 1.9%, to reach 455,012 passengers, those from outside the EU totalled 160,096, a 10.4% rise in annual terms. The number of cruise liner calls in 2016 reached 316, 9 more calls than a year earlier.

Chart 3.4
AVERAGE OCCUPANCY RATES
(per cent)



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

Chart 3.5
CRUISE LINER PASSENGERS
(thousands)



Source: NSO.

Construction

Residential construction remains buoyant while non-residential investment weakens

During the year under review, a substantial increase was registered in the number of permits issued for the construction of residential dwellings, which supported a solid rate of expansion of activity in the residential sector.

However, national accounts data suggest that activity in the overall construction sector weakened. In particular, value added and investment declined. This development largely reflects the return to normalcy of activity in the public sector, following extraordinary capital expenditure on infrastructure projects in the previous two years. This weighed on activity indicators in the non-residential sector. Meanwhile, Jobsplus data show a marginal rise in employment in construction in the first nine months of the year.[8]

The number of permits for residential units issued by the Planning Authority increased significantly during 2016, reaching 7,508, from 3,947 a year earlier (see Table 3.4). This marks the third year of growth, following a period of decline. All categories registered increases except for terraced houses. By far, the highest rise in permits issued was recorded in the largest category, namely apartments, with the number of permits more

[8] 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*.

Table 3.4
PERMITS ISSUED FOR THE CONSTRUCTION OF DWELLING UNITS

	2011	2012	2013	2014	2015	2016
Apartments	3,276	2,489	2,062	2,221	3,019	6,316
Maisonettes	401	298	350	414	471	706
Terraced houses	191	202	209	204	342	297
Other	87	75	84	98	115	189
Total	**3,955**	**3,064**	**2,705**	**2,937**	**3,947**	**7,508**

Source: Planning Authority.

than double those of a year earlier. Apartments accounted for over 84% of total residential permits issued in 2016.

NSO data show that construction investment fell by 6.0% in 2016, in nominal terms, following an increase of 15.7% in 2015, with the contraction driven entirely by a decrease in the non-residential component. The latter fell sharply, by 29.1%, during the year under review, after having increased by 4.2% in 2015. This reduction largely mirrored a decrease in capital expenditure on infrastructure projects in the government sector. This partly reflects the low utilisation rate of EU funds that is typical at the start of a new financial programming period. In contrast, dwelling investment extended its recovery. It rose by 31.2% on a year earlier, following a 40.8% increase in 2015.

The GVA of the construction industry also declined in 2016, as the sector's output decreased more than intermediate consumption, which includes purchases of materials and services used by the industry. The sector's GVA fell by 6.0% in 2016, following a 16.6% increase in 2015 (see Table 3.5).

Jobsplus employment data show that in the first nine months of 2016, total employment in the construction sector rose marginally by 26, or 0.3%, compared with the same period in 2015 (see Table 3.5). Higher emplyment within the private sector was dampened by lower employment in the public sector. Consequently, the industry's share in the total gainfully occupied population fell to 5.9% from 6.1% in 2015.

Within the sector, employees' compensation increased by 1.5% in 2016, following a rise of 5.6% in the preceding year.

Table 3.5
CONSTRUCTION ACTIVITY INDICATORS [(1)]

	2013	2014	2015	2016
Gross value added (EUR millions)	**294.6**	**301.7**	**351.7**	**330.7**
Share of gross value added in GDP (%)	3.9	3.6	3.8	3.3
Total employment[(2)]	**11,488**	**9,263**	**10,508**	**10,535**
of which private employment	8,807	8,962	9,383	9,502
Share in total gainfully occupied population (%)	7.3	5.7	6.1	5.9

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

(2) The decline in total employment in the construction sector in 2014 reflects the reclassification of employees within the public sector following changes in ministerial responsibilities.

Source: NSO.

BOX 2: REVISITING THE CONTRIBUTION OF EXPORTS TO MALTA'S RECENT ECONOMIC GROWTH[1]

In the last decade, the Maltese economy has been characterised by the emergence of a number of export-oriented services sectors, such as online gaming, and a pronounced expansion of existing ones, such as aviation services, which have had a significant impact on the main macroeconomic indicators.[2] However, the methods traditionally used to estimate drivers of economic growth have been suggesting that the influence of these emerging industries on the pace of economic growth has been somewhat muted. For instance, in 2015, a year when exports of goods and services rose by over half a billion euro – the equivalent of nearly a third of all government current expenditure – the contribution of net exports to real economic growth as measured by traditional methods was deemed to be significantly negative.[3] This result was driven by the fact that during that year, there was an exceptional rise in imports of capital goods, which offset the positive impact of the large increase in exports of goods and services.

This attribution of growth determinants is the result of the traditional approach of treating demand in the economy as taking two forms: domestic demand being the sum of private consumption, government current expenditure and gross fixed capital formation; and external demand being exports. Imports which are a leakage and do not feature in a country's GDP are conventionally subtracted from the contribution to economic growth of exports. While this approach can usefully highlight the net contribution of external trade to GDP growth, it fails to capture the true relative contribution of domestic and external demand to economic growth. A considerable amount of imports, especially in a small open economy like Malta, is consumed by households or forms part of gross fixed capital formation and should therefore be subtracted from domestic demand, when assessing contributions to growth. Traditional methods fail to take into consideration that domestic demand and exports contain different degrees of import contents and are thus likely to overstate the impact of domestic demand on economic output.[4] This issue is more pronounced in years in which domestic demand has increased on the back of a rise in direct imports. In this light, relying on the traditional approach of estimating contributions to growth in years such as 2015, when there was an exceptional rise in investment driven by imports of capital equipment, can result in misconstruing the true sources of economic growth.

To address such issues, an alternative methodology has been proposed in the economic literature.[5] In the conventional approach, the contribution of a demand component is calculated as the growth in that component in real terms multiplied by the previous year's share of that component out of GDP in nominal terms.[6] The negative contribution of imports is deducted from the positive contribution of exports. By contrast, in the alternative approach, known as the "import-adjusted method", imports are apportioned to all GDP expenditure components on the basis of import intensities derived from input-output tables. The latter are derived from a Cumulated Production Structure (CPS) matrix, which decomposes each component of final demand into gross value-added components and imports.[7] This enables one

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1 Prepared by Dr Aaron G. Grech, Chief Officer – Economics and Noel Rapa, Senior Research Economist, Economic and Research Department. The views expressed are the authors' own and do not necessarily represent the views of the Bank.

2 For further details refer to Grech, A.G., Micallef, B. and Zerafa, S. (2016), Diversification and structural changes in the Maltese economy. In *Understanding the Maltese Economy.* Edited by Grech, A. G., Central Bank of Malta, 2016.

3 For example in European Commission (2016), Autumn 2016 Economic Forecast and Central Bank of Malta (2016), Annual Report 2015.

4 See European Central Bank, "Assessing the recent impulse from the external sector to euro area activity", *Monthly Bulletin*, 2005.

5 See for instance, Kranendonk H. and Verbruggen J. (2008), Decomposition of GDP-growth in some European countries and the United States, CPB Netherlands Bureau for Economic Policy Analysis; and Bank Negara Malaysia, Changing drivers of economic growth in Malaysia, Annual Report 2012. A similar approach is taken in Shik Kang, J. and Liao, W. (2016), Chinese imports: What's behind the slowdown? *IMF Working Paper WP/16/106*.

6 This approach is based on the premise of annual chain linking (where the price structures used are those of the previous year, rather than those in a specific base year). For an explanation of this method, see Robjohns, J., *Contributions to growth rates under annual chain-linking, Methods Explained*, Office for National Statistics, 2007. There are other more mathematically complex approaches to compute contributions to growth, but these yield the same results. See for instance, Eurostat (1999), *Compiling annual and quarterly national accounts main aggregates for the European Union and the euro area.*

7 The method used to derive this is explained in Klein, L.R. (1983), *The economics of supply and demand*, Basil Blackwell: Oxford.

Table 1
THE IMPORT CONTENT OF THE MAIN GDP EXPENDITURE COMPONENTS (2010)

	Per cent
Private consumption	44.5
Government consumption	18.8
Gross fixed capital formation	58.6
Changes in inventories	63.2
Exports of goods	67.0
Exports of services	76.2

Note: This table shows the estimated percentage of each expenditure component that comprises intermediary or final imports. This estimate is based on information available from the input-output tables for the Maltese economy for 2010 published in NSO (2016) which was used to construct a CPS matrix on the basis of the methods explained in Klein (1983).

Source: Authors' calculations.

to modify the conventional approach by exchanging the official GDP expenditure components with import-adjusted expenditure variables.

In 2016, the National Statistics Office published the first official input-output tables for the Maltese economy since the adoption of the European System of Accounts (ESA) 1995 and 2010.[8] These tables, for the year 2010, were used to derive the import contents of the main GDP expenditure components as shown in Table 1. As expected, the import content of those components traditionally considered to form part of domestic demand is smaller than that of exports. However, with the exception of government consumption, the degree of import content is relatively high, particularly in the case of gross fixed capital formation. Quite interestingly, the import content of exports of services appears to be higher than that for exports of goods. This, to a significant extent, seems to reflect the output of the financial services sector. In fact, input-output tables constructed by the OECD for the Maltese economy, which exclude the activities of the export-oriented financial services sector, show much lower import content for Maltese exports.[9]

Comparing the results of the traditional and the import-adjusted approaches

Before comparing the results of the traditional and the import-adjusted approaches to studying economic activity, it is very important to pinpoint an important shortcoming of the non-traditional approach. Import intensities do not remain constant over time, particularly in a small economy that has recently gone through a number of structural changes. To give, but one example, the composition of Malta's gross fixed capital formation shows very dramatic changes in certain years. In particular, in 2013 the proportion of total investment comprised by new dwellings was half that in 2008. This implies that it would be optimal to have annual estimates of import intensities; something which is highly unlikely as input-output tables are not typically available at such a high frequency.[10]

Notwithstanding this caveat, the import-adjusted approach tends to yield more intuitive results than the traditional approach. The contribution to growth derived from domestic and foreign demand according to the two methods is shown in Table 2. These results highlight two important points. First, the import-adjusted approach yields much more stable trends than the traditional approach. For example, the latter method shows the contribution of domestic demand to GDP moving from a negative 2.16 percentage

[8] See National Statistics Office (2016), Supply, Use and Input-Output Tables 2010.

[9] For estimates of these import intensities, see Grech, A.G. and Rapa, N. (2016), Trends in Malta's current account and their underlying causes, *Policy Note*, Central Bank of Malta.

[10] That said, one can readily test the reliability of using one set of import intensities by comparing over time the amount of total imports published in the national accounts with the sum of the estimated imports derived by multiplying the import intensities by the relevant expenditure component. In the case of the estimates made in Table 1, these yield total imports lower by on average 2.8% of the official import figures in the period between 2006 and 2013. The discrepancy for 2014 and 2015 was higher due to particularly large swings in certain components, but it was adjusted to come in line with that for previous years using expert judgement. Any discrepancy with the overall import figure was apportioned to each component in line with the expenditure component's share of total GDP.

Table 2
THE SOURCES OF ECONOMIC GROWTH ACCORDING TO TWO DIFFERENT APPROACHES

	Domestic demand		Foreign demand	
	Traditional	Import-adjusted	Traditional	Import-adjusted
2006	3.26	-0.13	-0.93	2.12
2007	1.82	0.97	2.85	3.93
2008	0.15	-1.20	-0.91	1.53
2009	-2.16	-1.29	-0.82	-1.71
2010	5.39	1.86	-1.45	2.10
2011	-0.23	0.64	3.15	2.07
2012	1.39	0.93	2.45	3.19
2013	1.04	1.12	2.08	1.71
2014	4.53	3.90	5.09	5.92
2015	12.46	3.54	-5.56	4.13

Note: This table shows the estimated contribution to real GDP growth of domestic demand (i.e. private consumption, government consumption and gross fixed capital formation) and foreign demand (exports of goods and exports of services). The traditional approach apportions the negative impact of changes in imports entirely to foreign demand, whereas the import-adjusted approach apportions the change in imports to specific expenditure components using estimated import intensities.

Source: Authors' calculations.

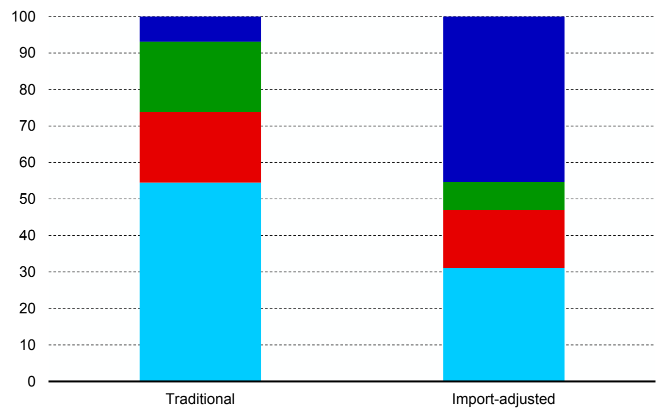
points in 2009 to a positive 5.39 percentage points in 2010, a total change of close to eight percentage points in just two years. The import-adjusted approach shows the contribution to shift from a negative 1.29 percentage points to a positive 1.89 percentage points, that is, half the change implied by the traditional approach. In fact, the standard deviation of the contribution of domestic demand over the decade under review of the import-adjusted approach is less than half that of the traditional one. This is also the case for the contribution of foreign demand. The traditional approach shows a positive contribution from foreign demand of 5.09 percentage points in 2014. This changed to a negative contribution of 5.56 percentage points in the following year. By contrast the import-adjusted approach shows a very marginal decline in the positive contribution of foreign demand to economic growth between the two years.

The second important result that emerges when comparing the two sets of estimates in Table 2 is that whereas the traditional approach implies that, on average, across the decade 2006 to 2015, domestic demand was the key source of growth, the import-adjusted method indicates that foreign demand has been the largest contributor. The traditional approach suggests that, on average, domestic demand accounted for over four-fifths of economic growth during that decade; whereas the import-adjusted approach allocates less than a third of overall growth as being derived by purely domestic factors. The latter method indicates that foreign demand had a negative impact on Malta's economic growth only in 2009, and has been the main source of growth in all years except for that year. By contrast, the traditional approach portrays external demand as being quite weak prior to 2011, and also to have reduced growth in 2015. This reading of the last decade of economic history is relatively counterintuitive and misconstrues the very significant contribution to Malta's economy made by its exporting firms, particularly in the services sector.

Chart 1 presents this graphically by illustrating the relative share of nominal GDP of private and government consumption, gross fixed capital formation and net exports over the five-year period to 2015 consistent with the two approaches. It is immediately noticeable that even under the import-adjusted method, domestic demand components retain the largest share at nearly 55% of overall GVA. However, this is smaller than the share attributed to the largest component of domestic demand (i.e. private consumption) under the conventional method. The relative importance of net exports under the import-adjusted approach is more in line with the share that export-oriented businesses command in terms of employment and value-added, and is similar to the importance that foreign demand exerts on other macroeconomic variables like inflation.

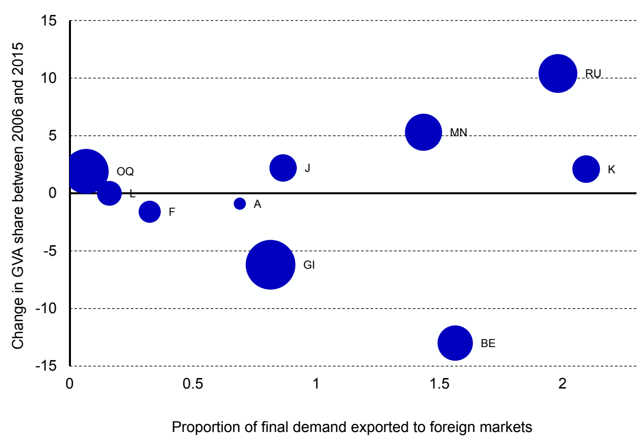
To see this more clearly, Chart 2[11] plots the foreign orientation of sectors in the Maltese economy expressed as an index, against the change in each industry's share in overall GVA between 2006 and 2015. The former is estimated from the 2010 input-output tables and reflects the proportion of output of each sector that is driven either directly or indirectly by foreign demand.[12] The data show that there is a positive correlation between the degree of foreign orientation and the relative performance of each sector. Indeed, with the exception of the industrial sector (which includes manufacturing), sectors which are more export-oriented have performed relatively better than those that are more domestic-oriented, in line with the results of the contributions to growth pertaining to the import-adjusted method.

Chart 1
RELATIVE SIZE OF EXPENDITURE COMPONENTS
(average % of Nominal GDP between 2011 and 2015)



Source: Authors' calculations.

Chart 2
GROWTH AND FOREIGN ORIENTATION OF SECTORS
(change in % of GVA between 2006 and 2015 and share of foreign demand)



Source: Authors' calculations using NSO Input-Output Tables.

Finally, even though the traditional and import-adjusted approaches differ significantly in terms of the absolute level of importance given to net exports, it is quite interesting to note that both methods show an increasing role for foreign trade. In fact, the relative share of net exports in the traditional approach has increased by 7 percentage points of nominal GDP between 2006-10 and 2011-15, whereas the import-adjusted approach implies a 5 percentage point rise. This suggests that no matter what statistical approach one adopts, it is clear that the Maltese economy is becoming ever more export-oriented, making the retention and improvement of external competitiveness ever more important as a policy aim.

[11] The bubble size represents the relative size of value added of the sector in 2015. A=Agriculture, forestry and fishing, BE=Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities, F=Construction, GI=Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities, J=Information and communication, K=Financial and insurance activities, L=Real estate activities, MN=Professional, scientific and technical activities; administrative and support service activities, OQ=Public administration and defence; compulsory social security; education; human health and social work activities, RU=Arts, entertainment and recreation, repair of household goods and other services.

[12] Higher values of the foreign orientation index imply that the sector has a higher proportion of its output that is driven either directly or indirectly by foreign demand. The index is normalised around the economy average so that values larger than one imply a higher than average foreign orientation.

The labour market[9]

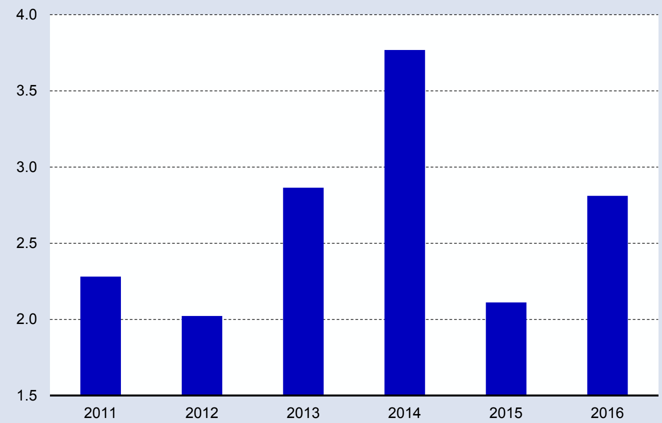
Employment grows at a faster pace in the first three quarters of 2016

During the first three quarters of 2016, employment expanded at an average annual rate of 2.8%, as against 2.1% during the corresponding period of 2015 (see Chart 3.6).

The increase in the number of jobs during the first three quarters of the year was driven by full-time employment, which went up by 6,160 in absolute terms (see Table 3.6). On the other hand, the number of part-time employees fell by 943.

The labour force expanded by 2.2% over its average level in the first nine months of 2015. As a result, the activity rate went up to 68.9%, adding 1.3 percentage points on a year earlier.[10] The female activity rate posted the strongest gain, although male participation also rose. In fact, the female activity rate increased by 1.5 percentage points

Chart 3.6
EMPLOYMENT GROWTH BASED ON THE LABOUR FORCE SURVEY: Q1-Q3



Source: NSO.

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

	2015 (revised) Jan.-Sep.	2016 Jan.-Sep.	Annual change %
Labour force	**196,296**	**200,613**	**2.2**
Employed	185,598	190,816	2.8
By type of employment:			
Full-time	156,408	162,568	3.9
Part-time	29,190	28,248	-3.2
Unemployed	10,698	9,797	-8.4
Activity rate (%)	**67.6**	**68.9**	
Male	80.7	81.9	
Female	53.9	55.4	
Employment rate (%)	**63.9**	**65.5**	
Male	76.1	78.1	
Female	51.1	52.4	
Unemployment rate (%)	**5.5**	**4.9**	
Male	5.7	4.6	
Female	5.2	5.3	

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

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

10 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 also defined as all those aged 15-64 years.

to 55.4%, while the male rate rose by 1.2 percentage points to 81.9%. Meanwhile, the average employment rate rose by 1.6 percentage points to 65.5%, with increases recorded among both males and females.[11] Both activity and employment rates reached the highest levels recorded since the survey was first conducted.

Additions in both activity and employment rates partly reflect the continuation of active labour market measures, aimed at increasing employment among the more challenged jobseekers and inactive persons.

Unemployment continues to decline

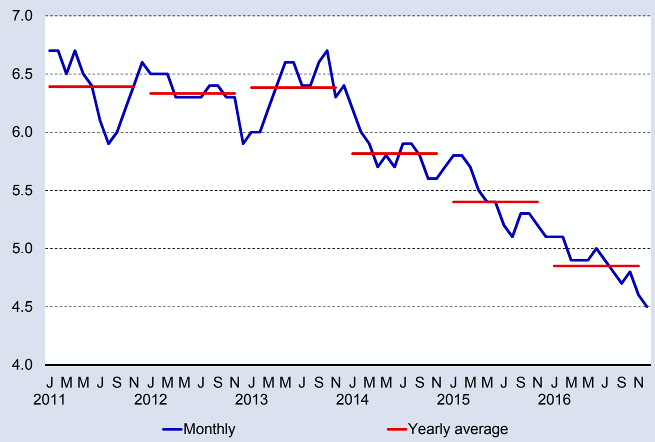
LFS data show that the number of unemployed declined on a year earlier, as employment continued to grow faster than the labour force.[12]

Data for the first three quarters of 2016 show that, at 9,797, the number of jobseekers was around 900 less when compared with the first nine months of 2015. The unemployment rate averaged 4.9% between January and September 2016, 0.6 percentage point below the rate in the same period a year earlier (see Table 3.6).

The seasonally adjusted unemployment rate published by Eurostat averaged 4.9% in 2016, significantly lower than the average of 5.4% recorded in 2015 (see Chart 3.7).[13]

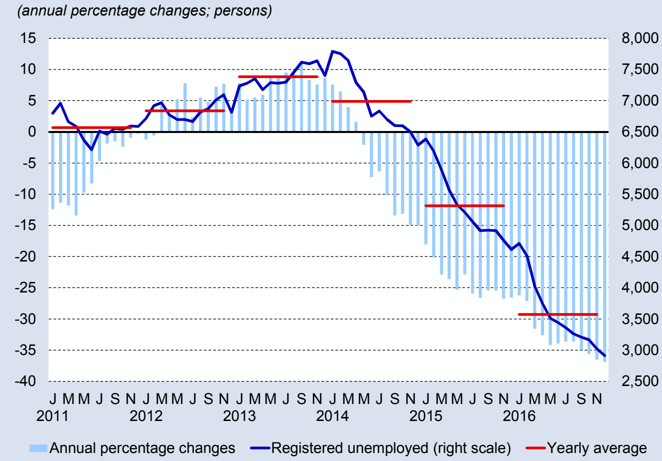
In 2016 the number of unemployed based on Jobsplus data fell by 1,744 persons, or almost one-third, over 2015 (see Chart 3.8). Apart from growing demand for labour, the drop in the number of registered unemployed was also facilitated by a range of measures, such as the Access to Employment (A2E) Scheme, the Youth Guarantee Scheme and the Mature Workers Scheme, targeted at improving employability prospects for specific groups. The tapering of benefits, as well as other measures, aimed at facilitating the transition to formal employment, also contributed to the fall in registered unemployed. The drop in the number of job seekers was broad-based across age

Chart 3.7
UNEMPLOYMENT RATE
(seasonally adjusted; per cent)



Source: Eurostat.

Chart 3.8
REGISTERED UNEMPLOYED
(annual percentage changes; persons)



Source: NSO.

[11] The employment rate measures the number of persons aged 15-64, 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.

[12] 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.

[13] Based on Eurostat calculations.

groups, but the greatest decrease was among those aged 45 and over. With respect to the duration of unemployment, the decrease in the number of registered unemployed was spread across all categories, although the most significant decline was recorded among those who had been registering for more than one year.

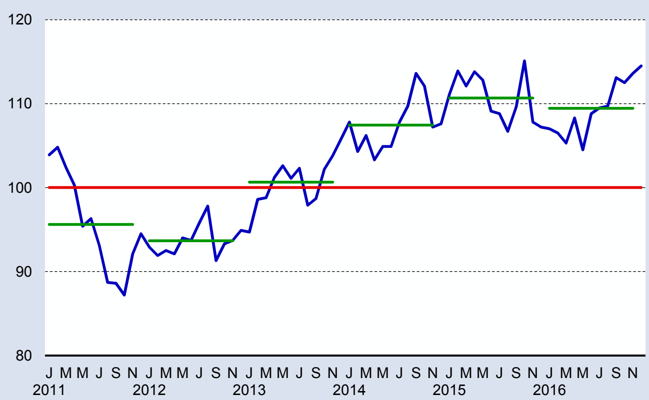
Business and consumer surveys

Economic sentiment declines marginally in 2016

During 2016 the European Commission's Economic Sentiment Indicator (ESI) for Malta averaged 109, down from 111 in 2015.[14] This decrease was driven by weaker confidence in the construction and retail trade sectors. Despite the marginal fall, the indicator remained above its long-term average of 100 (see Chart 3.9).[15]

As Chart 3.9 shows, the ESI fell at the beginning of the year, before it began to pick-up again in the second quarter. Table 3.7 presents the annual average and the change in absolute terms of the confidence indicator for each sector that makes up the ESI. Confidence among firms operating in the construction sector turned negative in 2016, while confidence in the retail sector remained positive but weakened. On the other hand, confidence among consumers edged up marginally, while sentiment in industry and services remained unchanged.

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



Source: European Commission.

Confidence in construction turns negative[16]

Sentiment in the construction sector averaged -8 during 2016, down from 11 in the preceding year. Despite this fall, it significantly exceeded its long-run average of

Table 3.7
SENTIMENT INDICATOR BY SECTOR
Annual average; absolute change

	2015	2016	Change
Economic sentiment indicator	**111**	**109**	**-2**
Construction confidence indicator	11	-8	-19
Retail trade confidence indicator	16	7	-9
Consumer confidence indicator	0	2	2
Industrial confidence indicator	0	0	0
Services confidence indicator	26	26	0

Source: European Commission.

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

[15] 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.

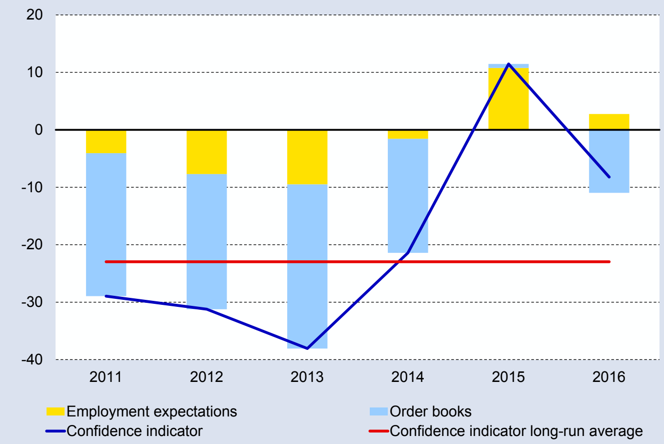
[16] The construction confidence indicator is the arithmetic average of the seasonally adjusted balances (in percentage points) of replies to two survey questions, namely those relating to order books and employment expectations over the subsequent three months.

-23 (see Chart 3.10). Both order book levels and employment expectations contributed to this decline in confidence.

Compared with the previous year, when operators assessed order books to be above normal for the first time, order levels in 2016 were assessed to be below normal. Furthermore, respondents were on average less optimistic with regard to employment prospects.

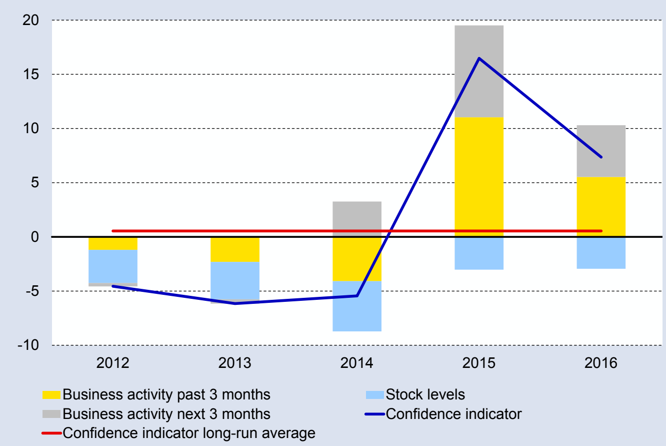
Additional survey data suggest that less upbeat employment prospects may partly reflect a shortage of labour; which was mentioned as the primary factor behind less optimistic developments in building activity. In addition, during 2016, respondents have on average anticipated increased selling prices for the months ahead, although at a slower rate compared to 2015.

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



Source: European Commission.

Chart 3.11
RETAIL CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



Source: European Commission.

Confidence in retail sector declines[17]

The retail confidence indicator fell to 7 in 2016 from 16 in the preceding year, thus remaining positive and well above its long-term average (see Chart 3.11). Past and expected business activity were the drivers behind this fall in sentiment, although both indicators remained positive. Retailers continued to report above normal stock levels, with the score similar to that reported in 2015.

Additional survey data indicate that both order levels and selling price expectations fell, though still positive when compared with the preceding year. On the other hand, a larger share of respondents expected employment to increase in the following months.

Consumer confidence improves marginally[18]

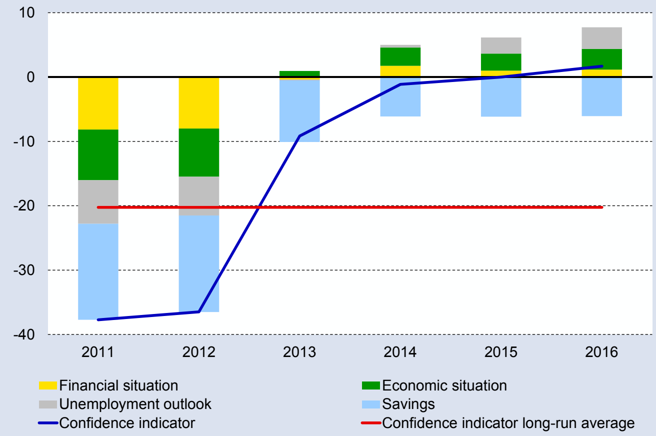
The consumer confidence indicator edged up between 2015 and 2016. Over the year as a whole the index averaged 2, marginally better than the previous year's average of 0 (see Chart 3.12). Therefore, consumer

[17] 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.

[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.

sentiment remained well above its long-term average of -20. All sub components contributed to the improved sentiment.

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



Source: European Commission.

