BANK ĊENTRALI TA' MALTA
EUROSISTEMA
CENTRAL BANK OF MALTA

FORTY-EIGHTH ANNUAL REPORT* AND STATEMENT OF ACCOUNTS 2015

* This *Annual Report* incorporates developments in the fourth quarter, previously covered in a separate publication.

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This edition of the Annual Report incorporates an analysis of economic and financial developments that would otherwise have appeared in the Quarterly Review 2015:4. The latter issue of the Quarterly Review is not being published separately.

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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

Mr Alfred Mifsud
Deputy Governor

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Ms Philomena Meli *Director*
Mr Peter J. Baldacchino *Director*
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Mr Peter Paul Tabone
Currency Services and Security

**as at 30 March 2016*
***Chairman from January to December 2015*

THE BOARD OF DIRECTORS*

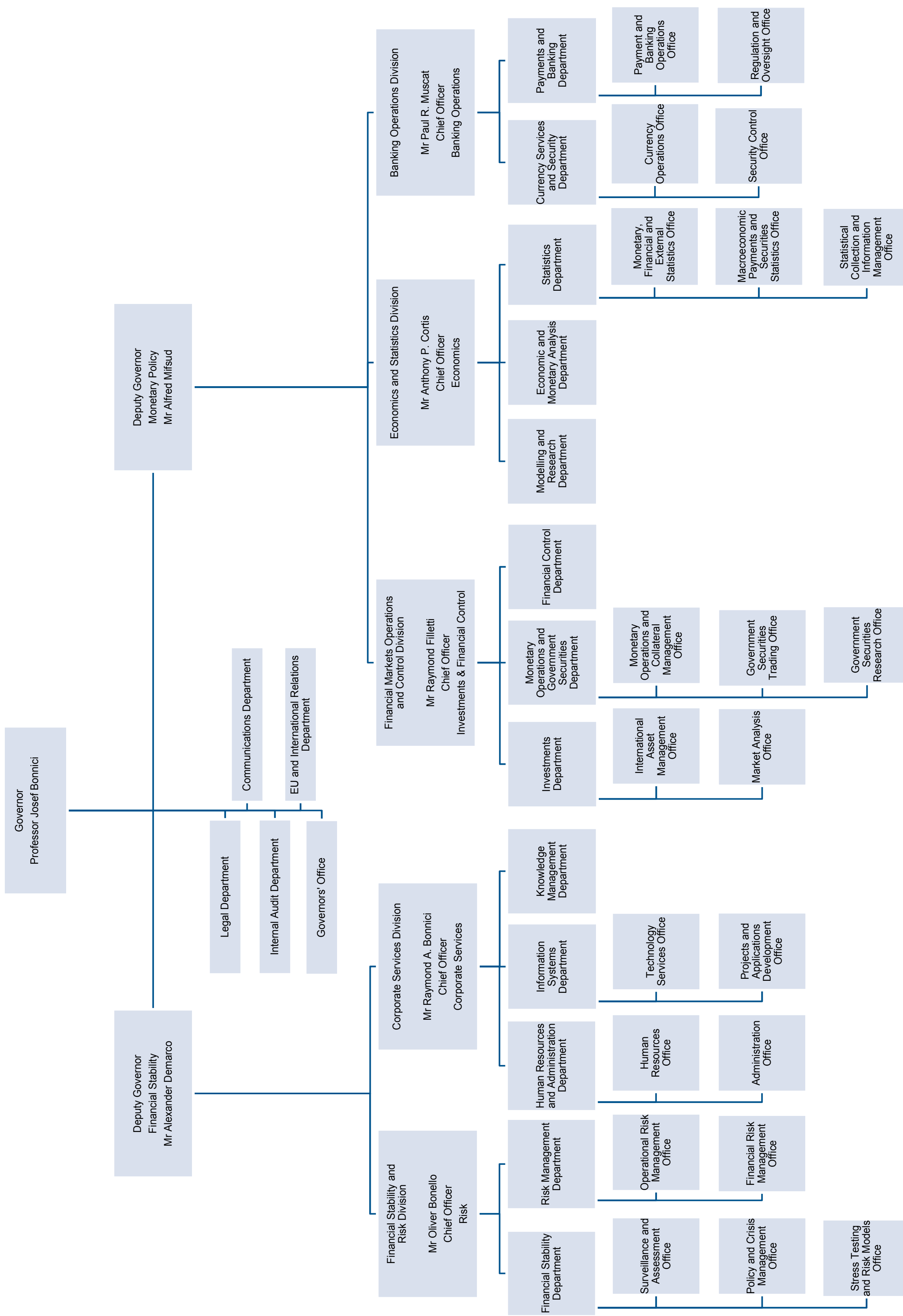
(left to right)

Standing: Mr Victor Busuttil (Director), Ms Philomena Meli (Director), Mr Peter J. Baldacchino (Director), Dr Romina Cuschieri (Director), Dr Bernadette Muscat (Secretary),

Seated: Mr Alfred Mifsud (Deputy Governor), Professor Josef Bonnici (Governor and Chairman), Mr Alexander Demarco (Deputy Governor).

**as at 30 March 2016*

ORGANISATION CHART*



*as at 30 March 2016

Bank Ċentrali ta' Malta
Eurosistema
Il-Gvernatur

Central Bank of Malta
Eurosystem
The Governor

30 March 2016

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 2015.

Yours sincerely

Professor Josef Bonnici

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

In 2015 global economic activity remained subdued. Economic growth in the euro area recovered, while growth in emerging markets and developing economies decelerated for the fifth consecutive year. Global economic activity was mainly influenced by the slowdown of the Chinese economy, declining commodity prices and by the incipient normalisation of US monetary policy, which contrasted with the continued monetary policy easing by several other major central banks. The European Central Bank (ECB) and the Bank of Japan pursued an accommodative monetary policy in response to deflationary pressures, while the US Federal Reserve raised the target range for federal fund rates for the first time since June 2006. This divergence of monetary policy stances has contributed to a weakening of the euro vis-à-vis the US dollar over the course of 2015.

The depreciation of the euro, lower oil prices and the ECB's asset purchase programme have supported the euro area economy, which registered a positive growth for the second consecutive year. In real terms, output in the euro area rose by 1.6% in 2015 compared with 0.9% in 2014, on the back of a gradual strengthening in private consumption and exports. Investment remained low mainly owing to the global economic climate and to a legacy of debt in both the private and public sectors. The ECB is projecting for the euro area economy to grow by 1.4% in 2016 and 1.7% in 2017, with the main impetus coming from domestic demand. In addition, continued labour market improvements should support consumption. In contrast, the uncertain global recovery and weak growth prospects in emerging market economies are likely to weigh on European economies.

During 2015 inflation in the euro area remained close to zero and dipped into negative territory on several occasions. Although lower oil prices improved the terms of trade and boosted disposable income, they also contributed to the low or negative inflation environment. This makes monetary policy less accommodative and not growth friendly. A deflationary situation increases the risk of stagnation as it raises real interest rates, along with the burden of servicing fixed rate debt.

The decision by the ECB's Governing Council to introduce the Public Sector Purchase Programme (PSPP) in March 2015 and to expand its duration and scope in December 2015 – together with a further cut in the deposit facility rate – demonstrated its capacity and readiness to deliver on its inflation mandate decisively.

This was further reaffirmed by the measures agreed upon at the Governing Council's meeting in March 2016, which included cuts to its three policy interest rates. The deposit facility rate was further reduced to -0.40% from -0.30%, while the main refinancing operation rate was cut from 0.05% to 0.00%. The marginal lending facility rate was cut by 5 basis points to 0.25%. The monthly purchases under the Asset Purchase Programme were augmented from €60 billion to €80 billion, and would now include investment grade euro-denominated bonds issued by non-bank corporations established in the euro area. A new series of four targeted longer-term refinancing operations (TLTRO II), each with a maturity of four years, will be launched in June 2016.

Although it may be premature to assess the effectiveness of these measures, credit dynamics to business and households in the euro area improved as business is now benefitting from lower funding costs, and credit to the private sector is recovering. The pass-through of monetary policy via the bank lending channel is proving to be increasingly effective. The PSPP has had a positive impact on risk-free yields, providing space and time for fiscal authorities to manoeuvre. Despite these positive signs, however, the ongoing consolidation of bank balance sheets and persistently high levels of non-performing loans in some jurisdictions continue to hamper loan growth.

In the beginning of 2016, increased uncertainty related to developments in China and further drops in oil prices led to a sharp correction in global equity markets, and to renewed downward pressures on euro area sovereign bond yields. Global equity prices and core sovereign bond yields dropped considerably. Measures of equity market volatility surged until around the third week of February 2016 but improved thereafter mainly owing to an increase in energy prices, expected additional stimulus by the ECB and the release of reasonably optimistic data about the US economy.

The Maltese economy has shown remarkable resilience in the face of the unstable economic environment elsewhere. The rate of economic growth in real terms, at 6.3% in 2015, has exceeded by a wide margin the euro area average. It was mainly supported by domestic demand, which was in turn sustained by strong private investment and consumption. Notably, total investment rose by 21.4% in real terms.

Inbound tourism registered a steady growth while the performance of the manufacturing sector was somewhat weaker than in 2014.

Going forward, the Central Bank of Malta projects a growth rate of 5.3% in 2016, with the main impetus coming from private consumption and investment. It is expected that growth will be supported by low commodity prices and a strong rise in employment, which would contribute to aggregate household spending, and, in turn, to domestic demand.

Buoyant economic activity in 2015 was reflected in further growth in employment. According to the Labour Force Survey, employment expanded by 2.8% in the third quarter of 2015 on the same period of the previous year. The employment rate rose by 1.2 percentage points to 63.8%, with increases in both male and female categories. The administrative records of the ETC point in the same direction. The gainfully occupied population continued to grow, driven in part by measures to encourage participation in the labour market, as well as inward migration.

In fact, a recent Central Bank of Malta study shows that the proportion of foreign workers has risen from 1.3% of the total workforce in 2000 to 10.1% in 2014. The Bank estimates that in the period 2010 to 2014, foreign workers annually contributed to 0.6 percentage point to potential output. Meanwhile, their share in total personal income tax and national insurance contributions rose by 3.4 percentage points.[1]

In spite of this surge in labour supply, the unemployment rate published by Eurostat continued its downward trend to a historical low of 5.4% compared with 5.9% in 2014, and remained considerably below the euro area average of 10.9%. While a higher participation rate supports the sustainability of pensions, an aging population remains a matter that deserves continued attention.

On the fiscal side, there was a further improvement in public finances. The general government debt to gross domestic product (GDP) is projected at 63.6% for 2015, down from 67.1% in 2014. According to the Bank's March projections, this ratio is estimated to decline further to 61.0% and 58.6% in 2016 and 2017, respectively. The deficit-to-GDP ratio, currently projected at 1.6% down from 2.1% in 2014, is forecast to reach 1.1% and 0.9% in 2016 and 2017, respectively.

This robust economic performance does not diminish the importance of the ongoing search for measures that facilitate the emergence of new economic activity. Government identified health and education as new sectors with growth potential that could be transformed into exportable services. Malta has the ability to develop a regional cluster in these areas, attracting students and patients from the region and beyond. Similarly, in the financial area, Malta can further develop into a regional hub for financial services.

In the current state of affairs, with the Maltese economy operating close to its potential, it is also an appropriate time to create fiscal buffers that, if required, would cater for budgetary adjustment without breaching fiscal rules.

[1] Aaron G. Grech, "Understanding the macroeconomic impact of migration in Malta", *Policy Note*, Central Bank of Malta, December 2015, available at www.centralbankmalta.org.

The spread paid on domestic government securities over the benchmark ten-year German bund continued to decline, reaching 0.74 percentage point in December 2015. During the year, Maltese government securities attracted more than €927.4 million in bids in the primary market, of which €473.2 million were accepted by the Treasury. In fact, the bid-to-cover ratio for government bonds was 1.96 in 2015 (including the over-allotment amount). The highest recorded ratio, at 2.63, was reached in March, at the first auction of 2015.

The banking sector

Maltese banks practise a prudent business model and remain well capitalised, with ample liquidity and well diversified portfolios. The World Economic Forum ranked Malta among the top 15 countries in terms of the soundness of the banking system, and among the top 20 in terms of the quality of its auditing and reporting standards.[2]

The resilience of the Maltese banking sector is confirmed by various soundness indicators, which comfortably satisfy regulatory thresholds and compare relatively well with European counterparts. The total assets of the banking sector contracted from 648% to 537% of GDP during the year, mainly owing to group consolidation by a number of international banks. As a result of high GDP growth, the assets of core domestic banks relative to nominal GDP declined, with the ratio easing to 235% of GDP by end-2015 from 247% a year earlier. These banks have extensive links with the Maltese economy and are thus systemically relevant. Growth was mainly fuelled by the flow of customer deposits, which resulted in abundant liquidity levels for banks. Indeed, the average loan-to-deposit ratio trended further downwards, to reach 58.2% in December 2015, substantially lower than the EU average of 101.3%. Recourse to other sources, such as interbank and Eurosystem funding, remained modest during the year. Furthermore, there is no evidence of an aggressive search-for-yield behaviour, despite the context of low yields and ample liquidity.

On the asset side, the loan portfolio remained the main component for core domestic banks, notwithstanding slower loan growth. Mortgage lending remained strong, growing at a rate of 8.7% in 2015, while lending to the non-financial corporate sector remained negative overall but turned positive when excluding credit to the construction sector – an industry which is undergoing a period of correction. Credit risk somewhat eased on the back of a strong macroeconomic performance, but also owing to sector-specific developments. Coverage ratios improved as banks raised further their loan loss provisions. Other asset holdings, mainly fixed income securities, remained directed towards high-grade quality paper.

The low interest rate environment continued to pose a challenge for bank profitability across the European Union. Nevertheless, the performance of core domestic banks rebounded in 2015, owing to higher income from intermediation activities and improved non-interest income. The same can be said about other banks, which reported improved profitability levels. In 2015 the return on assets of the banking sector in Malta stood at 0.8%, above the EU average of around 0.4%, while the return on equity, at 5.7%, was close to the EU average of around 6%.

Banks in Malta remained characterised by adequate capital buffers, as indicated by the total capital ratio, which stood at around 14.5% for core domestic banks, 22.6% for non-core and 42.5% for international banks in September 2015. These levels were significantly above the minimum regulatory requirements. To further enhance resilience, in the beginning of 2016 the authorities introduced two macro-prudential capital buffers – the counter-cyclical capital buffer and a buffer applied to Systemically Important Institutions, the latter to be phased in over a four-year period.

Competition within the banking sector has important policy implications at a time of high lending rates to small and medium-sized enterprises (SME). In a recent report, the Malta Competition and Consumer Affairs Authority made a number of recommendations to address various issues, primarily related to price transparency, barriers to expansion and consumer mobility. Revised bank charges on SME loans and charges for credit transfers would facilitate access to finance. In addition, more widespread use of electronic money would ultimately result in lower processing costs to banks. The Central Bank of Malta is participating in discussions with core domestic banks with a view of ameliorating the situation.

[2] *Global Competitiveness Report* 2015-2016, World Economic Forum, 2015.

In addition, the Bank will be launching and operating a national Central Credit Register as an effective remedy for information asymmetries between borrowers and lenders. This would also improve banking sector competition, by making the credit history of individual borrowers available to alternative lenders. The Register should also reduce non-performing loans, which are a drag on credit growth as they reflect a dimension of credit risk that should be resolved.

Policies and operations

The Central Bank of Malta contributes to monetary policy decisions in the euro area through the Governor's participation in the Governing Council of the ECB and also through the contribution of staff members in various ESCB committees. As a Eurosystem member, the main objective of the Bank is to maintain price stability. The Bank is also responsible for the implementation of monetary policy decisions in Malta, using a range of instruments approved by the Governing Council of the ECB.

In implementing the PSPP, the Bank set up a dedicated portfolio of Maltese government debt securities, while ensuring that reserves were being accumulated to provide a buffer against the risk related to these holdings. The Central Bank of Malta purchased a total book value amount of approximately €282 million of Maltese government securities by the end of 2015, with a weighted average remaining maturity of 9.6 years.

On 22 October 2015, the Bank hosted the first ECB Governing Council meeting held in Malta. It was chaired by President Mario Draghi and was followed by a press conference addressed by President Draghi, Vice-President Vitor Constâncio, and myself.

This year was also the first time that the European Cultural Days of the ECB were dedicated to Malta. This initiative highlights the European Union's rich and varied array of cultures by focusing on a different Member State's cultural scene every year. The slogan chosen by the Bank for this programme was *Vibrant Malta* – to showcase the vibrancy and uniqueness of Maltese culture. The programme was held between 3 November 2015 and 20 February 2016 in Frankfurt am Main and covered a wide spectrum of performances, including music, literature, drama, lectures and visual arts.

With the current low yield environment, the Bank's financial strategy was modified to mitigate reinvestment risk. Accordingly, the Bank adopted a more active investment policy that involved a further expansion of its investment assets, from €3.8 billion in 2014 to €4.3 billion as at-end 2015. Despite registering a lower interest income, from €67.7 million in 2014 to €55.2 million in 2015, operating profit levels before transfers to provisions and reserves increased over the same period, from €71.8 million to €75.0 million. In view of the larger investment assets portfolio, and in the context of the continuing uncertainty in financial markets, the Bank augmented its provisions by a further €16.1 million to €50.0 million, and also transferred €8.9 million to reserves. The Bank passed on the amount of €50.0 million to the Government of Malta.