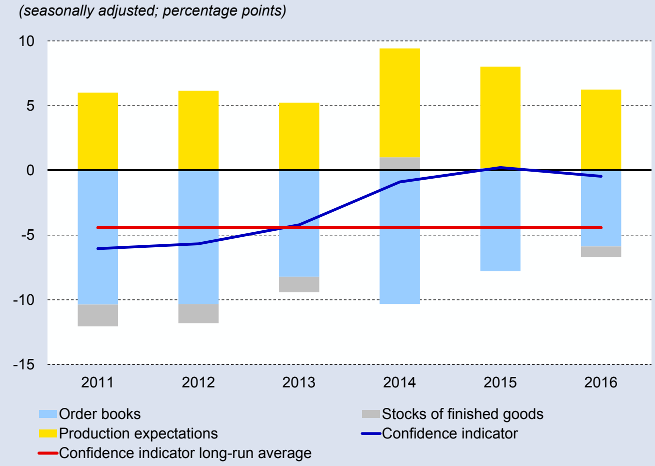
The rise in confidence in 2016 was mainly propelled by respondents' assessment of the general economic situation and unemployment expectations over the subsequent 12 months. Indeed, consumers' expectations of the general economic situation for the 12 months ahead edged up, while their unemployment expectations fell further. On average consumers' assessment of both their financial situation and their savings expectations for the subsequent 12 months improved marginally during the year.

Additional survey information suggests that the share of consumers that considered the timing to make major purchases appropriate, given the existing economic situation, increased compared with 2015. However, a larger share of respondents indicated that they would spend less money on major purchases in the subsequent 12 months. Overall, both inflation perceptions and expectations for the year ahead were higher when compared with 2015.

Industrial confidence remains broadly neutral[19]

Sentiment among manufacturing firms remained broadly neutral and slightly above its long-term mean of -4. Firms' assessment of order book levels was less negative compared with 2015. However, this was counterbalanced by less favourable production expectations for the three months ahead (see Chart 3.13). At the same time, respondents on balance reported above normal stocks of finished goods.[20]

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



Source: European Commission.

Supplementary data indicate that the share of respondents foreseeing a rise in employment was on average lower in 2016 than in 2015. Meanwhile, a smaller share of respondents anticipated a decline in selling prices.

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

[20] An increase in stock levels indicates lower turnover and affects the overall indicator in a negative way. Such increases are thus represented by bars below the 0 mark in Chart 3.13.

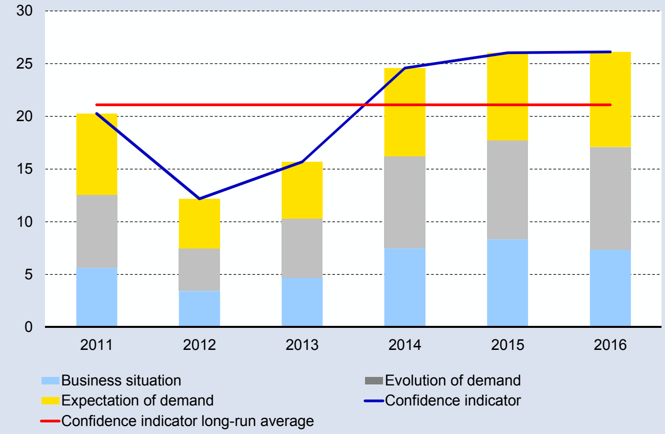
Services confidence stabilises[21]

Similar to industry, confidence within the services sector was unchanged between 2015 and 2016 (see Chart 3.14). At 26, the services confidence indicator was above its long-run average of 21.

A slight improvement in firms' assessment of demand in the preceding three months and in demand expectations were offset by a less upbeat assessment of business situation over the preceding three months.

Supplementary data indicate that employment expectations improved in 2016, while employment developments as well as firms' expectations as regards their selling prices remained unchanged compared to 2015.

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



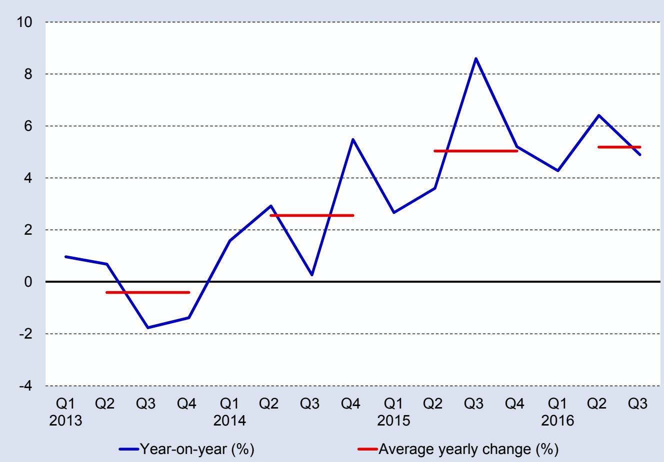
Source: European Commission.

Residential property prices

Residential property prices continued to increase during the first three quarters of 2016. During this period, the Property Price Index published by the NSO, which is based on actual transactions involving apartments, maisonettes and terraced houses, increased at an average annual rate of 5.2%, slightly faster than the 5.0% recorded in 2015 as a whole (see Chart 3.15).[22]

This robust growth in residential prices in Malta is the result of a number of factors, such as the government scheme for first-time buyers as well as the low interest rate environment, which makes property more attractive to purchase.[23] Property prices have also benefited from strong growth in disposable income, continued increases in foreign workers and the IIP.

Chart 3.15
MOVEMENTS IN RESIDENTIAL PROPERTY PRICES



Source: NSO.

[21] 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.

[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 *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.

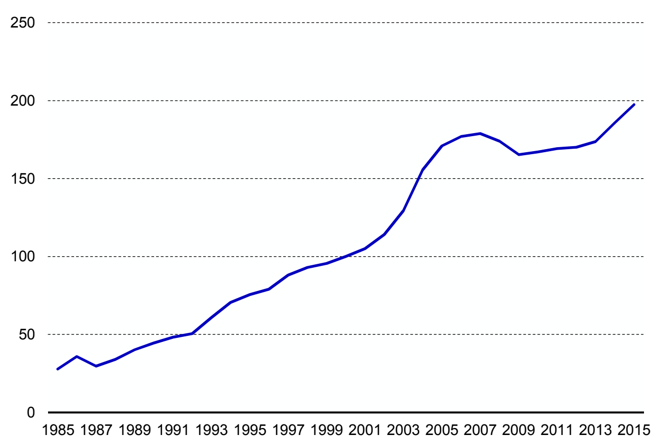
BOX 3: AN ASSESSMENT OF THE MALTESE HOUSING MARKET[1,2]

Few macroeconomic variables generate as much interest and debate as house prices. Households, firms and policymakers alike watch house prices closely because of the far-reaching implications they have on wealth, and thus private consumption, housing investment and collateral, which in turn influences non-performing loans as well as banks' and borrowers' ability and willingness to lend and borrow, respectively. Developments in house prices therefore influence macroeconomic performance and the stability of the financial system.

The relevance of house prices is particularly pronounced in Malta, where the home-ownership rate stands at 80%, and 41% of total credit extended by banks takes the form of mortgages.[3,4] In recent years, house prices in Malta have risen considerably. Between 2000 and 2015, house prices nearly doubled, increasing by 4.8% (2.6% in real terms) per annum, on average, although with a significant degree of variability.[5] This has led to growing concerns about the possible existence of a housing bubble, a situation where there is misalignment between the market price of an asset and its underlying value as determined by economic fundamentals, making the property market prone to price corrections that generate adverse macroeconomic consequences.

This Box provides an assessment of the Maltese housing market, in particular by addressing four key points of interest. First, it outlines the main developments in the housing market in recent decades and discusses the various demand and supply factors that have shaped the course of house prices. Next, using both statistical and econometric techniques, it examines whether there is any misalignment in house prices. Third, data is used to identify trends in housing rents. Finally, a simulation is conducted using STREAM, the Bank's core macro-econometric model, to quantify the macroeconomic impact of a change in house prices and identify the main channels through which such a change is transmitted to the broader economy.

Chart 1
NOMINAL HOUSE PRICE INDEX BASED ON ADVERTISED PRICES
(index; 2000=100)



Sources: Central Bank of Malta; Grech (2015).

Main developments in the housing market

The scope of this section is to highlight the key developments in the housing market since the mid-1980s and the various demand and supply factors that drove these changes. Chart 1 shows the

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1 Prepared by Owen Grech. Mr Grech is a Senior Research Economist in the Bank's Economic and Research Department and a Visiting Assistant Lecturer at the University of Malta's Faculty of Economics, Management and Accountancy. He would like to thank Dr Mario Vella, Mr Alfred Mifsud, Mr Alexander Demarco, Dr Aaron G. Grech and participants at an internal research seminar for valuable discussions, comments and suggestions. The views expressed are those of the author and do not necessarily reflect the views of the Central Bank of Malta. Any errors are the author's own.

2 This Box summarises the results of an earlier policy note. For further details, see Gatt, W. and Grech, O. (2016), An Assessment of the Maltese Housing Market, *Policy Note,* Central Bank of Malta.

3 The home-ownership rate is the ratio of owner-occupied dwellings to total residential dwellings. The remaining 20% of households rent their residence. Of these, 10% rent at market prices, while 90% rent at subsidised prices. The figures reported are those for 2014.

4 The figure quoted for the ratio of mortgages to total credit is that for 2015.

5 Throughout the study, unless otherwise stated, the house price data used is that published by the Central Bank of Malta, which extend back to 2000 and are based on advertised prices.

evolution of the nominal house price index based on advertised prices.[6] It is possible to distinguish between four distinct periods. House prices grew strongly between 1985 and 2001, increased even more rapidly over the 2002 to 2005 period, registered virtually no growth between 2006 and 2013, and rose considerably again in 2014 and 2015.

Over the period spanning 1985 to 2001, house prices nearly tripled, rising by an average rate of 7.9% per annum. A key factor behind this increase was the steady growth in income over this period. Strict exchange controls in place until 1994, limited the number of investment options, and thus a significant portion of savings were channelled to the housing market. Although mortgage lending rates were broadly stable prior to the liberalisation of capital markets in the early 1990s, subsequently interest rates declined and credit expanded at an even faster rate, fuelling further demand for housing. The Development Planning Act of 1992, which brought about more stringent controls on development, thus constraining housing supply, is likely to have raised house price expectations. Together, these factors more than outweighed the effect of dampened demand for property brought about by the introduction of Capital Gains Tax in 1993.[7]

Between 2002 and 2005, house prices rose at an even faster pace, averaging growth of 13.0% per annum. During this period, credit continued to increase rapidly – though at lower rates than in the previous period – and interest rates declined further. A number of tax amnesties granted between 2001 and 2005, under which undeclared assets were regularised, channelled more funds into the property market which, in turn, added further upward pressure on prices. Moreover, Malta's accession into the EU in 2004 is likely to have raised expectations regarding future economic prospects and hence to have driven up prices further. Income growth was relatively modest during this period. The rise in house prices contributed to an increase in housing investment.

After an extended period of strong, largely uninterrupted growth, house prices entered a phase of anaemic growth, which lasted from 2006 to 2013. Over this span, house prices only registered marginal growth that averaged 0.2% per annum, with prices falling in 2008 and 2009. A rationalisation exercise carried out by the Malta Environment and Planning Authority (MEPA) in 2006, which relaxed height limitations and development in certain zones, eased supply restrictions. While development permits for dwellings and housing investment increased in 2006 and 2007, exerting downward pressure on prices, they declined over the rest of the period, reflecting the slowdown in house price growth. Besides raising unemployment and briefly depressing real incomes, the 2008 global economic crisis is likely to have resulted in higher levels of precautionary saving in more liquid assets, channelling funds away from the property market. These developments more than offset upward price pressures brought about by the continuing expansion of credit, fall in interest rates and income growth, which was generally robust, despite the crisis.

In 2014 and 2015, house prices increased considerably, by 7.0% and 6.3% per annum, respectively. Factors behind these developments include buoyant economic activity, significant credit growth and falling interest rates. Besides lowering the cost of borrowing, the low interest rate environment has also boosted demand for property through portfolio rebalancing, as investors increase their property holdings in search of higher yielding assets. Other key factors that contributed to the recent rise in house prices include the stamp duty exemption for first-time buyers, the IIP, the reform to rental income tax legislation (all introduced in 2014), the 2015 capital gains tax reform and the increase

[6] Pre-2000 data are taken from Grech, A. G. (2015), The Evolution of the Maltese Economy since Independence, *Working Paper* 05/2015, Central Bank of Malta.

[7] For an account of the main factors behind the evolution of house prices between 1980 and 1994, see Demarco, A. (1995), Aspects of the Housing Market in Malta: 1980-1994, *Quarterly Review*, 28(4), pp. 54-64, Central Bank of Malta.

in the number of foreign workers.[8,9,10,11] The recovery in house price growth translated into a higher number of development permits for dwellings and a rise in housing investment.

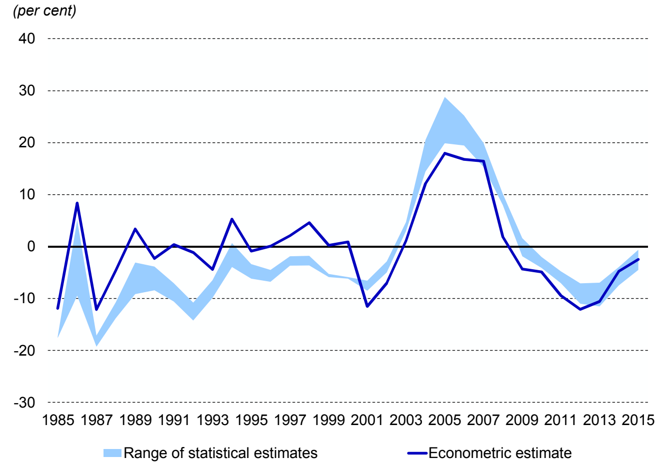
House price misalignment

This section identifies episodes of house price misalignment in Malta and quantifies the degree of overvaluation or undervaluation, with the analysis extending back to the mid-1980s.[12] Misalignment occurs when there is a divergence between the market value of an asset and its underlying value as determined by economic fundamentals. To identify and measure the extent of misalignment, two alternative approaches are adopted. The first approach is a statistical one, with misalignment defined as the deviation of the house price-to-income ratio from its long-run trend. The long-run trend is extracted using three different statistical techniques: a linear time trend, a Hodrick-Prescott (HP) filter and a Kalman filter. This produces three different statistical estimates of misalignment.

These statistical estimates of misalignment are based on developments in house prices relative to those in income. However, there may be other factors that influence whether house prices are overvalued or undervalued. To address this, the second approach is an econometric one, whereby in the long run, equilibrium house prices are specified as a function of income, the mortgage interest rate – which proxies the user cost of housing – and mortgages granted by banks.[13] Under this setting, misalignment is defined as any developments in house prices which are not explained by the fundamental factors in the model.

Chart 2 presents the estimates of misalignment from both the statistical and econometric approaches, with those from the statistical approach shown in the form of a range. All three statistical estimates point to a similar story. House prices were undervalued between the mid-1980s and the early 2000s, with the degree of misalignment narrowing gradually. This was followed by a period of overvaluation, which peaked in 2005. This misalignment was gradually corrected and equilibrium was restored in 2009. Since

Chart 2
ESTIMATES OF HOUSE PRICE MISALIGNMENT
(per cent)



Source: Author's calculations.

8 First-time buyers are exempt from stamp duty on the first €150,000 of the value of the property.

9 The IIP requires the main applicant to purchase property with a minimum value of €350,000 or lease property at an annual rent of at least €16,000 for a period of no less than five years.

10 Following the 2014 reform, lessors have the option of paying a 15% flat rate on rental income, rather than their marginal tax rate. For most lessors, this represents a reduction in tax on rental income.

11 As from 2015, property was subject to one final withholding tax of 8% on the transfer value of the property. This replaced a system that consisted of both a 12% final withholding tax and a 35% tax on any profit made.

12 When official data were unavailable, data found in Grech, A. G. (2015), The Evolution of the Maltese Economy since Independence, *Working Paper* 05/2015, Central Bank of Malta, were used.

13 The model presented here is similar to the inverted demand function approach found in a large strand of the empirical literature, where equilibrium house prices depend on the quantity of housing and other factors that influence housing demand, as in Muellbauer, J. (2012), When is a Housing Market Overheated Enough to Threaten Stability?, *Department of Economics Discussion Paper Series No. 623*, University of Oxford. The quantity of housing was not included in the econometric model presented above because it produced implausible results.

then, house prices have been undervalued, although the trough was reached in 2012 and as at 2015 house prices stood close to their equilibrium value. The econometric model suggests that house prices were broadly in equilibrium during much of the 1990s, but thereafter the extent of misalignment is very similar to that identified by the statistical approach. A key result that emerges from this empirical analysis is that as at 2015 house prices were not overvalued, but rather slightly undervalued by around 2.5 per cent.[14]

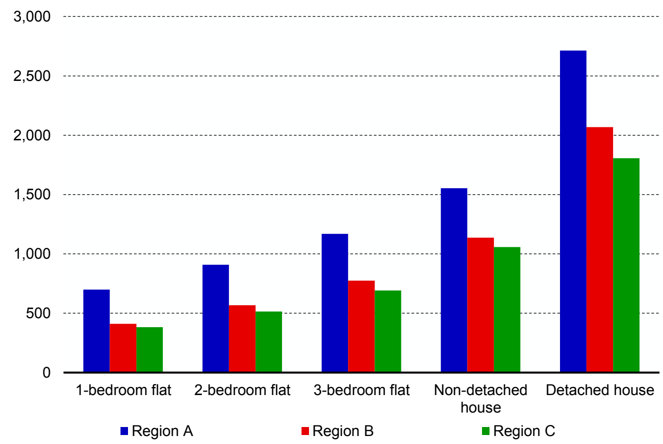
Key trends in the house rental market

The purpose of this section is to analyse recent trends in the rental market for various types of property in three key regions in Malta.[15] As pointed out previously, around 80% of Maltese households are home owners, while the remaining 20% rent their residence. Only 10% of these rent at market prices, with the rest renting at subsidised prices. Since the discussion that follows is based on market rents, the developments outlined here impact a relatively small segment of the population.

Chart 3 shows that, as at 2015, across all property types, rents in region A (Sliema, St. Julian's, Gzira and Valletta) were, on average, higher than those in region B (Mellieha, St. Paul's Bay, Qawra and Bugibba) which, in turn, exceeded rents in region C (Vittoriosa, Senglea, Cospicua and Marsascala), although the latter difference was far less pronounced. Rents in region A were nearly 50% higher than those in region B, while region B commanded rents that were on average, around 10% steeper than those in region C.

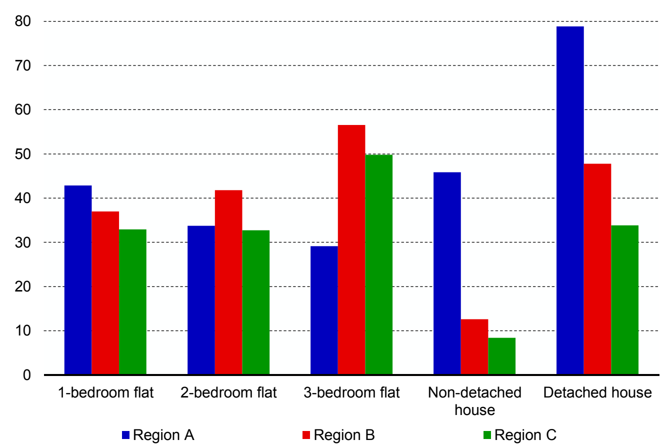
Chart 4 suggests that rents rose significantly between 2012 and 2015. Although

Chart 3
MONTHLY RENT BY PROPERTY TYPE AND REGION IN 2015
(EUR)



Source: NSO.

Chart 4
CUMULATIVE GROWTH IN RENTS BETWEEN 2012 AND 2015
(percentage changes)



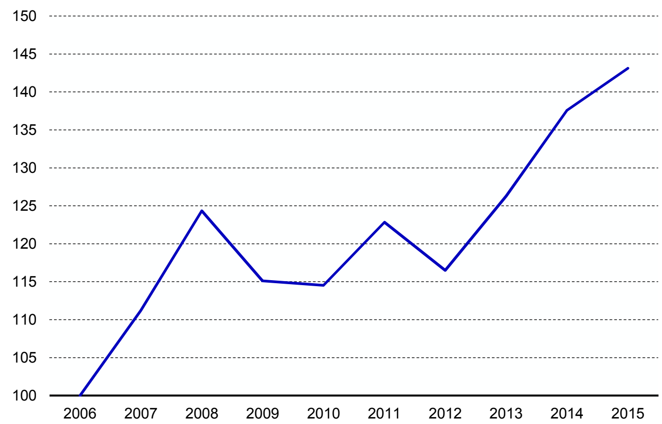
Sources: NSO; Author's calculations.

[14] Micallef, B. (2016), Property Price Misalignment with Fundamentals in Malta, *Working Paper* 03/2016, Central Bank of Malta presents very similar results using a different modelling framework.

[15] The primary scope of the data used, which are collected annually through a survey conducted through estate agencies, is to compare the relative cost of living in different cities, where civil servants working for EU institutions live, and then adjust their salaries accordingly. The property should be of good to very good quality (but not luxurious), unfurnished, constructed or modernised significantly within the last ten years and in a residential area of good quality. For this reason, it is likely that these properties generally command rents that are higher than the national average (or median), and therefore the figures and trends are only indicative of the developments in the overall market. For further details, see Eurostat (2016), *2015 Current Market Rents - From surveys through estate agencies*.

this increase was broad-based, regions A and B witnessed stronger growth in rents than region C. The properties that registered the highest gains in rents were detached houses in region A and 3-bedroom flats in regions B and C.

Chart 5
NOMINAL HOUSE RENT INDEX
(index; 2006=100)



Sources: NSO; Author's calculations.

Chart 5 presents the nominal median house rent index across all property types. Rents rose considerably between 2007 and 2008. Over the 2009 to 2012 period, rents witnessed a decline, before increasing significantly once again between 2013 and 2015. Over the past decade, rents grew by more than 40 per cent in nominal terms. A number of factors have contributed to this substantial rise, such as social and demographic factors, changing attitudes towards renting, the IIP, the reform to rental income tax legislation, the increase in foreign workers and rising demand for residential property as accommodation for tourists.[16,17]

In the literature, a popular approach of examining whether house prices are misaligned from their fundamental value is the user cost of housing methodology. Under this approach, house prices are in line with fundamentals when the cost of owning a house (the user cost of housing) is equal to the cost of renting it, once all costs have been taken into account. In particular, the fundamental value of housing is given by the ratio of rent to the user cost.[18] An increase in rents therefore raises the fundamental value of property. Hence, the gradual rise in rents recoded in Malta adds plausibility to our assessment that the increase in house prices in recent years, particularly the strong growth registered in 2014 and 2015, does not seem to be out of line with fundamentals.

The macroeconomic impact of a change in house prices

This section measures the macroeconomic impact of a change in house prices in Malta and outlines the key channels through which such a shock propagates to the broader economy. Towards this end, a simulation is carried out in STREAM, the Central Bank of Malta's core macro-econometric model. A macro-econometric model provides the ideal methodological framework since it captures

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[16] One instance of demographic change was the decrease in the average household size, which fell from 3.1 in 1995 to 2.7 in 2011 since growth in the number of households outpaced population growth. See NSO (2007) *Census of Population and Housing 2005, Volume 1: Population*, and NSO (2014) *Census of Population and Housing 2011*, respectively.

[17] The number of foreign workers in Malta increased more than fourfold between 2006 and 2014 from around 5,000 to nearly 22,000. See Grech, A. G. (2016), Assessing the Economic Impact of Foreign Workers in Malta, *Quarterly Review*, 49(1), pp. 39-44, Central Bank of Malta.

[18] The user cost of housing includes the real interest rate (the mortgage interest rate plus the opportunity cost of equity), running costs (such as repairs and insurance), buying and selling costs (such as stamp duty and estate agency commission), depreciation and the expected real appreciation rate of the property. For further details on the user cost of housing, see Fox, R. and P. Tulip (2014), Is Housing Overvalued?, *Research Discussion Paper* 2014-06, Reserve Bank of Australia, and Himmelberg, C., C. Mayer and T. Sinai (2005), Assessing High House Prices: Bubbles, Fundamentals and Misperceptions, *NBER Working Paper* No. 11643, National Bureau of Economic Research.

the interdependent nature of modern economies, where many variables and different sectors are interlinked. STREAM is a traditional structural model but unlike many models within its class, contains fully-fledged fiscal and financial blocks.[19]

The shock is defined as a permanent exogenous increase in house prices of 10%, which shifts the level of house prices over the entire three year simulation horizon.[20,21] Table 1 displays the impact of this change in house prices on key macroeconomic variables. A permanent increase in house prices raises wealth, and thus private consumption, and also boosts investment in housing. These developments translate into higher GDP, which, in turn, stimulates employment and wages. Government consumption expands as a result of an increase in public compensation of employees and public intermediate consumption. This leads to a further improvement in GDP, which is partially offset by a rise in imports. The growth in economic activity exerts upward pressure on prices which, in the context of unchanged foreign prices, gives rise to a slight loss in competitiveness and consequently exports decline gradually. On balance, however, GDP increases. Buoyant economic activity, in turn, stimulates investment further, with the other categories of investment – namely non-housing investment and government investment – also being affected positively. Higher GDP brings about lower unemployment.

On the fiscal front, government revenue rises due to higher macroeconomic bases. Government expenditure also increases since the growth in public compensation of employees, public intermediate consumption and public investment outweigh the drop in interest payments paid by the Government. The net effect translates into a rise in the government balance ratio – implying an improvement in the deficit ratio – which causes the government debt ratio to fall.

Turning to financial developments, a positive shock to house prices reduces non-performing loans. This, in turn, decreases the probability of default, which prompts banks to lower retail lending rates. This drop in lending rates, coupled with a decline in the probability of default and higher house prices, results in an expansion of credit. Consequently, this boosts banks' profits, despite the fall in lending rates. Higher profitability gives rise to an increase in equity, but this is outweighed by the rise in risk weighted assets brought about by the decrease in the probability of default, and thus the capital adequacy ratio deteriorates, albeit marginally.

Two key messages can be drawn from these results. First, in Malta, a house price shock influences the wider economy through three main channels: private consumption, housing investment and credit. Second, the macroeconomic impact of a domestic house price shock is likely to be contained, particularly when one bears in mind that the magnitude of the shock presented here is considerable in comparison to the historical fluctuations in house prices.

These results are subject to two important caveats. First, often economic shocks do not happen in isolation. A house price shock might be caused by other disturbances (for example, an international financial crisis) and might itself trigger further shocks (for example, a drop in investor confidence), which would amplify the macroeconomic impact.[22] Second, the model used is linear and hence does not capture non-linearities, that is, it does not cater for the possibility that the economic relationships

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19 Further details are presented in Grech, O. and N. Rapa (2016), STREAM: A Structural Macro-Econometric Model of the Maltese Economy, *Working Paper* 01/2016, Central Bank of Malta.

20 Since the model is linear, a decrease – rather than an increase – in house prices by the same magnitude would yield identical results, with the opposite sign.

21 For the results of temporary shock and a comparison to the results found in the literature, see Gatt, W. and Grech, O. (2016), An Assessment of the Maltese Housing Market, *Policy Note,* Central Bank of Malta.

22 STREAM is equipped to measure the impact of such scenarios.

Table 1
THE MACROECONOMIC IMPACT OF A PERMANENT HOUSE PRICE SHOCK
Percentage changes from baseline levels unless otherwise specified

	Year 1	Year 2	Year 3
Economic Activity			
Real GDP	0.08	0.22	0.21
Private consumption	0.67	1.17	1.11
Government consumption	0.02	0.13	0.06
Gross fixed capital formation	0.20	0.69	0.92
Exports	0.00	-0.04	-0.09
Imports	0.39	0.54	0.47
Gross Fixed Capital Formation			
Private sector non-housing	0.02	0.26	0.40
General government	0.24	0.71	0.92
Housing	1.73	5.48	5.44
Prices			
GDP deflator	0.01	0.05	0.13
Labour Market			
Unemployment rate(1)	0.00	-0.02	-0.02
Total employment	0.01	0.10	0.19
Total compensation to employees	0.02	0.25	0.31
Fiscal Developments			
Total receipts	0.27	0.58	0.61
Total expenditures	0.03	0.14	0.21
Balance(2)	0.10	0.19	0.17
Gross debt(2)	-0.16	-0.49	-0.69
Financial Developments			
House prices	10.00	10.00	10.00
Non-performing loans ratio(1)	-0.46	-0.80	-0.85
Average retail lending rate(1)	0.00	-0.04	-0.02
Loans to the private sector	1.10	2.42	3.43
Banks' profits	0.72	1.33	3.36
Capital adequacy ratio(1)	-0.11	-0.23	-0.39

(1) Absolute changes from baseline in percentage points.
(2) Absolute changes from baseline as a per cent of GDP.
Source: Author's calculations.

being modelled might be dependent on the state of the economy. For instance, the economy might respond differently to a house price shock that occurs during a period of economic and financial stress than it would to a shock that arises in 'normal' times.

Concluding remarks

This Box has provided an assessment of the Maltese housing market by focussing on four key points of interest. First, it highlighted the main developments in the housing market in recent decades and showed that economic, social, demographic and legal factors all played a role in shaping the course of house prices. Next, using both statistical and econometric techniques, the study examined whether there is any misalignment in house prices and found that as at the end of 2015, house prices were not overvalued. Third, it identified trends in housing rents and argued that the considerable broad-based increase in rents in recent years reinforces the evidence that house prices are not overvalued, but rather in line with fundamentals. Finally, a simulation was conducted using STREAM, the Bank's core macro-econometric model, to quantify the macro-economic impact of a change in house prices and identify the main channels through which such a change is transmitted to the broader economy. The results suggest that a house price shock influences the wider economy via three main channels – private consumption, housing investment and credit – and that its macroeconomic impact is limited, but this comes with important caveats.

A number of policy implications emerge from this analysis. First, the compilation of more timely and representative data, on both house prices and rents, would allow for a quicker and more comprehensive assessment of housing market developments. This, in turn, would make it possible to identify misalignments and allow policy makers to take corrective action in a timelier manner. In this regard, the Central Bank of Malta is currently developing a hedonic house price index, which disentangles house price changes that are due to differences in the quality of the units being sold from house prices movements brought about by changes in demand and supply.

The second point of interest relates to policies aimed at reducing market frictions that could fuel unnecessary price pressures. The recent amendment to the Civil Code that allows for the quicker sale of inherited vacant property is an example of such a policy.[23] Other policies that could be introduced include those that reduce the time and cost associated with buying and selling property, policies that encourage renovation to vacant properties in need of repair, as well as further amendments to rental legislation.

Finally, a change in house prices might not occur in isolation. This highlights the importance of assessing whether the financial system, and the economy more broadly, is resilient enough to withstand unlikely but plausible scenarios, where the economy is hit by a number of adverse shocks. Such stress testing exercises are conducted regularly by the Central Bank of Malta. Moreover, policies aimed at limiting contagion effects will serve to prevent the amplification of shocks, thus containing the macroeconomic consequences of changes in house prices.

[23] Following the amendment to the Civil Code on April 1, 2016, inherited vacant property may be sold after three years provided that 51% of the heirs are in agreement on the price at which the property should be sold. Prior to this, heirs were required to sell inherited property after five to ten years.

Consumer price inflation

HICP inflation edges down in 2016

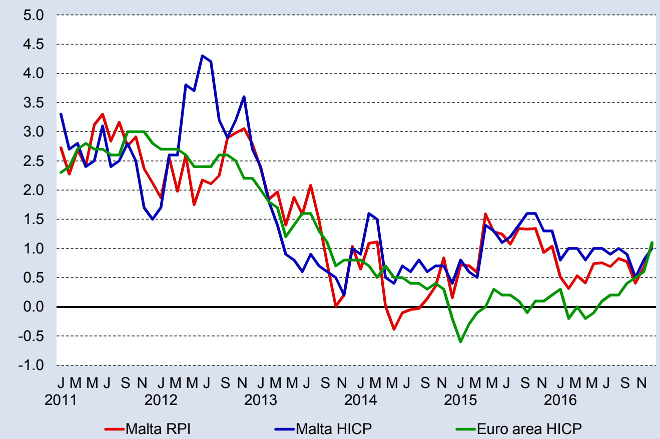
The average annual rate of inflation based on the HICP moderated to 0.9% in 2016, from 1.2% in 2015 (see Chart 3.16).[24] The year-on-year inflation rate fluctuated in a narrow range of between 0.8% and 1.0% during most of the year (see Chart 3.16).

Price pressures in Malta remained muted compared with historical trends. At the same time HICP inflation was above the euro area's annual average of 0.2%. The inflation differential between the domestic rate and that in the euro area narrowed in the course of 2016, turning negative in December. This partly mirrored developments in the euro area, where inflation rose marginally above 1%.

The moderation in HICP inflation in Malta in 2016 was driven by slower growth in prices for services and, to some extent, unprocessed food (see Chart 3.17 and Table 3.8).

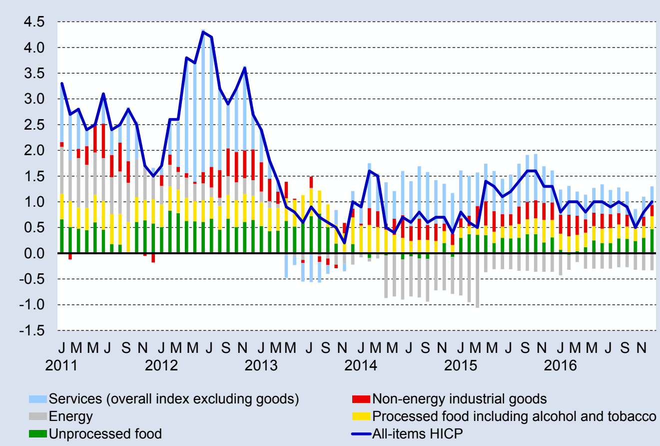
Food price inflation eased during the year under review, falling to 1.9% from 2.7% a year earlier. This was mainly driven by a deceleration in the inflation rate for unprocessed food, from an average of 4.3% in 2015 to 2.8%. Vegetable prices, which had surged in 2015, were the main drivers behind this moderation, though the inflation rate on this component began to pick up once more in late 2016 on the back of dry weather conditions over the year (see Chart 3.18). To a lesser extent, fish and seafood prices also contributed to the slower growth in food prices. In contrast, fruit and meat prices both picked up in 2016. As a

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



Sources: NSO; Eurostat.

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



Source: Eurostat.

Table 3.8
HICP INFLATION RATES
Average annual rate of change

	2011	2012	2013	2014	2015	2016
Unprocessed food	5.9	8.5	6.4	-0.4	4.3	2.8
Processed food including alcohol and tobacco	4.0	3.6	3.7	2.7	2.0	2.2
Energy	11.8	4.6	-0.7	-7.6	-6.5	-4.2
Non-energy industrial goods	0.9	1.1	0.5	1.0	1.1	0.9
Services (overall index excluding goods)	1.2	3.2	-0.2	1.8	1.7	1.0
HICP (annual average inflation rate)	**2.5**	**3.2**	**1.0**	**0.8**	**1.2**	**0.9**

Source: ECB.

[24] The HICP weights are revised on an annual basis to reflect changes in household consumption patterns. In 2016 the weight allocated to energy stood at 7.2%, while that of NEIG was 28.7%. Services accounted for 43.7% of the index, while the share of food stood at 20.4%.

result, the contribution of unprocessed food prices to the overall inflation rate dropped to 0.2 percentage point in 2016, from 0.3 in the previous year.

On the other hand, processed food prices rose at an average pace of 2.2% in 2016, up slightly from 2.0% in 2015. Nonetheless, the contribution of this component to the overall HICP inflation was broadly unchanged from 2015.

Services inflation weakened during 2016, with the annual average rate falling to 1.0%, from 1.7% in 2015. As a result, the contribution of this component, which has the highest weight in the overall HICP index, dropped by 0.3 point to 0.5. The deceleration in services prices was driven by movements in the prices of services related to recreation and personal care, although price pressures were subdued across other components (see Chart 3.19).

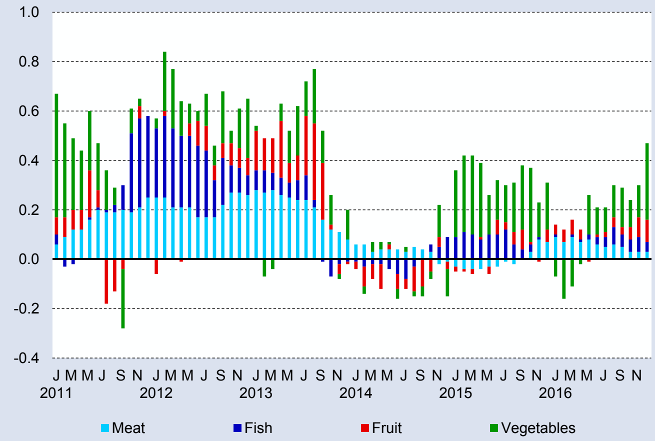
Meanwhile, inflation in non-energy industrial goods (NEIG) registered a marginal drop. In 2016, it averaged 0.9%, down from 1.1% in 2015. This mainly reflected developments in semi-durable goods prices, such as clothing. Nonetheless, the contribution of NEIG inflation to the overall HICP index remained stable at 0.3 percentage point.

Energy prices fell on average by 4.2% during 2016, following a 6.5% decrease in the previous year. The weaker rate of decline in 2016 mainly reflected the diminishing effect of reduced electricity tariffs that became effective in the course of 2014 and impacted inflation in 2015. As a result, the contribution of energy inflation to the overall HICP index rose from -0.5 in 2015 to -0.3 in 2016.

Core inflation dips

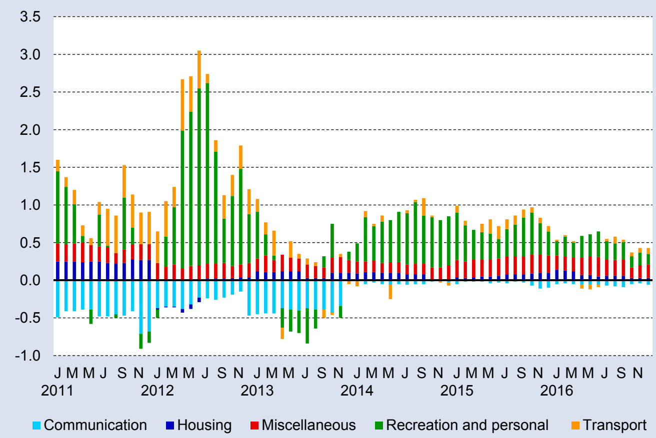
As with the overall HICP, core HICP inflation dipped during 2016. The latter averaged 1.2% during the year under review, down from 1.7% a year earlier (see Chart 3.20).[25] Nonetheless,

Chart 3.18
CONTRIBUTIONS FROM UNPROCESSED FOOD TO HICP INFLATION
(percentage points)



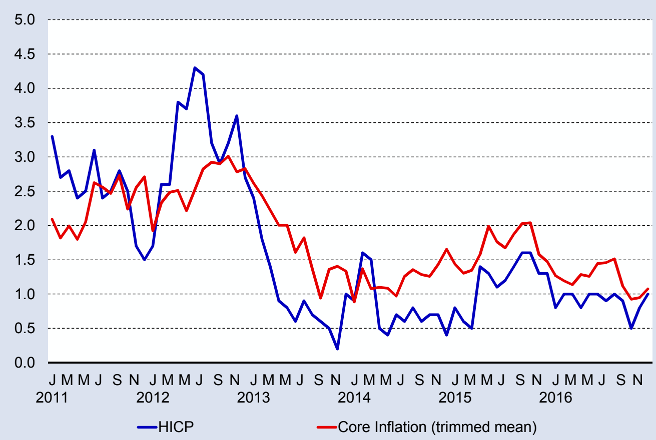
Source: Eurostat.

Chart 3.19
CONTRIBUTIONS FROM SERVICES TO HICP INFLATION
(percentage points)



Source: Eurostat.

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



Sources: Eurostat; Central Bank of Malta estimates.

[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 "An Evaluation of Core Inflation Measures for Malta", *Quarterly Review* 2014:3, Central Bank of Malta, pp. 39-45.

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

	2011	2012	2013	2014	2015	2016
Food	0.8	1.0	1.0	0.1	0.6	0.5
Beverages and tobacco	0.1	0.3	0.3	0.3	0.2	0.2
Clothing and footwear	0.0	-0.1	0.0	0.1	0.1	-0.1
Housing	0.4	0.0	0.1	0.0	0.1	0.1
Water, electricity, gas and fuels	0.1	0.0	0.0	-0.5	-0.2	0.0
Household equipment and house maintenance costs	-0.1	0.1	0.1	0.1	0.1	0.1
Transport and communications	0.7	0.5	-0.5	-0.1	-0.3	-0.5
Personal care and health	0.1	0.1	0.2	0.1	0.1	0.1
Recreation and culture	0.1	0.1	0.2	0.3	0.2	0.1
Other goods and services	0.3	0.3	0.0	0.0	0.2	0.1
RPI (annual average inflation rate)	**2.7**	**2.4**	**1.4**	**0.3**	**1.1**	**0.6**

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

throughout the year core inflation held above the headline index, indicating that falling prices in the more volatile components of the index weighed down on inflation in 2016.

RPI inflation weakens in 2016

The moderation in the annual rate of change of the HICP index during 2016 was also reflected in the RPI).[26] The 12-month moving average inflation rate based on the RPI dropped to 0.6% in 2016, from 1.1% in the previous year. As with HICP inflation, this deceleration resulted from lower contributions from services related to recreation and culture, food, clothing and footwear, and transport and communications (see Table 3.9).

Costs and competitiveness

Producer prices continue to contract

Producer prices, as measured by the Industrial Producer Price Index (PPI), remained on a downward trend during 2016.[27] During the year, the annual rate of change of this index stood at -0.6% on a twelve-month moving average basis. The rate of decline thus eased from that in 2015, when producer prices had contracted by 2.2%.

Developments across the main components of the index were mixed. The average contribution of energy rose by 1.2 percentage points to -0.5 point, reflecting the declining effect of the cut in electricity tariffs for businesses that came into force in April 2015. Meanwhile, the contribution of intermediate goods, which include semiconductors and pharmaceutical products and which account for almost one half of the overall index, was nil in 2016. This followed a negative contribution a year earlier.

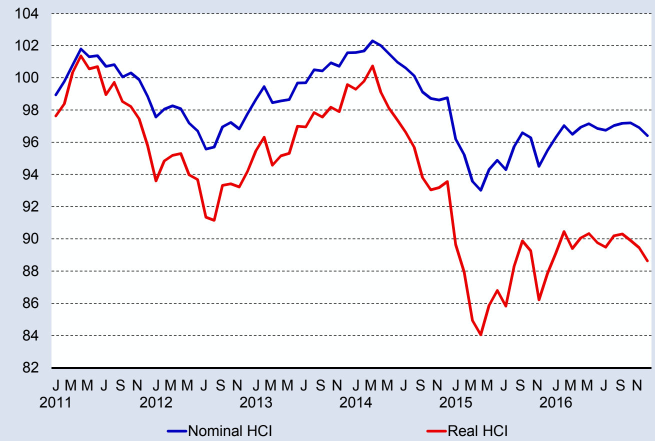
On the other hand, the contribution of producer prices for consumer goods turned negative, falling to -0.2 in the year under review from 0.7 in 2015. This mainly reflected developments in factory-gate prices for consumer durables. The contribution from capital goods component also dropped in 2016, albeit marginally, to 0.1 point.

[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.
[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.

HCIs indicate a deterioration in external competitiveness

Following an ammelioration in 2015, external competitiveness as measured by the Harmonised Competitiveness Indicators (HCI) deteriorated slightly in 2016, though not enough to reverse the previous year's gain (see Chart 3.21).[28] The nominal HCI, which is based on exchange rate movements against currencies of Malta's main trading partners, gained an average of 1.9% during the year under review, partly a result of the stronger euro/sterling exchange rate. Meanwhile, the real HCI, which also takes into account relative prices, gained 2.9%, with the larger gain in the real HCI indicating that Malta's positive inflation differential relative to trading partners amplified the loss of competitiveness caused by exchange rate movements.

Chart 3.21
HARMONISED COMPETITIVENESS INDICATORS
(May 2004 = 100)

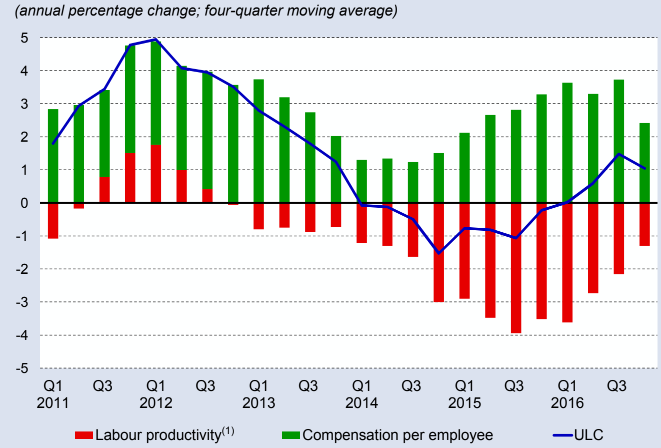


Source: ECB.

Unit Labour Costs rise moderately

In 2016 Malta's Unit Labour Cost (ULC) index, which is measured as the ratio of compensation per employee to labour productivity, increased by 1.1%, following a drop of 0.2% in 2015 (see Chart 3.22).[29] Compensation per employee and labour productivity, the two components of the index, both decelerated during the year under review. Growth in compensation per employee slowed from 3.3% in 2015 to 2.4% in 2016, while labour productivity growth decelerated to 1.3%, from 3.5% a year earlier. This faster deceleration in labour productivity growth when compared to compensation per employee in turn led to ULC growth to accelerate.

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.

[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.

[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.

BOX 4: ECONOMIC PROJECTIONS: DECEMBER 2016

Economic outlook[1]

Data for 2016 suggest that after three years of very strong growth, economic activity is likely to slow down. Consequently, real GDP growth is projected to ease from 6.2% in 2015, to 4.3% in 2016. It is set to decelerate further in the following years, to reach 3.3% by 2019 (see Table 1).

Table 1
PROJECTIONS AS AT DECEMBER 2016 FOR THE MAIN MACROECONOMIC AGGREGATES FOR MALTA(1)

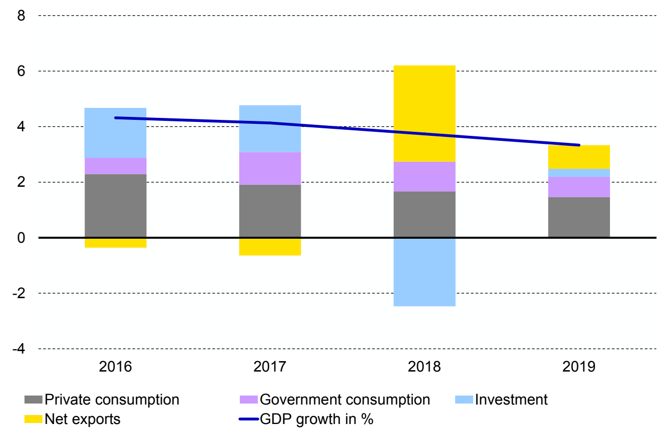
	2015	2016(2)	2017(2)	2018(2)	2019(2)
Real economic activity (% change)					
GDP	6.2	4.3	4.1	3.7	3.3
Private consumption expenditure	5.5	4.3	3.6	3.2	2.8
Government consumption expenditure	4.6	3.1	6.2	5.6	3.7
Gross fixed capital formation	43.1	7.1	6.2	-9.2	0.9
Exports of goods and services	2.1	1.9	2.9	3.2	3.4
Imports of goods and services	5.6	2.2	3.5	0.6	2.9
Contribution to real GDP growth (in percentage pts)					
Final domestic demand	11.8	4.7	4.8	0.3	2.5
Net exports	-4.7	-0.4	-0.6	3.5	0.8
Changes in inventories	-0.9	0.0	0.0	0.0	0.0
Real disposable household income(3)	4.0	3.9	3.8	2.8	2.5
Household saving ratio(3)	12.0	11.6	11.6	11.3	11.2
Balance of payments (% of GDP)					
Goods and services balance	2.9	3.1	2.4	5.7	6.4
Current account balance	2.9	2.2	1.6	5.0	5.7
Labour market (% change)(4)					
Total employment	3.4	3.1	2.9	2.8	2.7
Unemployment rate (% of labour supply)	5.4	4.9	5.0	5.2	5.3
Prices and costs (% change)					
GDP deflator	2.3	1.9	2.0	2.1	2.1
RPI	1.1	0.6	1.4	1.6	1.8
Overall HICP	1.2	0.9	1.4	1.7	1.9
HICP excluding energy	1.8	1.3	1.6	1.7	2.0
Compensation per employee	2.7	3.3	3.3	2.8	2.4
ULC	0.0	2.2	2.0	1.9	1.8
Public finances (% of GDP)					
General government balance	-1.4	-0.8	-0.6	-0.4	-0.1
General government debt	64.0	62.6	60.8	57.4	54.8
Technical assumptions					
EUR/USD exchange rate	1.11	1.11	1.09	1.09	1.09
Oil price (USD per barrel)	52.4	43.1	49.3	52.6	54.6

(1) Data on GDP were sourced from NSO *News Release* 142/2016 published on 6 September 2016.
(2) Central Bank of Malta projections.
(3) Data for 2015 are Central Bank of Malta estimates.
(4) 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.

[1] The Bank's outlook for the Maltese economy is based on information available up to 23 November 2016 and is conditional on the technical assumptions shown in Table 1, which are sourced from the European Central Bank. These forecasts were carried out in the context of the December 2016 ESCB staff macroeconomic projections exercise and published on the Central Bank of Malta's website: https://www.centralbankmalta.org/file.aspx?f=51492. They do not take into account general government data as per NSO *Release* 008/2017 and GDP data as per NSO *Release* 041/2017. On balance, these two releases point to upside risks to both activity and the fiscal outlook presented in this note.

Over the projection horizon as a whole, GDP growth is expected to be driven mainly by domestic demand. The contributions of domestic demand and net exports are heavily influenced by the path of investment, which is set to expand in 2016 and 2017, contract in 2018, and recover in the outer year. As a result, while domestic demand is expected to drive economic growth in the first two years of the projection horizon, its contribution is set to be marginal in 2018, before rising again in 2019. In contrast, net exports are forecast to contribute negatively in the first two years, but positively in 2018 and, to a lesser extent in 2019 (see Chart 1).

Chart 1
GDP GROWTH OVER THE PROJECTION HORIZON
(percentage point contributions; annual percentage change)



Source: Central Bank of Malta.

Private consumption is expected to remain one of the main drivers of economic growth going forward. This is set to benefit from favourable labour market conditions, a low interest rate environment and a number of measures introduced in the Budget 2017 to support low-income earners. At the same time, real disposable income is expected to decelerate in line with the projected easing in economic activity. Hence, private consumption is projected to decelerate throughout the projection horizon. As the latter is set to grow faster than real disposable income, the saving ratio is expected to decline.

With regard to real government consumption, its profile is influenced heavily by inflows related to the IIP. These inflows, which are netted against consumption expenditure, rose significantly in 2015 and are expected to peak in. They are set to slow down in 2017 and more than halve in 2018. In 2019 they are expected to keep the same level. The forecast increase in government consumption in 2016 and 2017 also reflects spending related to Malta's Presidency of the Council of the EU.

The outlook for investment growth is strongly influenced by expected developments in specific sectors, notably in energy and aviation, as well as the take-up of EU funds. Following the strong growth in 2015, overall investment growth is projected to slow down sharply in 2016. The deceleration in 2016 partly reflects a contraction in government investment, consistent with the low take-up of funds under the EU 2014-20 Financing Framework. Additionally, private investment, which had been boosted by developments in the aviation sector in 2015, is expected to grow at a slower rate. In 2017, investment growth is expected to moderate further, as underlying investment responds to the slowing pace of economic activity and capital outlays in the aviation sector level off. These factors more than offset an expected recovery in government investment and support from major construction projects in health and education. In 2018, investment is projected to contract sharply, as major spending programmes in energy and aviation are expected to be finalised by 2017. Investment growth in 2019 is then projected to pick up again.

With regard to external trade, exports are expected to decelerate in 2016, reflecting a slowdown in foreign demand, and a contraction in goods exports. Exports are then expected to accelerate in the projection horizon, supported by a recovery over the manufacturing sector and continued robust services export growth. Nevertheless, the weakness in goods exports is envisaged to persist, and hence, total exports are foreseen to grow less rapidly than foreign demand.

The profile of import growth mainly mirrors that of investment and exports. In 2016, imports are expected to decelerate due to the sharp slowdown in capital-intensive investment and a moderation of export growth. In 2017 they are then projected to accelerate, due to the envisaged recovery in exports. In 2018, imports grow only marginally, as the contraction in capital imports that year partially offsets the impact of growth in the other domestic demand components and exports. In 2019, imports begin to pick up again, in line with the foreseen recovery in investment and continued expansion in exports.

Although on the real side import growth is expected to exceed export growth in 2016, the decline in international commodity prices is projected to affect import prices more than export prices, in line with developments in the first half of the year. As a result, the trade surplus is expected to widen. However, the surplus on the current account should narrow due to a decline EU funds absorption. In 2017, trade surplus is foreseen to narrow, mirroring the rise in investment of a capital-intensive nature and the Bank's expectation that import prices would grow broadly in line with export prices. It is then set to widen in 2018 and 2019, reflecting the projected recovery in net exports. The current account balance in the last three years of the projection horizon broadly follows the trade balance.

Compared to the Bank's previous projections, GDP growth is being revised downward, with the most significant revision arising in 2016. The downward revision is mainly driven by the less upbeat assessment for exports taking into account the negative surprise in goods exports in the first half of the year and a less optimistic outlook for foreign demand.

Labour market

The persistence of robust GDP growth over the projection horizon, alongside the extension of active labour market policies, is expected to support continued growth in employment. Nevertheless, the foreseen restraint in public sector employment and the expected slowdown in economic activity from its historical highs should limit the rate of hiring in the next few years. As a result, employment growth is forecasted to decelerate throughout the projection horizon, mirroring an easing in both the public and private sector.

This notwithstanding, unemployment in 2016 is expected to continue falling, reflecting developments in the first half of the year. Conversely, as employment growth and economic activity slow down further in the period 2017 and 2019, the unemployment rate is foreseen to rise slowly.

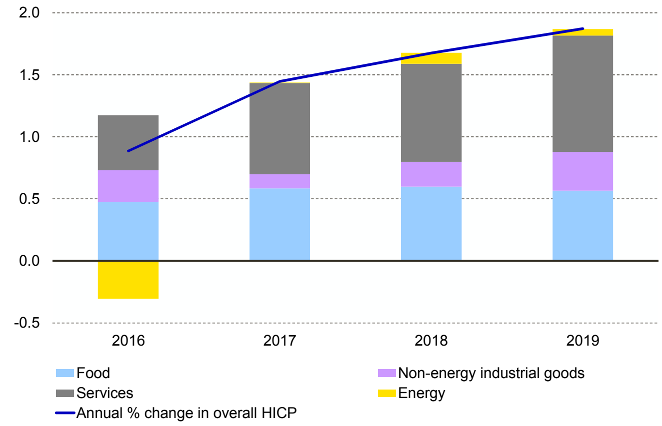
In a context of a recovery in productivity, rapid economic growth and low unemployment levels, the labour market is tightening. Indeed data for the first half of the year and surveys suggest that wage pressures are becoming a salient feature of the Maltese economy. Hence, compensation per employee is forecast to accelerate in 2016. In the period 2017 and 2019, wage pressures are expected to ease slightly, as productivity growth slows down and tightness in the labour market dissipates.

Prices

The Bank's inflation projections are influenced by the technical assumptions shown in Table 1. The international price of oil in euro is expected to increase over the next three years. Against this external background, but also taking into account developments up to October 2016 and the expected evolution of domestic cost pressures, HICP inflation in Malta is set to ease from 1.2% in 2015 to 0.9% in 2016, before picking up to 1.9% by 2019 (see Chart 2).

The drop in overall HICP inflation in 2016 is driven by the relatively subdued outcome for HICP excluding energy during the first ten months of the year. In 2016 as a whole, the latter is set to ease, largely on account of slower growth in prices of unprocessed food, services, and, to a lesser extent, non-energy industrial goods. Over the following three years, HICP excluding energy inflation is expected to accelerate in response to demand and wage pressures.

Chart 2
HICP INFLATION OVER THE PROJECTION HORIZON
(percentage point contributions; annual percentage change)



Source: Central Bank of Malta.

In contrast, energy inflation is set to be less negative in 2016, as the impact of the 2014 electricity tariff reduction, which had lowered the energy component significantly in the first part of 2015, drops out from the annual inflation rate. In the following three years, energy inflation is expected to turn positive, as in the absence of official announcements, domestic prices for gas and transport fuel are projected to gradually respond to the foreseen recovery in Brent oil prices, while electricity tariffs are expected to remain unchanged.

Compared with the Bank's earlier projections, the latest exercise entails a slight downward revision in the inflation projections, largely reflecting downward revisions to the services component.

Public finance

The general government deficit-to-GDP ratio is set to decline throughout the forecast horizon, from 1.4% in 2015 to 0.1% in 2019. The Bank expects a slower rate of consolidation compared with Government projections; according to the 2017 Budget estimates, a deficit of 0.1% of GDP is set to be achieved by 2019.[2]

The improving fiscal outlook over the forecast period is supported by strong tax revenue growth, but is mainly driven by the expectation of continued restraint in key recurrent expenditure items. In particular, the Bank's projections assume restrictions in public sector hiring, and declines in interest payments in line with lower financing needs and prevailing low interest rates. The relatively low spending growth profile is also due to certain special factors, such as the end of capital transfers to Air Malta from 2017 onwards, and the increase in the statutory retirement age in 2018. At the same time, inflows from the IIP are also expected to contribute to the narrowing of the deficit. However, this impact is concentrated in 2016 and 2017, when these inflows are expected to be at their highest.

The general government debt-to-GDP ratio is estimated to fall from 64.0% in 2015 to 54.8% by 2019, supported by the expected improvement in the primary fiscal balance and a favourable GDP growth-interest rate differential.

The outlook for the deficit ratio is broadly unchanged compared with the Bank's earlier projections, as higher than expected IIP inflows were partly offset by an upward revision in costs attributed to the EU Presidency and the Budget 2017 measures. The debt ratio has been revised slightly upwards, in view of new information on financing transactions.

[2] The Bank's fiscal projections may differ from those of Government owing to variances in the underlying macroeconomic projections and different assessments about the impact of fiscal measures. Moreover, the Bank's projections only take into account policy measures that are well specified and have passed the legislative process.

4. BALANCE OF PAYMENTS

During the first three quarters of 2016 the current account of the balance of payments posted a higher surplus than in the comparable period of 2015. This improvement was entirely attributable to a rise in net services receipts. Meanwhile, net inflows on the capital account declined on a year earlier, while the financial account posted net lending flows, as opposed to net borrowing in the first nine months of 2015.

When measured as a four-quarter moving sum, the current account registered a surplus equivalent to 6.4% of gross domestic product (GDP), 1.1 percentage points higher than in the year ending September 2015. The marked increase in the surplus mainly reflected higher net services receipts and, to a lesser extent, higher net inflows from secondary income. These developments were partly countered by higher net outflows related to primary income. Meanwhile, net inflows on the capital account declined on a year earlier, while the financial account swung to a net lending position. Lower net inflows were recorded on the capital account. During the same period, the financial account balance showed a net lending position as opposed to net borrowing in the four quarters to September 2015.[1] Net errors and omissions remained negative but declined substantially.[2]

The current account

Between January and September 2016, the current account recorded a surplus of €501.4 million, €135.1 million more than a year earlier (see Table 4.1). This improvement was driven by a rise in net services exports, which offset a widening in the merchandise trade gap, higher net outflows related to primary income and marginally lower net inflows from secondary income.

In the four quarters to September 2016, the surplus on the current account stood at €620.0 million, or 6.4% of GDP (see Chart 4.1). This improvement was primarily attributable to a rise in net receipts on services, though an increase in net inflows from secondary income also contributed (see Chart 4.2). In contrast,

Table 4.1
BALANCE OF PAYMENTS
EUR millions

	2013	2014	2015	2015 Q1-Q3	2016 Q1-Q3
Current account	**238.0**	**804.7**	**484.9**	**366.3**	**501.4**
Goods	-1,104.7	-1,117.3	-1,853.6	-1,455.4	-1,470.6
Services	1,645.7	2,183.2	2,584.3	2,013.0	2,274.5
Primary income	-388.5	-411.4	-488.8	-371.7	-482.5
Secondary income	85.5	150.2	243.0	180.4	180.0
Capital account	**133.3**	**140.7**	**166.5**	**158.3**	**35.1**
Financial account(1)	**-67.3**	**199.1**	**-657.1**	**-612.3**	**611.2**
Errors and omissions	-438.6	-746.3	-1,308.5	-1,136.8	74.7

(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.

a widening of the goods deficit and higher net outflows on the primary account affected the current account negatively.

Goods deficit widens during the first nine months of 2016

Balance of payments data show that in the first nine months of 2016 the merchandise trade deficit widened by €15.2 million on the corresponding period of 2015 and stood at €1,470.6 million. This was attributable to a contraction of €279.7 million in exports, which outweighed a decrease of €264.5 million in imports.

Expressed as a four-quarter moving sum, the merchandise trade gap stood at 19.2% of GDP (see Chart 4.3).[3]

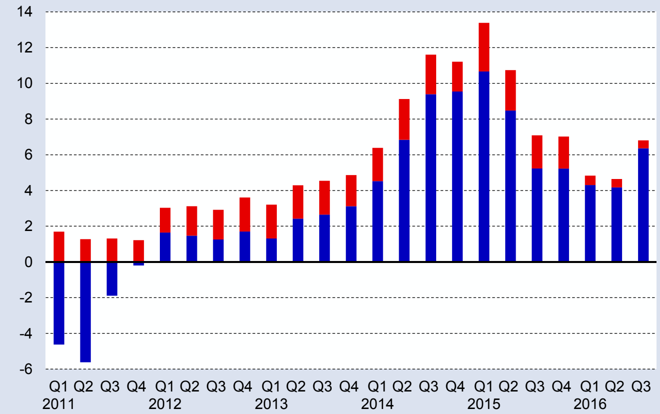
The surplus on services increases

With services exports significantly outpacing imports, the positive balance on services in the first nine months of 2016 increased by €261.5 million on the same period of 2015, reaching €2,274.5 million. This improvement was predominantly driven by increased transport and personal, cultural and recreational services, which include remote gaming and the film industry.