Professor Josef Bonnici

PART I

FINANCIAL AND ECONOMIC DEVELOPMENTS

1. INTERNATIONAL ECONOMIC DEVELOPMENTS AND THE EURO AREA ECONOMY[1]

In 2015 global economic growth remained modest and uneven, with subdued growth in advanced economies and a slowdown in emerging markets. Economic activity picked up in the euro area and Japan. The United States' economy expanded further, at the same pace as in the previous year, whereas the British economy lost some steam during 2015. With regard to emerging market economies, China saw a moderation in economic activity, the Russian and Brazilian economies contracted, while the Indian economy was more resilient.

Prices of crude oil and of other commodities continued their downward trend from the previous year, leading to lower price pressures across the world. In light of such pressures, monetary policy in advanced economies remained accommodative, with the European Central Bank (ECB) further easing its stance. On the other hand, citing considerable improvement in labour market conditions and being reasonably confident that inflation was going to rise towards its medium-term objective, the Federal Reserve increased its federal funds target rate in December.

With regard to global financial markets, exchange rates, equity prices and bond yields reacted to these monetary policy decisions. Spreads between euro area sovereign bond yields narrowed further in 2015.

Looking at the euro area in particular, real gross domestic product (GDP) recovered moderately. Inflation was low or negative throughout the year, partly reflecting developments in energy prices. In this context, the ECB kept its key interest rates on main refinancing operations (MRO) and marginal lending facility at historical lows of 0.05% and 0.30%, respectively, while it lowered the rate on the deposit facility to -0.30% in December. Additionally, with regard to non-standard measures, in January the Eurosystem extended the asset purchase programme (APP) to include public sector debt securities. Further extensions to the APP were announced as part of a package of easing measures in December.

The international economy

United States

Economic activity in the United States continued to grow at the same pace as in the previous year (see Table 1.1). In spite of this, quarterly data show a moderation in the quarter-on-quarter growth rate from the second quarter onwards, with the rate slowing down to 0.3% in the final quarter of the year.

Over the year as a whole, real GDP growth was supported by domestic demand. Private consumption expenditure, private residential investment, and state and local government spending accelerated, whereas

Table 1.1
GDP GROWTH IN ADVANCED ECONOMIES(1)
Percentage changes over preceding period

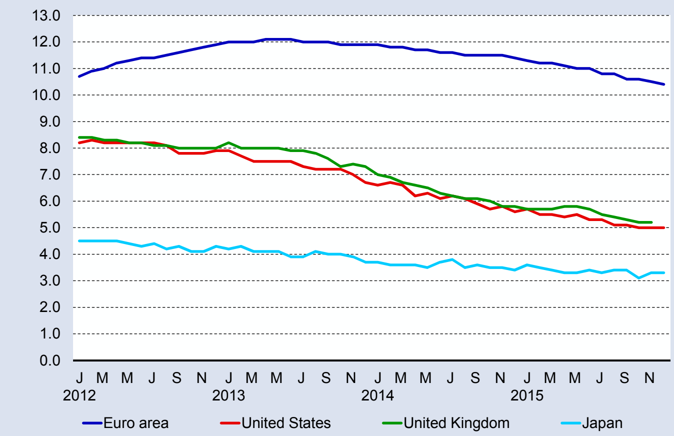
	2015				2012	2013	2014	2015
	Q1	Q2	Q3	Q4				
United States	0.2	1.0	0.5	0.3	2.2	1.5	2.4	2.4
Euro area	0.6	0.4	0.3	0.3	-0.9	-0.3	0.9	1.6
United Kingdom	0.4	0.6	0.4	0.5	1.2	2.2	2.9	2.2
Japan	1.0	-0.3	0.3	-0.4	1.7	1.4	0.0	0.4

(1) Chain-linked volumes; quarterly figures are seasonally and working day adjusted.
Sources: Eurostat; Office for National Statistics (UK); Bureau of Economic Analysis (US); Statistics Bureau (Japan).

[1] The cut-off date for data on GDP in the euro area in this Chapter is 8 March 2016.

private non-residential investment grew at a slower pace. In contrast, spending by the federal government contracted, although at a more moderate rate than in the previous year. On the other hand, imports grew faster than exports, leading to a negative contribution to growth from net exports.

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



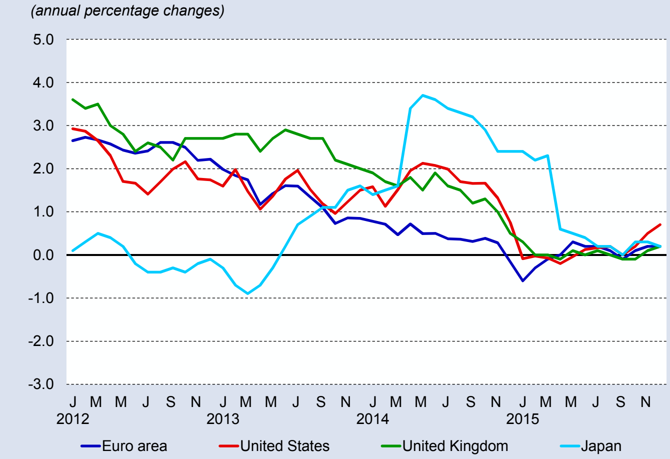
Sources: Eurostat; US Bureau of Labor Statistics; UK Office of National Statistics; Japan Statistics Bureau.

Labour market conditions continued to improve in 2015. As Chart 1.1 shows, the unemployment rate declined steadily during the year, dropping by 0.6 percentage point to 5.0% in December, reaching its lowest level since April 2008. Overall, employment increased, but at a slower pace than in the previous year. Looking at sector data, whereas employment in manufacturing, construction and private services slowed down, government employment rose at a slightly faster rate compared with 2014. At the same time, the labour force participation rate declined marginally to 62.6% by December 2015, implying that discouraged workers remain outside the labour market.

Inflationary pressures were very low in the United States during 2015. The annual rate of inflation as measured by the Consumer Price Index (CPI) turned negative in January for the first time since October 2009 (see Chart 1.2). Price pressures remained subdued in the first half of the year, reflecting a strong decline in energy prices and a moderation in the prices of food and beverages. The overall inflation rate turned marginally positive in June, before picking up in the final quarter. It ended the year on 0.7%, slightly below the 0.8% recorded at the end of the previous year. Over the year as a whole, the annual inflation rate of food and beverages slowed down, reaching 0.8% in December, 2.5 percentage points lower than a year earlier. At the same time, energy prices fell further, whereas the prices of services excluding energy accelerated, with their annual rates of change ending the year at -12.6% and 2.9%, respectively.

The Federal Reserve maintained an accommodative monetary policy throughout most of 2015. In December, however, it increased the federal funds target rate for the first time in nine years, to a range between 0.25% and 0.50% (see Chart 1.3). The rise in the target rate was driven by improved labour market conditions and by the Fed's view that inflation would rise towards its 2% objective in the medium term. Throughout the year the Federal Reserve maintained its policy of reinvesting principal payments from its agency debt and agency mortgage-backed security holdings in agency mortgage-backed securities, and rolling over maturing Treasury securities at auction.

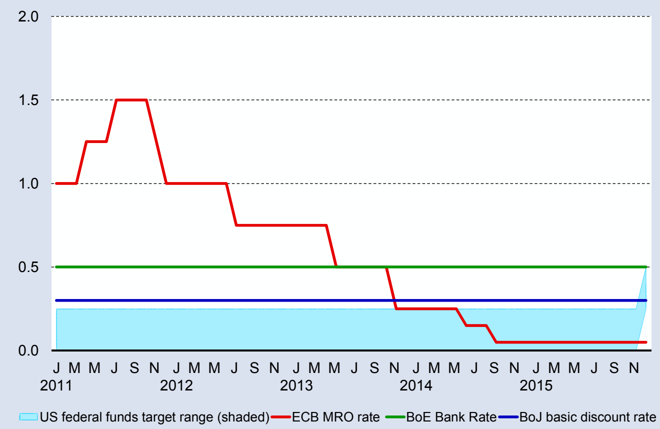
Chart 1.2
CONSUMER PRICE INFLATION
(annual percentage changes)



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

With regard to fiscal policy, Congress passed a bill in December to boost government spending and extend tax breaks for the subsequent two fiscal years. The government budget deficit narrowed further and was estimated to have fallen to 4.2% of GDP in 2015, from 4.9% in 2014.[2]

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



Sources: ECB; Federal Reserve; Bank of England; Bank of Japan.

United Kingdom

Economic activity in the United Kingdom grew at a slower pace in 2015, with real GDP expanding by 2.2% as against 2.9% in the previous year (see Table 1.1). The slowdown in growth mirrors a moderation in all categories of output, with the services industry experiencing the biggest reduction in the contribution to growth. The construction and agricultural sectors also reduced their contribution to growth, while industrial production held its contribution constant.

The labour market situation in the United Kingdom improved further during the year. After hovering around 5.7% in the first half of the year, the unemployment rate declined throughout the second half, standing at 5.2% in November. This compares with 5.8% at the end of 2014 (see Chart 1.1). Employment continued to increase, but at a slower pace compared with the previous year. With output growing at a faster rate than employment, productivity in the United Kingdom increased.

Inflation in the United Kingdom remained subdued during 2015 (see Chart 1.2). The annual CPI inflation rate turned negative in April for the first time since the 1960s. Inflation remained low or negative throughout the following months and ended the year at 0.2%, lower than the 0.5% registered 12 months previously. Downward pressure on prices mirrored developments in goods prices. More specifically, energy and food prices declined significantly, with their annual rates of change standing at -7.3% and -3.2%, respectively, in December. On the other hand, prices of services increased at a faster rate, with the annual rate of change rising to 2.9% in December from 2.3% a year earlier.

The Bank of England's key monetary policy instruments were again left unchanged during 2015, with the official bank rate standing at 0.50% and its stock of asset purchases maintained at GBP 375 billion during the year (see Chart 1.3). Given the persistence of headwinds affecting the British economy, the Bank indicated that it expected to tighten its monetary policy more gradually than in previous cycles.

On the fiscal side, the UK Government sustained its fiscal consolidation path in its *Spending Review and Autumn Statement* published in November, as it aimed to reduce the projected public sector net borrowing requirement. The European Commission estimates that the general government deficit in the United Kingdom would have narrowed from 5.7% of GDP in 2014 to 4.4% of GDP in 2015.

Japan

Economic activity in Japan experienced a moderate recovery over 2015. Real GDP increased by 0.4% following zero growth in the previous year (see Table 1.1). Economic growth in Japan was uneven during the year, however. After having expanded robustly in the first quarter of the year, the Japanese economy contracted in the second quarter and picked up again in the following quarter. Nevertheless, real GDP fell in the final quarter of the year as private consumption and public investment both declined.

[2] General government deficit estimates in this Chapter are sourced from the European Commission's *Winter Economic Forecasts*, 2016.

Over the year as a whole, growth was totally driven by net exports as developments in the domestic demand components offset each other. Both exports and imports grew at a slower rate than in the previous year; however, exports grew at a faster rate than imports. On the other hand, private consumption and private residential investment declined further, while public investment growth turned negative over the year. Private non-residential investment grew at a more moderate pace, whereas government consumption increased at a faster rate than in 2014.

The Japanese unemployment rate fluctuated in a narrow range above 3% over the year, with the jobless rate standing at 3.3% in December, marginally lower than 12 months previously (see Chart 1.1).

Despite the pick-up in economic activity, price pressures decelerated significantly during 2015, with the overall annual inflation rate falling to 0.2% in December from 2.4% a year earlier (see Chart 1.2). Price growth moderated somewhat in the second quarter, reflecting a base effect stemming from the increase in indirect tax rates in April 2014. Inflation reached zero in September, before rising slightly during the last quarter. Sluggish price growth over the year as a whole mainly reflected falling energy prices and a moderation in food prices.

With regard to monetary policy, the Bank of Japan kept its monetary easing commitment during 2015, as it continued to pursue its target of 2% inflation. The basic discount rate was left unchanged at 0.30% throughout the year. The Bank's quantitative and qualitative easing (QQE) programme was kept in place, with the targeted annual pace of the monetary base expansion confirmed at about 80 trillion yen in 2015. Additionally in December, the Bank introduced supplementary measures to support firms' investment, such as a new programme for purchases of exchange-traded funds, introducing a new category of institutions that are eligible for funds and extending application periods for loan programmes. At the same time, further policies to facilitate the implementation of the QQE were announced, including expanding eligible collateral for the provision of credit, extending the average remaining maturity of Japanese government bond purchases and raising the maximum amount of each issue of Japan's real estate investment trust purchases.

On the fiscal front, consolidation continued further, with government revenues enhanced by the consumption tax hike introduced in 2014. Nevertheless, the general government deficit, although lower on a year earlier, amounted to an estimated 5.1% of GDP in 2015.

Emerging markets

Economic activity in major emerging economies continued to slow down during 2015. Economic growth in China moderated to a 25-year low of 6.9%, from 7.4% in the previous year. Annual growth figures reflected the rebalancing in the economy from manufacturing towards services. In line with the slowdown in economic growth, the inflation rate decelerated to 1.4% from 2.0% in the previous year, being the lowest registered increase in prices since 2009.

The Brazilian economy remained in recession during 2015, mainly owing to falling commodity prices and tightening of monetary and fiscal policies. Additionally, inflation surged above 10% towards the end of the year, driven by an adjustment in regulated prices and the sharp depreciation of the Brazilian real.

The Russian economy also continued to weaken during 2015, and is estimated to have contracted by 3.7% over the year as a whole, amid large capital outflows.[3] The contraction was driven by lower prices for its energy exports and by trade sanctions imposed by the European Union and the United States. Inflation remained substantially above target, on the back of the plummeting Russian rouble and a ban on food imports from Turkey in November.

Economic activity was more resilient in India, which is estimated to have grown at just above 7% in 2015, a faster rate than in the previous year, supported by household and government expenditure.

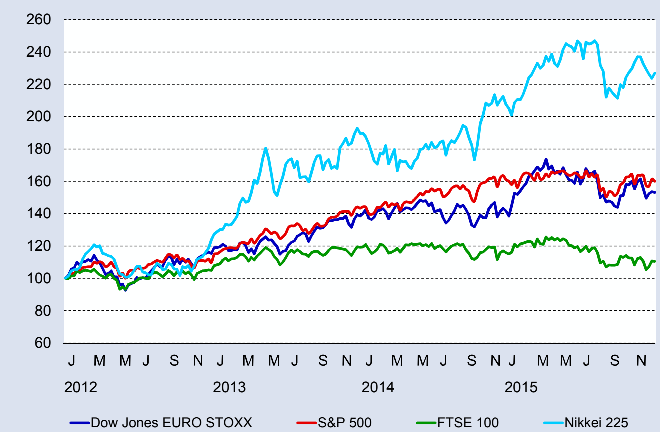
[3] Annual GDP estimates for Russia and India are sourced from the European Commission's *Winter Economic Forecasts*, 2016.

International financial markets

Equity markets

Equity prices in advanced economies moved in opposite directions over the course of 2015 (see Chart 1.4). Share prices were generally buoyed by accommodative monetary policy measures taken during the year, though global equity markets were shaken in summer, partly because of concerns about the Chinese economy.

Chart 1.4
STOCK PRICE INDICES
(end of week index; Jan. 2012=100)



Source: Reuters.

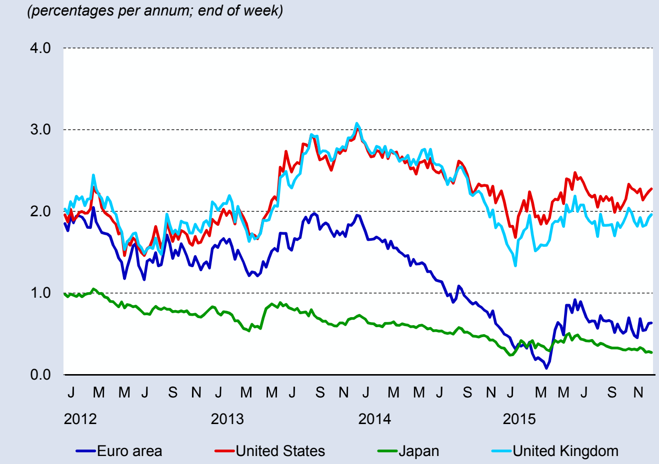
In the euro area, the DJ EUROSTOXX index rose strongly during the first quarter of the year, following the announcement of the extended APP, but stabilised in the second quarter. In line with global market developments, it fell during the third quarter but rose by 6.3% during the last quarter of the year, reflecting a general improvement in financial conditions and market expectations of further monetary easing by the ECB. Similarly, in Japan equity prices rose during the first half of the year, declined over the summer and recovered in the final quarter of the year, supported by monetary policy measures. Thus, share prices in the euro area and Japan ended the year 8.0% and 9.1% higher, respectively, than at the beginning of the year, extending the rally that had begun in 2012.