Partly reflecting these developments, the positive balance on the services account climbed to €2,845.8 million, or 29.2% of GDP during the four quarters to September 2016, with the ratio up by 1.7 percentage points on the comparable period ending September 2015 (see Chart 4.4).

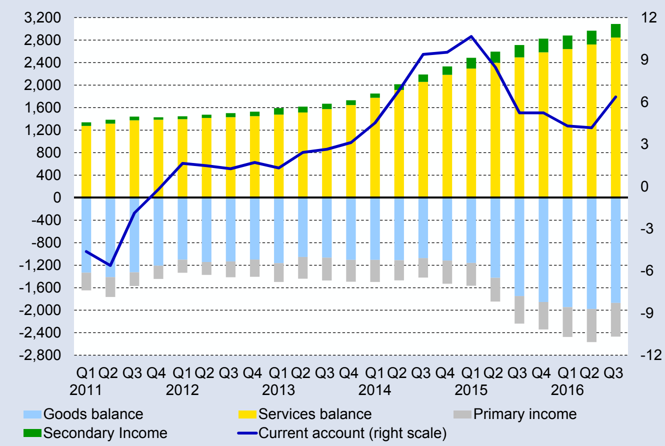
On this basis, the increased surplus on the services balance

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



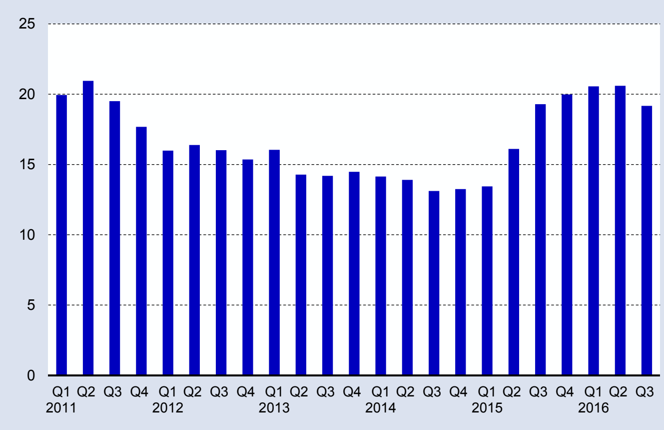
Source: NSO.

Chart 4.2
COMPOSITION OF CURRENT ACCOUNT
(four-quarter moving sums in EUR millions; as a percentage of GDP)



Source: NSO.

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

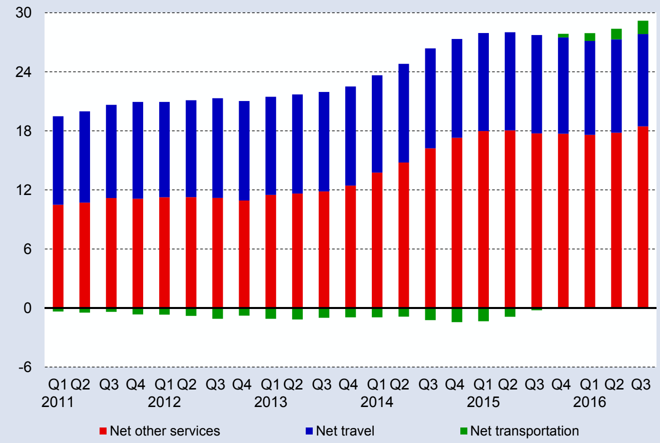


Source: NSO.

[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.

mirrored favourable developments on all the main sub-components. The transport account was a key contributor to this improvement, as it recorded net exports of €132.3 million as opposed to net imports of €20.5 million in the four quarters ending in September 2015. A buoyant tourism sector also contributed to the improvement in the services balance, albeit to a smaller extent. During the year to September 2016 the net surplus on travel stood at €913.8 million, up by €7.3 million on a year earlier, as tourism receipts continued to outpace spending by Maltese residents travelling abroad.

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



Source: NSO.

Higher net exports were also registered on the "other services" component. These reached €1,799.7 million in the year to September 2016, up by €191.6 million on a year earlier. This improvement was mainly driven by higher net receipts from personal, cultural and recreational services. Lower net payments were also recorded from insurance and pension services and from the "other business" services sectors. In contrast, lower net financial services receipts and higher net payments related to telecommunication services were posted compared with the year to September 2015.

Net outflows on primary income account increase[4]

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. Between January and September 2016, net primary income outflows stood at €482.5 million, an increase of €110.8 million on the same nine months of 2015.

When measured on a four-quarter cumulative basis, net outflows on this component reached 6.2% of GDP, 0.7 percentage point more than in the four-quarters to September 2015. This was largely driven by an increase in profits registered by foreign-owned firms operating in Malta, which are registered as outflows on this account. Moreover, lower income on portfolio investment abroad, also contributed. These developments were partly offset by a rise in net interest earnings on outstanding loans to non-residents.

Net inflows on secondary income account broadly stable

During the first nine months of 2016, net inflows on the secondary income account amounted to €180.0 million, broadly unchanged when compared with the same period a year earlier.

When measured over the year to September 2016, net inflows on the secondary income account stood at €242.6 million, or 2.5% of GDP. This is 0.1 point more than in the corresponding period 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.

[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.

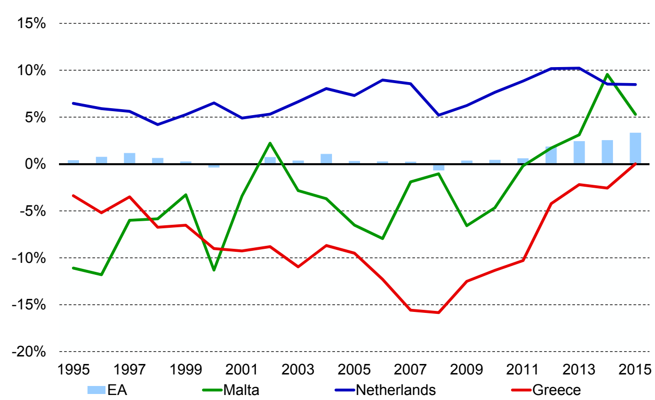
BOX 5: DETERMINING THE UNDERLYING CAUSES BEHIND THE RECENT SHIFT IN MALTA'S CURRENT ACCOUNT POSITION[1]

The current account of the balance of payments is a key economic indicator closely followed by policymakers. There are two broad ways of conceiving it: either as the difference between what a country exports and what it imports, or else as the difference between national savings and investment. Past research on Malta's current account has focused on assessments of sustainability[2] and on the role of the private and public savings gaps in driving its development.[3] More recently, the analysis has focused on the impact on the current account of the emergence of high value-added export-oriented services sectors.[4]

Over the last two decades, the Maltese economy has shifted from having a very high current account deficit to forming part of the group of above-average surplus European Union (EU) countries. Malta's current account position has improved by 11.9 percentage points of GDP since 2009, the largest improvement amongst euro area countries and about four times the change seen on average. In 2014, Malta's surplus even surpassed that observed in the Netherlands, the EU country with the most consistently high surpluses since 1995. This is quite a turnaround given that in the late 1990s, the Maltese economy tended to have higher deficits than Greece, the EU country with the worst average current account performance over the last two decades. That said, as can be seen in Chart 1, even Greece has experienced a significant improvement after the financial crisis. However the rebalancing in the external accounts in the case of Malta differs significantly, and appears to be mostly of a structural, rather than a cyclical nature.

The change in Malta's current account was, in fact, mainly driven by the rapid growth of exports, which resulted in the services surplus rising by 11.0% of GDP since 2009. On the one hand, the traditionally strongest services sector – tourism – has experienced a steady increase, accounting for nearly half of this improvement. On the other hand, the financial services sector, after exceptional surpluses between 2008 and 2011, appears to have settled to much lower levels. This development was offset by other services sectors, notably remote gaming, maintenance & repair, telecommunications and computer & information

Chart 1
MALTA'S CURRENT ACCOUNT POSITION VIS-À-VIS THAT OF LARGEST SURPLUS AND DEFICIT COUNTRIES IN THE EU
(% of GDP)



Source: Author's calculations using Central Bank of Malta macroeconomic time series database and AMECO.

[1] Prepared by Dr Aaron G. Grech, Chief Officer – Economics. The views expressed in this Box, which are a summary of a broader article by Grech, A.G. and Rapa, N. (2016), Trends in Malta's current account and their underlying causes, *Policy Note*, Central Bank of Malta, are the author's own and do not necessarily reflect the views of the Bank.

[2] Demarco, A. (1999), Measuring current account sustainability. *Quarterly Review*, Central Bank of Malta March 1999.

[3] Grech, A.G. (2000), The private and public saving gaps in Malta and their impact on the current account. *Quarterly Review*, Central Bank of Malta March 2000.

[4] Grech, A.G., Micallef, B. and Zerafa, S. (2016), Diversification and structural changes in the Maltese economy, in A. G. Grech (ed.) *Understanding the Maltese Economy*, Central Bank of Malta, Valletta.

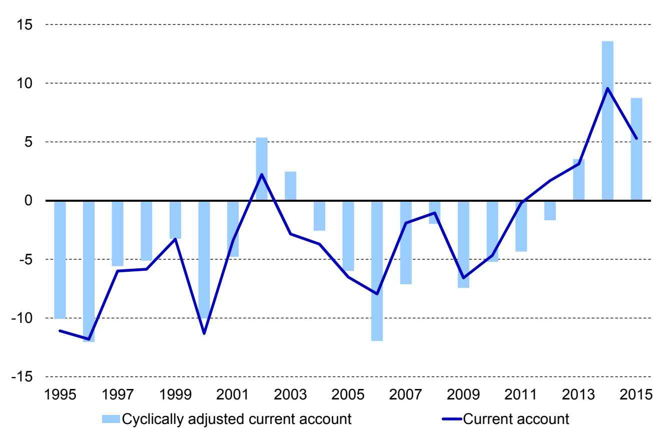
services. These sectors, as evidenced by the continued rise in their employment, are now generating substantial export revenues.

Estimating Malta's cyclically adjusted current account position

To understand better the causes of external accounts rebalancing, economic literature has focused on the calculation of cyclically adjusted current account positions.[5] This involves adjusting a country's level of imports and exports to reflect respectively its potential domestic output and that of its trading partners by means of given elasticities. This is done to account for the influence on the current account of import compression during recessions and the impact on exports of foreign demand cycles.

Besides issues relating to the calculation of potential output estimates, debate on cyclically adjusted current account positions has focused on the assumed income elasticities. For instance, the European Commission's methodology assumes a common income elasticity of exports and imports equal to 1.5 for all countries.[6] While this has all the benefits of a harmonised approach, a number of studies have instead advocated calculating these elasticities separately and empirically.[7] In fact, if one adopts the latter stance, Malta's long-term income elasticity for exports stands at 1.33, while that for imports is 1.25. These estimates were applied to measures of the output gap for Malta and its trading partners.[8] While Malta's economic cycle broadly tracks that of its main trading partners, in recent years there was quite some difference in the relative cyclical position, with Malta experiencing a smaller drop in activity in 2009 and its output gap turning into a significant surplus in the last few years. This implies that the cyclically adjusted current account position should exceed the unadjusted position. On the one hand, Malta's exports would be higher if its trading partners were not currently operating below capacity. On the other, imports would be lower if Malta's demand were closer to its potential level, rather than being substantially above. The impact of the first factor is, of course, higher than the impact of the second, because exports are a larger share of GDP, while the income elasticity of exports is higher than that of imports.

Chart 2
CYCLICALLY ADJUSTED CURRENT ACCOUNT: MALTA
(% of GDP)



Source: Author's calculations using World Economic Outlook, AMECO and Central Bank of Malta databases.

Chart 2 plots the cyclically adjusted and the unadjusted current account position for the Maltese economy over the period 1995 to 2015. The two measures track closely each other, with only

5 For instance, see European Central Bank (2014), To what extent has the current account adjustment in the stressed euro area countries been cyclical or structural? *Monthly Bulletin* Box 5, ECB January 2014.

6 Salto, M. and Turrini, A. (2010), Comparing alternative methodologies for real exchange rate assessment. Economic Papers 427, European Commission.

7 For example, Fabiani, S., Federico, S. and Felettigh, A. (2016), Adjusting the external adjustment: cyclical factors and the Italian current account. *Questioni di Economia e Finanza* No. 346, Banca d'Italia.

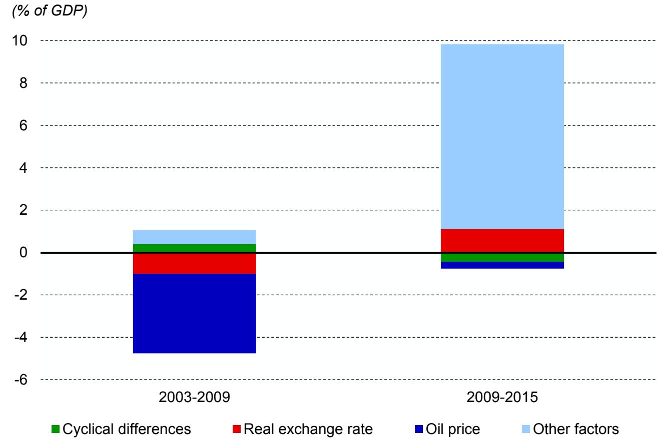
8 The Maltese output gap estimates are derived using the method described in Grech, A.G. and Micallef, B. (2016), Assessing potential output growth of the Maltese economy using a production function approach, in A.G. Grech (ed.) *Understanding the Maltese economy*, Central Bank of Malta, Valletta. The estimates for Malta's trading partners are derived as a composite of output gaps for EU countries derived from the AMECO database and those for non-EU countries taken from the World Economic Outlook database. The individual country cyclical positions are then combined using weights reflecting the relative share of that country in Malta's total exports of goods.

some minor exceptions. In view of the assumptions that needed to be taken when computing the cyclically adjusted measure, such as relying on estimates of unobservable variables such as output gaps and assuming time-invariant income elasticities, an attempt was made to compare these findings with those of other institutions. The European Commission estimates that between 2007 and 2015, under unchanged cyclical differences, Malta's current account position would have improved by an additional 6.9 percentage points compared to its observed change.[9] This is similar to the results in Chart 2, where over the same period the adjusted current account improved by 15.9 percentage points, as against nearly 7.2 percentage points in the unadjusted position.

Besides cyclical demand factors, some studies[10] argue that temporary changes in real exchange rates and oil prices can be big causes of external rebalancing. While both of these factors are very important in Malta's case, reflecting the economy's stronger reliance on imported oil and the relatively higher price elasticity of foreign trade, they do not explain most of recent developments. Chart 3 illustrates the impact of these factors in explaining the change in the current account during two distinct periods, namely the years between Malta's EU accession and the onset of the financial crisis, and the years following the financial crisis.[11] In the first period, Malta's current account position deteriorated by 3.7 percentage points of GDP. This mostly reflected rising oil prices, though the appreciation in the real exchange rate also contributed to widen the deficit. On the other hand, cyclical differences reduced the current account deficit slightly during this period. Other (structural) factors also contributed positively to the current account, but were the third most important factor during this period. By contrast, these factors appear to account for nearly the entire improvement in the current account position in the post-financial crisis years. Changes in the oil price and in cyclical differences, in fact, offset most of the impact induced by the improvement in the real exchange rate.

One of the structural factors driving the change in the current account appears to be the improvement in the energy intensity of the Maltese economy. Whereas in 2005 it took 162.8 kg of oil equivalent to generate €1,000 of GDP, by 2014 this had fallen to 118.7, or more than a quarter less.[12] In fact, while in 2005, Malta required nearly 9% more oil than the EU average to generate the same amount of economic output, it now needs 3% less than the EU average. This turnaround reflects a number of developments, notably the reduced importance of exports of goods (which fell by nearly 17% in their relative significance over the same period) and the improvement in the efficiency in the generation of electricity.

Chart 3
ESTIMATED IMPACT OF CYCLICAL DIFFERENCES, REAL EXCHANGE RATE AND OIL PRICE ON CURRENT ACCOUNT CHANGES
(% of GDP)



Source: Author's calculations.

[9] European Commission (2015), Rebalancing in the euro area: An update. *European Economic Forecast,* Spring, Box 1.3.

[10] Haltmaeir, J. (2014), Cyclically adjusted current account balances. *International Finance* Discussion Papers No. 1126, Board of Governors of the Federal Reserve System.

[11] For a technical discussion of this decomposition, see Grech, A.G. (2016), Trends in Malta's current account and their underlying causes. *Policy note*, Central Bank of Malta December 2016.

[12] Eurostat (2016), *Energy, transport and environment indicators: 2016 edition*.

More broadly the changing composition of the Maltese economy, with the strong shift to services, is leading to a general reduction of Malta's import intensities; while at the same time, the local work force is being used more in export-oriented businesses. For instance, while the share of the workforce employed in public administration fell from 10.0% in 1995 to 8.2% in 2015, that of the arts, entertainment and recreation sector (which includes remote gaming) rose from 0.8% to 3.2%. This shift towards export-oriented high value-added activities has led to a significant improvement in corporate and household saving, with the national saving rate rising by nearly 9 percentage points since 1995. About a third of the latter increase also reflected a recovery in Government saving.

These trends, combined with the lesser reliance on gross fixed capital formation of the growing sectors of the Maltese economy, appear to be the main causes behind the recent improvement in the current account position. Table 1 compares sectoral changes between 2006 and 2015 in ratios to GDP of investment, gross value added and gross operating surplus. Industry and transportation & storage are the only two sectors to have seen a significant increase in their investment ratio, and in both cases their gross value added is lower in relative terms than it was in 2006. This could imply that the sectors are restructuring towards more capital-intensive modes of production. Accommodation & food services and, to a certain extent, information & communications have increased investment in line with developments in their activity; while agriculture and financial services have lowered investment less than the relative drop in their value added and operating surplus. The services sectors which are increasing their share of economic activity, such as remote gaming, professional services and administrative support, are doing so without significant changes in gross fixed capital formation.

This suggests that if these export-oriented services sectors continue to grow, while national savings stay stable, it is highly likely that Malta's current account could remain in surplus over the coming years. While this surplus could be invested abroad, another potentially more welfare-enhancing option would be to increase investment in education and other activities that improve Malta's human capital, while also boosting spending on infrastructure. This would help sustain the pace of economic growth seen in recent years.

Table 1
CHANGE IN RATIO TO GDP (%) OF SELECTED NATIONAL ACCOUNTS COMPONENTS BY SECTOR (2006 to 2015)

	Gross fixed capital	Gross value added	Gross operating
Agriculture and fisheries	-0.18	-0.82	-0.48
Industry	2.51	-4.46	-0.21
Construction and real estate	-3.41	-2.50	-1.32
Wholesale and retail	0.04	-1.17	-0.14
Transportation and storage	3.42	-0.25	0.18
Accommodation and food services	0.32	0.12	0.84
Information and communication	0.48	0.84	0.36
Financial and insurance services	-0.11	-1.26	-1.92
Professional, technical and administrative support	-0.40	3.34	1.19
Public administration, education, health and social work	-0.60	-0.06	-0.19
Arts, entertainment and recreation; other services	0.06	7.19	6.00

Source: Author's calculations.

The capital and the financial account

The capital account recorded net inflows of €35.1 million in the first three quarters of 2016, a decrease of €123.2 million on a year earlier (see Table 4.1). Similar developments were observed on a four quarter moving sum. This contraction was mostly attributable to lower transfers to government, which in turn was propelled by the timing of funds received under EU financing programmes.

Meanwhile, in the first nine months of 2016 the financial account showed a net lending position of €611.2 million, as opposed to net borrowing flows of €612.3 million in the same period of 2015. This swing was also observed when the balance on this account is expressed as a four-quarter sum. Movements on this account were heavily influenced by transactions of internationally-oriented financial institutions.

5. GOVERNMENT FINANCE[1]

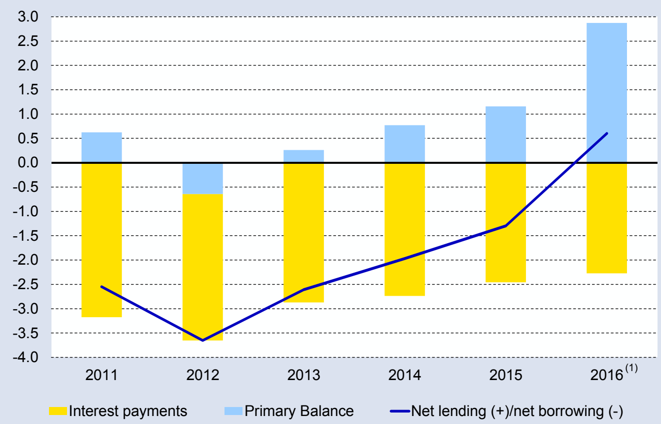
In the first three quarters of 2016, the general government deficit narrowed on the corresponding period of 2015, due to higher revenue inflows and lower expenditure. When measured on a four-quarter moving sum basis, the balance-to-GDP-ratio showed a surplus equivalent to 0.6%, a significant improvement when compared with a 1.3% deficit in 2015. The general government debt-to-GDP ratio also declined, falling to 59.7%, from 60.6% at the end of last year.

General government

General government balance improves

In the first three quarters of 2016, the general government balance improved considerably. Its ratio to gross domestic product (GDP), measured as a four-quarter moving sum, turned to a surplus of 0.6% by the third quarter of the year, a significant amelioration over 2015, when the general government registered a deficit of 1.3% of GDP (see Chart 5.1). This swing largely reflected an increase in the primary surplus-to-GDP ratio, which rose to 2.9%, from 1.2% at the end of 2015. Meanwhile, interest payments amounted to 2.3% of GDP, 0.2 percentage point lower, compared with the end of the previous year.

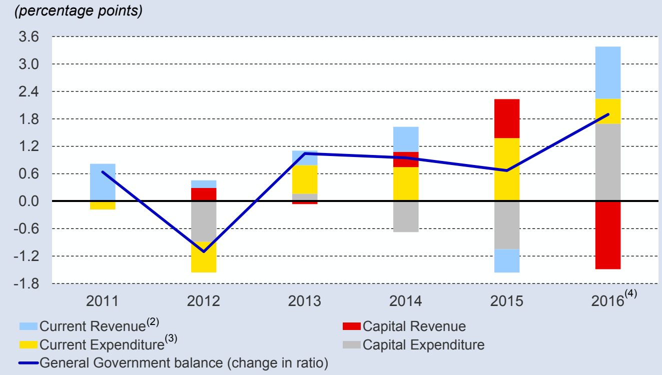
Chart 5.1
GENERAL GOVERNMENT BALANCE
(% of GDP)



(1) Four-quarter moving sums; period ending 2016Q3.
Source: NSO.

Lower capital expenditure and higher current revenue led to the improvement in the general government balance. The capital expenditure-to-GDP ratio, measured as a four- quarter moving sum, declined by 1.7 percentage points, when compared with the end of the previous year (see Chart 5.2). At the same time, the current revenue-to-GDP ratio increased by 1.1 percentage points. Current expenditure increased at a slower pace than nominal GDP and contributed towards a further 0.5 percentage point improvement in the overall balance-to-GDP ratio.

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 expenditure' 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 2016Q3.
Sources: NSO; Central Bank of Malta.

These positive developments were dampened by a 1.5 percentage point decrease in the capital revenue ratio, which partly mirrored the aforementioned reduction in the capital expenditure ratio.

[1] In this Chapter, the cut-off date for data on GDP is 8 March 2017.

Table 5.1
GENERAL GOVERNMENT BALANCE
EUR millions

	2011	2012	2013	2014	2015	Q1 - Q3 2015	Q1 - Q3 2016	Change Q1-Q3 Amount	Change Q1-Q3 %
Revenue	**2,644.5**	**2,803.0**	**3,007.0**	**3,329.9**	**3,694.5**	**2,537.0**	**2,691.7**	**154.7**	**6.1**
Taxes on production and imports	917.9	936.2	981.1	1,097.7	1,188.5	841.5	884.3	42.9	5.1
Current taxes on income and wealth	849.4	934.9	1,043.3	1,155.4	1,237.6	852.2	974.0	121.8	14.3
Social contributions	486.7	504.3	524.8	560.3	596.3	424.3	460.5	36.1	8.5
Capital and current transfers receivable	146.0	181.0	182.3	243.8	333.7	180.7	51.2	-129.5	-71.7
Other(1)	244.4	246.5	275.5	272.7	338.3	238.3	321.7	83.4	35.0
Expenditure	**2,818.8**	**3,064.4**	**3,206.1**	**3,495.9**	**3,814.7**	**2,757.2**	**2,733.1**	**-24.1**	**-0.9**
Compensation of employees	882.1	922.4	977.3	1,050.1	1,117.2	836.1	889.1	53.0	6.3
Intermediate consumption	430.3	483.0	471.0	524.2	598.2	388.8	428.9	40.1	10.3
Social benefits	878.9	924.9	964.2	1,005.0	1,031.2	768.5	796.0	27.5	3.6
Subsidies	51.0	76.9	80.3	105.0	110.6	83.6	98.0	14.4	17.2
Interest	216.9	215.1	219.2	230.9	227.8	169.6	163.6	-6.1	-3.6
Other current transfers payable	127.7	135.0	178.5	193.2	205.9	154.8	140.7	-14.1	-9.1
Gross fixed capital formation	193.1	233.0	218.8	300.8	397.8	269.4	159.2	-110.2	-40.9
Capital transfers payable	45.8	67.0	95.3	91.9	134.9	84.9	52.1	-32.8	-38.6
Other(2)	-6.9	7.1	1.6	-5.1	-8.8	1.6	5.5	4.0	-
Primary balance	**42.6**	**-46.4**	**20.1**	**64.9**	**107.5**	**-50.5**	**122.2**	**172.7**	**-**
General government balance	**-174.3**	**-261.5**	**-199.1**	**-165.9**	**-120.3**	**-220.1**	**-41.4**	**178.7**	**-**

(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.

In level terms, the general government deficit narrowed when compared with the first three quarters of the past two years. In the first nine months of 2016, a deficit of €41.4 million was recorded, down from the €220.1 million in the corresponding period of 2015 (see Table 5.1). This was mainly due to an increase in revenue and a decrease in primary expenditure. The primary balance swung from a deficit of €50.5 million in the first three quarters of 2015, to a surplus of €122.2 million.

Revenue benefits from a dynamic economy

Between January and September 2016, general government revenue rose to €2,691.7 million – a growth of €154.7 million or 6.1% in annual terms. Compared with the corresponding period of 2015, the composition of tax revenue shifted towards direct taxes, as the share of current taxes on income and wealth within total revenue increased by 0.3 percentage point to 35.3% (see Table 5.2). The share of social security contributions also edged up slightly. In contrast, the share of taxes on production and imports decreased, as growth in VAT receipts was less pronounced. Their share in total revenue declined by 0.1 percentage point to 32.0%, when compared with the same period a year earlier.

However, the major shifts in revenue composition were recorded in non-tax items, namely the “other” component which gained 1.9 percentage points. Meanwhile the share of capital and current transfers receivable fell by 2.2 percentage points.

In the period between January to September 2016 current taxes on income and wealth registered the highest increase in level terms from all revenue categories. These rose by €121.8 million, or 14.3%, off the back of higher income tax receipts. These increases reflected positive developments in the international financial and business sector as well as improvements in the domestic labour market. The latter also led to an increase in inflows from social contributions, which rose by €36.1 million, or 8.5%. Taxes on production and imports also rose, albeit at a slower rate of 5.1%.

Table 5.2
COMPOSITION OF GOVERNMENT FINANCE ITEMS
Percentage points

	2011	2012	2013	2014	2015	Q1 - Q3 2015	Q1 - Q3 2016	Change Q1-Q3
Share in total revenue								
Taxes on production and imports	34.7	33.4	32.6	33.0	32.2	32.1	32.0	-0.1
Current taxes on income and wealth	32.1	33.4	34.7	34.7	33.5	35.0	35.3	0.3
Social contributions	18.4	18.0	17.5	16.8	16.1	16.3	16.4	0.1
Capital and current transfers receivable	5.5	6.5	6.1	7.3	9.0	7.5	5.3	-2.2
Other(1)	9.2	8.8	9.2	8.2	9.2	9.0	11.0	1.9
Share in total expenditure								
Compensation of employees	31.3	30.1	30.5	30.0	29.3	29.7	30.9	1.2
Intermediate consumption	15.3	15.8	14.7	15.0	15.7	14.7	16.8	2.2
Social benefits	31.2	30.2	30.1	28.7	27.0	27.7	27.9	0.2
Subsidies	1.8	2.5	2.5	3.0	2.9	3.0	3.3	0.3
Interest	7.7	7.0	6.8	6.6	6.0	6.1	5.8	-0.3
Other current transfers payable	4.5	4.4	5.6	5.5	5.4	5.7	5.1	-0.7
Gross fixed capital formation	6.9	7.6	6.8	8.6	10.4	10.0	7.6	-2.5
Capital transfers payable	1.6	2.2	3.0	2.6	3.5	3.2	2.7	-0.5
Other(2)	-0.2	0.2	0.0	-0.1	-0.2	-0.1	-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.

Meanwhile, "other" government revenue surged by 35.0%, driven mainly by higher intakes from the Individual Investor Programme.

Capital and current transfers receivable declined significantly to €51.2 million from €180.7 million received in the first three quarters of 2015. This decline reflected the high level of grants that were received in 2015, as projects which were financed by the 2007-13 EU Financial Framework were being completed.

Expenditure falls due to lower capital expenditure

In the first nine months of 2016, total general government expenditure fell by €24.1 million, or 0.9%, when compared with the corresponding period a year earlier. The composition of spending shifted towards recurrent expenditure, mostly in the form of compensation of employees and intermediate consumption. Their shares in total expenditure increased by 1.2 percentage points and 2.2 percentage points, respectively (see Table 5.2). The share of spending on social benefits and subsidies also increased, albeit to a lesser extent. Meanwhile, the largest reduction in the composition of total expenditure stemmed from gross fixed capital formation, followed by other current transfers and capital transfers payable.

In level terms, compensation of employees registered the largest increase among the recurrent expenditure components. It rose by €53.0 million, following increases in staff costs within the education, health and public administration sectors. Intermediate consumption rose by €40.1 million during the period under review, on account of higher expenditure attributable mainly to the health and public administration sectors. The other major component of recurrent expenditure item, social benefits, grew by €27.5 million, largely driven by higher spending on retirement pensions.

Meanwhile, expenditure on subsidies rose by €14.4 million. On the other hand, the remaining recurrent expenditure components, namely interest paid and other current transfers payable fell by €6.1 million and €14.1 million, respectively. These increases were offset by large falls in capital expenditure, during the period under consideration. By far the largest decline was registered in spending on gross fixed capital formation, which declined by €110.2 million. This decrease reflected the slow uptake of EU funds from the 2014-2020 Financial Framework, as opposed to the large inflow of funds received in 2015, when projects financed under the previous Framework were being finalized. Moreover, capital transfers payable declined by €32.8 million, mainly due to lower transfers to Air Malta.

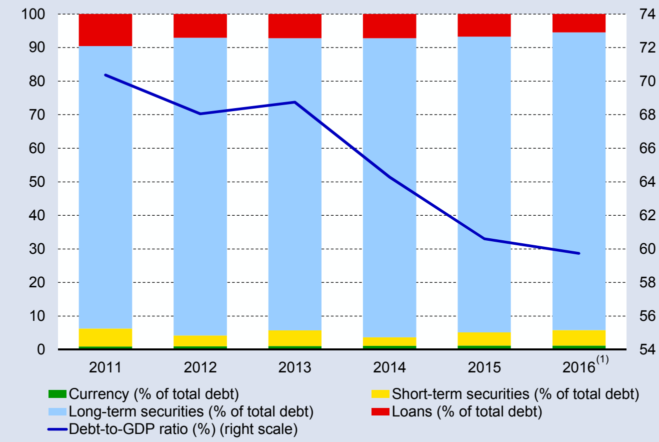
Government debt ratio declines

At the end of September, the stock of general government debt amounted to €5,823.2 million, €201.2 million higher when compared with December 2015. However this increase was slower than that in nominal GDP, resulting in a 0.9 percentage point fall in the general government debt-to-GDP ratio. The latter declined from 60.6% to 59.7% (see Chart 5.3).

The decline in the debt ratio may be partly attributed to positive developments in the primary balance (see Chart 5.4). Strong economic growth contributed positively, as the rate of 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 a build-up in financial assets owned by the government.

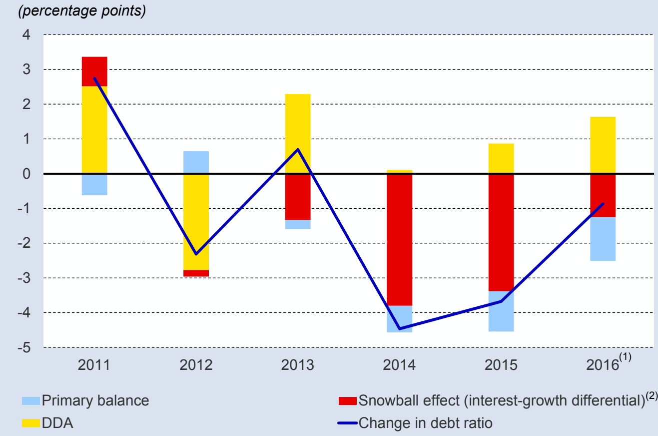
In September, the stock of both long-term securities (Malta Government Stocks) as well as short-term securities (Treasury Bills) increased, when compared with their level at the end of 2015. Consequently, the share of long-term securities in total debt increased by 0.5 percentage point, to 88.7%, while the share of short term securities increased by 0.7 percentage point, to 4.6%. These developments were partly offset by a reduction in the amount of loans held with domestic banks. Their share fell by 1.2 percentage points, to 5.5%. The share of currency in total debt was unchanged over this period.

Chart 5.3
GENERAL GOVERNMENT DEBT



(1) GDP measured on the basis of four-quarter moving sums; period ending 2016Q3.
Source: NSO.

Chart 5.4
CONTRIBUTION TO CHANGE IN DEBT
(percentage points)



(1) Period ending September 2016.
(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.

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 single 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 that are used to manage the level of liquidity in the money market and to steer 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 2016, the Eurosystem continued to provide the financial system with liquidity through fixed-rate tender procedures with full allotment, through MROs and LTROs. The ECB conducted 52 MROs during the year. In the context of ample excess liquidity, participation by eligible credit institutions established in Malta was limited. Such credit institutions bid for a total of €188.9 million in aggregate, compared with €2.0 billion 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 obtained €68.1 million from the three-month LTROs through the Central Bank of Malta, compared with €497.4 million in 2015 (see Table 1.1).

Furthermore, during 2016 credit institutions established in Malta took up a total of €43.6 million through targeted longer-term refinancing operations[2] (TLTRO). At the same time, they repaid part of the outstanding TLTRO amounts that had been taken up earlier.

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

Type of operation	2015	2016
Main refinancing operations	2,038.8	188.9
Long-term refinancing operations		
- Three-month longer-term refinancing operations	497.4	68.1
- Targeted longer-term refinancing operations	26.5	43.6
US dollar collateralised operations (USD millions)		
- Seven-day	-	245.0

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

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

[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.

During 2016 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 245 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.

During 2016 counterparties continued to place excess liquidity with the Eurosystem through the overnight deposit facility. Recourse to the overnight deposit facility by Maltese credit institutions amounted to a daily average of €1.6 billion in 2016, an increase of €828.4 million compared to the 2015 average. On the other hand, Maltese credit institutions did not use the marginal lending facility, whereas they had borrowed €104.0 million in total from this facility over the course of 2015.

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 Maltese credit institution is accordingly obliged to hold minimum reserve deposits, equivalent to a fraction of certain liabilities, mainly deposits, with the Central Bank of Malta. During 2016 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). It purchased a total book value amount of approximately €702.0 million worth of Maltese government securities by the end of 2016, with a weighted average remaining maturity of 10.37 years. Due to liquidity constraints the Bank may have recourse to substitute purchases of bonds issued by eligible supranational organisations. The Bank did not participate in the private-sector programmes that also form part of the APP due to the absence of eligible securities in domestic markets.

Collateral management

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 2016, the nominal outstanding volume of eligible domestic marketable assets amounted to €5.6 billion, compared with €5.3 billion a year earlier.

At the end of the year the market value, after haircuts, of securities pledged by eligible local counterparties with the Central Bank of Malta stood at €412.8 million. This consisted of both domestic and foreign securities, though debt instruments issued by the Maltese government accounted for the bulk of the securities pledged.

On 5 October 2016, the ECB modified the collateral eligibility criteria and risk control measures applicable to senior unsecured debt instruments issued by credit institutions or investment firms or their closely linked entities. These measures entered into effect on 1 January 2017.

Moreover, on 3 November 2016, the ECB reviewed its risk control framework for collateral assets. It updated the haircuts for marketable and non-marketable assets and introduced graduated haircuts for eligible asset-backed securities based on their weighted average life. The ECB also decided to amend the rules on acceptable coupon structures to make eligible certain assets with negative cash flows. At the same time, the ECB introduced minimum disclosure requirements for covered bond ratings which are issued by credit rating agencies accepted in the Eurosystem credit assessment framework. It also clarified the acceptance criteria for credit rating agencies as External Credit Assessment Institutions. All these decisions took effect as from 1 January 2017.

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 euros. The provision by the NCBs of such 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 €2.8 billion, comprising both euro and foreign denominated assets. The former amounts to €2.1 billion. These investments include money market instruments, government bonds and other fixed income securities. Following the Bank's membership in the Eurosystem, the main investment objective of the Bank 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 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 IPC met on a monthly basis during 2016.

The two existing external investment management mandates started in 2013 and continued in 2016. 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, the Bank continued to transmit to the ECB information on its foreign exchange transactions and holdings, as well as on the euro-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.

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

In terms of the ERMII agreement, and as NCB acting on behalf of the ECB, the Bank may conduct interventions in those currencies participating in the ERMII regime. No such interventions were necessary during 2016.

Outright spot foreign currency purchases including customer transactions amounted to €538.0 million in 2016 compared to €755.0 million in 2015. Outright spot foreign currency sales including customer transactions amounting to €546.0 million were transacted in 2016 (2015: €757.0 million). FX swap purchases increased to €18.4 billion in 2016 from €12.3 billion in 2015. For the same period, FX swap sales amounted to €2.1 billion compared to €1.7 billion the previous year.

The Bank also monitors developments in foreign exchange transactions between credit institutions in Malta. Compared to €40.4 million in 2015, credit institutions in Malta overall reported a decrease in combined foreign exchange turnover to €5.9 million. Such a decrease reflected a lower volume of spot transactions.

The total foreign exchange turnover of credit and financial institutions with unrelated third parties, i.e. credit and non-bank financial institutions as well as other entities both in Malta and abroad, in 2016 amounted to €34.9 billion (2015: €23.6 billion). The data for the two years is comparable because the reporting population remained stable. The higher total FX turnover was mainly driven by higher euro/FX transactions year-on-year and higher FX/FX transactions. Euro-denominated transactions, at €28.0 billion, were largely distributed mainly between corporates as well as households, credit institutions in the euro area, followed to a lesser extent, by credit institutions in non-euro area.

The largest share of spot deals transacted i.e. €10.2 billion included mostly turnover in the corporate and household sectors reflecting in large part, purchases relating to current account payments in respect of trade, tourism, personal transfers and financial portfolio flows.

Foreign exchange turnover against the euro in 2016 (€28.0 billion) was mainly distributed between spot transactions at €17.7 billion and new FX swaps at €7.8 billion. The remaining €2.5 billion relates to new forwards and, to a lesser extent, other financial derivatives.

Similarly to 2015, the largest share of turnover in non-euro currencies in 2016, at €6.9 billion, was largely the result of growth in the other financial derivatives and new forwards.

Market-making operations

The Central Bank of Malta through its Government Securities Office continued to provide market-making facilities by quoting daily bid and offer prices for the listed Malta Government Stocks on the Malta Stock Exchange (MSE). The Central Bank of Malta remained the main market player in the Maltese sovereign bond market, although with a reduced turnover compared to 2015. The Bank's turnover on the on-exchange market amounted to €418.9 million in 2015 (€152.9 million sales and €265.9 million purchases) and €257.2 million in 2016 (€58.3 million sales and €198.9 million purchases). In fact, it effected 53.6% (65.7% - 2015) of all the secondary market deals on the on-exchange platform. This excludes trades under the PSPP, which take place off-exchange.

There was no secondary market activity in the Treasury bill market in 2016.

Overall, during the second year of the PSPP, the prices of Malta Government bonds continued on their upward trend, but at a slower pace than in 2015.

In 2016, the MSE launched the National Capital Markets Strategic Plan, with the ultimate aim of developing a liquid and efficient securities market. One of the initiatives was the extension of the trading hours from 12.30 p.m. to 3.00 p.m. as from 2017.

The Central Bank of Malta assisted the Treasury in the selection of maturities to offer in the primary market in order to attract sufficient demand and at the same time limiting the refinancing risk.

Furthermore, the Bank also participated and gave on-going advice on the new draft legislation, mainly the Government Borrowing and Public Debt Management Act, which includes an Article on Government Savings Bonds. Once approved by Parliament in 2017, this Act will enable the Treasury to offer new instruments, such as the Government Savings Bonds. Only individuals who have reached the pensionable age are eligible to bid for these bonds.

2. FINANCIAL STABILITY

The Financial Stability Department fulfils the Bank's statutory mandate to monitor financial stability by identifying and assessing systemic risks and imbalances, and formulating the appropriate policy recommendations to enhance the resilience of the financial system.

The Bank's Financial Stability Committee met three times during 2016, to discuss various financial stability related topics and agenda items presented during the Joint Financial Stability Board (JFSB), as well as the approval of the publication of the Financial Stability Reports.[1] The JFSB met four times to discuss and approve the formulation of macro-prudential policy measures.[2] The main topics discussed related to the business models of the non-core domestic and international banks, institution specific and overall risks of the financial sector, and mortgage and commercial lending practices. Policy recommendations approved related to those addressing non-performing loans; the setting of the Countercyclical Capital Buffer rate, including reciprocity to measures taken by third countries; and the other systemically important institutions (O-SII) buffer calibration. The Forum for Financial Stability was also held during the year, and included discussions on the resolution framework, the main risks for the domestic financial system, trends and dynamics of the real estate market in Malta and the ESRB's recommendations on countercyclical buffers for exposures to third countries and the assessment of cross-border effects of macro-prudential measures.

Meetings of the Domestic Standing Committee for the management of financial crisis situations, composed of senior officials of the Bank, the MFSA and the Ministry for Finance, were also held on a regular basis. Its work programme included discussions on the domestic preparation for an IMF Financial Sector Assessment Programme, the running of a domestic financial crisis simulation exercise, coordinating the update of the Domestic Crisis Management Framework and the transposition of relevant EU law, particularly the Bank Recovery and Resolution Directive (BRRD). Considerable efforts were dedicated towards the preparation and completion of the crisis simulation exercise conducted in September 2016. This intra-authority initiative, involving the Central Bank of Malta, the MFSA, the Ministry of Finance and the new Resolution Authority, conducted in collaboration with a leading audit firm, tested the existing framework for crisis preparedness and management, as well as the co-ordination among the four domestic authorities involved in this exercise. The successful completion of this exercise contributed to bolster preparedness in dealing in an effective manner with a financial crisis.

The assessment of risks and the macro-prudential policy recommendations were published on the Bank's website. Also published were the Financial Stability Report, and its Interim report covering up to the first half of 2016. Both reports assessed developments and resilience in the domestic financial system, namely the core, non-core and international banks, and the domestically relevant insurance and investment funds' sectors. The domestic financial system remained resilient against risks and vulnerabilities emanating from the macroeconomic environment, both local and international, and those from within the domestic financial system. The resilience of the banking sector was enhanced further through the strengthening of capital buffers which included the add-ons of the O-SII and capital conservation buffers. Banks continued to be characterised by ample liquidity and remained profitable, while their asset quality improved as the non-performing loan ratio declined. Financial institutions remained prudent in their operations and there is no undue risk accumulation. The favourable domestic macroeconomic environment continued to support the financial system.

Potential key risks to the resilience of the domestic banking system were also monitored via risk quantification and stress testing exercises, the results of which are also reported in the Financial Stability Report and the Interim report. Other ad hoc stress testing exercises based on prevailing market conditions were also undertaken to assess the financial sector's resilience.

[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 Malta Financial Services Authority (MFSA). The Ministry for Finance attends the meetings as observer.

The financial stability toolkit was also enhanced by the introduction of the macro stress testing framework, based on a top-down approach, which seeks to capture the impact of extreme yet plausible macroeconomic and financial shocks on banks' balance sheets. It includes, amongst others, the quantification of credit risk in both loan and securities' portfolios, sovereign risk, market risk and the cost of funding. The impact of extreme adverse macroeconomic shocks are translated into capital adequacy ratios and assessed against regulatory thresholds in order to gauge the financial sector's resilience. The Bank continued to corroborate its identification and assessment of risks via univariate stress testing exercises which assess: credit risk in the securities portfolio; the impact of an increase in non-performing loans arising from adverse macroeconomic conditions; the impact of a drop in property prices; and liquidity risk.

During 2016, the Bank established a Central Credit Register (CCR) containing granular information on debt exposures of both legal and natural persons granted by resident credit institutions. Apart from supporting credit institutions in analysing the creditworthiness of existing or prospective borrowers, the CCR will also support the work undertaken by the Financial Stability Department. The availability of granular information on a vast range of borrower attributes will further enhance the Bank's risk assessment via stress testing models, particularly the credit risk model. The latter model is used to assess the loan portfolio on a granular basis and quantifies credit risk inherent in individual banks' loan books.

The results of the EBA 2016 EU-wide stress test were published on 29 July 2016. Unlike previous exercises, the 2016 test was limited to credit institutions with a minimum threshold of total assets, amongst other criteria, that were higher than that prevailing for any of the core domestic banks. For this reason, none of the core domestic banks were included in the 2016 EBA exercise. Notwithstanding, the European Central Bank (ECB) conducted its own stress test in parallel on significant credit institutions not covered by the EBA stress test, including domestic significant banks. The stress test methodology, while consistent with that applied by the EBA, gave due consideration to the lower size and complexity of these institutions. Unlike previous tests, the 2016 EU-wide stress tests did not include a pass/fail threshold but the results were used to inform supervisors' review of the banks' adequacy of their capital buffers and the banks' ongoing efforts to repair the EU banking sector. The stress test results formed part of the 2016 supervisory review process. Moreover, the EBA also published detailed individual bank data on capital positions, risk exposure amounts and asset quality, as part of the 2016 EU-wide Transparency Exercise. The information was based on a sample of 131 banks, which included three local banks.

The Bank, together with the MFSA, conducted further rounds of the Quantitative Impact Study (QIS) under the guidance of the European Banking Authority. Following the implementation of the new capital regulatory legislation in January 2014, the QIS focused on a new proposal for the calculation of capital required to cover for operational risk, which replaced the four methodologies being applied by banks. In addition, a new market risk framework was also introduced and is expected to increase the capital charge by around 20% for all banks included in the analysis. Another important addition to the monitoring exercise was the MREL template, which ensures that institutions established in the European Union (including Maltese participating banks) meet a minimum requirement for own funds and bail-in liabilities at all times. Discussions on how the new measures will impact credit, market and operational risks are still ongoing. Although a lot of progress has been done, an agreement has not yet been reached among EU Member States to finalise the Basel III package.

Towards the end of the year, the Central Bank of Malta and the MFSA assessed domestic banks for their O-SII status.[3] Subsequently, the Bank and the MFSA published a Statement of Decision, identifying Bank of Valletta Group, HSBC Group Malta, and Medifin Holding Ltd 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 Article 136(7) of EU Directive 2013/36/EU, transposed in Central Bank of Malta Directive No. 11, the Bank announces each quarter the setting of the countercyclical capital buffer rate based on a

[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".

quarterly assessment of the risks due to excess credit growth. For each quarter, a 0% countercyclical capital buffer rate has been set.

In line with the ESRB recommendation (ESRB/2016/3) on reciprocity, the Bank reciprocated the Decree of the Governor of Eesti Pank No. 6 of 30 May 2016 "Establishment of the requirement for the systemic risk buffer", whereby domestically authorised institutions with total risk exposure located in Estonia higher than EUR 200 million, are required to hold a systemic risk buffer of 1%.[4,5]

The ESRB Recommendation ESRB/2015/1, ensuring that designated authorities recognise countercyclical capital buffer rates greater than zero applied by third-country authorities, sets countercyclical capital buffer rates for exposures to third countries and lower countercyclical capital buffer rates when risks in a particular third country abate or materialise.

During the year senior Bank officials participated in the work of the ESRB and of the ECB, as well as in the activities of their related sub-structures. The Bank also participated as observer in the Board of Supervisors of the European Banking Authority and in the Supervisory Board of the ECB. Furthermore, Bank officials held meetings to discuss financial stability issues with the International Monetary Fund, the European Commission, with credit rating agencies and other associations including bank representatives in anticipation of Malta's EU Council Presidency during the first six months of 2017.

Officials and staff from the Financial Stability Department started to actively contribute to Malta's EU Council Presidency as part of the Ministry of Finance teams. The work was particularly focussed on EU legislation that addressed the:

- proposal for 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;
- proposal for 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;
- proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No. 806/2014 on minimum requirement for bail in liabilities;
- proposal for 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;
- 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).

[4] Recommendation of 24 March 2016 amending Recommendation ESRB/2015/2 on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures.
[5] Central Bank of Malta (24 October 2016): "Statement of Decision on the reciprocity of the Systemic Risk Buffer of Estonia".

3. ECONOMICS, RESEARCH AND STATISTICS

Analysis, forecasting and research

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

During 2016 staff provided ongoing input into the monetary policy process by briefing the Governor on related issues ahead of his participation in the Governing Council meetings 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 (IMF), and credit rating agencies.

As in previous years, a comprehensive projection exercise was carried out twice during 2016 as part of the Eurosystem's Broad Macroeconomic Projection Exercise, while a more detailed short-term projection of inflation developments was prepared every quarter. A separate projection exercise was also undertaken in the context of the Bank's *Annual Report*. The Bank also prepared detailed fiscal forecasts as part of the ESCB forecast exercises. Further work was carried out during the year on projecting potential output, assessing the macroeconomic impact of non-standard monetary policy measures and strengthening the Bank's short-term forecasting capability. The Bank's core macro-econometric model was integrated more fully in the forecasting processes and steps were taken to increase the efficiency of the forecast production process.

In 2016, the Bank also started engaging with selected companies and public sector institutions in Malta to obtain a better gauge of economic conditions and prospects. The responses 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.

Staff undertook specialised research, producing five working papers and three policy notes that were published on the Bank's website, as well as nine articles that appeared in the Bank's regular publications. The policy notes focused on the economic impact of the 2006 pension reform, recent developments in the housing market and an evaluation of underlying trends in the current account of the balance of payments. The working papers dealt with the extension of the Bank's traditional econometric model to better cover financial stability issues, misalignment between domestic property prices and fundamentals, the Phillips curve relationship in Malta, and a coincident indicator of business conditions. Another working paper documented the development of a dynamic stochastic general equilibrium (DSGE) model for Malta.

In 2016 the Bank hosted a research symposium entitled *Small euro area countries – performance after the crisis and challenges for the future*. Participants included the Governors of the Banka Slovenije and Banque Centrale du Luxembourg. During the symposium, the Bank launched the publication *Understanding the Maltese Economy*. This focused on the evolution of the Maltese economy in the first decade following EU accession and brought together ten articles authored by the Bank's economists on topics such as diversification and international competitiveness, the labour market, inflation dynamics, money and the transmission mechanism and the role of government in Malta.

Research by staff was also published abroad. Five articles were published in foreign peer-reviewed journals, while two economists contributed to two different ECB *Occasional Papers*, one focusing on labour market modelling after the crisis and another on saving and investment in the euro area. Staff also gave inputs to a number of ECB task forces on inflation, on the interaction between real and financial cycles, and on forecasting

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

residential property prices. In addition, the Bank continued to participate in two ECB research networks, the Competitiveness Network and the Wage Dynamics Network.

Apart from holding internal seminars, staff members presented the findings of their research to external stakeholders, such as the Malta Financial Services Authority (MFSA) and the Building Industry Consultative Council. These presentations focused on the construction sector and house prices in Malta. The Bank has also commissioned the University of Malta to prepare a study on the changing structure of the Maltese economy using the input-output tables published by the National Statistics Office (NSO).

Staff also continued to develop the Bank's econometric toolkit that is used for forecasting and policy analysis. The third version of the Bank's traditional macro-econometric model, called STREAM, includes a richer financial block with enhanced macro-financial linkages and a re-estimation of the model using ESA 2010 chain-linked data.

The programme of technical cooperation with Banca d'Italia resulted in two additional models. The first is a dynamic factor model that uses high frequency indicators to assess business conditions in real time. The second consists of a calibrated DSGE model for a small and open economy in a monetary union, with key modifications to account for Malta's specific characteristics.

In addition, an economist from the Bank of England was seconded to the Bank's Research Office, assisting staff in the development of econometric models focusing on the labour market.

During 2017 the Bank will continue developing its analytical tools to improve its short-term forecasting capability. In addition, in the context of Eurosystem tasks, staff will continue to work on issues related to the ECB's non-standard monetary policy measures and methods for estimating potential output.

Research plans for 2017 include studies on the changing structure of the Maltese economy, the dynamics of wages, developments in price and non-price competitiveness, the strength of macro-financial linkages and the impact of structural reforms on economic activity and the labour market.

In addition, the Bank will launch its second research symposium and a related publication focusing on Malta's medium term growth prospects, which will also address issues related to the sustainability of the external accounts and public debt, asset prices and financing conditions.

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 various other statistical information, such as prudential supervisory and macroeconomic statistics, for internal policy making purposes. In addition, the Bank contributes to the compilation of the balance of payments/international investment position, financial accounts and government finance statistics in cooperation with the NSO. The Bank fulfils its international statistical reporting obligations mainly to the ECB and the IMF and participates in the IMF's Special Data Dissemination Standard, the General Data Dissemination System, and in various surveys conducted by the IMF.

The Bank established a Central Credit Register (CCR) to collect, produce and disseminate credit risk information relating to borrowers from credit institutions. This also satisfied one of the key requirements referred to in the World Bank in its *Doing Business* report. The CCR is regulated by Article 24, as amended, of the Central Bank of Malta Act and by the subsidiary Directive No. 14, which empowers the Bank to organise and operate the Register in pursuit of its objectives regarding the stability of the financial system, monetary policy research and analysis and the processing of statistical information. In the setting up of the CCR project, which became operational as from April 2016, the Bank had consulted with the ECB and the Supervisory Board, other national central banks, the Malta Statistics Authority and the NSO, the Malta Bankers Association, credit institutions and the Information and Data Protection Commissioner. At the same time, the Bank continued to participate in the ESCB's Anacredit Working Group, 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 which is expected to come into force in 2018. In October, the Bank transmitted its first test statistics to the ECB. Meanwhile, looking ahead to further enhancements in the CCR, a Working Group was set up, including credit institutions, the Malta Bankers Association and the Central Bank of Malta, with the aim of enhancing further the CCR by integrating non-bank consumer credit data with bank credit risk information. The Working Group also had meetings with credit bureaus established in Malta.

The Bank continued to participate in Eurosystem-related work in the field of Statistics. Efforts were directed at enhancing further the quality of the Maltese securities data held within the ECB's Centralised Securities Database (CSDB), while data on securities holding statistics were transmitted to the ECB on a quarterly basis. The Bank assisted the ECB in the collection and vetting of the second series of the targeted longer-term refinancing operations templates from those credit institutions participating in the scheme. In July, the Bank started collecting and processing for the first time the European Insurance and Occupational Pensions Authority's Solvency II regulatory returns, mainly for financial stability analysis. The package also includes the 'ECB add-ons' which fulfil the new ECB Regulation on statistical reporting requirements for insurance corporations.

In the area of macroeconomic statistics, the Bank finalised the results of the second wave of the Household Finance and Consumption Survey (HFCS). Results for Malta are envisaged to be released in early 2017 and will be included within the euro area wide report compiled by the ECB. The Bank reached an agreement with the NSO for the latter to carry out the fieldwork for the third wave of the HFCS. During 2016, the Bank continued to enhance the data required for the 'Macroeconomic Imbalance Procedure' indicators, which are based on the Malta's quarterly financial accounts statistics compiled by the Bank. Statistical tables which explain the financial linkages between the country's institutional sectors were published on the Bank's website. The Bank also started collecting granular data on non-financial corporations spanning back to 2008 which will be used for internal statistical, research and analysis purposes. Meanwhile research was undertaken in seasonally adjusting Malta's HICP to improve the analysis of this index independently of seasonal components. The Bank also continued its work on a new hedonic house price index for Malta, and has also started discussions with the NSO for the development of a rental property price index.

Collaboration continued with the Banca d'Italia on the relocation of the Bank's statistical processes in INFOSTAT. The first processes were successfully implemented in 2016 while the remaining processes, including the BOP process in cooperation with the NSO, will be migrated by mid-2017. A comprehensive exercise was undertaken to reengineer the processes and to create an integrated data dictionary. Automation will transform repetitive statistical work to higher value-added statistical production and analysis. A help-desk was established to provide a single point of contact to users and to deal with their queries.

The internal Statistics Policy Committee, supported by its sub-structure, continued to meet to define and implement the policy on statistical information within the Bank. The Forum for Central Bank of Malta Statistics, which is chaired by the Bank and includes representatives from credit institutions, the MFSA, the NSO and the Malta Bankers' Association, continued to meet to promote dialogue on monetary and financial statistics among stakeholders.

At a national level the Bank continued to be represented 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's Property Market Working Group and in the Committee on Statistical Matters chaired by the Ministry for Finance.

The Central Bank of Malta enhanced its collaboration with the NSO. A revised memorandum of understanding was signed with the NSO and the Malta Statistics Authority in August to update the cooperation arrangements in the area of statistics between the parties.

4. 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. The Bank issues coins on behalf of Government. 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 and coins to meet the demand of the banking system, ensuring the high quality and authenticity of the currency in circulation (see Tables 4.1 and 4.2). All currency returned to the Central Bank of Malta is processed by accredited machines. Counterfeit banknotes and coins are withdrawn while the unfit ones are destroyed. Data on stocks and flows of banknotes and coins are reported on a daily and monthly basis to the European Central Bank (ECB).

In terms of the obligations laid down under Central Bank of Malta Directive No. 10, the Currency Operations Office monitors recycling activities performed by commercial banks and other professional cash handlers.

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 cases in the courts 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 2016, the Bank inspected 93.3 million notes, with a value of approximately €2.2 billion, compared with 86.2 million notes with a value of €2.0 billion in 2015. The proportion of banknotes destroyed increased from 11% in 2015 to 27% in 2016. This substantial increase is mainly related to the destruction of €20 first series banknotes that had been deposited throughout 2016, following the issue of the new €20 second series banknotes in November 2015.

Acting as the agent for the Government, the Bank is responsible for the procurement, storage and circulation of euro coins, while the ensuing seniorage is passed on to Government. During 2016, the outstanding volume of euro coins in circulation increased by €6.0 million to €74.7 million at year's end (see Table 4.2). During 2016, a total of 60 million euro coins, with a value of €36 million, were examined by the Bank.

Table 4.1
BANKNOTES ISSUED BY AND PAID INTO THE CENTRAL BANK OF MALTA IN 2016
EUR millions

2016	Issued by Central Bank of Malta	Paid into Central Bank of Malta	Net issue	Issued and outstanding
January	133.7	155.4	-21.7	952.3
February	172.0	158.9	13.1	965.4
March	177.2	152.0	25.2	990.6
April	170.3	170.2	0.1	990.7
May	187.8	185.2	2.6	993.3
June	189.1	174.0	15.1	1,008.4
July	189.9	195.7	-5.8	1,002.6
August	197.8	211.4	-13.6	989.0
September	192.5	187.5	5.0	994.0
October	178.5	184.5	-6.0	988.0
November	188.4	180.8	7.6	995.6
December	210.8	172.0	38.8	1,034.4
Total 2016	**2,188.0**	**2,127.6**	**60.4**	**1,034.4**
Total 2015	**2,195.7**	**2,088.2**	**107.4**	**974.1**

Source: Central Bank of Malta.

Table 4.2
COINS ISSUED BY AND PAID INTO THE CENTRAL BANK OF MALTA IN 2016
EUR millions

2016	Issued by Central Bank of Malta	Paid into Central Bank of Malta	Net issue	Issued and Outstanding
January	2.6	2.7	-0.1	68.7
February	2.6	2.8	-0.2	68.5
March	2.9	2.8	0.1	68.6
April	3.2	2.9	0.3	68.9
May	3.6	3.0	0.6	69.5
June	3.5	2.8	0.7	70.2
July	4.3	3.1	1.2	71.4
August	4.3	3.7	0.6	72.0
September	3.5	3.0	0.5	72.5
October	3.9	3.1	0.8	73.3
November	3.4	3.2	0.2	73.5
December	4.1	2.8	1.3	74.8
Total 2016	**41.9**	**35.9**	**6.0**	**74.8**
Total 2015	**44.2**	**36.1**	**8.1**	**68.8**

Source: Central Bank of Malta.

During 2016, the Bank continued using the Cash SSP system as the cash management system for banknotes. The Bank also explores possibilities of implementing this system for the cash management of coins.

In 2016, there were no new Bank Directives in terms of cash management. However, in May 2016, the Governing Council of the ECB concluded a review of the denominational structure of the Europa series. It decided to terminate the production of the €500 banknote and to exclude it from the new Europa series in view of concerns about the facilitation of illicit activities. The issuance of the €500 will be discontinued towards the end of 2018, when the €100 and €200 banknotes of the Europa series are to be introduced. The other denominations – from €5 to €200 – will remain in place.

The €500 will remain legal tender and can therefore continue to be used as a means of payment and store of value. As other denominations of euro banknotes, the €500 banknote will retain its nominal value and can be exchanged at the national central banks of the Eurosystem for an unlimited period of time. The Eurosystem will ensure that the remaining denominations are available in sufficient quantities.

As in previous years, the Currency Operations Office was fully committed to its informative and educational responsibilities. During the first quarter of 2016, a booklet on the euro banknotes and coins, entitled *The Euro – An Informative Guide,* was distributed to all households around Malta and Gozo. Counterfeit awareness was raised through the media and by the setting up of dedicated counterfeit information stand during the annual 'Notte Bianca'. As in previous years, staff from the Currency Operations Office visited various schools, local councils and retail outlets, providing informative sessions to the general public, students and cash handlers.