In contrast, share prices in the United States and the United Kingdom fell over the year as a whole, partly as a result of market expectations of a tightening of monetary policy in the United States. Share prices in the United States (S&P500) and in the United Kingdom (FTSE100) fluctuated during the first half of the year, before falling during the third quarter. Although they recovered during the final quarter, rising by 6.5% and 3.0%, respectively, they still ended the year 0.7% and 4.9% lower than at the beginning of the year.

Bond yields

Ten-year sovereign bond yields in most advanced economies generally rose during 2015 (see Chart 1.5). Benchmark yields in the United States, the United Kingdom and in the euro area edged up over the year as a whole. Yields on Treasury notes, British gilts and German bonds stood at 2.28%, 1.96% and 0.63%, respectively, by end-December, above the rates recorded a year previously.

Chart 1.5
TEN-YEAR GOVERNMENT BOND YIELDS
(percentages per annum; end of week)



Source: Reuters.

Bond yields in these three markets declined at the beginning of the year, with those in the euro area responding to the ECB's extended APP. The decrease in bond yields was reversed in the following quarter, possibly on the basis of improved growth prospects and higher inflation expectations. Volatility in bond markets was relatively high, with concerns about future policy divergence between leading central banks driving sharp swings in yields. In the final quarter of the year, yields in the United States and the United Kingdom rose by 22 and 20 basis points, respectively, on the back of positive economic news. Benchmark yields in the euro area edged up marginally.

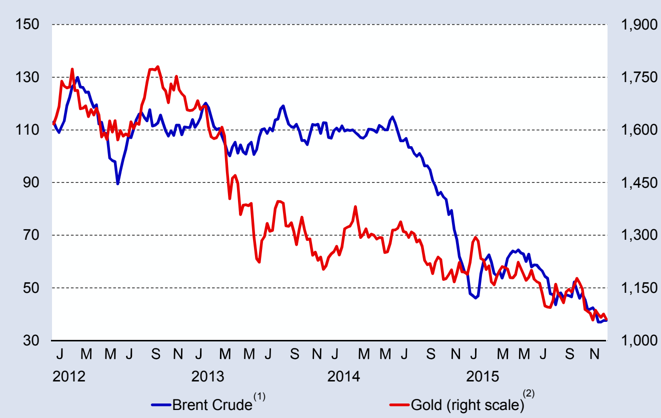
On the other hand, ten-year yields on Japan government bonds rose during the first half of the year, before declining during the subsequent two quarters. They ended the year at 0.27%, marginally below their level a year earlier.

Commodities

Oil prices

The price of Brent crude oil stood at USD 37.6 per barrel at the end of 2015, 32.2% lower than 12 months previously (see Chart 1.6). After falling significantly in 2014, oil prices recovered slightly in the early months of 2015, reaching a high of USD 66.1 in May as demand from Europe and Asia picked up, and in light of market optimism that oil prices might start to recover. However, the price of Brent crude then fell again owing to concerns about the pace of economic growth and excess supply in global markets. It contracted by around 20% in both the third and fourth quarters of the year.

Chart 1.6
OIL AND GOLD PRICES
(end of week)

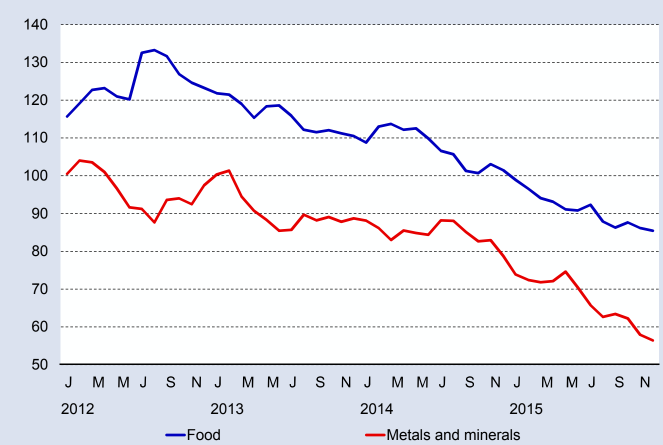


(1) US dollars per barrel; (2) US dollars per troy ounce.
Source: Reuters.

Gold

The price of gold continued on its downward trend, falling by 10.4% during 2015 (see Chart 1.6). Gold prices were relatively steady in the first quarter but subsequently declined, mainly reflecting market speculation on monetary policy tightening by the Federal Reserve. October saw a temporary peak in prices, driven by weaker economic data and strong retail demand. This was completely reversed in the subsequent two months as gold prices reached a low of USD 1,051.4 per troy ounce on 17 December. Gold prices recovered somewhat, to stand at USD 1, 060.91 at the end of the year.

Chart 1.7
COMMODITY PRICES
(monthly indices; 2010 = 100)



Source: World Bank.

Metal prices

Prices of metals declined further during 2015, with the World Bank's Metals and Minerals Index falling by 28.4% (see Chart 1.7). The drop in prices accelerated in the second half of the year, with drops of 9.9% and 11.1% in the last two quarters, reflecting weakening demand and strong supply. Looking at specific commodities, iron ore and copper were the main drivers of the decline in the index, reflecting the slowdown in Chinese growth that dampened demand. Additionally, the strengthening of the dollar and the Federal Reserve's decision to raise interest rates at the end of the year also led to lower prices.

Food prices

Food prices also extended their decline, with the World Bank's Food Index falling 15.8% during the year, following a drop of 8.2% in 2014 (see Chart 1.7). All the main sub-components of the index fell on an annual basis, but the decline was milder in the second half of the year. The decrease in prices was mainly driven by lower cereal and oil prices, which mirrored good harvests, falling demand from India and China, and an appreciating dollar. Additionally, strong export competition from maize producers and the expectation of higher wheat supply after Argentina's removal of export taxes continued to weigh on cereal prices.

Economic and financial developments in the euro area

Euro area GDP

The euro area economy continued to recover during 2015, with real GDP growing by 1.6% compared with 0.9% in the previous year (see Table 1.2). Economic activity had been expanding since the last quarter of 2013, with the level of output rising for the first time above the pre-2008 level. Nevertheless, quarterly data show a moderation in the quarter-on-quarter growth during 2015, with the rate slowing down to 0.3% in the last two quarters of the year.

The acceleration in annual GDP was driven by domestic demand, in which all components increased more rapidly when compared with 2014. In particular, against the backdrop of improving labour market conditions, private consumption accelerated and accounted for a full percentage point of the increase in GDP. Exports also rose significantly, although a faster growth in imports resulted in a negative contribution to growth from the external sector.

Inflation

The annual rate of inflation in the euro area as measured by the Harmonised Index of Consumer Prices (HICP) was very low or negative throughout 2015, mainly reflecting developments in energy prices (see Chart 1.8). The annual rate of HICP inflation, which was negative at the beginning of the year, turned positive in the

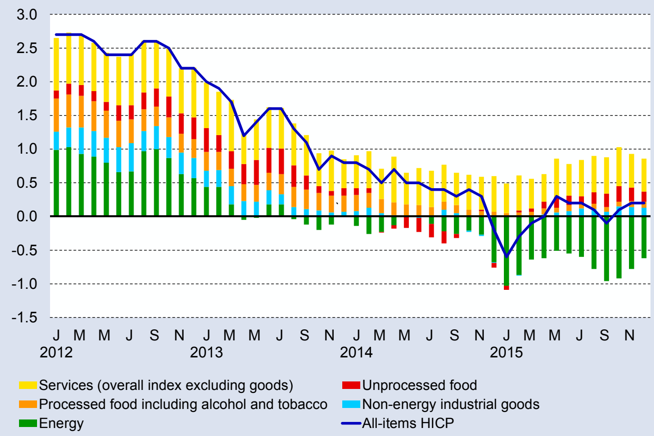
Table 1.2
REAL GDP GROWTH IN THE EURO AREA
Chain-linked volumes

	2012	2013	2014	2015
	Annual percentage changes			
Private consumption	-1.2	-0.6	0.8	1.7
Government consumption	-0.2	0.2	0.8	1.3
Gross fixed capital formation	-3.3	-2.6	1.3	2.7
Exports	2.6	2.1	4.1	5.0
Imports	-1.0	1.3	4.5	5.7
GDP	**-0.9**	**-0.3**	**0.9**	**1.6**
	Percentage point contributions			
Private consumption	-0.7	-0.4	0.5	1.0
Government consumption	-0.1	0.0	0.2	0.3
Gross fixed capital formation	-0.7	-0.5	0.3	0.5
Exports	1.1	0.9	1.8	2.2
Imports	0.4	-0.5	-1.8	-2.4
GDP	**-0.9**	**-0.3**	**0.9**	**1.6**

Source: Eurostat.

second quarter amid faster growth in prices of unprocessed food and non-energy industrial goods. The annual inflation rate edged below zero in September before turning mildly positive in the fourth quarter, driven by a slower contraction in energy prices and a faster rise in non-energy industrial goods prices. By the end of the year, the annual rate of inflation stood at 0.2%, as against -0.2% at the end of 2014.

Chart 1.8
CONTRIBUTIONS TO YEAR-ON-YEAR HICP INFLATION IN THE EURO AREA
(percentage points; annual percentage change)

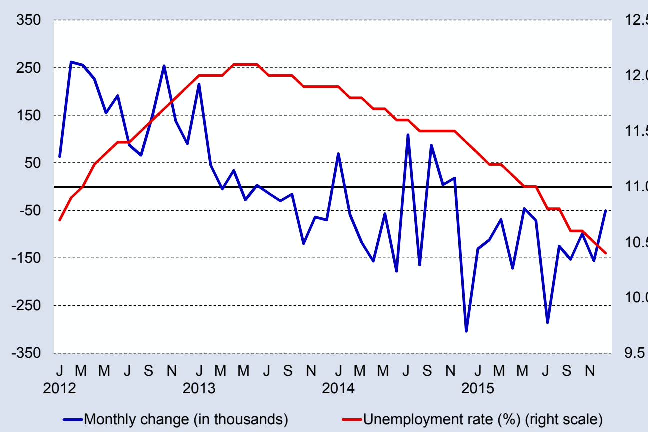


Source: Eurostat.

Labour market

Labour market conditions in the euro area continued to improve during 2015, with a moderate rise in employment growth and a decline in the unemployment rate over the year. The latter extended the decrease that had commenced in the second half of 2013, and stood at 10.4% in December, 1 percentage point below its level a year earlier (see Chart 1.9).

Chart 1.9
UNEMPLOYMENT IN THE EURO AREA
(monthly data; seasonally adjusted)



Source: Eurostat.

Cross-country data also show that the unemployment rate fell across almost all euro area countries, with the steepest declines in Spain and Ireland. Nevertheless, wide disparities between unemployment rates across the euro area persisted. At the end of 2015, the countries with the lowest unemployment rates were Germany, Malta and Austria with 4.5%, 5.1% and 5.8%, respectively. On the other hand, Greece, Spain and Cyprus registered the highest rates of unemployment at 24.6%, 20.8% and 15.7% respectively.[4]

Money and credit

Monetary growth within the euro area accelerated over 2015, partly stimulated by the monetary policy measures adopted by the ECB. Annual growth in the broad monetary aggregate (M3) gathered pace in the first quarter of the year and hovered around 5% in the subsequent months. The annual growth of M3 moderated slightly towards the end of the year. It stood at 4.7% in December, down from 4.9% in September, but up from 3.8% a year earlier (see Table 1.3).

M3 growth was mainly driven by the narrow component of money, M1, illustrating a strong preference for liquidity in an environment of very low interest rates. The annual growth in M1 stood at 10.8% at the end of the year, up from 8.1% 12 months earlier. This reflected increases in both components of this aggregate, with the annual growth rate in overnight deposits rising to 11.6% from 8.4%, and the rate of growth of currency in circulation rising to 6.7% from 6.4%.

[4] The unemployment rate for Greece refers to November 2015.

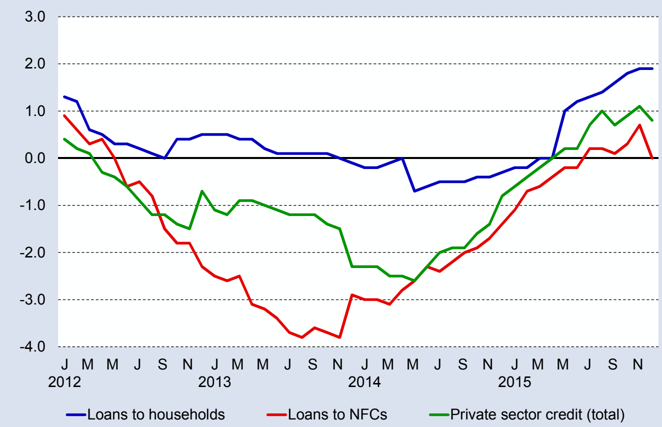
Table 1.3
EURO AREA MONETARY AGGREGATES
Annual percentage changes

	2014	2015			
	Dec.	Mar.	June	Sep.	Dec.
Currency in circulation	6.4	7.3	8.8	8.3	6.7
Overnight deposits	8.4	10.6	12.4	12.4	11.6
M1	**8.1**	**10.1**	**11.8**	**11.7**	**10.8**
Time deposits	-2.3	-3.3	-4.4	-4.7	-3.5
M2	**3.8**	**4.6**	**5.2**	**5.2**	**5.3**
Marketable instruments	4.0	5.6	0.6	0.7	-3.8
M3	**3.8**	**4.7**	**4.9**	**4.9**	**4.7**

Source: ECB.

In contrast, time deposits contracted at a faster pace during 2015, falling by 3.5% in December as against a decline of 2.3% in the previous year. Additionally, marketable instruments weakened strongly and their annual growth turned negative in the fourth quarter, ending the year at -3.8%, from 4.0% 12 months previously.

Chart 1.10
MFI CREDIT TO THE PRIVATE SECTOR IN THE EURO AREA
(annual percentage changes)



Source: ECB.

With regard to the counterparts of M3, private sector credit in the euro area recovered gradually over 2015 and turned positive in the second quarter for the first time since March 2012. The annual rate of growth of credit to the private sector stood at 0.8% in December, up from -0.8% a year earlier. The improvement reflected developments in loans to both non-financial corporates (NFC) and households, with the former also growing on an annual basis for the first time in three years (see Chart 1.10). The generally low level of interest rates, the pick-up in economic activity and improving consumer confidence supported credit demand during 2015, while credit supply conditions also eased.

Indeed, the four Bank Lending Surveys for the euro area carried out over the year pointed to a net easing impact on credit standards, in particular for loans to enterprises. The surveys also highlighted that the liquidity from the APP and from targeted long-term refinancing operations was being used to extend credit, which supported the pick-up in loans seen over the year.

The ECB's monetary policy stance

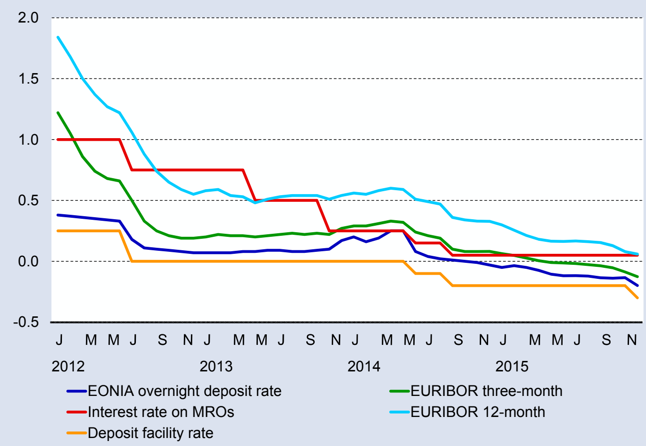
The Governing Council of the ECB kept its accommodative monetary policy stance during 2015 as it considered that euro area inflation would remain below the target of below, but close to, 2% for a prolonged period (see Chart 1.3). The interest rates on the MROs and the marginal lending facility were kept at a historical low of 0.05% and 0.30%, respectively, throughout the year. Additionally, the interest rate on the deposit facility was lowered by 10 basis points to -0.30% in December.

The ECB also used non-standard monetary policy measures in pursuit of its inflation target. In January the Governing Council decided to extend the APP that had been launched in 2014 to include purchases of public sector bonds, in addition to asset-backed securities and covered bonds. Under this programme, the combined monthly purchases of the Eurosystem would amount to €60 billion and would be carried out until September 2016, and, in any case, until the Governing Council would see a sustained adjustment of inflation towards levels that would be below, but close to 2%. In December the Governing Council decided to extend its asset purchases at least until March 2017. It also decided to include euro-denominated marketable debt instruments issued by regional and local governments in the euro area. The Council also agreed to reinvest the principal payments of debt securities purchased under the APP as they matured and confirmed the extension of its fixed rate full allotment procedures for as long as necessary, and at least until the last reserve maintenance period of 2017.

Money market rates

Money market rates fell further during 2015, with some going to new historic lows and even turning negative. This reflected the monetary policy stance as shown in the negative rate being offered on the ECB's deposit facility, as well as the injections of liquidity through the extended APP. The three-month and 12-month EURIBOR declined throughout the year, with the former turning negative for the first time in May.[5] Both rates saw accelerated decreases in the fourth quarter, ending the year at -0.13% and 0.06%, respectively. The EONIA also continued its decline into negative territory and ended December at -0.2% (see Chart 1.11).

Chart 1.11
KEY INTEREST RATES
(percentages per annum; monthly averages)

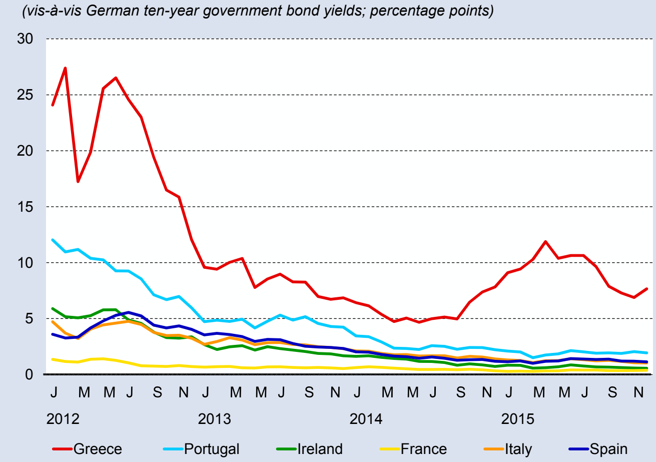


Source: Central Bank of Malta.

Yield spreads

Yields on ten-year government bonds in the euro area generally decreased on average during 2015, rebounding temporarily in the second quarter. Within the euro area, spreads between yields on ten-year German bonds and on those issued by other governments continued to narrow further over the year (see Chart 1.12). The spread on Greek bonds widened, however, during the second quarter amid high political uncertainty in Greece. It narrowed significantly in the third quarter, reflecting the agreement on a new economic adjustment programme for Greece. Most euro area yield spreads narrowed further in the last quarter, as more ECB monetary policy easing was expected by the markets. In fact,

Chart 1.12
EURO AREA TEN-YEAR GOVERNMENT BOND YIELD SPREADS
(vis-à-vis German ten-year government bond yields; percentage points)



Source: ECB.

[5] EURIBOR is an interest rate benchmark indicating the average rate at which principal European banks lend unsecured funds on the interbank market in euro for a given period. The EONIA (Euro OverNight Index Average) is an effective overnight interest rate, measured as the weighted average of all overnight unsecured lending transactions on the euro area interbank market.

yields remained notably below the levels seen at the height of the sovereign debt crisis in 2011.

The euro exchange rate

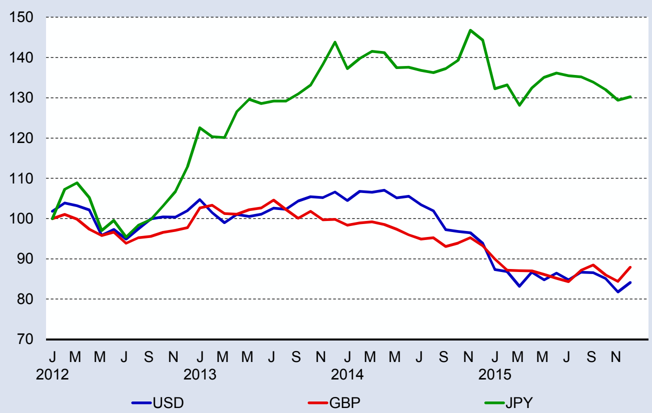
The euro exchange rate continued its decline over 2015, with the NEER losing 5.3% by the end of the year (see Chart 1.13).[6] The NEER fell in the first quarter, driven by the announcement of further accommodative monetary policy measures by the ECB and expectations of tightening by the Federal Reserve. The euro recovered part of its previous losses in the second and third quarters, before falling again in the final quarter of the year, reflecting market expectations of further monetary easing by the ECB.

On a bilateral basis, the euro weakened against the US dollar in the first and fourth quarters, falling strongly by 10.3% over the year to USD 1.0887 in December. This decline reflected divergences in the monetary policy stance in the euro area and the United States, and the market response to the Paris attacks in November (see Chart 1.14). The euro also lost ground against the Japanese yen and pound sterling, falling 9.8% and 5.8%, respectively, over the year as a whole.

Chart 1.13
EURO NOMINAL EFFECTIVE EXCHANGE RATE
(index of daily effective exchange rate; Q1 1999=100)

Source: ECB.

Chart 1.14
EXCHANGE RATE MOVEMENTS OF THE EURO AGAINST OTHER MAJOR CURRENCIES
(index of end of month rates; Jan. 2012=100; an increase in the index implies euro appreciation)



Source: Eurostat.

[6] 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.

2. MONETARY AND FINANCIAL DEVELOPMENTS

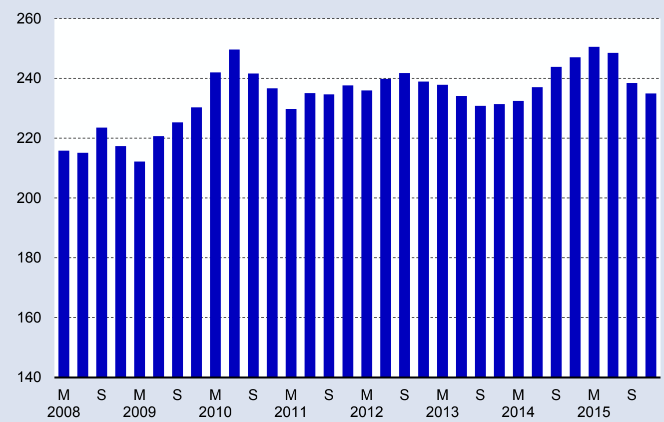
During 2015 residents' deposits remained the main source of funding for monetary and financial institutions (MFI) resident in Malta, with preference for liquid overnight deposits remaining strong. On the counterparts' side, credit to Maltese residents recovered following a contraction in 2014. Interest rates on both deposits and loans to Maltese residents continued to fall during the year, though the decline in deposit rates was once more larger than that in lending rates.

In the money market, yields fell further during 2015, as the European Central Bank (ECB) maintained its loose monetary policy stance. In the capital market, yields on government bonds also extended their downward trend, resulting in a narrowing of spreads between five and ten-year Maltese sovereign bond yields and the respective euro area benchmark yields. On the other hand, share prices as measured by the Malta Stock Exchange (MSE) index rose strongly during the year.

Core domestic banks' total assets

The total assets of core domestic banks rose during 2015 by €693.7 million, or 3.5%. Nonetheless, their share in gross domestic product (GDP) dropped to 234.9% at the end of 2015, from 247.0% in December 2014 (see Chart 2.1).[1,2] This decline was a result of a faster growth rate in GDP than in total assets of core domestic banks. Meanwhile, total assets of the remaining banks dropped by €5.7 billion in 2015, mainly on account of international banks.

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

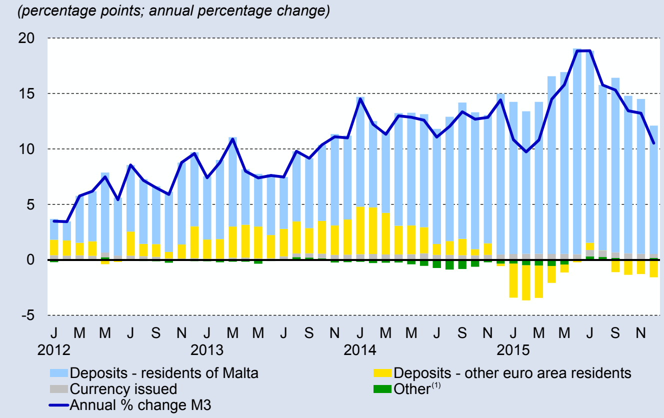


Sources: Central Bank of Malta; NSO.

Contribution to euro area M3

The contribution of MFIs based in Malta to euro area broad money (M3) continued to expand at a fast pace during 2015, reaching a high of 18.9% in July, although the annual rate of change moderated in the second half of the year (see Chart 2.2). By December, the annual growth rate decelerated to 10.5%, down from 14.4% in December 2014. This pattern largely mirrored movements in overnight deposits.

Chart 2.2
CONTRIBUTIONS OF RESIDENT MFIs TO EURO AREA MONETARY AGGREGATES
(percentage points; annual percentage change)



(1) The "other" category consists of loans granted to resident MFIs, repurchase agreements, money market fund shares/units and debt securities with a maturity of up to and including two years issued by MFIs.
Source: Central Bank of Malta.

In 2015 deposits belonging to Maltese residents were the main driver behind the expansion in the contribution to M3. M3 deposits comprise overnight deposits, deposits with

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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* 041/2016, issued on 8 March 2016.

an agreed maturity of up to two years, and deposits redeemable at notice up to three months. In particular, Maltese residents' liquid overnight deposits forming part of narrow money (M1) grew strongly during the year. In contrast, contributions from the remaining components within M3, such as currency issued and deposits belonging to other euro area residents, were substantially smaller.

Residents' deposits

Deposits belonging to residents of Malta held with local MFIs grew strongly once more during 2015. These rose by €1.8 billion, or 12.9%, following a 14.6% increase during 2014 (see Table 2.1). A total of €1.7 billion of this increase was registered in categories forming part of broad money (M3), which went up by 13.4% during the year, principally on account of a rise in overnight deposits. Deposits with an agreed maturity above two years, which do not form part of broad money aggregate, also contributed to the expansion. In contrast, residents' deposits redeemable at notice up to three months and those with agreed maturity of less than two years declined.

With regard to developments by sector, household deposits were the main driver of the increase in total deposits in 2015, accounting for around one half of the overall growth. The other major component of residents' deposits, namely balances belonging to non-financial corporations (NFC), also contributed positively to the latest expansion.

Growth in overnight deposits was particularly robust around mid-year, peaking at 39.3% in July. Subsequently, the annual growth rate of overnight deposits moderated, standing at 24.9% in December. This compares with 29.0% growth at the end of 2014. The profile of overnight deposit growth was largely shaped by households. Over the year as a whole, households, NFCs and non-bank financial institutions (OFI) registered strong increases in their overnight balances. As a result, the share of overnight deposits in total residents'

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

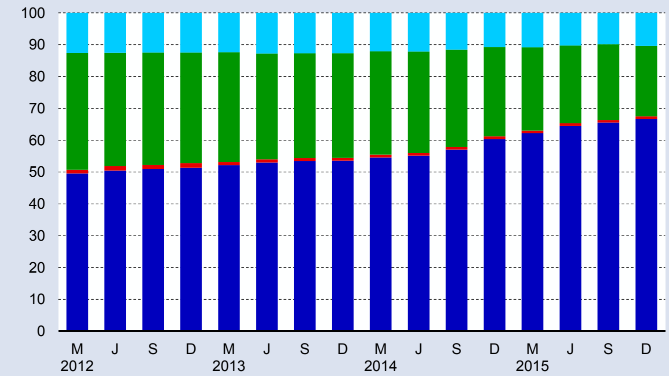
	2013	2014	2015	2015	
	Dec.	Dec.	Dec.	Amount outstanding	Absolute change
Overnight deposits	**13.7**	**29.0**	**24.9**	**10,510.9**	**2,095.3**
of which					
Households	12.0	25.4	23.9	5,608.8	1,080.5
Non-financial corporations	22.0	24.0	25.1	2,814.9	564.8
Deposits redeemable at notice up to three months	**-25.0**	**9.3**	**-2.2**	**121.7**	**-2.7**
of which					
Households	-2.1	7.8	-7.4	95.8	-7.6
Non-financial corporations	-70.3	10.9	15.0	20.1	2.6
Deposits with agreed maturity up to two years	**2.8**	**-2.0**	**-10.9**	**3,487.7**	**-426.5**
of which					
Households	2.2	-0.7	-9.4	2,753.7	-284.2
Non-financial corporations	-5.6	-16.0	-15.0	289.1	-51.2
Deposits with agreed maturity above two years	**10.8**	**-3.0**	**9.2**	**1,635.7**	**137.6**
of which					
Households	10.1	-5.1	10.4	1,527.4	144.1
Non-financial corporations	21.6	14.0	0.2	75.1	0.2
Total residents' deposits[1]	**9.0**	**14.6**	**12.9**	**15,755.9**	**1,803.6**

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

Source: Central Bank of Malta.

deposits rose during the year, reaching a new high of 66.7% in December (see Chart 2.3).

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



(1) Deposits outside M3 exclude deposits belonging to central government.
Source: Central Bank of Malta.

Deposits with an agreed maturity of over two years rose by 9.2% when compared with end-2014, with households accounting for most of the increase. This category of deposits picked up strongly in the last quarter of the year. On the other hand, deposits with an agreed maturity of up to two years and deposits redeemable at notice up to three months contracted by 10.9% and 2.2%, respectively. Consequently, these components' share in total residents' deposits fell further, to 22.1% and 0.8%, respectively.

On balance, the low interest rate environment encouraged residents to shy away from short-term time deposits and search for higher yields through longer-term instruments, or to hold liquid assets, such as overnight deposits. The latter became more attractive in recent years, given the lower opportunity cost of forgone interest and uncertainty in global financial markets.

Interest rates on residents' deposits

Interest rates on residents' outstanding deposits continued to fall during 2015, with the composite rate on all deposits belonging to households and NFCs resident in Malta dropping by 34 basis points, to close at 0.69% in December (see Table 2.2).

The decline was particularly evident in rates on longer-term time deposits, and was observed in both household and NFC deposit rates. At the end of 2015, the weighted average interest rate on deposits with agreed maturity up to two years was 1.11%, while that on deposits with longer maturities was 2.99%. These rates were

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

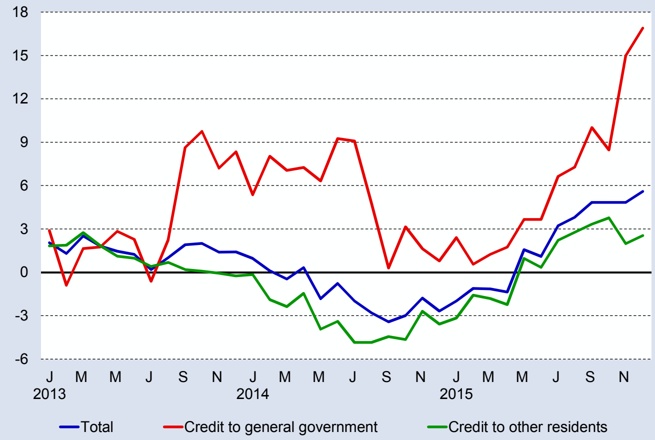
	2013 Dec.	2014 Dec.	2015 Dec.
Total deposits belonging to households and non-financial corporations	**1.41**	**1.03**	**0.69**
Overnight deposits			
Households	0.35	0.17	0.12
Non-financial corporations	0.30	0.18	0.11
Time deposits with agreed maturity up to two years			
Households	2.07	1.73	1.11
Non-financial corporations	1.91	1.45	0.85
Time deposits with agreed maturity over two years			
Households	3.55	3.44	2.99
Non-financial corporations	3.12	2.84	2.26

(1) Annualised agreed rates on euro-denominated deposits.
Source: Central Bank of Malta.

down by 62 and 45 basis points, respectively, on a year earlier. The comparable rates on NFC deposits fell by 59 and 58 basis points during 2015, standing at 0.85% and 2.26%, respectively, in December.

Meanwhile, rates on overnight deposits dropped at a slower pace, though these were already low at the end of 2014. The rate paid to households on such deposits dropped by 6 basis points to 0.12%, while the comparable rate paid to NFCs dropped by 7 basis points to 0.11%.

Chart 2.4
CREDIT TO RESIDENTS OF MALTA
(annual percentage changes)



Source: Central Bank of Malta.

Credit to residents

Credit to Maltese residents recovered during 2015 following a contraction in the previous year (see Chart 2.4). The rate of growth accelerated as the year progressed, going from -2.7% at the end of 2014 to 5.6% by the end of 2015. In the euro area as a whole, total credit also rose, although, at an annual rate of 2.4%, the increase was not as strong as in Malta.

The main driver of the rise in credit during 2015 was credit to general government, whose annual growth rate accelerated in the course of the year, reaching 16.9% in December. The increase came mainly in the form of securities and other shares, as MFIs increased their holdings of Malta Government Stocks (MGS) and Treasury bills. The rise was particularly pronounced in the second half of the year, when a number of MGS issues were made available to banks. Furthermore, redemptions of government stocks were lower than a year earlier. The increase was also due to Central Bank of Malta purchases of sovereign bonds on the secondary market under the ECB's Public Sector Purchase Programme.

Meanwhile, credit to residents other than general government, the other main component of credit to residents, recovered in 2015. Its annual growth rate accelerated through October, when it reached 3.8%, before moderating slightly to 2.5% in December. This expansion contrasts with a contraction of 3.6% in December 2014. The increase in credit during 2015 was driven by growth in both the loan component and in shares, and other equity, particularly those issued by non-bank financial intermediaries.

Loans

Total loans to non-bank Maltese residents rose by a moderate 1.1% during the year under review, with household loans contributing to most of the increase (see Table 2.3).