The Currency Operations Office continued with the certification of professional cash handlers which this year also included cash handlers at casinos.

Collection and disposal of Maltese lira banknotes

A total of 36,138 Maltese lira banknotes with a value of €0.8 million were exchanged at the Bank during 2016. A total of 3.09 million Maltese lira banknotes remained in circulation at end-2016, equivalent to €38.9 million.

Numismatic and commemorative coins

In April, the Bank participated once again in the Europa Programme with the issuance of silver and gold numismatic coins, celebrating the art of Antonio Sciortino and featuring the sculpture, 'Dangerous Sport'. A silver coin was issued in May commemorating the 450th Anniversary of the Foundation of Malta's capital city.

In August the 100th Anniversary of the birth of Dom Mintoff, former Prime Minister of Malta, was commemorated through the issue of a silver coin. The Bank and MaltaPost also launched a joint product commemorating this event, consisting of a MaltaPost replica silver stamp and the Bank's silver coil. In September a numismatic gold coin was issued representing the copper four tari 'patakka', a fiduciary coin issued by the Order of St John.

In September the Bank issued a €2 commemorative coin depicting the Ġgantija temples, one of the oldest free standing monuments in the world. This is the first of a series of seven coins to be issued by the Bank. The series will depict Malta's prehistoric monuments listed by UNESCO as World Heritage Sites.

This €2 commemorative coin was also included in a new euro coin set dated 2016 issued in August.

In December the Bank issued a €2 commemorative coin 'Solidarity in Love', the first in a series entitled 'From Children in Solidarity'. This coin programme is a joint initiative of the Bank, the Ministry for Education and Employment and the Malta Community Chest Fund Foundation. The coin design was selected by means of a competition open to all secondary school students. The profits from the sale of the coins cards will be donated to the Malta Community Chest Fund Foundation.

Anti-counterfeit measures

During 2016, the Note Examination Room examined 93,256,160 banknotes with a value of €2.2 billion. 67,549,112 banknotes equivalent to €1.7 billion were found suitable for re-issue. 25,150,801 banknotes equivalent to €490.0 million were destroyed during 2016. 60,085,200 coins equivalent to €36.0 million were processed by the Central Bank of Malta.

During the year, the Central Bank of Malta continued to closely monitor the credit institutions and other professional cash handlers. Monitoring tests – several of which unannounced – were performed on various banknote handling machines and authentication devices. In 2016, the commercial banks started using the Infostat system to report operational data regarding recirculation of banknotes. Quarterly meetings with credit institutions continued to be held during 2016 to keep members updated on currency matters.

The CSU within Currency Operations Office is responsible for the coordination of counterfeit analysis in Malta. During 2016 more than 3,010 counterfeit notes and 561 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 in several court cases.

During 2016 CSU issued two press releases to inform the public on the status of counterfeit notes in the Eurosystem in general and more specifically in Malta.

Payment and securities settlement systems

The Bank's responsibility for the carrying out of 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.

No new regulatory or legal standards came into force during the course of 2016. Nonetheless, the Bank continued to work on the implementation and monitoring of existing legal frameworks, most notably areas falling under the SEPA Regulation and Interchange Fee Regulation. Preparatory work for the implementation of the Payment Services Directive 2 was also carried out in preparation for the transposition of this Directive into Maltese law during 2017.

Table 4.3
NUMBER AND VALUE OF CHEQUES PROCESSED BY THE MALTA CLEARING HOUSE, 2015 AND 2016

	Number of cheques	Value (EUR millions)
2015	5,260,199	9,045
2016	4,960,584	9,121
Change	(299,615)	76
Percentage change	(5.69%)	0.84%

Source: Central Bank of Malta.

Furthermore, the Bank continued to collaborate with the Malta Stock Exchange on the implementation of recommendations stemming from the Comprehensive User assessment on MaltaClear and its links. An oversight assessment on the Malta Clearing House (MCH) was also carried out as part of the obligations to implement assessment procedures on payments systems under the ECB Systemically Important Payments Systems Regulation. The final report has been presented to the second assessor and this is expected to be concluded by early 2017. The Central Bank of Malta was also assigned the responsibility of second assessor of the Irish Paper Clearing Company as part of its Eurosystem obligations. Such assessment is also expected to be concluded by the start of 2017. The Bank also evaluated several financial and credit institutions against the provisions relating to security of internet payments, as regulated by Financial Institutions Rule 04/2015.

MCH participants meet every morning at the Bank's premises to physically exchange the cheques negotiated during the previous working day. The total number of cheques cleared and their respective values registered a decrease of 5.7% and an increase of 0.84% over the previous year respectively, as shown in Table 4.3. The decrease in volumes cleared could be attributed to the fact that the number of cheques drawn on the Bank by the public sector in 2016 registered a substantial decrease.

The SEPA transactions (credit transfers) processed by the Bank during 2016 stood at 2.51 million for a total value of €2.94 billion. In 2015, 2.56 million transactions for a total value of €3.4 billion were processed. This indicates a slight decrease during 2016 as compared to 2015. The overall slight decrease in volume for 2016 could be the result of one-time payments in 2015, as announced in the Budget, which were paid via SEPA.

During 2016, the operation of TARGET2-Malta was very 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 nine.

Payments traffic in 2016 registered a 38.26% increase in terms of volume and an increase of 156.64% in terms of value, when compared to 2015. The increase in volume can be related to a higher number of customer payments, while the surge in value is related to higher-valued inter-bank payments. The total volume of payments processed during 2016 was 91,662 for a total value of €378.80 billion. The volume of customer payments was 74,742 for a total value of €5.44 billion, and the volume of inter-bank payments was 16,920 for a total value of €373.36 billion.

Banker to the public sector

The range of banking services provided by the Bank to the Government during 2016 was similar to the one in previous years and consisted mainly 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 SEPA and TARGET2.

To improve efficiency, security and reduce the cost of the deposit taking process, as from the last quarter of 2016 all deposits by the Government entities are processed as a back-office operation.

Table 4.4
NUMBER AND VALUE OF CHEQUES DRAWN ON THE CENTRAL BANK OF MALTA BY THE PUBLIC SECTOR

	Number of cheques	Value (EUR millions)
2015	891,534	669
2016	682,105	620
Change	(209,429)	(49)
Percentage change	(23.5%)	(7.3%)

Source: Central Bank of Malta.

Both the number of cheques drawn on the Bank by the public sector and their value registered a decrease of 23.5% and 7.3% respectively (see Table 4.4). These changes were the result of a reduced issuance of cheques by all Government departments, especially the Department of Social Security.

Foreign exchange services offered to the Government and public sector organisations during 2016 included: sale and purchase of foreign cash; outward and inward payments by SWIFT; encashment of drafts in foreign currency; maintenance of foreign currency accounts. Services related to Trade Finance were discontinued.

Throughout 2016, the Bank continued to effect payments in connection with the servicing of the Government's external debt. Capital repayments amounted to €10.41 million, which is 2.07% lower than the previous year's amount of €10.63 million. The associated interest paid in 2016 was €1.33 million, which is 26.92% lower than the €1.82 million recorded in 2015.

The total value of funds transferred to external debt sinking funds by debit of the Government account during 2016 amounted to €19.46 million.

Banker to the banking system

As in previous years, the Bank continued to act as banker to the rest of the banking system by providing deposit facilities to credit institutions. These maintain balances at the Bank mainly to meet their reserve deposit requirements. These institutions hold reserve accounts, margin call accounts and accounts pledged in favour of the Depositor Compensation Scheme.

Other financial services

During 2016 the Bank maintained its portfolio management services to the Investor Compensation and Depositor Compensation Schemes on the parameters set by their Management Committees, appointed by the Malta Financial Services Authority.

During 2017, the Department plans to enhance the operations of the MCH, particularly in the areas related to: governance and access criteria; participants' insolvency; finality; the introduction of multilateral net settlement. The Bank is also leading an initiative with the market to investigate the feasibility of setting up an Automated Clearing House (ACH) in Malta.

5. INTERNAL MANAGEMENT

Governance

Board of Directors

The Board of Directors is composed of Dr Mario Vella as Governor and Chairman, Mr Alexander Demarco and Mr Alfred Mifsud as Deputy Governors, Mr Peter J. Baldacchino, Mr Victor Busuttil, Dr Romina Cuschieri and Ms Philomena Meli as non-executive Directors. Dr Mario Vella was appointed Governor on 1 July 2016, upon the end of the term of appointment of Professor Josef Bonnici. All members of the Board are appointed for a statutory term of five years. Mr Herbert Zammit LaFerla acts as Secretary to the Board, succeeding Dr Bernadette Muscat as of 19 September 2016. Twelve Board meetings were held during 2016.

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

In line with the amendments to the Central Bank of Malta Act, the President of Malta acting on the advice of the Prime Minister, appointed Dr Mario Vella as Governor of the Central Bank of Malta for a period of 5 years with effect from 1 July 2016.

Three chief officers were appointed in 2016: Mr Jesmond Gatt – Chief Officer Banking Operations and Dr Aaron G. Grech – Chief Officer Economics with effect from 1 April 2016, and Mr Francis Bugeja – Chief Officer Internal Audit with effect from 1 December 2016.

In terms of the Bank's Policy on the Prevention of Insider Information and the Code of Conduct – Code of Ethics, in June 2016 the Board established a Compliance Committee composed of the Head of Internal Audit as observer, the Compliance Officer and a non-executive Board Director.

In June 2016 the Board of Directors approved the restructuring of the Statistics Department taking into consideration the increase in statistical requirements in the area of monetary statistics. The restructuring resulted in a shift of the Balance of Payments and Financial Accounts section from the Monetary, External and Financial Statistics Office to the Macroeconomics, Payments and Securities Statistics Office. An integrated helpdesk, reporting to the Manager of the Statistical Collection and Information Management Office, has been set up to deal with users of statistical products.

In October 2016 the Board agreed upon changes to the Bank's internal structure in continuation of the broad restructuring programme initiated in December 2015.

In line with its previous discussions for upgrading the internal audit function, in October 2016 the Board decided to upgrade the internal audit function to a departmental level within a new division headed by a Chief Officer who also assumes responsibilities for Compliance and Legal Services. Thus the new division consists of three units responsible for risk-based audits including Internal Audit Committee audits, a compliance unit and the Legal Office. While reporting to the Governor, in so far as audit findings are concerned, the Chief Officer continues to report directly to the Audit Committee. The Board also resolved that the Chief Officer Internal Audit would attend the Board Meetings in an observer status.

The Board of Directors approved further changes to the organisational structure with effect from 1 January 2017.

The Office of the Governor continues to provide personal assistance to the Governor. It also takes on the responsibility for liaising with the offices of the ECB President and Vice President, as well as the offices of foreign central bank governors. Other duties include research assistance to the Governor with special attention to international political economy and the social impact of monetary policy and financial stability measures. The Office also handles relations with press and media, including media monitoring and analysis in liaison with the newly established Communications and International Relations Department to ensure seamless coordination; and providing national and international academic outreach.

Communications Department and EU and International Relations Department are combined into one department. However, International Relations are no longer responsible for EU related matters other than those concerning international organisations such as the IMF, World Bank, EBRD and AIIB.

The Economics Division takes the place of the Economics and Statistics Division, with an altered composition. It consists of the Economic and Research Department, the portfolio investment segment of the Investments Department (as distinct from the segment conducting monetary policy operations), and a new Monetary Policy & Operations and Eurosystem Relations Department. This Division has two reporting channels. The Economic and Research Department reports to the Governor (through the Chief Officer Economics), whereas the other two Departments report to the Deputy Governor – Monetary Policy (also through the Chief Officer Economics).

The erstwhile Financial Stability Division, renamed the Financial Stability and Statistics Division, takes on responsibility for the Statistics Department – in addition to the Financial Stability Department. The Macroeconomic Unit within the current Macroeconomic, External Payments and Securities Statistics Office within the Statistics Department is now integrated within the Economics Division, while External Payments and Securities Statistics Office remains an integral part of Statistics Department, which is now part of the Financial Stability and Statistics Division.

The Financial Markets and Control Division is replaced by a new Finance and Risk Division which is responsible for the Financial Control Department and the Risk Management Department, which are relocated to the new Division from the erstwhile Financial Stability Division.

The former Corporate Services Division comprised the Information Systems and Knowledge Management Department and the Human Resources and Administration Department. The latter is now divided into two departments, namely Human Resources Department and the Administration Department. In order to maintain robust IT services across the Bank, the information systems function within the Information Systems and Knowledge Management Department comprise three offices, namely the IT Services Office, the Core Applications Office and the Projects and Applications Development Office.

Investments Department and Monetary Policy & Operations and Eurosystem Relations Department (through Chief Officer Economics) together with Banking Operations Division report to the Deputy Governor – Monetary Policy, while Financial Stability and Statistics Division, Financial Control and Risk Division, and Corporate Services Division report to the Deputy Governor – Financial Stability.

The Communications and International Relations Department, Internal Audit, Compliance and Legal Division, and Economic and Research Department report directly to the Governor.

Governor's activities in Malta[1]

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

In January 2016, Professor Bonnici presented a scientific paper "Inequality and growth, the road ahead" during the international consultation of the Dublin Group on Financial Reform and the Common Good organised by the *Fondazione Centesimus Annus – Pro Pontifice* at the Central Bank of Malta.

[1] Dr Mario Vella was appointed Governor on 1 July 2016, upon the end of the term of appointment of Professor Josef Bonnici.

Professor Bonnici presented the Bank's Annual Report 2015 at its press launch in April. He also delivered a presentation on recent economic developments and structural considerations to the Parliamentary Committee on Economic and Financial Affairs in June, where he outlined the main issues arising from the Annual Report 2015. In June, Professor Bonnici participated in a conference "Small euro area countries – performance after the crisis and challenges for the future", organised by the Central Bank of Malta.

In November, Dr Vella was the keynote speaker at the annual dinner of the Institute of Financial Services. On this occasion, he presented his views on "Productivity and stability for sustainable growth".

In addition, both Governors were interviewed by various news media.

Governor's international engagements

During 2016, the Governor participated in a number of high level events. Professor Bonnici delivered presentations at events hosted by MNI Connect in February and OMFIF in May in London. In April, he attended the IMF/World Bank Spring Meetings in Washington DC followed by his participation in the Informal ECOFIN meeting in Amsterdam. In September, Dr Vella delivered a speech on the "Conditions for moving towards EDIS" during the Eurofi Financial Forum and also attended the Informal ECOFIN meetings in Bratislava. In October, Dr Vella attended the IMF/World Bank Annual Meetings in Washington DC. Over the course of the year, the Governor gave a number of interviews to international media outlets.

Audit Committee

The Audit Committee, chaired by Mr Victor Busuttil and comprising also Mr Peter J. Baldacchino and Dr Romina Cuschieri, convened eight times during 2016. At each meeting the Head of 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 risk issues. The meetings were also regularly attended by the Bank's external auditors, PricewaterhouseCoopers (PwC).

External auditors

During 2016 PwC carried out the statutory audit for the financial year ending 31 December 2015. They expressed their opinion on the financial statements and presented their Management Letter to the Board.

Internal Audit Office

The Internal Audit office 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. The vast majority of such engagements assessed the effectiveness of governance, risk management and control processes implemented at a number of business areas. Following an initiative introduced in 2015, 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 opinions, both bank-wide and at divisional and individual business area level, were provided on outstanding 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 five IAC audits, and continued to participate in the Audit Task Force on Information Technology (ATF-IT), which is one of the IAC substructures.

The internal audit function was also involved in a number of consultancy engagements covering different aspects and business areas within the Bank. These included: a detailed analysis of specific elements of the Bank's procurement procedures performed between May and November 2016; an independent study, carried out in August, into the training practices and opportunities for staff development; and a review of safe custody services offered by Payments and Banking Office, an issue triggered originally in December 2015 but concluded in September 2016. Furthermore, since late January 2016 the internal audit function was heavily involved in a joint exercise with two other business areas in overseeing the design of a new accounting framework and business process re-engineering targeted to enhance Malta Coin Distribution Centre operations, a project which is now nearing conclusion. During the year the internal auditors also continued supporting an exercise which originally started in January 2015, that is, to provide consultancy service in strengthening the Bank's Ethics Framework, and, towards the end of the year, they assisted in setting up the newly established Compliance Committee.

In a continuous bid to enhance its transparency, the Bank's Internal Audit activity took its in-house audit system to the next level, providing the management of each business area direct access to audit information and the ability to download reports through an on-line portal.

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.

Operational risk assessment

The Risk Committee met eight times during 2016. 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 was also presented to the Board of Directors.

The second cycle of the Operational Risk Management (ORM) exercise continued and by the end of 2016 was near completion. The risk status of the various business areas was reported on a regular basis to the Risk and Audit Committees.

During 2016, each business area reviewed the Business Continuity Plans (BCP) of its critical operations. Regular resilience testing was carried out by the business areas together with members from the Operational Risk Management office.

Following the establishment of requirements for a disaster recovery site in 2015, the Bank identified suitable premises. It encountered certain technical issues but these have now been resolved and work can proceed.

Legal issues

During 2016, the Bank's Legal Office was involved in amending or drafting new legislation as follows:

- The Central Bank of Malta Act was amended by means of Act XLIX of 2016. The Act saw the deletion of provisions which dealt with the offence of counterfeit. These provisions were transferred to the Criminal Code, Chapter 9 of the Laws of Malta, in order to reflect and transpose Directive 2014/62/EU on the protection of the euro and other currencies against counterfeiting by criminal law, and replacing Council Framework Decision 2000/383/JHA.
- Subsidiary legislation S.L. 204.07, relating to the Central Bank of Malta as the competent authority on interchange fees for card-based payment transactions, was recently amended by Legal Notice 220 of 2016, which widened the powers of the Bank to issue and enforce sanctions where any person contravenes or fails to comply with the provisions of the EU Regulation, and to take all necessary measures to ensure that they are applied.
- Another legislative intervention under the said EU Regulation was Legal Notice 263 of 2016, by virtue of which the interchange fees for domestic consumer debit and credit card transaction fees were defined in terms of Articles 3(2)(a) and 4 of the EU Regulation.
- Central Bank of Malta Directive 8 was amended, with the revised version entering into force on the 1 January 2017. Amendments include the establishment of eligibility criteria for certain unsecured debt instruments; acceptance criteria for credit rating agencies as External Credit Assessment

Institutions in the Eurosystem Credit Assessment Framework; minimum disclosure requirements for covered bond ratings issued by credit rating agencies in the Eurosystem Credit Assessment Framework.

- The Central Bank of Malta Act (Cap. 204 of the Laws of Malta) was amended by Act No. IX of 2016, published on 29 January 2016, which included a new article specifically related to the establishment of the Central Credit Register. Subsequently, Central Bank of Malta Directive No. 14 establishing a Central Credit Register, was published by the Central Bank of Malta on 15th February 2016. Further details on the Central Credit Register are being presented in section 3 covering activities undertaken by the Statistics Department.
- The Bank's in-house lawyers advised on diverse legal, contractual and operational matters, as well as on issues related to the Bank's governance structure, including:

    - Review of several tenders issued by the Bank, and advice on the procurement process.
    - Legal advice on the oversight assessment against the CPSS-IOSCO Principles for Financial Market Infrastructures in relation to the Malta Clearing House.
    - Legal support to the Bank's relevant business areas on cheque processing and cheque clearing.
    - Advice on the Depositor Compensation Scheme.
    - Extensive legal advice and vetting of contracts entered into by the Bank with service providers and other third parties.
    - Involvement in a draft memorandum of understanding in respect of the Financial Infrastructure Steering Committee which has been set up to manage the implementation of the pre-project activities concerning the setting up of an Automated Clearing House in Malta.
    - Legal advice and vetting of house loan contracts entered into by the Bank and its staff members, under the House Loan Scheme in terms of the Collective Agreement. The legal team also extended advice in relation to the training and personal development schemes available to the Bank's staff members under the Collective Agreement.
    - Legal assistance during court proceedings when Bank officials are summoned as witnesses, as well as assisting senior management in relation to a number of precautionary and executive warrants, where the Bank is designated as garnishee.

The Compliance function was assigned to the Legal Office with effect from 31 October 2016. The Bank exercises its compliance function through the recently established Compliance Committee. The Bank's senior compliance officer also acts as secretary to the Compliance Committee.

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 European Central Bank, the European System of Central Banks and the Eurosystem. In 2016, 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 also involved in a number of ECB-related activities and projects.

Human resources

The Bank had 326 full-time equivalent employees at the end of 2016, seven fewer than in 2015. The number of full-time positions decreased by 17 and stood at 346 at the end of 2016, while the number of part-timers was unchanged at 11.

During 2016, the Bank recruited 17 employees (13 Officers II, three Officers I and one executive), while 25 employees resigned from the Bank.

In 2016, six employees were seconded to offices within the public sector and one employee to a charitable organisation. In addition, one staff member was seconded to the ECB for a period of four months, while another three employees continued with their three-year appointment within the Single Supervisory Mechanism (SSM) of the ECB which started in 2014. Moreover, eight employees retired from the Bank while another employee died in service. The Bank hosted three apprentices under a scheme regulated by MCAST. The Bank also offered an Internship Programme to 17 final year university students between October 2016 and June 2017. During the summer period, the Bank offered the opportunity to a number of university students from the Faculty of Economics, Management and Accountancy to participate in a virtual dealing room environment on foreign exchange and fixed income securities.

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 26 different courses mainly in IT, economics, statistics, health and safety and an information session on the policy for the prevention of abuse of insider information and the updated code of ethics. In addition, the Bank held a number of seminars on its strategic objectives in the medium term. Induction programmes were also organised for all new employees. In addition, staff in the Economics and Research Department organised a number of lectures in econometrics for Bank employees.

As shown in Table 5.1, 102 staff members participated in external training programmes in 2016. These courses were provided by the ECB, other central banks and professional institutions.

During the year a number of employees benefited from the Bank's study programmes (see Table 5.2). Eight staff members completed their postgraduate education, while a total of 25 continued their enrolment in postgraduate degree programmes.

The Heading for Leadership Programme, which is one of the ECB's open training events, was again hosted by the Bank. In view of changes agreed upon during 2015 by the Task Force for Training and Development, the 2016 edition of the event served as a pilot and the Bank hosted Module B of the programme in April with 14 participants from nine different NCBs/NCAs. Two observers, one from the Bank and another from the ECB, also attended the programme.

Table 5.1
STAFF TRAINING DURING 2016

Type of training	Number of courses or seminars	Number of participants
Internal	26	973*
External	102	163
Local	60	119
Foreign	42	44

* Includes participation of 310 employees in the Information Security Awareness Information Session and 315 employees in the Prevention of Abuse of Insider Information and Code of Ethics Information session.

Source: Central Bank of Malta.

Table 5.2
ACADEMIC AND PROFESSIONAL COURSES DURING 2016

Type of qualification	Number of employees	
	Completed during 2016	Ongoing in 2016
Postgraduate	8	25
Undergraduate (Honours)	2	4
Diploma	3	2

Source: Central Bank of Malta.

Moreover, the Bank participated in "Jobs in Financial Services Exposure Programme" organised by the Malta Financial Services Authority and the Education Consultative Council. This annual event provides Form IV students with a job shadowing experience in a financial organisation. Two of these students were welcomed at the Bank.

Information Systems and Knowledge Management

Information Systems

Early in the year, department structures were consolidated into an Information Systems and Knowledge Management Department. The objective of the department has thus been broadened to incorporate not only the management of electronic information but also documentary records and archives. The technology related offices continue to deliver information services based on custom-made software applications developed in-house and generic technology services.

Throughout the year the Bank continued its participation in ESCB IT committees and substructures in order to effectively coordinate ESCB information systems and projects. One major initiative successfully completed during the year was the upgrade of the Bank's ESCB infrastructure, which allows secure communication and exchange of information with the rest of the ESCB community. The upgrade consisted of a total overhaul of the underlying hardware components and installation of the latest software version release.

The protection of the Bank's infrastructure from malware threats continued to feature highly on the Department's agenda. An extensive security awareness campaign involved the participation of all Bank employees in an effort to complement the technological tools with a wider understanding of social engineering risks involved.

Sophisticated malware attacks targeting payment infrastructures have expedited the effort to review and evaluate possible ways to improve the security stance of the SWIFT infrastructure and other ancillary systems. Whilst maintaining international standards and guidelines the department continues to develop measures to strengthen security around these systems.

At the local level, the department is heavily involved in a number of infrastructural projects that are expected to be completed in 2017. Three major initiatives are (i) the upgrade of the Bank's internal network infrastructure, which will include a total overhaul of all networking and active equipment, (ii) the introduction of a Voice over IP telephony system and (iii) the construction of a new data centre in line with international standards. Once completed, the process to migrate production systems to the new data centre will commence in a phased manner throughout the year.

The leading role of the Bank in the operations of the Central Credit Register required the use of in-house resources and expertise in the design and development of the system. Software enhancements to the in-house SEPA application ensured compliance with the latest payment systems standards. The in-house development team also collaborated with other departments to ensure the smooth migration envisaged by the INFOSTAT and IBGL programmes. Furthermore, the office contributed to the projects being conducted by the National Statistics Office for the collection and consolidation of survey data.

The changes planned for several ESCB systems have also triggered similar updates to the local counterparts, such as the Register of Eligible Assets and the Collateral Management applications which were upgraded to meet new business demands.

The Statistical Information System had to be reviewed to cater for the additional datasets collections brought about by the SSM data collection and reporting requirements. The Bank's introduction of teleworking and flexitime arrangements were also reflected in an extensive upgrade of the in-house Human Resources System.

Knowledge Management

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. It continued to build its collections in the appropriate formats to satisfy the users' needs for information and knowledge. Particular emphasis was given to the continuous development of an interactive Library portal and the use of blogs as a knowledge management tool.

Knowledge Management continued to provide efficient records management practices that assist the Bank in meeting its statutory objectives and overall business responsibilities. Of particular importance are the protection and confidentiality of records in all formats. Through Archives Management the 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. Knowledge Services continued to participate and contribute in this sphere at ESCB level particularly through the annual Information Management Meeting. Through the contacts established and information obtained, internal policies and procedures were updated to reflect guidelines and practices in the field.

Premises and procurement

During the year, works on the new Annex 2 building – Laparelli Building – continued with the excavation, construction and commissioning of the new electrical substation and changeover. Security doors and fire doors as well as bronze windows and doors were successfully installed. Works also continued on the installation of the hardstone cladding within the Library, Conference Room, Foyer and the façade. Finishing works are expected to pick up strongly and by the second quarter of 2017, most commissioning works should be completed including the data centre, the low voltage and the building services plant.

As for other projects, in view of the unexpected delay in completing the new Laparelli building, from the second quarter of 2017 Administration Department is expected to commence the re-structuring and re-allocation of a number of offices at both premises, and the resultant office moves.

With regard to Procurement, the main tenders were intended for works related to the new Laparelli Building. Other tenders included services required for the lease of the Bank's vehicles, as well as two important IT related tenders.

During the year 2016 the Bank continued to participate in the Eurosystem Procurement Coordination Office, mostly in the areas related to software and market data. The initiative enables members of the Eurosystem to benefit from efficiencies in the joint procurement.

With regard to the Bank's Ten-Year Energy plan, and in a bid to continue to reduce CO2 emissions from electrical power, the Bank has continued with works on the linking of the small reservoir at the Lower Garden to the large, newly constructed reservoir outside the Terminus Gate (opposite the Tritons Fountain) as part of the Laparelli Building.

Corporate Social Responsibility

As part of the Bank's environmental commitment during 2016, paper material collected from offices and sent for recycling via external contractors amounted to 29 tons of waste paper. This included an extensive weeding exercise conducted by the Bank's Library late in the year. In addition, the Bank continued with its regular paper recycling exercises, through which it recycled five tons of paper. All such paper was eventually baled by the Bank's contractor, together with other paper waste, and sent abroad for recycling.

Meanwhile, in cooperation with the Park Afforestation and Rural Conservation within the Ministry for Sustainable Development, the Environment and Climate Change, the Bank renewed the previous year's initiative of planting trees in various parts of the island.

The Bank continued to provide financial support through donations and sponsorships to institutions and to various philanthropic non-government organisations. The Bank sponsored for a fifth consecutive year 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 organisations, such as *Fondazzjoni Patrimonju Malti and Din L-Art Ħelwa*.

Assistance was also provided to various charities, including the Malta Community Chest Fund, *Dar tal-Providenza* and Inspire. 2016 also saw the minting of the first of a set of five numismatic coins under the 'Children with Solidarity' programme. The profits from the sale of the coin cards will be donated to the Malta Community Chest fund. The Bank also participated in the Pink October, with the funds collected going to the various Pink October causes. Moreover, the Bank sponsored the participation of staff members in the eighth edition of the President's Charity Fun Run.

Information and public relations

The Bank provides the general public with information on its policies, operations and activities, both in printed form and electronically 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. During 2016 the Bank's website was further enhanced. The e-shop concept to enable on-line purchases of numismatic products was launched during the first half of the year. Works are also at an advanced stage on the on-line remote library service system which will access the EBSCO Discovery Service and OLIB's Library Account.

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 distinguished local and foreign guests. The yearly Numismatic Symposium, the event during which the Coin Issuance Programme was launched, was held in January 2016. This event was jointly organised by the Currency Operations Department and the Communications and International Relations Department. Various educational visits were hosted throughout the year for local and foreign groups, and for secondary/tertiary education students. The Communications and International Relations Department and the Malta Bankers Association also jointly hosted a group visit in 2016, which focused on the role and function of the Bank and the Eurosystem.

The Bank participated in this year's edition of Notte Bianca, which took place in October. Over 2,200 persons visited and were shown around the Bank's main premises.

The permanent exhibition of a selection of works by the late Victor Pasmore at the Polverista Conference Hall continued to attract a varied audience. Entrance to this exhibition is free, and the services of the curator are available daily between 11:00 hours to 15:00 hours.

The Department also hosted four ESCB/SSM meetings during the course of the year.

6. INTERNATIONAL RELATIONS

In 2016 the Central Bank of Malta continued to be active within the Eurosystem, the European System of Central Banks (ESCB) and the European Systemic Risk Board (ESRB), while collaborating closely with the European Central Bank (ECB). The Bank also maintained strong relations with other 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 participated in the meetings of the Governing Council of the ECB, which is made up of the ECB's Executive Board members and the national central bank (NCB) governors of the euro area Member States. The 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 2016 the Governing Council met 22 times, with eight meetings being focused on monetary policy.

In addition the Governing Council held two separate meetings dedicated solely to issues related to the Single Supervisory Mechanism (SSM). Furthermore, a significant number of Governing Council decisions were taken by means of written procedures or teleconferences.

The Governor is also a member, and attended the quarterly meetings, of the General Council of the ECB, which mainly performs an advisory role and 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). The Governor also participated in 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. 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 2016 the Governor was a signatory to various multilateral agreements related to the operations of the Eurosystem and the ESCB. As in previous years, a number of these agreements were related to the operation of TARGET2 and TARGET2-Securities (T2S).

In June, the Deputy Governor for Monetary Policy attended the third ECB Forum on Central Banking regarding the future of the international monetary and financial architecture, held in Sintra, Portugal.