The latter went up by a robust 6.7% during the year (see Chart 2.5). This figure significantly exceeds the 1.9% growth in household loans registered in the euro area as a whole. Loans for house purchases, which comprise 86.1% of total household loans, continued to increase strongly, although their annual growth rate moderated slightly in the last quarter of the year. Strong growth in loans for house purchases partly reflected ongoing government support for first-time buyers of property, as well as the current low levels of interest rates and favourable conditions in the labour market. Improved confidence about the general economic situation also contributed. In contrast, consumer credit and other lending continued to decline.

Meanwhile, loans to NFCs, comprising both public and private NFCs, contracted by 5.0% during the year. This decline mainly stemmed from developments in loans to public sector NFCs. In contrast, the

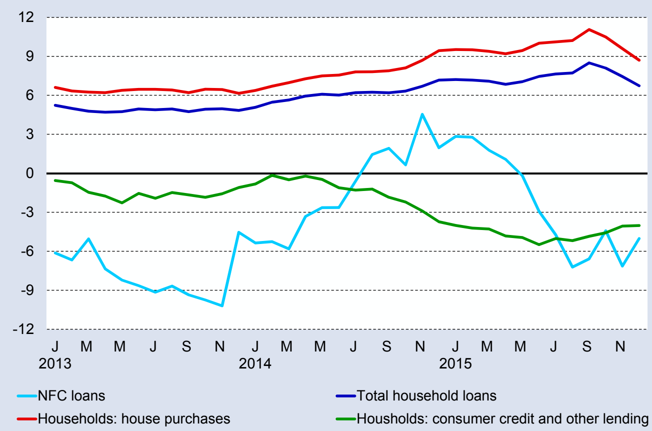
Table 2.3
LOANS TO RESIDENTS OF MALTA
Annual percentage changes

	2013 Dec.	2014 Dec.	2015 Dec.
Loans to NFCs	-4.5	2.0	-5.0
Loans to OFIs	-3.3	-33.3	2.5
Loans to Households	4.8	7.2	6.7
for: House Purchase	6.2	9.4	8.7
for: Consumer Credit and Other Lending	-1.1	-3.7	-4.0
Total Loans	**-0.5**	**0.8**	**1.1**

Source: Central Bank of Malta.

annual growth rate of loans to private NFCs turned positive as the year progressed, though it remained moderate, standing at 2.2% in December. In the euro area, total loans to NFCs were stagnant during 2015. Meanwhile, loans to OFIs resident in Malta grew moderately.

Chart 2.5
LOANS TO NFCs AND HOUSEHOLDS
(annual percentage changes)



Source: Central Bank of Malta.

Interest rates on loans to residents

Interest rates on loans to residents dropped once more during 2015, with the weighted average rate on loans to households and NFCs falling by 21 basis points to 3.81% (see Table 2.4). Nonetheless, as in 2014, this decline was smaller than the decrease on interest rates on deposits. Consequently, the spread between the lending and deposit rate rose to 312 basis points by the end of 2015, from 299 basis points a year earlier.

Table 2.4
MFI INTEREST RATES ON OUTSTANDING LOANS TO MALTESE RESIDENTS(1)
Percentages per annum; weighted average rates as at end of period

	2013 Dec.	2014 Dec.	2015 Dec.
Total loans to households and non-financial corporations	**4.24**	**4.02**	**3.81**
Households and NPISH	3.86	3.70	3.60
Lending for house purchases	3.34	3.22	3.17
Consumer credit and other lending(2)	5.55	5.47	5.39
Non-financial corporations(2)	4.70	4.41	4.10

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

The drop in lending rates during 2015 was mainly driven by a fall in loan rates to NFCs, which shed 31 basis points to end the year at 4.10%. The comparable rate on loans to households dropped at a slower pace, shedding 11 basis points to end 2015 at 3.60%. Rates on loans for house purchases and, particularly, consumer credit and other lending dipped during the period under review.

Euro area residents outside Malta

Total deposits held by euro area residents outside Malta with local MFIs dropped by 20.3% in December 2015 when compared with a year earlier. This mainly reflected a large drop in time deposits with an agreed maturity of up to two years held with international banks. On the other hand, all other components of total euro area residents' deposits registered growth during the period under review.

On the counterparts' side, credit to euro area residents outside Malta dropped by 0.4% in December on an annual basis. However, this decline was partly due to a base effect following a strong increase in credit to residents other than general government in December 2014. Indeed, annual growth in credit to euro area residents was positive throughout the year except in December, mainly driven by developments in credit to general government. This suggests an increase in domestic banks' holdings of euro area sovereign debt.

Credit market conditions

According to the Bank Lending Survey (BLS) credit standards applied to enterprises and households generally remained stable over the course of 2015.

More specifically, credit standards applied to firms were unchanged compared with 2014, as were the number of rejected loan applications. Demand for loans by enterprises was generally portrayed as stable throughout 2015, though two banks did signal higher demand during the final quarter. Banks were also asked to compare the level of credit standards in the first quarter of 2015 with the level in the first quarter of 2003 and in the second quarter of 2010. Participating banks indicated that conditions in 2015 for enterprises were tighter from this longer-term perspective.

Credit standards for households generally also remained stable during 2015. From a longer-term perspective, when asked to compare credit standards during the first quarter of 2015 with the first quarter of 2003 and the second quarter of 2010, most banks reported unchanged or tighter standards for households in 2015, although one bank reported some easing in credit standards for house loans. With regard to demand for loans by households, banks surveyed in the BLS generally noted stable or higher demand for mortgage loans in 2015 when compared with 2014. Demand for consumer credit was generally seen as stable, although two banks reported some decrease in the last quarter of 2015.

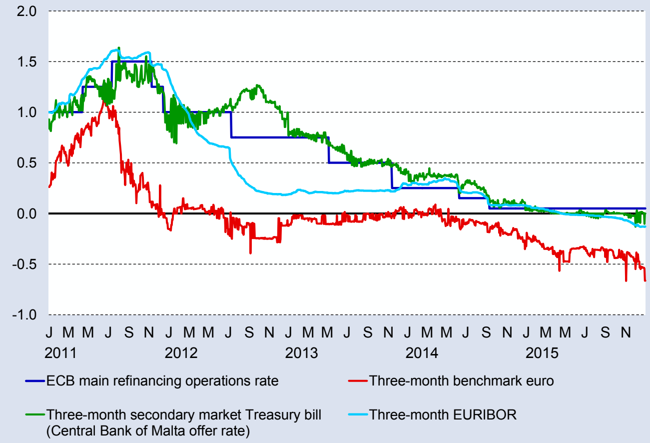
Maltese banks participating in the survey said that the ECB's expanded asset purchase programme had not led to any change in their overall lending behaviour, although it influenced balance sheets owing to the resulting movements in interest rates and asset prices.

The survey also suggests that Maltese banks made limited use of the ECB's targeted long-term refinancing operations, in the absence of financing constraints. When asked about the impact of recent EU capital requirements legislation, most banks surveyed indicated that the impact would be minimal.

The latest edition of the ECB's Survey on Access to Finance, which provides information on financing conditions from the perspective of small and medium-sized enterprises (SME), covers April to September 2015. According to results, only 12% of resident companies surveyed considered access to finance a pressing problem, broadly the same percentage reported in the survey a year earlier. However, SMEs did suggest that, in terms of interest rates, they might not be benefiting from the pass-through of earlier ECB policy rate cuts, as a net balance of respondents reported an increase in interest rates. In contrast, the tightening of non-interest rate conditions, which include collateral requirements and limits on loan size, was mentioned less frequently compared with the previous survey.

Meanwhile, surveys conducted by the Malta Chamber of Commerce, Enterprise and Industry (MCCEI) throughout the year indicated that a majority of firms that had applied for loans during the year obtained most of the requested amount. However, during the second half of the year, most firms in the construction industry that had applied for a loan indicated that they had rejected the banks' loan offers due to unacceptable terms.

Chart 2.6
MONEY MARKET INTEREST RATES
(percentages per annum; daily rates)



Sources: Central Bank of Malta; ECB; Reuters.

The money market

The ECB maintained its loose monetary policy stance during 2015, with the interest rate on its main refinancing operations remaining at 0.05% and the deposit facility rate cut further to -0.30%. As a result, money market rates in Europe moved into negative territory, with the three-month EURIBOR, which had ended 2014 at 0.08%, ending the year at -0.13% (see Chart 2.6).

In Malta these movements were mirrored in the primary market yield on domestic three-month Treasury bills, which ended 2015 in negative territory at -0.10%. This signifies a drop of 18 basis points from its end-2014 value of 0.08%. In total, the Treasury issued €786.0 million worth of bills in 2015, €124.2 million less than in 2014. Nonetheless, the amount issued was still higher than the value of bills maturing as the Treasury took advantage of the historically low interest rates. The majority of bills issued had a maturity of three or six months, with domestic banks purchasing the full amount issued on the primary market.

Meanwhile, Treasury bill yields in the secondary market also continued to fall during 2015, shedding 3 basis points to end the year at 0.00%. This drop was weaker than that observed in the comparable benchmark euro area yield, which dipped by 34 basis points to -0.66% during the same period. As a result, the spread between the domestic rate and the euro area benchmark rate widened by 31 basis points to 66 basis points.

The capital market

In the capital market total issues of long-term debt by Government and by the private sector stood at €678.2 million in 2015, lower than the €947.3 million issued in 2014. This was partly a result of a significantly lower amount of redemptions in 2015, which reduced the need for debt rollovers. On the other hand, net issues of long-term debt in 2015 stood at €596.6 million, higher than the €528.3 million net issued in 2014, as greater net issues by Government offset lower net issues by the private sector.

Malta Government Stocks

In 2015 Government issued €473.2 million in long-term debt while redeeming €69.9 million (see Table 2.5). New bond issues took place in March, June, October and November, with maturity dates ranging from four to 25 years. Approximately 54% 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 bank deposits, partly as a result of low interest rates. Thus, the amount of outstanding MGS rose to €5.0 billion at the end of 2015, of which 94.1% were held domestically. Resident credit institutions remained the main holders of outstanding MGS, with their share rising

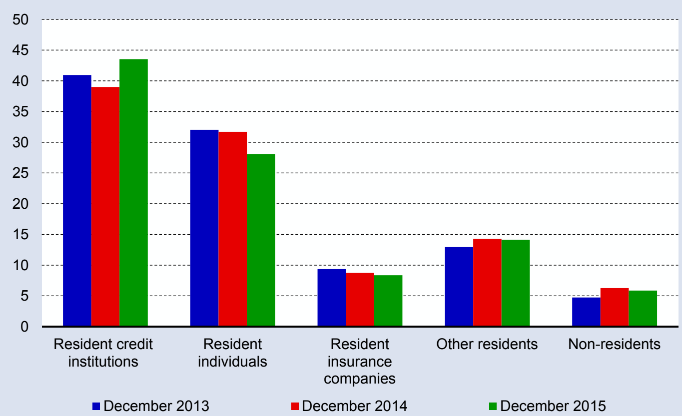
Table 2.5
ISSUES OF LONG-TERM DEBT SECURITIES[(1)]
EUR millions [(2)]

	2013	2014	2015
Government			
Total issues[(3)]	777.1	648.8	473.2
Redemptions[(4)]	520.1	357.3	69.9
Net issues	257.0	291.5	403.4
Corporate sector			
Total issues	58.0	298.5	205.0
Redemptions[(5)]	105.2	61.7	11.7
Net issues	-47.2	236.8	193.3
Total net issues	**209.8**	**528.3**	**596.6**

(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. Data include the creation of MGSs as part of the MGS Switch Auction Programme. These include the creation of €20.2 million 3.75% MGS 2017 (IV) and €121.4 million 3.85% MGS 2018 (V) in 2012. For 2013 data include the creation of €83.7 million 3.20% MGS 2019 (V) and €64.0 million 3.35% MGS 2020.
(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. Data include the cancellation of €146.5 million 3.6% MGS 2013 (IV) and €150.0 million 5.1% MGS 2014 (III) for 2012 and 2013, respectively, as part of the MGS Switch Auction Programme.
(5) Redemptions include debt securities bought back by the issuer.
Sources: Central Bank of Malta; MSE; Treasury.

to 43.5% in December from 39.0% a year earlier. Resident individuals accounted for a further 28.1%, down from 31.7% in 2014 (see Chart 2.7).

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

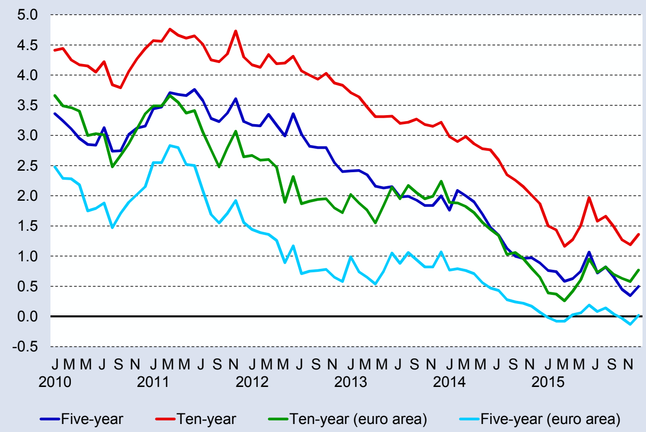


(1) Incorporates both fixed rate and floating rate MGS.
Sources: Central Bank of Malta; MSE.

Following a surge in 2014, turnover of MGS in the secondary market dropped by €59.4 million in 2015, to €777.0 million. Most of this decline arose in the second half of the year. The Central Bank of Malta, acting as market-maker, accounted for the majority of the value traded in the market.

Secondary market yields on domestic MGS continued to fall in 2015, with five and ten-year yields dropping by 39 and 51 basis points, respectively, to 0.50% and 1.36% as at end-December (see Chart 2.8). In the euro area, the benchmark five-year yield stood at 0.02% at the end of 2015, down by 5 basis points on its end-2014 level. The euro area ten-year yield, on the other hand, went up by 12 basis points. As a result, the spread between yields in Malta and the euro area benchmark narrowed, with the five-year spread standing at 48 basis points in December and the ten-year spread closing the year at 59 basis points. The divergent movement between euro area and domestic yields reflects the fact that euro area yields were already very low at the end of the previous year.

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



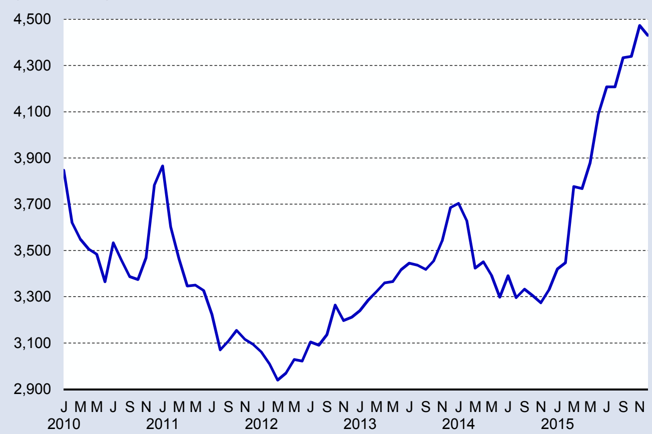
Sources: Central Bank of Malta; ECB.

Corporate bonds

In the corporate bond market, new issues of long-term private debt stood at €205.0 million in 2015, while €11.7 million was redeemed. As a result, net issues were at €193.3 million. Although the amount was lower than the €236.8 million net issues in 2014, it still compared favourably with the amounts registered in the previous couple of years, suggesting that the prevailing low yield environment was encouraging companies to diversify their funding base. In total, seven private companies resorted to public market debt financing during 2015, including two banks. In addition, on the basis of notifications to the Malta Financial Services Authority, four companies issued new debt securities through private placements, for an amount of up to €73.5 million. The bulk of these issues were aimed at non-resident investors.

Turnover in the secondary corporate bond market rose in 2015, going to €59.8 million from €43.2 million in the previous year.

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



Source: MSE.

Equities

In 2015 no new firms sought a listing on the MSE. Turnover during the year stood at €81.5 million, up from €50.8 million in 2014, with turnover dominated by the banking sector. Share prices rebounded strongly in 2015, following a decline in the previous year. Gains were broad-based across sectors. The overall MSE index gained 33%, to end the year under review at 4,430.99 (see Chart 2.9).

3. OUTPUT, EMPLOYMENT AND PRICES[1]

The Maltese economy grew strongly during 2015, extending the positive performance seen in recent years. Growth was driven by domestic demand, particularly investment and private consumption expenditure. On the other hand, net exports contributed negatively to economic growth.

Services continued to be the main driver of growth in gross value added (GVA). The strongest contributions were recorded in the sectors incorporating wholesale and retail trade, professional and scientific activities, and public administration.

Gross domestic product

Real gross domestic product

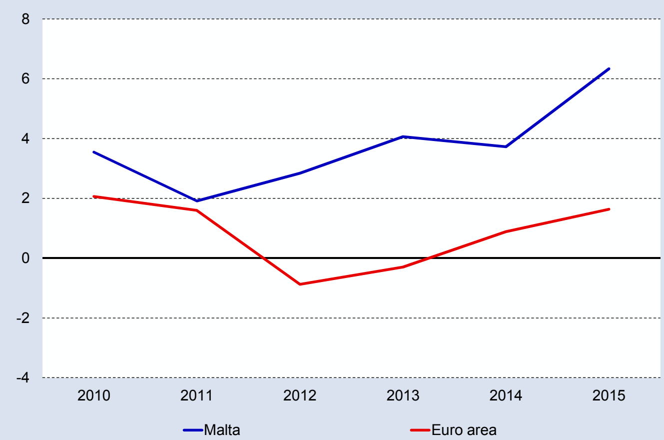
Real gross domestic product (GDP) increased by 6.3% during 2015, up from 3.7% in the previous year (see Table 3.1). The annual rate of growth of economic activity reached a high of 6.9% in the second quarter, before moderating to 5.7% in the fourth quarter.

Since 2012 developments in the Maltese economy followed a different path from those in the euro area as a whole. Euro area GDP fell in both 2012 and 2013, contrasting with positive growth rates in Malta. In the subsequent two years, the euro area recovered, but the Maltese economy continued to register even faster growth (see Chart 3.1).

Total domestic demand continued to expand robustly during 2015, contributing 7 percentage points to real GDP growth (see Chart 3.2 and Table 3.1). This was mainly driven by an acceleration in investment and private consumption, with the former registering double-digit growth. Government consumption also contributed to economic growth, although it increased at a slower pace than in the previous year.

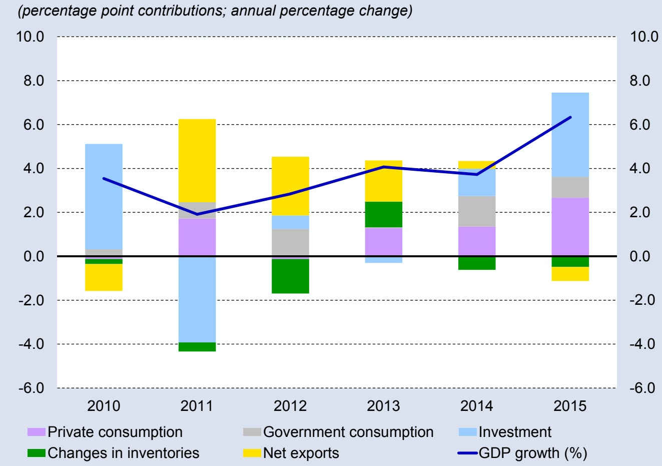
On the other hand, changes in inventories dampened economic growth.[2] Additionally, partly reflecting buoyant demand, imports rose

Chart 3.1
REAL GDP GROWTH
(annual percentage changes)



Sources: NSO; Eurostat.

Chart 3.2
REAL GDP GROWTH AND ITS COMPONENTS
(percentage point contributions; annual percentage change)



Sources: NSO; Central Bank of Malta calculations.

[1] In this Chapter, the cut-off date for data on GDP, industrial production, construction and unit labour costs is 15 March 2016.

[2] The figure for inventories also includes acquisitions less disposal of valuables, as well as statistical discrepancies. The NSO estimates GDP using the production approach. The expenditure approach is then reconciled with the production approach, with any resulting statistical discrepancies being allocated to changes in inventories.

Table 3.1
GROSS DOMESTIC PRODUCT[1]

	2011	2012	2013	2014	2015
			Annual percentage changes		
Private final consumption expenditure	3.0	-0.2	2.3	2.4	4.9
Government final consumption expenditure	3.8	6.4	0.2	7.2	4.8
Gross fixed capital formation	-18.3	3.5	-1.7	7.3	21.4
Domestic demand	**-1.9**	**0.2**	**2.3**	**3.6**	**7.6**
Exports of goods and services	2.3	6.9	0.4	0.1	2.4
Imports of goods and services	-0.2	5.3	-0.8	-0.2	3.0
Gross domestic product	**1.9**	**2.8**	**4.1**	**3.7**	**6.3**
			Percentage point contributions		
Private final consumption expenditure	1.7	-0.1	1.3	1.4	2.7
Government final consumption expenditure	0.7	1.2	0.0	1.4	1.0
Gross fixed capital formation	-3.9	0.6	-0.3	1.2	3.8
Changes in inventories	-0.4	-1.6	1.2	-0.6	-0.5
Domestic demand	**-1.9**	**0.2**	**2.2**	**3.4**	**7.0**
Exports of goods and services	3.5	11.0	0.7	0.1	3.5
Imports of goods and services	0.3	-8.4	1.2	0.3	-4.2
Net exports	**3.8**	**2.7**	**1.9**	**0.4**	**-0.6**
Gross domestic product	**1.9**	**2.8**	**4.1**	**3.7**	**6.3**

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

Sources: NSO; Central Bank of Malta calculations.

more rapidly than exports, leading to a negative contribution of net exports to GDP growth for the first time since 2010.

Domestic demand

Private final consumption expenditure expanded strongly in 2015, increasing by 4.9%. It more than doubled its growth rate over 2014 and drove GDP growth up by 2.7 percentage points. Looking at quarterly data, the annual growth rate of consumption reached a high of 6.0% in the third quarter before moderating to 5.2% in the fourth quarter. Private consumption was supported by continued robust growth in employee compensation and, hence, in real disposable income, which, according to the Bank's estimates, increased by 3.6% in 2015.

Nominal data show that the rise in household consumption was broad-based across all commodity types. The largest increases were registered in categories related to furnishings, household equipment and routine household maintenance, transport and the use of financial services. The rise in spending on transport partly reflects higher purchases of passenger cars, which were supported by incentives relating to the replacement of old motor vehicles with new ones.

Government final consumption expenditure increased by 4.8% during 2015, slowing down from 7.2% in the previous year. Nevertheless, government spending still pushed GDP growth up by a full percentage point. In nominal terms, government consumption was driven by intermediate consumption and compensation of employees. The latter was underpinned by a higher wage bill in health, education, and public administration and defence.

Gross fixed capital formation (GFCF) was the biggest driver of GDP growth in 2015, as it grew by 21.4%, almost triple the rate of the previous year. Investment contributed 3.8 percentage points to overall GDP growth. In turn, over four-fifths of the increase in investment can be attributed to the machinery and equipment sub-component, which was boosted by capital spending in the energy sector. Residential investment also went up strongly, increasing for the first time since 2007. On the other hand, non-residential construction investment, which had grown sharply in the previous year, declined. In absolute terms, the rise in overall capital spending was primarily driven by the private sector, though government investment also went up, partly reflecting outlays on EU-funded projects.

Net exports

Exports of goods and services accelerated during 2015, rising by 2.4% following a marginal increase in the previous year. This growth primarily stemmed from transactions in services, which expanded at a faster pace than in the previous year, reflecting the buoyant performance of an array of sectors, including tourism, aviation and remote gaming. Exports of goods grew at a much slower pace, though they too increased, following two consecutive annual declines. Imports of goods and services rose by 3.0% during the year; this was the first positive growth seen since 2012, entirely driven by imports of goods that, in turn, were influenced by heavy investment spending.

Overall, as imports rose faster than exports, net exports dampened real GDP growth by 0.6 percentage point.

Nominal GDP

In nominal terms, annual GDP growth rose to 8.8% in 2015 from 5.7% in the previous year (see Table 3.2). Quarterly data show the year-on-year percentage change reaching a high of 9.3% in the second quarter, before moderating to 8.6% in the last quarter of the year.

On the output side, GVA increased by 8.9% in 2015, after having risen by 4.8% in the previous year.[3] GVA contributed 7.7 percentage points to nominal GDP growth, while net taxation on products explains the remaining 1.1 percentage points.

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

	2011	2012	2013	2014	2015
Agriculture, forestry and fishing	0.0	0.0	0.0	0.1	0.1
Mining and quarrying; utilities	-0.9	-0.8	1.3	-0.2	0.5
Manufacturing	0.6	0.1	-1.0	0.0	0.0
Construction	0.2	-0.1	0.2	0.0	0.3
Services	3.3	5.7	4.9	4.3	6.9
of which:					
Wholesale and retail trade; repair of motor vehicles; transportation; accommodation and related activities	0.8	1.6	1.7	0.9	1.9
Information and communication	0.8	0.2	0.0	0.5	0.4
Financial and insurance activities	0.0	1.0	-0.1	-0.2	0.6
Real estate activities	0.4	0.0	0.1	0.1	0.5
Professional, scientific, administrative and related activities	0.5	1.2	1.0	1.1	1.8
Public administration and defence; education; health and related activities	0.8	1.0	1.1	1.3	1.2
Arts, entertainment; household repair and related services	0.1	0.8	1.2	0.5	0.5
Gross value added	**3.1**	**4.8**	**5.5**	**4.2**	**7.7**
Net taxation on products	**1.1**	**0.1**	**0.5**	**1.4**	**1.1**
Annual nominal GDP growth (%)	**4.2**	**4.9**	**6.0**	**5.7**	**8.8**

Source: NSO.

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

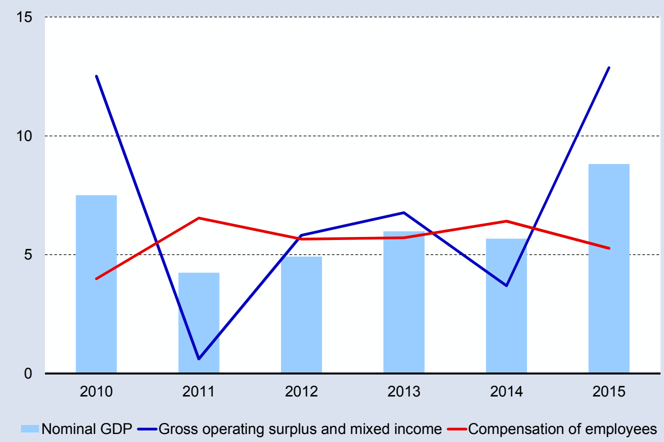
On an annual basis, services continued to drive the growth in GVA, pushing up nominal GDP by 6.9 percentage points. A strong contribution came from the sector incorporating wholesale and retail trade, transportation and accommodation activities. Similarly, GVA of professional and scientific activities – which include legal, accounting, consultancy and advertising services – also contributed significantly. Another large contribution came from public administration. These three broad sectors together accounted for more than half the increase in GVA during 2015.

The sector comprising mining and utilities contributed half a percentage point in 2015 after acting as a drag on nominal growth in the previous year, while construction contributed 0.3 percentage point after having had no impact in 2014. On the other hand, GVA in manufacturing decreased marginally.

Looking at the income approach, gross operating surplus and mixed income strongly increased during 2015, rising by 12.9% following a 3.7% growth in the previous year (see Chart 3.3). This resulted in a contribution of 5.6 percentage points to nominal GDP growth. In absolute terms, most sectors saw a rise in their gross operating surplus, partly as a result of the reduction in utility tariffs for commercial users during the year. Despite these tariff reductions, efficiency gains in the production of electricity and a drop in the price of oil contributed to the positive performance of the energy and other utilities sector. Other sectors seeing significant increases in gross operating surplus included transportation and storage, wholesale and retail trade, as well as professional, scientific and administrative activities.

On the other hand, compensation of employees grew at a more moderate pace in 2015, increasing by 5.3%, following a 6.4% rise in the previous year, contributing 2.3 percentage points to nominal GDP growth. In absolute terms, employee compensation in almost all major sectors rose. The strongest additions were recorded in public administration, health and education, together with professional, scientific and technical activities, and financial and insurance activities.

Chart 3.3
NOMINAL GDP AND ITS MAIN COMPONENTS
(annual percentage changes)



Source: NSO.

BOX 1: EVALUATING THE DIVERSIFICATION OF THE MALTESE ECONOMY[1]

The Maltese economy has evolved very rapidly in recent years and has had a much better performance than neighbouring economies. This has coincided with a large decline in the share of industrial activity and the emergence of a substantial number of new service operators. This article explores the policy question as to whether this development could be long lasting and attempts to assess whether the shift has made the Maltese economy less or more diversified, and to consider the potential main macroeconomic effects.

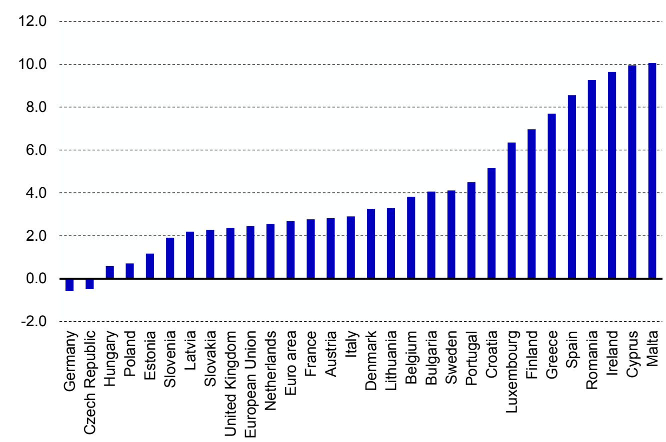
The shift to services in Malta

Malta has traditionally had a large services sector, as the presence of an established British naval base prior to 1979 necessitated several ancillary services and resulted in a very good infrastructure, particularly for transhipment and trade. Since 1980 the share of agriculture and industry in the Maltese economy has halved.[2] In contrast, the relative importance of services has surged to over 80%.

The shift towards a greater share of services in overall economic output was particularly sharp after EU accession. In the 25 years preceding EU accession, the relative share of services grew by 12 percentage points. However, nearly the same rise was experienced in just a decade after EU accession. In fact, whereas in 2004 Malta had the seventh highest share of services in its GVA among EU countries, by 2014 it had the third highest. The rise in the share of services between 2004 and 2014 was the highest across EU countries (see Chart 1).

Besides tourism, the services sector has expanded to include activities, such as specialised forms of tourism, namely language schools and dive centres, maritime activity, professional services, back-office administration, information technology, and gambling and betting. Consequently, the share of tourism workers out of total service employment has declined from 11.5% in the 1980s to around 8% in 2014, despite the fact that, in absolute numbers, employment in tourism rose by half during the last 30 years. Computer programming, professional services and administrative support accounted for a quarter of the increase in value added since EU accession. This is quite an achievement, given that in 2004 these sectors amounted to just 9% of value added. In ten years, the value added of computer programming rose to more than four times its initial value. Moreover, during the same time, the arts, entertainment and recreation

Chart 1
CHANGE IN RELATIVE SIZE OF SERVICES SECTOR: 2004−2014
(per cent of total gross value added in each economy)



Source: Authors' calculations using Eurostat data.

[1] Prepared by Dr Aaron G. Grech and Ms Sandra Zerafa. Dr Grech heads the Bank's Modelling and Research Department, while Ms Zerafa is a senior research economist within the same department. This Box summarises the main findings of Grech, A.G., "The diversification of the Maltese economy", *Policy Note*, Central Bank of Malta, September 2015. Any errors, as well as the views expressed in this note, are the authors' sole responsibility.

[2] See Grech, A. G., "The evolution of the Maltese economy since independence", *Working Paper* WP/05/2015, Central Bank of Malta.

sector, which includes gambling and betting, saw its share in value added increase from 2.1% to 9.5%.

The decline in the share of industry does not mean that, in absolute terms, its output fell. Industry's value added, in fact, rose between 2004 and 2014 by 11.5% in nominal terms. The transformation of the Maltese economy is the result of the appearance of a large swathe of new service operators rather than the disappearance of existing industrial operators.[3] There are some industrial sub-sectors, such as the manufacturing of pharmaceutical products, which have increased their economic share. Even agriculture and fisheries witnessed considerable growth in value added, up by 45%, despite having their share in the national economy halve in the last two decades. The decline in the relative employment share for industry is noticeably more pronounced than in its relative value added share, suggesting that, over time, firms in this sector have become more capital intensive and increased productivity. The intra-sectoral composition of activity also changed substantially. For instance, whereas in the 1980s those employed in the manufacture of clothing and footwear constituted 17% of all industrial workers, in 2014 their share had fallen to 4%.

Job-rich economic growth leading to a more diversified economy

Between 1995 and 2004, total GVA in the Maltese economy grew by €1.7 billion, or 69%. In the following decade, GVA expanded by €2.8 billion, or 66%. The trend in employment growth was quite different, with the expansion in the first period being just 3.1% (or 4,510 jobs) as against 26.0% (or 38,930 jobs) in the following decade.

In the decade before EU accession, the five sectors that contributed the largest absolute increase in GVA were construction, real estate, financial services, education and public administration. Together, they made up 39% of the increase in value added and almost the entire rise in employment. In the following decade, the five largest sectoral contributions came from financial services, computer programming, legal and accounting services, gambling and betting, and education. Together, they made up 46% of the growth in value added and around 43% of the rise in employment. Sectors which until 2004 were quite small, such as computer programming, and gambling and betting, saw their value added grow by five to six times by 2014, but increased their employment by less than 80%. Thus, for instance, the employment share in computer programming rose from 0.9% to 2.1% between 1995 and 2014, while its GVA share increased from 1.1% to 3.2%.