European Systemic Risk Board

The Governor, as a member, took part in the General Board meetings of the ESRB, while senior officials of the Bank participated in the ESRB's Advisory Technical Committee and its substructures.

During the year the Board discussed various macroprudential issues, including potential vulnerabilities and risks in the EU financial system, and proposed options for policy responses.

Throughout the year the ESRB continued to publish its risk dashboard, occasional papers and macroprudential commentaries. It also began publishing working papers.

Other EU institutions

During 2016, the Governor and the Deputy Governor for Monetary Policy participated in the informal meetings of the Economic and Financial Affairs Council (ECOFIN) held in Amsterdam in April and in Bratislava in September. Furthermore, the Deputy Governors regularly participated in meetings of the Economic and Financial Committee (EFC) when issues relevant to central banks were discussed.

In particular, during 2016, the Bank engaged in EFC discussions on issues related to developments in financial markets and the regular monitoring of risks to financial stability in the EU prior to the formulation of appropriate policy responses. Other discussions related to the strengthening of the Banking Union, the fair treatment of all players within the banking sector, sovereign debt related issues, the European Deposit Insurance Scheme (EDIS), the establishment of bridge financing arrangements and the Single Resolution Fund (SRF). Furthermore, the EFC discussed recommendations and warnings issued by the ESRB.

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, the Financial Stability Board (FSB) and the AIIB.

Other Bank officials also participated in meetings of various 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 also took part in a number of other EU committee structures related to central banking functions. Bank officials also accompany 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 of 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 Herzegovina, Cyprus, Kazakhstan and Israel. It held its annual constituency meeting in Sarajevo in April to discuss current developments ahead of the EBRD Annual Meeting. At this meeting the Central Bank of Malta was represented by the Deputy Governor for Financial Stability. In May, the Deputy Governor for Monetary Policy attended the EBRD Annual Meeting in London, during which discussions looked back at the EBRD's first quarter of a century in existence and the possible challenges ahead.

International Monetary Fund

During 2016, the Governor, in his position of Governor for Malta on the Board of Governors of the IMF, attended the joint IMF/World Bank Spring and Annual Meetings, which were held in April and October, respectively. On both occasions the Governor was accompanied by the Bank's Deputy Governor for Monetary Policy, who is the Fund's Alternate Governor for Malta. During the year the Governor voted on a number of resolutions proposed by the Fund's Executive Board.

In December, IMF staff members visited Malta in connection with the 2016 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. The full Report was eventually published in February 2017.

The 2010 quota and governance reforms came into effect in January 2016. As a result, Malta's quota in the IMF increased by SDR66.3 million to SDR168.3 million. During 2016 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 also remained at the same level of SDR87.5 million when compared to a year earlier.

The Bank also continued to carry out transactions related to the IMF's operational budget. Malta's quota increase became effective in February 2016 and as a result the reserve tranche position increased by around SDR16.6 million to SDR45.9 million whereas the Fund's holdings of national currency increased by SDR49.7 million to SDR122.4 million. During the rest of the year, repayments exceeded new loans. As a result Malta's reserve tranche position declined to SDR31.2 million and correspondingly the Fund's holdings of the national currency with the Bank increased to the equivalent of SDR137.6 million by the end of the year.

During 2016 no drawings were effected under the 2012 bilateral loan agreement between the Bank and the IMF. The agreement expired in January 2017.

World Bank Group

Although Malta is represented on 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 2016, 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 instrument of ratification for Malta in January 2016. In Malta, Parliament had approved the ratification of the articles of agreement that establish the AIIB as an international organization 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. It forms part of the euro area constituency which also includes Austria, Finland, France, Germany, Italy, Luxembourg, the Netherlands, Portugal and Spain.

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.

In January, the Minister for Finance attended the inaugural meeting of the Board of Governors in Beijing. During the year a number of constituency meetings were also held. On these occasions Malta was represented by its diplomatic missions with the support of the Bank.

Commonwealth Small States Trade Finance Facility

During 2016, senior Bank officials participated in the Working Group that was set up to establish the Commonwealth Small States Trade Finance Facility (SSTFF). The Working Group focused on drawing up the legal documentation that will govern the operations of the SSTFF, notably draft agreements with two major banks that have shown an interest in acting as facility managers. In addition, the Bank also worked on obtaining the necessary regulatory clearance from MFSA and on setting up the necessary corporate structure in Malta.

Other international institutions

The Bank continued to monitor developments related to initiatives endorsed by the FSB and the Bank for International Settlements (BIS). In June, the Deputy Governor for Monetary Policy participated as observer at the BIS Annual General Meeting which was held in Basel.

ECONOMIC AND FINANCIAL POLICY CALENDAR 2016

This calendar lists important policy developments in the monetary, fiscal and financial fields during the year.

Monetary policy measures of the Eurosystem

10 March: The Governing Council of the European Central Bank (ECB) lowered the interest rate on the main refinancing operations (MRO) by 5 basis points to 0.00%. The rate on the marginal lending facility was lowered by 5 basis points to 0.25%, while the rate on the deposit facility was lowered by 10 basis points to -0.40%.

The Council also announced a number of non-standard measures aimed at enhancing its accommodative monetary policy stance and encouraging further lending to the euro area private sector. In particular, the Council decided to expand its monthly purchases under the asset purchase programme (APP) from €60 billion to €80 billion. This expansion was intended to last until the end of March 2017 or until the Governing Council sees a sustained adjustment of inflation towards 2%. The issuer and issue share limits for the purchases of securities issued by eligible international organisations and multilateral development banks under the APP were raised from 33% to 50%. The Council also decided to launch a corporate sector purchase programme (CSPP) starting in June 2016.

A new series of four targeted longer-term refinancing operations (TLTRO II), starting in June 2016, was also announced, each with a maturity of four years.

2 June: The ECB announced that it expected to begin purchases of securities under the CSPP on 8 June and that it would carry out the first operation under the TLTRO II series on 22 June.

8 December: The ECB confirmed that the Eurosystem's asset purchases will continue at a monthly pace of €80 billion until the end of March 2017. From April 2017, such purchases would be carried out at a monthly pace of €60 billion and would continue until the end of December 2017, or beyond if necessary. The Governing Council also announced further changes to the parameters of the APP, with a view to ensure its smooth operation. These include a broadening of the maturity range of the public sector purchase programme (PSPP), with the minimum remaining maturity for eligible securities cut from two years to one year. Moreover, purchases of securities under the APP with a yield to maturity below the interest rate on the ECB's deposit facility will be permitted to the extent necessary.

European policy developments related to the financial sector

1 January: The European Union's (EU) Single Resolution Mechanism (SRM) became fully operational, signalling the completion of the second pillar of the European Banking Union, following the Single Supervisory Mechanism (SSM) launched in 2014. The objective of the SRM is to ensure the orderly resolution of failing banks without recourse to taxpayers' money, through contributions from shareholders and creditors, and recourse to a single resolution fund.

29 January: The European Systemic Risk Board (ESRB) published two recommendations addressed to the national and European institutions responsible for implementing macro-prudential policies. Recommendation ESRB/2015/1 aims to ensure that the counter-cyclical buffer rate for banks' exposures to third countries would typically apply across the EU. Meanwhile, Recommendation ESRB/2015/2 deals with the cross-border effects of macro-prudential measures, setting out

the framework for dealing with these effects and establishing a mechanism for voluntary reciprocity with regard to these measures.

17 March: The General Board of the ESRB exchanged views on risks and vulnerabilities in the financial system. It highlighted persistent weaknesses in banks' balance sheets as key vulnerabilities in the EU banking sector. It also approved adverse scenarios prepared by the ESRB for the 2016 EU-wide stress tests of the insurance sector by the European Insurance and Occupational Pensions Authority and for the 2016 EU-wide stress test of central counterparties by the European Securities and Markets Authority. The General Board discussed the EU Shadow Banking Monitor, which provides an assessment of structural changes and an overview of key risks associated with the shadow banking sector's activities. The first edition of this publication was published in July.

4 May: The Governing Council of the ECB decided to end the production and issuance of the €500 banknote towards the end of 2018. However, it was also decided to keep the note as a legal tender.

5 July: The Eurosystem unveiled a new €50 banknote in the Europa Series with enhanced security features. The note, which will be in circulation on 4 April 2017, is part of a project to make banknotes less prone to counterfeiting.

6 July: The European Banking Authority (EBA) announced that in September 2016 it will launch a transparency exercise covering over 100 banks. This will provide actual information on the banks' balance sheet based on supervisory reporting data. The results of this exercise, which will complement the 2016 EU-wide stress test exercise, was published in December.

29 July: The EBA published the results of a stress test exercise covering 51 banks from 15 EU and EEA countries. These banks represent around 70% of banking assets in each jurisdiction and across the EU. The test aims to provide supervisors, banks and other market participants with a common analytical framework to assess large banks' resilience to adverse economic developments. The EBA noted that further progress had been made by large banks in terms of strengthening their capital since 2014. The latest exercise highlights the importance of such strengthening. Among banks in the 2016 sample, the weighted average CET1 capital ratio would have declined from 13.2% to 9.4% under adverse economic conditions, but impacts vary significantly across individual banks. The full report is available on the EBA website.[1]

28 November: The ESRB published a report on the macro-prudential issues arising from low interest rates and structural changes in the financial system of the EU. The report analyses potential macro-prudential issues arising from both a prolonged period of low interest rates and structural changes while discussing the impact that these may have on financial markets and the economy in the long run. Three main areas of risks to financial stability were identified by the Board, which are the sustainability of certain financial institutions' business models, broad-based risk taking and the move towards a market-based financial system. The Report also proposes for consideration a series of policy options to mitigate and prevent the emergence of the risks identified.

2 December: The EBA published its ninth report on risks and vulnerabilities in the EU banking sector. According to the Authority, the banks had further strengthened their capital position, thus being able to continue progressing further. The report, however, also identified high levels of non-performing loans, sustained low profitability, operational risks and volatility in funding markets as key challenges to the banking sector. Information and communication technology related risks were also increasing, according to the EBA whilst litigation and conduct risk-related concerns remained. The Authority also noticed that cyberattacks are on the rise and encouraged the banks to upgrade their IT systems. The

[1] http://www.eba.europa.eu/

report was accompanied by the EBA's 2016 transparency exercise, which provides essential data on capital positions, risk exposure amounts and asset quality for 131 banks across the EU and the European Economic Area.

15 December: In its regular discussion of financial stability risks, the General Board of the ESRB highlighted the re-pricing of risk premia in global financial markets and the weaknesses in financial institutions' balance sheets as the main risks to financial stability in the EU. It endorsed the publication of a report on the macro-prudential use of margins and haircuts and approved adverse scenarios prepared jointly with ECB staff for the 2017 EU-wide stress test of central counterparties by the European Securities and Markets Authority. The ESRB also released the 18th issue of its risk dashboard.

Central Bank of Malta announcements

29 January: Act No. IX of 2016 amended the Central Bank of Malta Act to empower the Central Bank of Malta to establish a Central Credit Register in Malta. Central Bank of Malta Directive No. 14, establishing the Register, was issued on 15 February with the Register starting its operations on 20 April 2016. The purpose of the Register is to create a credit data sharing system to support credit institutions in their analysis of existing or prospective borrowers' creditworthiness. The Bank has taken the necessary measures to ensure a secure system to safeguard the collection, processing and dissemination of information available in the Register.[2]

23 May: The Central Bank of Malta renewed its agreement to establish a '*Central Bank of Malta Chair in Economics'* with the University of Malta's Faculty of Economics, Management and Accountancy for a period of three years starting from October 2016, with the possibility to renew this arrangement further.

7 September: The Central Bank of Malta held, on a trial basis, its first reverse auction under the PSPP. Three subsequent auctions were also held. However, no bids were received.

Fiscal and economic policy developments

26 February: the European Commission published its *Country Report* for Malta, assessing Malta's performance in light of the *Annual Growth Survey* published in November 2015. The Commission noted that some progress has been made in addressing Malta's 2015 country-specific recommendations (CSR), such as reducing the number of early school leavers, increasing access to finance for small businesses, and ensuring the long-term sustainability of the pensions, though more progress needs to be made. Regarding the Europe 2020 national targets, Malta has made good progress, particularly in terms of raising labour market participation and reducing greenhouse gases. However, more effort is needed on R&D expenditure and poverty.

30 April: The Government submitted the *Update of the Stability Programme 2016-2019* to the European Commission, setting out its budgetary objectives until 2019. The Government also presented the *National Reform Programme* for 2016, outlining reforms in areas such as public finances and long-term fiscal sustainability, the labour market, education, poverty, and competitiveness that will be pursued in line with Malta's CSRs and Europe 2020 targets.

17 June: The Economic and Financial Affairs (ECOFIN) Council approved draft recommendations to 29 Member States, on the economic and fiscal policies set out in their National Reform and Stability/ Convergence Programmes. In its opinion on Malta, the Council recommended an annual structural

[2] Further information about the Central Credit Register is available on the Central Bank of Malta website: https://www.centralbankmalta.org/en/ccr.

fiscal adjustment of 0.6% of gross domestic product (GDP) towards the medium-term budgetary objective of a balanced budget in 2016 and 2017 and additional measures to ensure the long-term sustainability of public finances. The Commission also recommended taking measures which would strengthen labour supply, in particular through increased participation of low-skilled persons in life-long learning.

24 August: The European Commission approved the setting up of the Malta Development Bank, to facilitate access to funding for Small and Medium Enterprises (SME) that have difficulty accessing market financing, as well as support infrastructure investment. The Bank will have an authorised share capital of €200.0 million and will carry out non-commercial activities to avoid unduly distorting competition. A Bill setting up and regulating the Malta Development Bank was earlier presented for debate in Parliament.

17 October: The Minister for Finance presented the Budget for 2017 to Parliament. The general government deficit was expected to fall to 0.7% of GDP in 2016, and to narrow further in the coming years, with a small surplus targeted for 2019. The general government debt was expected to have to fall to 63.3% of GDP in 2016, and further to below 60% in 2018. Revenue measures included an increase in the income tax-exempt band for pensioners and a rise in excise duties. On the expenditure side, a number of pensions and other social benefits were increased.

9 November: The European Commission issued its Autumn Forecast for 2016. In its projections for Malta, the Commission projects GDP growth to moderate to 4.1% in 2016 and to 3.7% in 2017 and 2018. Growth was said to continue be supported by strong labour market fundamentals. The Commission also noticed that fiscal consolidation is set to help reduce the government debt ratio to below 60% of the GDP.

16 November: The European Commission issued its Alert Mechanism Report 2017, re-starting the annual cycle of the Macroeconomic Imbalance Procedure (MIP), which aims to identify and address economic imbalances in the Member States. As in previous rounds, the Report identified a number of countries were an in-depth analysis was warranted. As regards Malta, the Report recalled that no macroeconomic imbalances had been identified in the previous MIP round. While a number of MIP indicators had meanwhile fallen outside the indicative thresholds, the external position remains robust and deleveraging had continued in the context of relatively strong growth. Further in-depth analysis in the context of the MIP, therefore, did not seem necessary.

16 November: The European Commission published an opinion stating that Malta's Draft Budgetary Plan submitted in October 2016 was broadly compliant with the provisions of the Stability and Growth Pact.

Assessments of the Maltese economy by international institutions

28 September: The World Economic Forum published the *Global Competitiveness Report 2016-2017*, ranking Malta in the 40th place (out of 140 countries) in the Global Competitiveness Index, an improvement from 48th place in the previous report. Malta ranked high in factors such as health, primary education, technological readiness and the general macroeconomic environment, yet it was held back by low scores in relation to market size and innovation, as well as an inadequately trained workforce. Government bureaucracy, access to finance and capacity constraints were also deemed problematic.

16 December: The International Monetary Fund (IMF) concluded its 2016 Article IV mission to Malta. In their Concluding Statement, IMF staff highlighted that the Maltese economy was growing strongly

and remained resilient to external shocks, aided in part by sound policy initiatives. The outlook was favourable yet a number of downside external risks prevail. Challenges include external uncertainty and improved competitiveness in the euro area neighbouring countries. The Fund noted that fiscal consolidation was expected to continue, which should help lower the debt ratio further. At the same time it emphasized the need to underpin the fiscal consolidation strategy by well-specified measures and to improve the health of state-owned enterprises. The Statement also noted that while the banking system appeared sound and resilient, challenges remain and on-going vigilance is therefore needed to contain risks to the integrity of the financial system.

Credit ratings

8 January: Standard & Poor’s affirmed its BBB+ long-term foreign and local currency sovereign credit ratings for Malta with a positive outlook.

19 February: Fitch Ratings affirmed Malta’s long-term foreign and local currency issuer default rating at A with a stable outlook.

1 April: DBRS Ratings confirmed Malta’s long-term and foreign currency issuer ratings at A with a stable outlook.

23 May: Moody’s placed Malta’s Government Bond Rating as stable, with an A3 rating.

8 July: Standard & Poor’s (S&P Global) affirmed its BBB+/A-2 rating and positive outlook for Malta.

19 August: Fitch affirmed Malta’s long-term foreign and local currency issuer default ratings at A and revised the outlook to positive from stable.

2 September: Moody’s affirmed Malta’s A3 long-term issuer, senior secured and senior unsecured debt ratings.

10 September: DBRS affirmed Malta’s A rating with a stable outlook.

14 October: Standard & Poor’s (S&P Global) raised Malta’s long-term rating to A- and confirmed the stable outlook for Malta.

28 November: Creditreform reviewed Malta for the first time, assigning it a rating of A+ with a stable outlook.

Capital market developments

11 February: The Malta Stock Exchange (MSE) launched the MSE Sharia Equity Index, using a basis of 1,000 points as at 1 January 2016.

Malta Government Stocks

12 February: The Government, through Legal Notice 52, issued two Malta Government Stocks (MGS) for a total amount of €120.0 million, subject to an overallotment option of up to €80.0 million. The issue was oversubscribed, with the Treasury allotting €3.0 million to the 1.50% MGS 2022 (IV) at an issue price of €105.0, and €196.7 million to the 2.50% MGS 2036 (I), at an issue price of €101.5. The Stocks were respectively listed on the MSE on 9 March and 14 March.

15 March: The Government, through Legal Notice 78 of 2016, issued two fixed-rate MGS through competitive auction for a total amount of €50.0 million, subject to an overallotment option of €30.0 million. The issue was oversubscribed, with the Treasury allotting €55.0 million to the 1.50% MGS 2022 (IV) Fungibility Issue at a weighted-average price of €106.5, corresponding to a yield-to-maturity of 0.45%. Meanwhile, €25.0 million were allotted to the 2.50% MGS 2036 (I) Fungibility Issue at a weighted-average price of €105.1, corresponding to a yield-to-maturity of 2.2%. The Stocks were listed on the MSE on 5 April.

22 July: The Government, through Legal Notice 258 of 2016, announced the issue of a 1.5% MGS 2022 (IV) Fungibility Issue and a 2.4% MGS maturing in 2022 and 2041, respectively. The issue was for a total amount of €100.0 million, subject to an overallotment option of an additional sum up to €60.0 million. The entire amount, including overallotment amount, was allotted to the public. The Stocks were listed on the MSE on 11 July.

7 October: The Government, through Legal Notice 318 of 2016, announced the issuance of two new MGS maturing in 2022 and 2039, with coupon rates of 1.50% and 2.10%, respectively. The total amount to be issued was set at €100.0 million subject to an overallotment option of up to €60.0 million. The overallotment option was exercised and the Government issued €159.2 million worth of bonds, entirely to retail investors and predominantly in the 2039 issue. The Stocks were listed on the MSE on 2 and 7 November, respectively.

Private sector issues

19 February: Bank of Valletta plc announced the issuance of the second tranche of its Subordinated Debt Issuance Programme. This tranche consisted of €50 million in notes offering a coupon rate of 3.50% and maturing in 2030. These notes were listed on the MSE on 6 April.

7 March: Corinthia Finance plc announced the issue of €40.0 million bonds redeemable in 2026. The bonds carry a coupon rate of 4.25% and were listed on the MSE on 21 April.

13 May: Global Capital plc announced the issue of €10.0 million unsecured bonds maturing in 2021. The bonds, which carry a coupon rate of 5.0%, were listed on the MSE on 13 June.

1 July: MIDI plc announced the issue of €50.0 million denominated secured bonds maturing in 2026. The bonds carry a coupon rate of 4.0% and were listed on the MSE on 3 August.

1 July: International Hotel Investments plc announced the issue of €55.0 million secured bonds maturing in 2026. The bonds carry a coupon rate of 4.0% and were listed on the MSE on 5 August.

11 August: Plaza Centres plc announced the issue of €8.5 million unsecured bonds maturing in 2026. The bonds carry a coupon rate of 3.9% and were listed on the MSE on 19 September.

16 September: Dizz Finance plc announced the issue of €8.0 million unsecured bonds maturing in 2026. The bonds carry a coupon rate of 5.0% and were listed on the MSE on 13 October.

16 September: Mediterranean Maritime Hub Finance plc announced the issuance of €15.0 million unsecured bonds maturing in 2026. The bonds carry a coupon rate of 4.8% and were listed on the MSE on 19 October.

16 September: Gap Group plc announced the issue of €40.0 million secured bonds maturing in 2023. The bonds carry a coupon rate of 4.25% and were listed on the MSE on 24 October.

21 October: Premier Capital plc announced the issue of €65.0 million unsecured bonds maturing in 2026. The bonds carry a coupon rate of 3.75% and were listed on the MSE on 30 November.

21 November: International Hotel Investments plc announced the issuance of €40.0 million unsecured bonds maturing in 2026. The bonds carry a coupon rate of 4.0% and were listed on the MSE on 28 December.

Financial sector developments

Credit institution licences

27 April: The Malta Financial Services Authority (MFSA) placed Nemea Bank under administration, in an instruction issued under the recommendation of the ECB. This precautionary action followed a joint inspection by the MFSA and the ECB, which identified a number of serious regulatory shortcomings.[3]

6 July: The MFSA announced that Deutsche Bank Malta had voluntarily surrendered its banking licence.

Banking and financial legislation

4 March: Legal Notice 70 of 2016 entitled Investment Services Act (European Long-Term Investment Funds) Regulations, implemented the relevant provisions of the European Long-Term Investment Funds (ELTIF) Regulation (Regulation (EU) No. 2015/760). With this Legal Notice, the MFSA was appointed as the Competent Authority for carrying out the relevant provisions of the 2015 Regulation, which aims to increase the pool of capital available for long-term investment in the EU economy by creating a new form of fund vehicle.

15 March: Act No. XV of 2016, entitled Budget Measures Implementation Act, amended various laws to bring into effect the measures announced in the Budget presented in October 2015. The Act also authorised the Government to borrow a sum of money not exceeding €600.0 million in 2016.

22 March: Act No. XVI of 2016 set up the Office of the Arbiter for Financial Services. This Office has the power to mediate, investigate, and adjudicate complaints filed by a customer against a financial services provider.

5 April: Legal Notices 113–116 of 2016 amended the Investment Services Act to transpose certain articles of the Undertakings for Collective Investment in Transferable Securities (UCITS) Directive, as amended by Directive 2014/91/EU, and the Alternative Investment Fund Managers (AIFM) Directive (Directive 2011/61/EU). The UCITS Directive introduces new rules on UCITS depositaries, while the AIFM Directive is aimed at creating a comprehensive and effective regulatory and supervisory framework for AIFMs at the European level.

22 April: Act No. XIX of 2016 amended various financial services laws and provides for matters ancillary or incidental to such amendments.

10 June: Legal Notice 215 of 2016 amends the definition of “subject person” for the purposes of the Investment Services Act (Control of Assets) Regulations. Legal Notices 216–219 of 2016 establish a framework for the notification and marketing of Notified alternative investment funds.

[3] This Financial Policy Calendar refers to developments between 1 January and 31 December 2016. Readers should, however, note that as these shortcomings persisted, in 2017, the MFSA proposed to the ECB the withdrawal of the licence granted to Nemea Bank under the Banking Act *(Editor’s note)*.

10 June: Legal Notice 220 of 2016 amended the Central Bank of Malta Regulations dealing with the appointment of Competent Authority of interchange fees for card-based payment transactions. Auxiliary regulations were added, empowering the Central Bank of Malta to issue and enforce sanctions when a person contravenes or fails to comply with the provisions of the said Regulations. The Legal Notice also designated the Financial Services Tribunal as the competent tribunal to hear and adjudicate any breaches, disputes or complaints under the said Regulations.

26 July: Legal Notice 263 of 2016 defines the maximum interchange fees for domestic consumer debit card and credit card transactions.

9 September: Act No. XLVIII of 2016 encourages the regulation of family businesses, their governance and the transfer of the family business from one generation to the next. It also encourages and assists family businesses to enhance their internal organisation and structure.

7 October: Legal Notice 324 of 2016 regulates the establishment and administration of trusts formed for the benefit of beneficiaries at least one of whom is a person with disability.

1 November: Legal Notice 371 of 2016 amended the Investment Services Act (Fees) Regulations.

11 November: Act No. XLIX of 2016 amended and deleted specific articles of the Central Bank of Malta Act, consequently adding Sub-title III on Counterfeiting of Currency to the Criminal Code.

22 November: Legal Notice 383 of 2016 amended the definition of investment schemes under Part 2 of the Fifth Schedule to the Value Added Tax Act to allow for additional coverage of services provided to securitisation vehicles and authorised reinsurance special purpose vehicles, to be classified as VAT exempt (without credit).

22 November: Legal Notice 387 of 2016 established the 1st of January 2017 as the date for the coming into force of all the provisions of the Family Business Act.

2 December: Act LIII of 2016 amended the Prevention of Financial Markets Abuse Act and provides for matters ancillary or incidental thereto.

2 December: Act LIV of 2016 introduces amendments to the Companies Act and to other Laws and to implement Directive 2014/95/EU.

7 December: Legal Notice 411 of 2016 entitled “Credit Institutions and Financial Institutions (Payment Accounts) Regulations, 2016” introduced provisions implementing the Payment Accounts Directive. These Regulations lay down rules concerning the transparency and comparability of fees charged to consumers on their payment accounts held in Malta, rules concerning the switching of payment accounts within Malta and other Member States and rules to facilitate cross-border payment account-opening for consumers. These Regulations also define a framework for the rules and conditions to which Malta is required to guarantee a right for consumers to open and use payment accounts with basic features in Malta.

International economic and financial news

International institutions

26 January: The IMF 2010 Quota and Governance Reforms entered into force, thus enabling the creation of an all-elected IMF Executive Board and an overall doubling of quotas under the 14th Review.

The Reforms also marked a major shift in quota shares in favour of dynamic emerging market and developing countries. Malta's quota increased by SDR66.3 million to SDR168.3 million.

6 October: The International Monetary and Financial Committee met in Washington D.C. for the Annual Meetings of the IMF and the World Bank Group. The Committee noted that the global economic recovery continues slowly and unevenly, yet growth was expected to increase slightly in 2017 as a result of emerging market economies. It also outlined a number of policy priorities, including growth friendly fiscal policies, a continuation of accommodative monetary policies and effective policies to deal with legacy issues arising from the financial crisis.

Council of the EU and other EU institutions

17-18 March: The European Council endorsed the policy priority areas of the *Annual Growth Survey*, namely re-launching investment, pursuing structural reforms to modernise our economies, and conducting responsible fiscal policies. Member States should reflect these priorities in their *National Reform Programmes* and *Stability* or *Convergence Programmes*.

23 March: The Permanent Representatives Committee agreed, on behalf of the Council of the EU, to extend an exemption for commodity dealers from large exposure and own funds requirements under EU Regulation 575/2013 on bank capital requirements. The exemption was extended from December 2017 to December 2020.

28 and 29 June: The European Council met to discuss the practical implications of 'Brexit'. Other matters discussed included jobs, growth and investment. The Council also discussed migration as well as security and defence policies. Additionally, the Council concluded the 2016 European Semester by endorsing the Country Specific Recommendations and called for their implementation by the respective Member States.

12 July: The ECOFIN Council adopted a new Directive addressing some of the practices most commonly used by large companies to reduce their tax liability.

12 September: The ECOFIN Council adopted its position on the draft EU Budget for 2017. Agreement with the European Parliament was reached on 17 November and the Budget was formally adopted in December.

11 October: The ECOFIN Council published its conclusions on tax transparency. The Council recognised the progress made in pursuing fairer, more transparent and more effective taxation systems and the need for cooperation between the fiscal authorities across the EU. It also noted that recent EU legislation on the automatic exchange of information on tax rulings and related country reports about multinationals between Member States is a step in the right direction.

20 and 21 October: The European Council discussed the ongoing migration and refugee crisis, with a focus on improving co-operation with third countries to stem the flows, strengthening the protection of the EU's external borders, and Europe's response to the current influx of refugees. Other important items discussed included developments with Syria, as well as Russia's relations with this country, trade and other global economic issues.

8 November: The ECOFIN Council agreed on the criteria and process for the establishment of an EU list of non-cooperative jurisdictions in taxation matters. The Council stated that screening of the said jurisdictions is to be completed by September 2017 and the list endorsed by the end of that

year. ECOFIN ministers also held their annual meeting with EFTA counterparts to discuss economic, financial and political items of common interest.

16 November: The ECOFIN Council and the European Parliament reach agreement on the 2017 EU budget.

8 December: The ECOFIN Council adopted a directive on institutions for occupational retirement provision (IORP), aimed at facilitating their development and better protecting pension scheme members and beneficiaries. The Directive revises directive 2003/41/EC on the activities and supervision of IORPs.

15 December: The European Council discussed the migration crisis, security across the Member States, as well as the Economic and Social developments in youth programmes. Throughout the meeting, the Council also debated on the Ukrainian territorial integrity and international law, as well as, the problems in Syria.

15 December: The 27 Heads of Member States of the EU met to discuss the invocation of Article 50 by the United Kingdom, the implications and the way forward.

PART III

FINANCIAL STATEMENTS

FOR THE YEAR ENDED

31 DECEMBER 2016

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 2016.

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 2016, 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 2016 are set out on pages A-8 to A-43 and disclose an operating profit of €56.4 million (2015: €58.9 million). The amount payable to the Government of Malta is €50.0 million (2015: €50.0 million).

Board of Directors

The members of the Board of Directors during the year ended 31 December 2016 and up to the date of authorisation for issue of the financial statements were:

Dr Mario Vella – Governor (appointed 1 July 2016)
Professor Josef Bonnici – Governor (up to 30 June 2016)
Mr Alexander Demarco – Deputy Governor Financial Stability
Mr Alfred Mifsud – Deputy Governor Monetary Policy
Mr Victor Busuttil
Ms Philomena Meli
Mr Peter J. Baldacchino
Dr Romina Cuschieri

During the financial year under review, Mr Herbert Zammit LaFerla was appointed Secretary to the Board on 19 September 2016. Dr Bernadette Muscat was Secretary to the Board from 1 January 2016 to 18 September 2016.

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 2016 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 2016 are included in the Annual Report 2016, 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 Alfred Mifsud Deputy Governor

Central Bank of Malta
Pjazza Kastilja
Valletta VLT 1060
Malta

24 March 2017

* 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 2016, 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-43, comprise:

- the Balance Sheet as at 31 December 2016;
- 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*,* 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;
- Economic and Financial Policy Calendar 2016;

which are expected to be made available to us after that date.

The Other Information does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the Other Information including the Directors' report.

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.