A number of indicators suggest that the Maltese economy has become more diversified over time and that the recent expansion of services has not led to an increase in the concentration of economic activity (see Table 1). Both the median share in value added and the standard deviation of the various shares have declined over these two decades. The size of the largest five sectors has gone from 43.2% of GVA in 1995 to 40.4% in 2014, primarily because the largest sector, wholesale and retail, has seen its share drop to 11.1%, down from 15.3% two decades earlier. The Herfindahl index – a standard measure used to study the concentration of activity – has declined since 1995.[4] Economic sectors in Malta also have a low and declining normalised Herfindahl index, implying that GVA is fairly equally distributed among them.[5]

The level of the Herfindahl index for Malta compares well with the situation observed across the euro area (EA). At 0.057, this index is only slightly higher than the 0.053 for the EA. More important, the trend of the diversification indicators for Malta is contrary to the trend observed using EA data. Across

[3] Grech, A.G. and Zerafa, S, "Structural changes in the Maltese economy", *Annual Report*, Central Bank of Malta, 2014.

[4] The Herfindahl index is calculated as the summation of the squared market shares. For instance, if there are three firms with equal share, the index gives a value of 0.33 ($0.33^2 + 0.33^2 + 0.33^2$), while if two of these firms each control 45% and the third just 10%, the index gives a value of 0.42. A higher value implies more concentration.

[5] While the Herfindahl index ranges from 1/(number of shares) to 1, the normalised index ranges from 0 to 1 and is used to study how equally distributed market shares are.

Table 1
DIVERSIFICATION MEASURES BASED ON VALUE ADDED BREAKDOWN BY 38 SECTORS

	1995	2004	2014
Standard deviation	0.030	0.029	0.029
Coefficient of variation	115%	109%	109%
Size of largest sector	15.3%	13.1%	11.1%
Size of largest 5 sectors	43.2%	41.2%	40.4%
Median share	1.5%	1.5%	1.4%
Herfindahl index	0.060	0.057	0.057
Normalised Herfindahl index	0.035	0.031	0.031

Source: Authors' estimates using Eurostat data.

the EA, the Herfindahl index has risen from 0.049 in 2000 to 0.053 in 2013, while the size of the largest five sectors has expanded from 38.7% to 39.9% over the same period.

If one were to use sectoral employment rather than value added, the diversification indicators also show reduced concentration and more convergence in the size of sectors. However, while the GVA-based indicators show a consistent rise in diversification over the two decades, the employment-based indicators suggest that, in the decade before EU accession, sectoral employment had become more concentrated. This possibly reflects the fact that during that period a number of sectors laid off workers during their restructuring process, and overall job growth was quite muted. In contrast, the following decade saw a reversal of this trend and resulted in a broader-based recovery in employment.

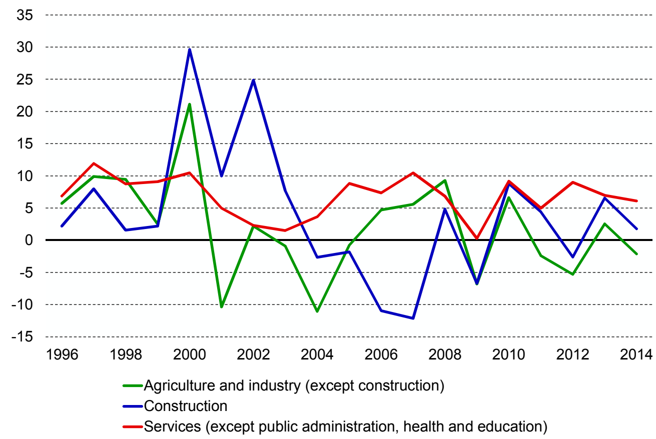
The main macroeconomic effects of greater diversification

The job-rich economic growth of the first decade post-EU accession was partly driven by the expansion of a number of labour-intensive service sectors. On the one hand, this reflected social changes, such as the ageing transition and the rising female labour participation rate. This meant that certain activities that had been previously conducted informally by housekeepers are now being serviced in the formal economy. Thus, whereas in 2004 there were about 3,300 workers in residential care services, by 2014 they had more than doubled to 6,700. This constituted a tenth of all employment growth, and was slightly higher than the increase observed in the gambling and betting sector. Another noticeable change during this decade, which has resulted in a spike in employment, was the rise in outsourcing. Over a tenth of the overall increase in employment between 2004 and 2014 occurred in security, office administration and support services. This could explain some of the decline in manufacturing and public service employment, as these sectors outsourced their activities, whereas in the past the tasks would have been carried out in-house. A significant part of the rise in employment in two main sectors, which include residential care services, and security, office administration and support services, went to migrants. These two sectors accounted for more than a fifth of the increase in the number of foreign workers observed during this decade.

The expansion of these labour-intensive service activities has played an important role in the apparent growth in unit labour costs observed in recent years, despite a relatively low rise in average compensation. At the same time, the high value added service sectors, such as legal and accounting, tend to be mostly reliant on human, rather than physical capital. This explains why the economy has continued to grow rapidly despite a decline in the investment ratio compared with the mid-1990s. These trends may complicate economic analysis. For example, it becomes harder to use unit labour costs to assess competitiveness, as the former are partly driven by these structural changes. It is also more difficult to determine potential output by focusing just on physical investment and employment, as the new sectors are able to generate more output using fewer resources.

Besides affecting the level of potential output, the diversification of the Maltese economy and the shift towards services could have significant implications on the extent of cyclical fluctuations. Chart 2 shows the year-on-year change in GVA in manufacturing, construction and services. Figures for the latter exclude public administration, health and education, as these activities tend to be relatively stable as they are mostly financed by Government. As can be seen, the emergence of the new service sectors has done little to affect the volatility of the change in the value added of the services sector. If anything, the standard deviation of services' value added changes has moderated since 2005. In contrast, manufacturing and construction continued to exhibit quite volatile changes in their value added. Over the whole period, the standard deviation of relative changes in industrial value added was more than three times higher than that exhibited by services. This suggests that the increased diversification of the Maltese economy has smoothened the economic cycle.

Chart 2
GROWTH IN VALUE ADDED BY BROAD ECONOMIC SECTOR
(per cent)



Source: Authors' calculations using Eurostat data.

Table 3.3
INDUSTRIAL PRODUCTION
Percentages; annual average percentage changes

	Shares	2013	2014	2015
Industrial production	**100.0**	**-4.7**	**-5.7**	**5.8**
Manufacturing	**83.3**	**-5.3**	**-6.5**	**6.4**
Of which:				
Computer, electronic and optical products	18.4	-10.6	-22.8	0.5
Basic pharmaceutical products and pharmaceutical preparations	10.4	-26.7	-30.5	35.3
Food products	8.1	10.6	7.4	8.5
Printing and reproduction of recorded media	5.9	-6.1	2.4	-2.7
Rubber and plastic products	4.4	3.1	-1.3	4.3
Beverages	3.9	-0.4	8.7	6.0
Energy	**16.3**	**-2.0**	**-1.6**	**3.6**
Mining and quarrying	**0.4**	**6.1**	**-22.0**	**-4.0**

Sources: NSO; Eurostat.

Industrial production[4]

Industrial production expanded by 5.8% in 2015, following a contraction of 5.7% in 2014 (see Table 3.3). The manufacturing sector, which accounts for 83.3% of total industrial output, registered a rise of 6.4%, after two consecutive years of decline. Similarly, after two years of contraction, output in the energy sector increased, but at a more moderate pace compared with the manufacturing sector.

The increase in manufacturing output in 2015 was mainly attributed to higher production by the pharmaceutical and food sub-sectors. Growth was greater in pharmaceuticals, in which production rose by 35.3% after having contracted in the previous two years. The increase in output in the food sub-sector was also more pronounced than in 2014. Moreover, output in the key sector including computer, electronic and optical products, which had fallen at double-digit rates in the previous two years, increased marginally. In contrast, production in the printing and reproduction of recorded media sector, which had increased in the previous year, contracted by 2.7% during 2015.

Data on manufacturing sales also point to a rise in turnover of 1.9% during 2015, following a contraction for two consecutive years.[5] This increase was driven by sales to both domestic and foreign markets.

Tourism

The positive performance observed in the tourism sector since 2010 persisted during 2015. When compared with a year earlier, tourist arrivals, nights stayed and expenditure all rose above the levels recorded in 2014.

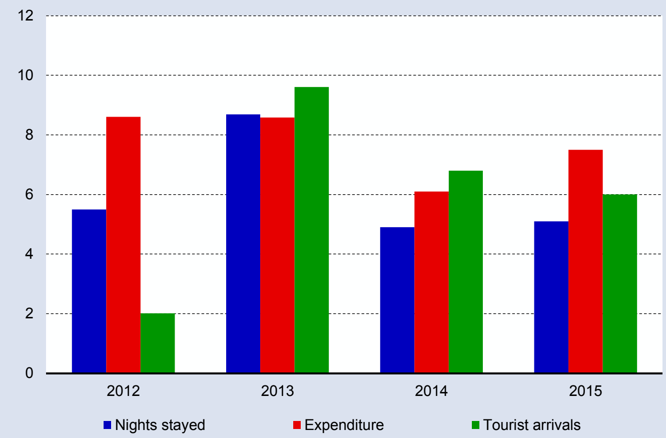
Tourist numbers increased by 6.0% to reach nearly 1.8 million visitors, following growth of 6.8% in 2014. Although the annual growth rate of tourist arrivals moderated somewhat, total expenditure by visitors and nights spent rose at a faster pace when compared with 2014 (see Chart 3.4).[6]

Malta's buoyant performance also compares positively with other competing markets. According to the World Tourism Barometer, arrivals in Mediterranean European countries during 2015 grew by 4.8%, while the global tourism industry recorded growth of 4.4% in 2015.[7]

[4] 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.
[5] Data on manufacturing sales are sourced from Eurostat.
[6] Figures are based on the National Statistics Office (NSO) survey of inbound tourists.
[7] See *World Tourism Barometer*, United Nations World Tourism Organisation, January 2016.

The number of non-package tourists in Malta exceeded for the first time one million visitors, climbing by 10.3% on a year earlier and accounted for most of the increase in arrivals during the year. Concomitantly, the number of tourists on package holidays went up by 1.0%. As in 2013 and 2014, around 70% of arrivals in 2015 were first-time visitors, whereas the remaining were repeat tourists.

Chart 3.4
TOURISM INDICATORS
(annual percentage changes)



Source: NSO.

The vast majority of travellers visited Malta for leisure purposes; this category also accounted for most of the expansion in the overall number of arrivals. The number of holidaymakers that visited Malta in 2015 rose by 83,802, or 5.8%, over the 2014 level. Meanwhile, an increase of 20,045, or 16.1%, was also recorded in the "other" category, primarily consisting of tourists visiting for educational, religious or health purposes. In contrast, foreigners coming to Malta for business and professional purposes totalled 127,938, a drop of 1.7% on the previous year.

With regard to tourist markets, the United Kingdom remained Malta's most important source market during 2015, accounting for 29.4% of total arrivals. Moreover, this segment propelled the largest increase, of nearly 40,000, in the number of tourist arrivals, thus gaining 7.9% over 2014. This can be partly attributed to a base effect resulting from the re-introduction of British Airways flights to Malta in April 2014, and to the depreciation in the euro vis-à-vis the pound sterling. Tourist arrivals from Italy, Malta's second largest source market, also increased substantially, up by 10.0% to 289,019 visitors, raising this country's market share to 16.1% from 15.5% in 2014. Arrivals from Spain and Scandinavia also went up markedly. The addition in Spanish tourists was partly driven by an extra route introduced by a low-cost carrier during the year. Improvements were also recorded from smaller source markets, mainly Belgian, Irish, Swiss and American, while the combined number of visitors from other countries also surged.

Table 3.4
TOURIST AND CRUISE PASSENGER ARRIVALS
Thousands

	2013	2014	2015
Inbound tourist [1]	**1,582.2**	**1,689.8**	**1,791.4**
United Kingdom	454.7	487.7	526.1
Italy	233.8	262.6	289.0
Germany	147.1	143.1	142.0
France	116.5	125.5	128.0
Scandinavia[2]	105.1	108.6	117.4
Spain	53.3	42.3	47.5
Netherlands	41.5	44.7	45.1
Russia	40.0	34.2	21.6
Libya	34.6	30.8	6.7
Others	355.6	410.3	468.0
Cruise passengers	**424.6**	**465.4**	**591.7**

(1) Includes departures by air and by sea. Cruise passengers are shown separately.
(2) Scandinavia includes Denmark, Finland, Norway and Sweden.
Source: NSO.

Conversely, notable declines were recorded from the Libyan and Russian markets (see Table 3.4). The drop reflected the closure of some scheduled routes from these countries. A small decline was also recorded in arrivals from Germany, Malta's third largest source market.

The sustained expansion in tourism activity is also confirmed by passenger movement data released by Malta International Airport. The volume of tourist traffic through Malta's airport exceeded 4.6 million, a rise of 7.7% over 2014. This was partly stimulated by an increase in aircraft movements, with the number of scheduled and non-scheduled flights up by over 2,000 on a year earlier. This reflected the introduction of new routes and additional flights to established destinations, which led to a 5.8% increase in seat capacity.

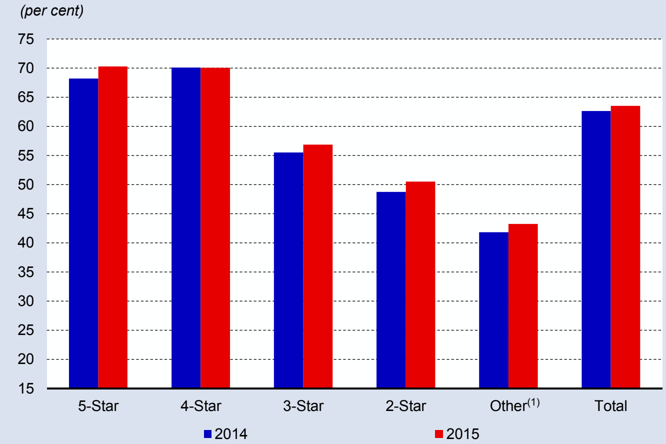
Total nights stayed by tourists during 2015 rose by 5.1% during the year under review, faster than the 4.9% recorded a year earlier. When compared with a year earlier, nights stayed in private accommodation went up by 15.8%. In contrast, although the number of tourists using collective accommodation increased, total nights spent in such establishments declined marginally on 2014.[8] The average length of stay declined in both segments, as arrivals outpaced overall nights spent in Malta. As a result, the average length of stay dipped slightly to 7.9 nights.

Concomitantly, favourable developments in tourist arrivals and nights stayed was accompanied by an increase in tourist expenditure, which went up by 7.5% in 2015, following a 6.1% increase in 2014 (see Chart 3.4).[9] Higher tourism spending was spread across all major categories of incoming tourists, in particular the non-package holiday category, which augmented by 13.4%. The latter was spurred by a rise of 16.0% on accommodation and a 10.8% increase on travel fares. At the same time, spending on package holidays increased by 4.9%, while the "other" component of tourist expenditure went up by 5.6%.

The buoyancy in the tourism sector is also corroborated by quarterly reviews conducted by the Malta Hotels and Restaurants Association. The surveys covering the first three quarters of 2015 indicate that occupancy rates and gross operating profits per available room went up markedly in all three main hotel categories.[10] The improvement in profitability in part mirrors the higher average daily room rates registered by all categories.

NSO data on occupancy rates for 2015 as a whole confirm these positive developments, as the total average occupancy rate in collective accommodation establishments climbed by 0.9 percentage point on 2014, to 63.5% (see Chart 3.5). During the full year, almost all accommodation categories recorded higher occupancy rates. At 70.3%, occupancy rates in five-star establishments increased by 2.1 percentage points on a year earlier, marginally exceeding occupancy rates in four-star hotels, which remained broadly stable on a year earlier. The overall improvement also partly reflected developments in three and two-star hotels. At 56.9% and

Chart 3.5
AVERAGE OCCUPANCY RATES
(per cent)



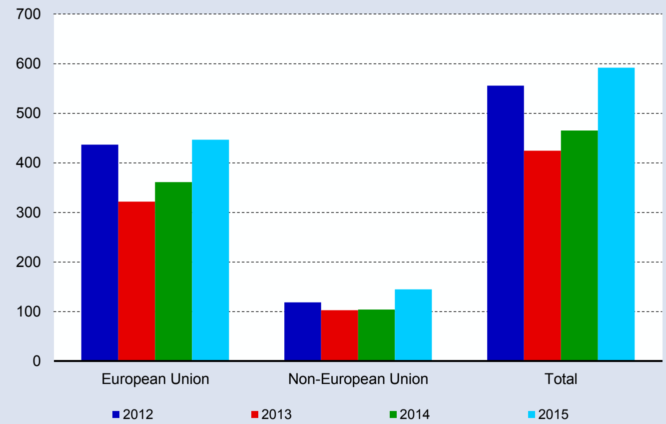
(1) Includes guesthouses, hostels and holiday complexes.
Source: NSO.

8 Collective accommodation includes hotels, aparthotels, guesthouses, hostels and tourist villages. Private accommodation comprises self-catering apartments, farmhouses and private residences.
9 Total expenditure is composed of package, non-package and "other". Non-package spending is subdivided into spending on accommodation and travel, while the "other" component captures any additional expenditure that tourists incur during their stay in Malta.
10 See BOV-MHRA surveys.

50.5%, occupancy rates in these categories were up by 1.4 and 1.8 percentage points, respectively, on their 2014 levels.