In addition, in light of the knowledge and understanding of the Bank and its environment obtained in the course of the audit, we are required to report if we have identified material misstatements in the Directors' report that we obtained prior to the date of this auditor's report. We have nothing to report in this regard.

When we read the 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).

Those charged with governance are responsible for overseeing the Bank's financial reporting process.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with 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

F Axisa

Fabio Axisa
Partner

24 March 2017

Balance Sheet as at 31 December 2016

	Assets	2016 €'000	2015 €'000
A 1	**Gold and gold receivables**	**3,413**	**4,497**
A 2	**Claims on non-euro area residents denominated in foreign currency**	**647,230**	**527,561**
A 2.1	Receivables from the IMF	151,313	150,505
A 2.2	Balances with banks and security investments, external loans and other external assets	495,917	377,056
A 3	**Claims on euro area residents denominated in foreign currency**	**181,834**	**157,557**
A 4	**Claims on non-euro area residents denominated in euro**	**983,445**	**945,653**
A 4.1	Balances with banks, security investments and loans	983,445	945,653
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**	**54,570**	**114,970**
A 5.1	Main refinancing operations	-	-
A 5.2	Longer-term refinancing operations	54,570	114,970
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**	**9,556**	**815**
A 7	**Securities of euro area residents denominated in euro**	**1,628,200**	**1,477,301**
A 7.1	Securities held for monetary policy purposes	738,603	334,588
A 7.2	Other securities	889,597	1,142,713
A 8	**General government debt denominated in euro**	**-**	**-**
A 9	**Intra-Eurosystem claims**	**1,071,860**	**53,411**
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)	1,018,449	-
A 10	**Items in course of settlement**	**11,005**	**8,911**
A 11	**Other assets**	**945,271**	**1,215,450**
A 11.1	Coins of euro area	80	123
A 11.2	Tangible and intangible fixed assets	33,970	26,322
A 11.3	Other financial assets	855,515	1,133,525
A 11.4	Off-balance sheet instruments revaluation differences	1,125	319
A 11.5	Accruals and prepaid expenses	43,185	46,576
A 11.6	Sundry	11,396	8,585
Total Assets		**5,536,384**	**4,506,126**

* Only an ECB balance sheet item

		2016	2015
	Liabilities	**€'000**	€'000
L 1	**Banknotes in circulation**	**957,284**	**920,915**
L 2	**Liabilities to euro area credit institutions related to monetary policy operations denominated in euro**	**2,916,986**	**1,457,495**
L 2.1	Current accounts (covering the minimum reserve system)	570,785	408,359
L 2.2	Deposit facility	2,346,201	1,049,136
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**	**750,032**	**342,926**
L 5.1	General government	654,008	270,858
L 5.2	Other liabilities	96,024	72,068
L 6	**Liabilities to non-euro area residents denominated in euro**	**122**	**206**
L 7	**Liabilities to euro area residents denominated in foreign currency**	**154,970**	**157,493**
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**	**121,599**	**121,427**
L 10	**Intra-Eurosystem liabilities**	**77,072**	**973,419**
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	77,072	53,173
L 10.4	Other liabilities within the Eurosystem (net)	-	920,246
L 11	**Items in course of settlement**	**-**	**-**
L 12	**Other liabilities**	**62,046**	**74,964**
L 12.1	Off-balance sheet instruments revaluation differences	25	1,108
L 12.2	Accruals and income collected in advance	17,696	22,914
L 12.3	Sundry	44,325	50,942
L 13	**Provisions**	**70,110**	**50,135**
L 14	**Revaluation accounts**	**20,051**	**11,794**
L 15	**Capital and reserves**	**356,112**	**345,352**
L 15.1	Capital	20,000	20,000
L 15.2	Reserves	336,112	325,352
L 16	**Profit for the year**	**50,000**	**50,000**
Total Liabilities		**5,536,384**	**4,506,126**

* Only an ECB balance sheet item

Profit and Loss account for the year ended 31 December 2016

		2016 €'000	2015 €'000
1.1	Interest income	54,624	56,909
1.2	Interest expense	1,915	132
1	**Net interest income**	**56,539**	**57,041**
2.1	Realised gains/losses arising from financial operations	32,199	30,742
2.2	Write-downs on financial assets and positions	(2,785)	(2,505)
2.3	Transfer to/from provisions for foreign exchange rate, interest rate, credit and gold price risks	(19,975)	(16,100)
2	**Net result of financial operations, write-downs and risk provisions**	**9,439**	**12,137**
3.1	Fees and commissions income	205	204
3.2	Fees and commissions expense	(276)	(741)
3	**Net income/expense from fees and commissions**	**(71)**	**(537)**
4	**Income from equity shares and participating interests**	**1,138**	**885**
5	**Net result of pooling of monetary income**	**(1,893)**	**1,434**
6	**Other income**	**9,425**	**6,105**
	Total net income	**74,577**	**77,065**
7	**Staff costs**	**(11,220)**	**(11,152)**
8	**Administrative expenses**	**(6,000)**	**(6,100)**
9	**Depreciation of tangible and intangible fixed assets**	**(770)**	**(762)**
10	**Banknote production services**	**(144)**	**(178)**
11	**Other expenses**	**(3)**	**(10)**
	Profit for the year	**56,440**	**58,863**
	Transfer to reserves for risks and contingencies	**(6,440)**	**(8,863)**
	Payable to the Government of Malta in terms of article 22(2) of the Central Bank of Malta Act (Cap. 204)	**50,000**	**50,000**

The financial statements on pages A-8 to A-43 were approved for issue by the Board of Directors on 24 March 2017 and are signed on its behalf by:

Dr Mario Vella
Governor

Mr Alexander Demarco
Deputy Governor

Mr Alfred Mifsud
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 2016

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 2016 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.

[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.

(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.

(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 current financial year, 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. A reclassification adjustment has been effected with respect to comparative figures, (see note 1 'Net interest income' in the notes to the profit and loss account).

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.

[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.

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 2016, 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 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 in the Other liabilities sub-item L12.3 'Sundry', while unrealised losses are recognised in Other 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 gives 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 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 may establish 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 2015 and 2016 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 2015 and 2016 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 2015 and 2016 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

[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 (ECB/2016/36) (recast) 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.

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'.

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. These transactions are for the most part initiated by private entities. 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, 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) 02.07.2015 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 year ended 31 December 2016, the Bank has decided to reclassify 1,425 troy ounces of gold attributable to numismatic coins from A1 'Gold and gold receivables' to A11.6 'Sundry'.

On the balance sheet date, gold was revalued at €1,098.046 (2015: €973.225) per fine troy ounce. The resultant unrealised valuation gains of €705,079 (2015: €471,373) are disclosed under L14 'Revaluation accounts'.

	€'000	Fine troy ounces
Balance as at 31 December 2015	4,497	4,621
Reclassification	(1,241)	(1,425)
Net transactions during the year	(77)	(88)
Increase in valuation on 31 December 2016	234	-
Balance as at 31 December 2016	**3,413**	**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:

	2016	2015	Change
	€'000	€'000	€'000
US dollar	**463,069**	359,044	104,025
Great Britain pound	**18,366**	590	17,776
Special drawing rights	**151,313**	150,505	808
Other	**14,482**	17,422	(2,940)
Total	**647,230**	527,561	119,669

A 2.1 Receivables from the IMF

(a) IMF quota

Malta's membership subscription to the IMF as at 31 December 2016 was SDR168,300,000 (2015:SDR102,000,000).

On 15 December 2010, the Board of Governors of the IMF adopted Resolution No. 66-2 on the Fourteenth General Review of Quotas which proposed increases in the quotas of all IMF members. Members committed to pay the IMF their quota increases within 30 days of the later of their consent or the date on which the requirements for the effectiveness of the increase in quota are met. Malta consented to this quota increase on 29 December 2011 but the 2010 Quota and Governance Reforms became effective on 26 January 2016 after the required level of consent among members was reached.

On 18 February 2016, upon satisfying its obligations under the Fourteenth Review, Malta's quota increased by SDR66,300,000 to SDR168,300,000 (2015: SDR102,000,000). In this respect, twenty-five per cent of the quota increase amounting to SDR16,575,000 was paid in US dollars and the remaining seventy-five per cent was credited to the IMF No.1 account held with the Bank in euro.

The Bank's financial position relating to this subscription is as follows:

	2016	2015	Change
	€'000	€'000	€'000
Reserve tranche position (net)	**39,753**	37,375	2,378
SDR holdings	**111,560**	111,388	172
IMF borrowing agreement	**-**	1,742	(1,742)
Total	**151,313**	150,505	808

On 18 February 2016 the reserve tranche balance increased by SDR16,575,000 to SDR45,939,359 representing the twenty-five per cent of the quota increase. By the end of 2016, the reserve tranche position then declined by SDR14,751,250 to SDR31,188,109 (2015: SDR29,364,359) mainly due to repurchases of euro from borrowing members under the IMF Financial Transaction Plan. The reserve tranche position is a claim on the IMF and represents the difference between the quota of SDR168,300,000 and the balances in euro at the disposal of the IMF.

(b) Malta's SDR position in the IMF

In November 2009, the Bank entered into a two-way voluntary trading arrangement with the IMF. Under this arrangement 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 2016, no transactions were effected under this agreement (2015: net purchases of SDR3,000,000). Malta's SDR holdings, as at 31 December 2016, including interest received thereon, stood at SDR87,525,671 (2015: SDR87,514,042).

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 February 2010, the IMF and the Bank signed an agreement for the provision to the IMF of an SDR denominated amount up to the equivalent of €120,000,000 as part of a commitment made by the EU in 2009 to support the IMF's lending capacity. Drawings under this interest-bearing agreement could take place over four years, which expired in February 2014. As at 31 December 2016, there were no outstanding balances under this facility (2015: €1,741,987 equivalent to SDR1,368,625). On 29 March 2013, the IMF Executive

Board decided that, as of 1 April 2013, the IMF would cease to make drawings under the 2010 Bilateral Loan Agreement.

In January 2013, the IMF and the Bank signed a new 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 31 December 2016, no amounts had been utilised under this agreement.

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.

	2016	2015	Change
	€'000	€'000	€'000
Marketable debt securities other than those held-to-maturity	**286,460**	256,316	30,144
Held-to-maturity debt securities	**197,162**	97,894	99,268
Current accounts and overnight deposits with banks	**11,879**	22,441	(10,562)
Other external assets	**416**	405	11
Total	**495,917**	377,056	118,861

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:

	2016	2015	Change
	€'000	€'000	€'000
US dollar	**181,797**	135,459	46,338
Great Britain pound	**30**	22,098	(22,068)
Other	**7**	-	7
Total	**181,834**	157,557	24,277

During 2016, 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 2016, credit institutions established in Malta participated for a total amount of US$245,000,000 in these operations. The outstanding amount of USD liquidity providing operations as at 31 December 2016 amounted to US$100,000,000 (2015: nil).

	2016	2015	Change
	€'000	€'000	€'000
Marketable debt securities other than those held-to-maturity	**72,488**	118,254	(45,766)
Held-to-maturity debt securities	**14,251**	13,826	425
Fixed-term deposits with banks	**-**	25,286	(25,286)
US dollar liquidity-providing operations	**94,868**	-	94,868
Current accounts and overnight deposits with banks	**227**	191	36
Total	**181,834**	157,557	24,277

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.

	2016	2015	Change
	€'000	€'000	€'000
Marketable debt securities other than those held-to-maturity	**335,337**	260,945	74,392
Held-to-maturity debt securities	**646,509**	683,537	(37,028)
Current accounts and overnight deposits with banks	**1,599**	1,171	428
Total	**983,445**	945,653	37,792

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 €595,873,459,133 (2015: €558,989,120,187) of which the Bank holds €54,570,000 (2015: €114,970,000). 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 2016, the aggregate MROs carried out with the Bank amounted to €188,900,000 (2015: €2,038,800,000). As at 31 December 2015 and 2016, there were no outstanding MROs.

Throughout the financial year ended 31 December 2015, the MRO rate remained unchanged at the level of 0.05%. On 16 March 2016, the Governing Council of the ECB decided to decrease the MRO rate by 5 basis points to 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 2016, operations were conducted with maturities ranging from three to forty-eight months. Participation in LTROs requires the availability of eligible collateral. Additionally, in March 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 2016, 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, during 2016, the ECB conducted five targeted longer-term refinancing operations (TLTRO) with two TLTROs of the first series in March and June and three TLTROs of the second series in June, September and December.[9]

The aggregate volume of LTROs and TLTROs carried out during 2016 amounted to €111,670,000 (2016: €523,850,000). The outstanding operations at the end of the current year amounted to €54,570,000 (2015: €114,970,000).

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 2015 and 2016.

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 2015 and 2016.

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, there were no marginal lending facility transactions with the Bank (2015: €104,000,000). There were no outstanding balances as at 31 December 2015 and 2016.

[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.

Throughout the financial year ended 31 December 2015, the marginal lending facility rate remained unchanged at the level of 0.30%. On 16 March 2016, the Governing Council of the ECB decided to decrease the marginal lending facility rate by 5 basis points to 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 2016 amounted to €9,555,520 (2015: €815,248).

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 2016 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 2016 the Eurosystem programmes constituting the expanded asset purchase programme (APP),[13] i.e. the CBPP3,[14] the ABSPP[15] and the PSPP,[16] were supplemented with the corporate sector purchase programme (CSPP)[17] as a fourth component. Under this programme, NCBs may purchase investment-grade euro-denominated bonds issued by non-bank corporations established in the euro area.

From April 2016 until March 2017, the combined monthly APP purchases by the NCBs and the ECB increased from €60 billion to €80 billion on average. In December 2016, the Governing Council of the ECB decided to continue the net APP purchases after March 2017 at a monthly pace of €60 billion until the end of December 2017 or beyond, if necessary, and in any case until the Governing Council of the ECB sees sustained adjustment in the path of inflation consistent with its inflation aim. If, in the meantime, the outlook becomes less favourable, or if financial conditions become inconsistent with further progress towards a sustained

10 ECB Decision of 2 July 2009 on the implementation of the CBPP (ECB/2009/16), OJ L 175, 04.07.2009, p. 18.

11 ECB Decision of 3 November 2011 on the implementation of the second CBPP (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, 20.05.2010, 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, 06.01.2015, p. 4, as amended by ECB Decision of 10 September 2015 (ECB/2015/31), OJ L 249, 25.09.2015, 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.

adjustment of the path of inflation, the Governing Council of the ECB intends to increase the programme in terms of size and/or duration. 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:

	2016		2015		Change	
	Amortised cost	**Market value**	Amortised cost	Market value	Amortised cost	Market value
	€'000	**€'000**	€'000	€'000	€'000	€'000
Securities markets programme	**52,202**	**29,797**	56,204	35,541	(4,002)	(5,744)
Public sector purchase programme	**686,401**	**705,243**	278,384	278,332	408,017	426,911
Total	**738,603**	**735,040**	334,588	313,873	404,015	421,167

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 €1,493,180,170,937 (2015: €725,326,352,210).

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.

An impairment test was carried out as at 31 December 2016 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 the impairment tests conducted as at 31 December 2016 on securities purchased under the SMP, the PSPP and the CSPP, the Governing Council of the ECB decided that future cash flows on such securities were expected to be received in full.

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.

	2016	2015	Change
	€'000	€'000	€'000
Marketable debt securities other than those held-to-maturity	**230,501**	331,140	(100,639)
Held-to-maturity debt securities	**659,096**	811,573	(152,477)
Total	**889,597**	1,142,713	(253,116)

[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.

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 2016, 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 2015.

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 2015.

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 2015 and 2016 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 2015 and 2016, 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 2015 the Bank had no such claims but had liabilities which were presented under liability sub-item L10.4 'Other liabilities within the Eurosystem (net)'. As at 31 December 2016, the claim of €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.

	2016	2015	Change
	€'000	€'000	€'000
TARGET2 balance	**1,019,453**	-	1,019,453
Net result from pooling of monetary income	**(1,893)**	-	(1,893)
ECB profit distribution	**889**	-	889
Total	**1,018,449**	-	1,018,449

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 2015	27,295	7,469	34,764
Additions	5,359	3,059	8,418
Derecognition of assets	-	(50)	(50)
As at 31 December 2016	**32,654**	**10,478**	**43,132**
Accumulated depreciation			
As at 31 December 2015	2,905	5,537	8,442
Charge for the year	228	542	770
Derecognition of assets	-	(50)	(50)
As at 31 December 2016	**3,133**	**6,029**	**9,162**
Net book value			
As at 31 December 2015	24,390	1,932	26,322
As at 31 December 2016	**29,521**	**4,449**	**33,970**

The net book value as at 31 December 2016 includes an amount of €12,394,933 (2015: €4,990,552) 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.

In November 2012, the Bank's Board of Directors approved the investment by the Bank 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 financial year ended 31 December 2015, the Bank's investment in these two funds was increased by a further €50,000,000. During the year ended 31 December 2016, 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.

	2016	2015	Change
	€'000	€'000	€'000
Earmarked investments	**68,726**	318,429	(249,703)
Earmarked Malta Government Stocks	**426,404**	457,995	(31,591)
Fixed income investment funds	**360,385**	357,101	3,284
Total	**855,515**	1,133,525	(278,010)

A 11.4 Off-balance sheet instruments revaluation differences

This sub-item reflects unrealised revaluation gains arising on off-balance sheet positions, mainly foreign exchange swap transactions outstanding as at the balance sheet date. At 31 December 2016, these unrealised gains amounted to €1,125,211 (2015: €319,357).

A 11.5 Accruals and prepaid expenses

This sub-item consists mainly of accrued interest income of €43,148,240 (2015: €46,440,404) on income-earning assets, of which an amount of €3,325 (2015: €16,706) is attributable to interest on intra-Eurosystem claims.

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 2016, the total value of banknotes in circulation within the Eurosystem increased by 3.9% from €1,083,428,688,080 at 31 December 2015 to €1,126,215,779,445 at 31 December 2016. According to the banknote allocation key, the Bank had an allocated amount of euro banknotes in circulation of €957,283,600 at the end of the year compared to €920,914,650 at the end of 2015.

The value of the euro banknotes actually issued by the Bank in 2016 increased by 6.2% from €974,087,955 to €1,034,355,705 at year-end. As this is more than the allocated amount, the difference of €77,072,105 (2015: €53,173,305) 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.

	2016	2015	Change
	€'000	€'000	€'000
Current accounts (covering the minimum reserve system)	**570,785**	408,359	162,426
Deposit facility	**2,346,201**	1,049,136	1,297,065
Total	**2,916,986**	1,457,495	1,459,491

L 2.1 Current accounts (covering the minimum reserve system)

These accounts include deposits by the credit institutions which are utilised to meet the minimum reserve requirement and settlement of payments. The main criterion for including these deposits within this sub-item is that the respective credit institutions must appear in the list of institutions which are subject to the minimum reserve regulations of the Eurosystem. Minimum reserve requirements have to be met on average over the reserve maintenance period in accordance with the schedule published by the ECB. The minimum reserve balances are currently remunerated at the MRO rate. Since June 2014 the reserves held in excess of the minimum requirements are remunerated at the lower of either zero per cent or the deposit facility rate.

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 2016, the aggregate volume of such transactions with the Bank amounted to €419,832,130,088 (2015: €212,064,346,260). The outstanding balance as at year-end amounted to €2,346,200,735 (2015: €1,049,136,167).

The following table highlights the changes in the overnight deposit facility rate during 2015 and 2016 as decided by the Governing Council of the ECB.

With effect from:	Changes in basis points (bps)	Effective rate (%)
	2015	
1 January		-0.20
9 December	-10bps	-0.30
	2016	
16 March	**-10bps**	**-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 2015 and 2016. Accordingly, there were no outstanding liquidity-absorbing fine-tuning operations as at 31 December 2015 and 2016.

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 2015 and 2016, and accordingly there were no outstanding operations as at 31 December 2015 and 2016.

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 2015 and 2016.

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]

	2016	2015	Change
	€'000	€'000	€'000
Current accounts	**518,904**	166,508	352,396
Sinking fund accounts	**135,104**	104,350	30,754
Total	**654,008**	270,858	383,150

[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 L245, 22.9.2015, p.g13; 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.

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]

L 6 Liabilities to non-euro area residents denominated in euro

This item 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]

	2016	2015	Change
	€'000	€'000	€'000
Government of Malta current accounts	**37,787**	54,736	(16,949)
Government of Malta sinking fund accounts	**123**	130	(7)
Liabilities to banks	**105,652**	94,402	11,250
Other current accounts and fixed-term deposits	**11,408**	8,225	3,183
Total	**154,970**	157,493	(2,523)

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 (6.2%) in additional banknotes issued by the Bank during 2016, as compared to the increase in banknotes put into circulation by the Eurosystem as a whole (3.9%).

[20] See footnote 19.
[21] See footnote 19.
[22] See footnote 19.

L 10.4 Other liabilities within the Eurosystem (net)

As at 31 December 2016 the Bank had a net claim within the Eurosystem as reported under asset sub-item A9.5 'Other claims within the Eurosystem (net)'. As at the end of 2015, the Bank had a net liability position within the Eurosystem as reflected in the table below.

	2016	2015	Change
	€'000	€'000	€'000
TARGET2 balance	**-**	922,428	(922,428)
Net result from pooling of monetary income	**-**	(1,434)	1,434
ECB profit distribution	**-**	(748)	748
Total	**-**	920,246	(920,246)

L 12 Other liabilities

L 12.1 Off-balance sheet instruments revaluation differences

This sub-item reflects unrealised 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 yet been presented, as adjusted for amounts recognised as income in the profit and loss account. This balance is presented as deferred income (see note 3 (l) 'Demonetised Maltese lira currency notes' in the general notes to the financial statements) and is recognised as income over the period until the date when these currency notes cease to be exchangeable at the Bank. This sub-item also includes accrued interest expense on interest-bearing liabilities, and other accrued expenses.

	2016	2015	Change
	€'000	€'000	€'000
Deferred income in respect of demonetised			
Maltese Lira currency notes	**13,397**	20,737	(7,340)
Accrued interest payable	**1,122**	617	505
Income collected in advance	**7**	94	(87)
Other	**3,170**	1,466	1,704
Total	**17,696**	22,914	(5,218)

L 12.3 Sundry

Sundry liabilities mainly include unrealised revaluation gains attributable to MGS held as part of the earmarked portfolio amounting to €21,872,581 (2015: €32,805,725). These liabilities also include realised losses attributable to off-balance sheet positions, principally foreign exchange swap and forward transactions outstanding on 31 December 2016, 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 also includes an amount of €1,216,739 (2015: €2,048,671) 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 (refer to

[23] Comprising investments held as a counterpart to the Bank's capital and statutory reserves.

note A11.3 'Other financial assets'). 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').

L 13 Provisions

This item includes mainly a provision of €70,000,000 (2015: €50,000,000) 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 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 at 31 December 2015 and 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.

	2016	2015	Change
	€'000	€'000	€'000
Gold	**705**	471	234
Foreign currency positions	**8**	4	4
Securities and other instruments	**19,338**	11,319	8,019
Total	**20,051**	11,794	8,257

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 2015	20,000	75,505	181,336	68,511
Net issuance of euro coins	-	-	-	4,320
Transfer from profits for the year	-	-	6,440	-
Balance as at 31 December 2016	**20,000**	**75,505**	**187,776**	**72,831**

[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). The table below reflects the reclassification adjustment effected in respect of the 2015 interest income and expense amounts attributable to interest on monetary policy operations:

	As reported within the 2015 annual report	**Reclassification adjustment in respect of net negative interest expense on monetary policy operations**	**As reported within the 2016 annual report**
	€'000	**€'000**	**€'000**
Other interest income	55,165	1,744	56,909
Other interest expense	1,876	(1,744)	132
Net interest income	**57,041**	-	**57,041**

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 €7,035,514.

	2016	2015	Change
	€'000	€'000	€'000
Marketable debt securities			
- In euro	**35,365**	44,907	(9,542)
- In foreign currency	**8,133**	6,084	2,049
Fixed-term deposits			
- In foreign currency	**2**	24	(22)
Current accounts and overnight deposits			
- In euro	**(25)**	(9)	(16)
- In foreign currency	**26**	(9)	35
IMF	**22**	10	12
Monetary policy operations			
- Main refinancing operations	**-**	20	(20)
- Longer-term refinancing operations	**-**	145	(145)
- Marginal lending facility	**-**	1	(1)
- Minimum reserves	**649**	-	649
- Overnight deposits	**6,386**	1,744	4,642
- Securities acquired under the SMP	**3,784**	4,200	(416)
- Securities acquired under the PSPP	**5,651**	1,831	3,820
Intra-Eurosystem claims			
- Claims arising from the transfer of foreign reserves	**3**	16	(13)
- Net claims related to the allocation of banknotes within the Eurosystem	**(5)**	(9)	4
Forward foreign exchange contracts	**(5,392)**	(2,077)	(3,315)
Other interest income	**25**	31	(6)
Total	**54,624**	56,909	(2,285)

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 €42,150.

	2016	2015	Change
	€'000	€'000	€'000
Government accounts			
- In euro	**(2,118)**	(713)	(1,405)
Other customer accounts			
- In euro	**(266)**	(150)	(116)
- In foreign currency	**299**	33	266
Monetary policy operations			
- Minimum reserves	**-**	133	(133)
- Longer-term refinancing operations	**42**	-	42
Intra-Eurosystem liabilities			
- TARGET2 balances	**74**	580	(506)
Other interest expense	**54**	(15)	69
Total	**(1,915)**	(132)	(1,783)

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.

	2016	2015	Change
	€'000	€'000	€'000
Net gains/losses on disposal of financial instruments	**32,546**	29,960	2,586
Net gains/losses on foreign currency positions	**(347)**	782	(1,129)
Total	**32,199**	30,742	1,457

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.

	2016	2015	Change
	€'000	€'000	€'000
Write-downs on debt securities	**2,769**	2,492	277
Write-downs on foreign currency positions	**16**	13	3
Total	**2,785**	2,505	280

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 2016, the Bank received €248,236 (2015: €137,153) representing its relative share of the ECB's distributable remaining profits for 2015 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 €889,482 (2015: €747,623) due to the Bank with respect to the ECB's 2016 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 2016 amounting to an expense of €1,892,777 as compared to income of €1,433,791 in 2015.

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 was a payment while that for 2015 was a receipt by the Bank. This net result is the difference between the net monetary income pooled by the Bank amounting to €11,013,231 (2015: €6,827,887) and the amount redistributed of €9,120,778 (2015: €8,267,269). In 2016, a marginal expense of €323 (2015: €5,590) was paid in relation to an adjustment for the previous year.

6 Other income

Other income includes an amount of €6,500,000 (2015: €5,000,000), reflecting the recognition of income in respect of the balance of unredeemed Maltese lira fifth series currency notes, which as at 31 December 2016 amounted to the equivalent of €38,897,310 (2015: €39,737,377). These currency notes will still be exchangeable at the Bank until 31 January 2018. The value of unredeemed currency notes, after deducting therefrom the amount of currency notes which are expected to be redeemed until that date, is apportioned as income in the profit and loss account over the remaining 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.

	2016	2015	Change
	€'000	€'000	€'000
Staff salaries	**9,237**	9,154	83
Other staff costs	**1,058**	984	74
Training, welfare and other related expenditure	**925**	1,014	(89)
Total	**11,220**	11,152	68

The full-time equivalent average number of staff employed by the Bank during the year was as follows:

	2016	2015	Change
	Number	Number	Number
Governors	**3**	3	-
Chief Officers	**7**	5	2
Heads and executives	**107**	102	5
Officers II and I	**181**	190	(9)
Non-clerical staff	**36**	37	(1)
Total	**334**	337	(3)

8 Administrative expenses

This item consists of operating expenditure incurred by the Bank.

Administrative expenses of €5,999,546 (2015: €6,099,691) 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 2015 and 2016 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 €234,178 (2015: €226,174). 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

At 31 December 2016, the Bank had outstanding foreign exchange forward and swap contracts which relate to the forward purchases of €730,696,714 (2015: €539,900,000) against the sale of other currencies (principally the US dollar), the forward sale of €219,400,000 (2015: €184,600,000) against the purchase of other currencies (principally the US dollar), and the net forward sale of SDR16,575,000 (2015: SDR22,800,000) against the euro. Unsettled net spot transactions as at 31 December 2016 were €26,000,000 (2015: €41,300,000).

At the balance sheet date, the Bank had outstanding interest rate future contracts linked to German government securities (short positions with a notional amount of €171,869,700) and US treasury notes (long positions with a notional amount of US$18,192,563; short positions with a notional amount of US$22,288,141).

(b) Contingent liabilities and commitments

	2016	2015	Change
	€'000	€'000	€'000
Guarantees and letters of credit	**118**	218	(100)
Increase in IMF quota (see note A2.1)	**-**	84,387	(84,387)
Total	**118**	84,605	(84,487)

The Bank's customers with respect to guarantees and letters of credit are mainly public sector corporations, government departments and other entities owned by the Government.

As at 31 December 2016, the Bank also had commitments in respect of tangible/intangible fixed assets which extended beyond the balance sheet date. Capital commitments, which amount to €8,122,850 (2015: €17,465,514), are expected to be incurred during 2017 and relate mainly to the completion of the building of an 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 €6,410,829 (2015: €9,118,791) 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 but will continue 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 2016, demonetised Maltese lira currency notes presented for redemption amounted to €840,067 (2015: €1,352,428). At 31 December 2016, the value of unpresented demonetised currency notes amounted to €38,897,310 (2015: €39,737,377).

(f) Investment securities pledged as collateral

As at 31 December 2016, 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 €62,000,000 (2015: US$95,000,000 or approximately €87,000,000). No amounts were borrowed under these facilities at the balance sheet dates.

(g) Assets held in custody

As at 31 December 2016, assets held in custody by the Bank in terms of the Insurance Business Act (Cap. 403) amounted to the equivalent of €24,683,945 (2015: €28,740,817).

(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 2016, the Investor and Depositor Compensation Schemes had deposits of €68,439 (2015: €41,205) and €1,359,238 (2015: €31,278) respectively, with the Bank.

(i) Statement of the Bank's investments

The statement of the Bank's investments is disclosed in accordance with the requirements of article 21 (2) (b) of the Act.

The exposure country is the country of location of the institution or entity with which the Bank's placements and other financial assets are held. The exposure country in respect of assets held with branches of international banks and financial institutions is usually deemed to be the country of location of the parent. In case of subsidiaries of banks and financial institutions, the exposure country is generally determined on the basis of the location of the subsidiary undertaking.

Statement of the Bank's Investments as at 31 December 2016

	EUR €'000	GBP €'000	USD €'000	SEK €'000	Total €'000
Cash and balances with banks					**24,757**
Gold balances					**3,413**
Securities by issuer category:					
Government	1,728,350	-	38,266	-	**1,766,616**
Insurance	3,375	-	10,873	-	**14,248**
Monetary financial institutions	1,087,273	17,927	396,436	-	**1,501,636**
Other financial institutions	207,722	-	73,098	-	**280,820**
Non-financial institutions	8,846	-	10,456	9,986	**29,288**
Supranational	46,609	-	13,319	-	**59,928**
	3,082,175	**17,927**	**542,448**	**9,986**	**3,652,536**
Claims on the International Monetary Fund					**151,313**
Participating interest in the European Central Bank					**15,859**
Transfer of foreign reserves to the European Central Bank					**37,552**
Fixed income investment funds					**360,384**
Other foreign currency assets					**23,001**
Total investments					**4,268,815**