During 2015 the number of cruise liner calls reached 307, up by four from a year earlier. Partly as a result of an increase in harbour calls, the number of foreign passengers rose by 126,309, or 27.1%, when compared with 2014 (see Chart 3.6). The number of cruise passengers from the European Union expanded by 85,387, or 23.6%, whereas visitors from non-EU countries went up by 40,922, or 39.3%. The largest additions were recorded from the Italian, Spanish, German, and Australian markets.

Chart 3.6
CRUISE PASSENGERS
(thousands)



Source: NSO.

Construction

In the construction sector, the recovery that began in 2013 extended into 2015. This was reflected in increases in the number of permits issued for the construction of residential dwellings, as well as in the value added and investment generated by the sector. This expansion in activity, in turn, had positive effects on employment income.

The improved performance of the construction sector in 2015 was supported by measures aimed at streamlining the issue of permits. The low interest rate environment, the extension of fiscal incentives for first-time buyers and an inflow of foreign workers may have also spurred demand for dwellings. Participation in the Individual Investor Programme (IIP) may have also contributed. These factors also contributed to a pick-up in house prices (see Box 4).

With regard to the number of permits, the Malta Environment and Planning Authority issued 3,947 permits during 2015, over one-third more than in 2014. This followed growth of 8.6% in 2014, marking two consecutive years of growth following a period of decline (see Table 3.5). The increase in permits issued in 2015 was mostly driven by the largest residential category, namely apartments, which accounted for just over three-fourths of total permits granted.

The rise in permits was reflected in increased investment in dwellings. According to the national accounts, the construction component in GFCF rose by 1.1% in nominal terms during 2015, following a 19.3% surge in 2014. This deceleration mainly reflected a drop in non-residential construction, following a strong increase in 2014. In contrast, dwelling construction picked up strongly in 2015, with the annual growth rate rising from 0.6% in 2014 to 38.8%.

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

	2012	2013	2014	2015
Apartments	2,489	2,062	2,221	3,019
Maisonettes	298	350	414	471
Terraced houses	202	209	204	342
Other	75	84	98	115
Total	**3,064**	**2,705**	**2,937**	**3,947**

Source: Malta Environment and Planning Authority.

Table 3.6
CONSTRUCTION ACTIVITY INDICATORS[1]

	2013	2014	2015
Gross value added (EUR millions)	**292.9**	**295.5**	**322.1**
Share of gross value added in GDP (%)	3.8	3.7	3.7
Total employment[2]	**11,488**	**9,263**	**10,376**
of which private employment	8,807	8,962	9,250
Share in total gainfully occupied population (%)	7.3	5.7	6.1

(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.

The GVA of the construction industry also rose significantly, going up by 9.0% in nominal terms during 2015, following an increase of just 0.9% in 2014 (see Table 3.6). This reflected robust growth in the output of the construction sector, partly offset by higher intermediate consumption, which captures purchases of inputs for the industry.

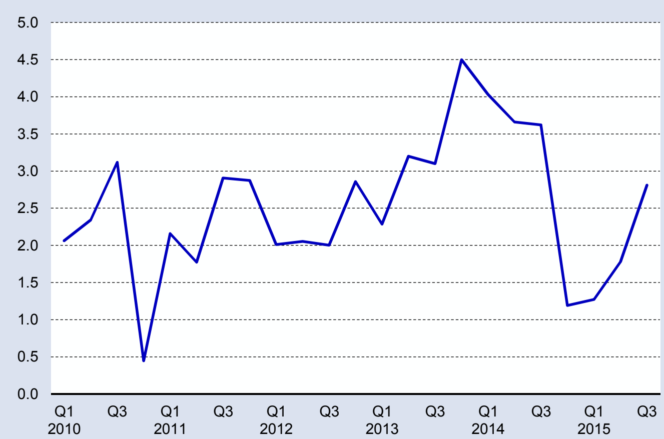
In turn, the expansion in output in the sector was mirrored in employment data. In the first nine months of 2015, total employment in the construction sector rose compared with the corresponding period average in 2014 (see Table 3.6). As a result, the industry's share in the total gainfully occupied population rose to 6.1% from 5.7% in 2014. In fact, employment within the private sector increased by 288 jobs, equivalent to a rise of 3.2%.

Employee compensation in the construction sector rose by 2.5% in 2015, when compared with growth of 1.1% in 2014. Notwithstanding this, the construction sector recorded improved profitability.

The labour market[11]

Labour market statistics for the first nine months of 2015 show that, against the backdrop of a buoyant economy, employment continued to rise and unemployment fell further. According to the Labour Force Survey (LFS), employment kept up its steady pace, the number of unemployed fell and the unemployment rate declined. Similarly, data based on administrative sources show that in December 2015 the number of registered unemployed fell on a year earlier.

Chart 3.7
EMPLOYMENT GROWTH BASED ON THE LABOUR FORCE SURVEY
(annual percentage changes)



Source: NSO.

Employment

The slowdown in employment growth seen in LFS data during 2014 reversed its trend during the first three quarters of 2015 (see Chart 3.7). In fact, employment growth reached 2.8% in the third

[11] This section draws mainly on labour market statistics from two sources: the LFS, which is a household survey conducted by the 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 Employment and Training Corporation (ETC) according to definitions established by domestic legislation on employment and social security benefits.

quarter of 2015, the highest gain in employment since the same quarter of the previous year. Nevertheless, on average during the first three quarters of 2015, employment expanded by 2.0%, as against 3.8% during the corresponding period of 2014. As a result, the average employment rate rose by 1.2 percentage points to 63.8%, reflecting increases in both male and female employment rates (see Table 3.7).[12]

The increase in the number of jobs was driven by full-time employment, which went up by 5,172 in absolute terms. On the other hand, the number of full-time employees with reduced hours and part-time employees fell by 575 and 1,033, respectively.

Between January and September 2015, the labour force expanded by 1.5% over its average level in the first nine months of 2014. With employment growing faster than the labour force, the number of unemployed declined.[13]

As the labour force expanded, the activity rate went up to 67.5%, adding 1.0 percentage point on a year earlier.[14] Both activity and employment rates reached the highest levels recorded since the survey inception, with rates being particularly elevated in the third quarter of 2015. The female activity rate posted the strongest gain, although male participation also rose. In fact, the female activity rate increased by 1.1 percentage points to 53.8%, while the male rate rose by 0.8 percentage point to 80.7%. Additions in both activity and employment rates partly reflect the introduction of active labour market measures, including the gradual tapering of social security benefits for single parents who find employment.

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

	2014 (revised) Jan.-Sep.	2015 Jan.-Sep.	Annual change %
Labour force	**193,066**	**196,021**	**1.5**
Employed	181,760	185,324	**2.0**
By type of employment:			
Full-time	151,089	156,261	3.4
Full-time with reduced hours	5,613	5,038	-10.2
Part-time	25,058	24,025	-4.1
Unemployed	11,306	10,697	-5.4
Activity rate (%)	**66.5**	**67.5**	
Male	79.9	80.7	
Female	52.7	53.8	
Employment rate (%)	**62.6**	**63.8**	
Male	74.8	76.1	
Female	49.9	51.0	
Unemployment rate (%)	**5.9**	**5.5**	
Male	6.1	5.7	
Female	5.5	5.2	

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

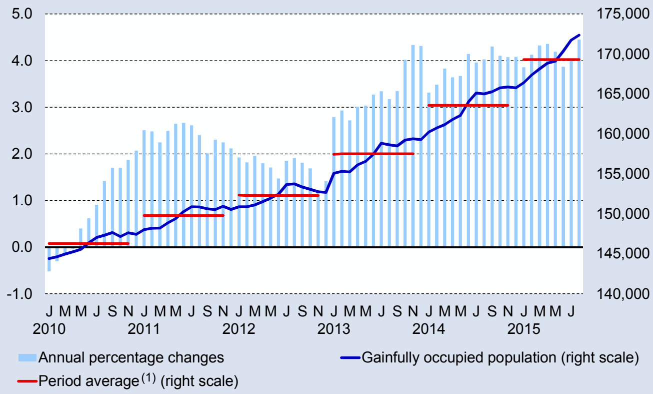
12 The employment rate measures the number of persons aged 15 - 64, employed on a full-time or part-time basis as a proportion of the working-age population, which is defined as all those aged 15 - 64 years.

13 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 ETC data includes only those persons registering for work under Part 1 and Part 2 of the unemployment register.

14 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.

The administrative records of the ETC also point to strong positive developments in the labour market. The gainfully occupied population, defined as all those in full-time employment, continued to increase, partly reflecting an influx of foreign workers. It reached the highest level on record (see Chart 3.8). Thus, on average, full-time employment rose by 4.2% in the first eight months of 2015, up from an average growth rate of 3.8% in the corresponding period of 2014. Employment went up in both private and public sectors but, as in previous years, the increase was more pronounced in the former (see Table 3.8). In absolute terms, jobs in the private sector rose by 6,350, or 5.3%, and by 395, or 0.9%, in the public sector.

Chart 3.8
GAINFULLY OCCUPIED POPULATION BASED ON ETC RECORDS
(annual percentage changes; persons)



(1) Period averages for 2010-2014 are based on averages for the whole year, while for 2015 the average is based on data for the first eight months of the year.
Source: NSO.

Table 3.8
LABOUR MARKET INDICATORS BASED ON ADMINISTRATIVE RECORDS(1)
Persons; annual percentage changes

	2014 Jan.- Aug.	2015 Jan.- Aug.	Annual change %
Labour supply	**169,773**	**174,850**	**3.0**
Registered unemployed(2)	**7,238**	**5,569**	**-23.1**
Gainfully occupied	**162,535**	**169,280**	**4.2**
Public sector	**43,711**	**44,106**	**0.9**
Private sector	**118,824**	**125,174**	**5.3**
Private direct production(3)	**31,851**	**32,290**	**1.4**
Manufacturing	20,367	20,462	0.5
Construction	8,957	9,251	3.3
Private market services	**86,973**	**92,884**	**6.8**
Wholesale and retail trade	23,728	24,330	2.5
Transportation and storage	6,360	7,442	17.0
Accommodation and food service activities	10,344	10,564	2.1
Information and communication	5,254	5,715	8.8
Financial and insurance activities	7,306	7,661	4.9
Real estate, professional and administrative activities(4)	18,421	20,269	10.0
Arts, entertainment and recreation	4,015	4,664	16.2
Education	4,678	4,734	1.2
Other	6,868	7,506	9.3
Part-time employees	**55,581**	**58,427**	**5.1**
Part-time as a primary job	33,174	34,694	4.6
Part-time holding a full-time job	22,407	23,733	5.9

(1) Figures are based on averages for the period.
(2) During 2015 as a whole the average number of registered unemployed dropped by 24.0%.
(3) This includes employment in agriculture, fishing, mining and quarrying, and electricity, gas and water supply.
(4) This includes employment in real estate activities, professional, scientific and technical activities, and administrative and support service activities.
Source: NSO.

The increase in full-time private sector employment was mostly propelled by market services, in which employment rose by 5,911, or 6.8%. Employment went up across all sectors within this category. The real estate, professional and administrative activities sector registered the largest increases, with jobs going up by 1,848, or 10.0%, almost one-third of the overall addition in private market services. In particular, firms offering security and investigation services, and legal and accounting services both added workers. The arts, entertainment and recreation sub-sector also generated a significant number of new jobs during the first eight months of the year. The robust rise in jobs in the transportation and storage sub-sector mainly reflects an employment shift related to land transport from the public to the private sector in January 2015.

In addition, during this period employment in direct production within the private sector grew by 1.4% on a year earlier. The construction sector accounted for most of the growth in jobs in direct production, though manufacturing employment also grew. The increase in the latter mainly reflected higher employment among firms producing computer, electronic and optical products, games and toys, as well as medical and dental instruments and supplies. These additions offset drops elsewhere, notably within firms producing rubber and plastic products.

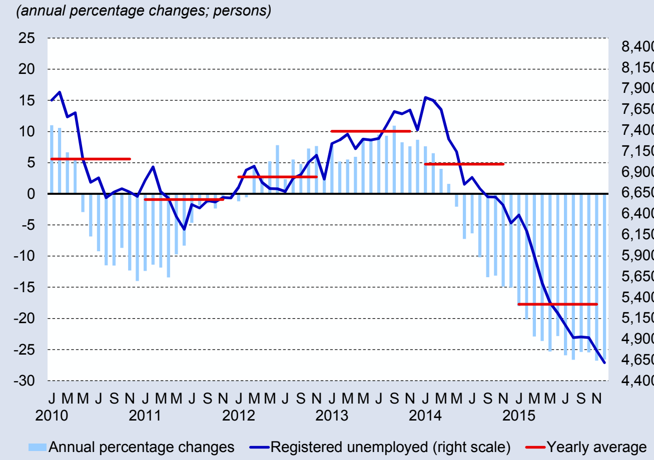
In the period under review, public sector jobs increased by 395 or 0.9%. Within this sector, employment in the health and education sub-sectors rose by 3.6% and 2.2%, respectively. Meanwhile, the observed increase in the employment activities sector reflects the reclassification of employees from the energy sector in 2015. On the other hand, the number of public sector employees in the transport sector fell, as employees of the national bus service, who had been temporarily transferred to public employment, returned to the private sector after the privatisation of the bus transport system in January 2015.

ETC data also show further growth in part-time employment, extending the upward trend seen in recent years. In the first eight months of 2015, jobs on a part-time basis rose by 2,846, or 5.1%, compared with a year earlier, with these new positions taken almost equally by men and women. The increase was somewhat more pronounced in those holding a part-time job as their only form of employment than in those having both a full-time and a part-time job. The number of part-time workers rose strongly in the wholesale and retail trade sector, in professional, scientific and technical activities sector, as well as in the health care sector.

Unemployment

In 2015 the number of unemployed based on ETC data fell by 1,676 persons, or almost one-fourth, over 2014 (see Chart 3.9). Apart from a growing demand for labour, the drop in the number of registered unemployed was also influenced by a range of measures, such as the Youth Guarantee Scheme, targeted at specific unemployed groups. Other measures, including the tapering of benefits, 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 groups, but the greatest decrease was among those aged between 30 and 44. Similarly, with respect to

Chart 3.9
REGISTERED UNEMPLOYED
(annual percentage changes; persons)



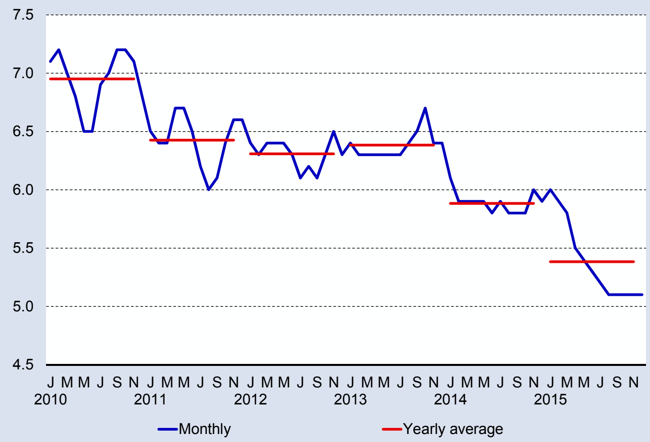
Source: NSO.

duration of registration, the drop in the number of registered unemployed was spread across all categories. Furthermore, those who had been registering for work for more than one year dropped significantly, particularly males.

LFS data for the first three quarters of 2015 also show a year-on-year drop in the number of unemployed. According to the survey, at 10,697 the number of jobseekers was on average around 600 less when compared with the first nine months of 2014. The unemployment rate averaged 5.5% between January and September 2015, 0.4 percentage point below the level in the same period a year earlier.

The seasonally adjusted unemployment rate published by Eurostat averaged 5.4% in 2015, significantly lower than the average of 5.9% recorded in 2014 (see Chart 3.10).[15] The unemployment rate started the year at a high of 6.0% in January, falling thereafter, reaching a low of 5.1% in August, and remained at this rate throughout the rest of the year.

Chart 3.10
UNEMPLOYMENT RATE
(seasonally adjusted; per cent)



Source: Eurostat.

[15] Based on Eurostat calculations.

BOX 2: ESTIMATING THE IMPACT OF STRUCTURAL REFORMS ON THE FEMALE PARTICIPATION RATE[1]

Introduction

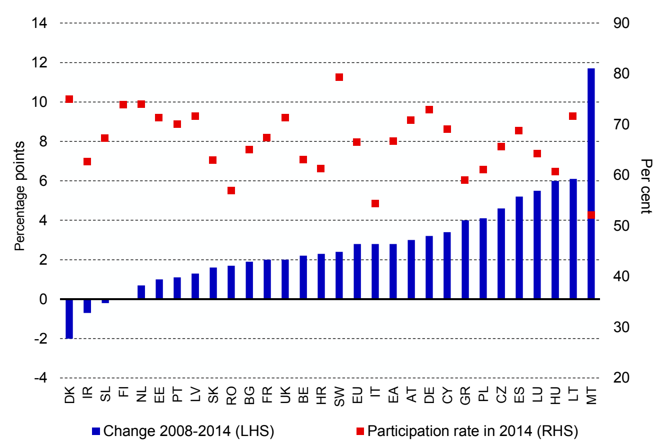
Structural reforms are policies that permanently and positively affect the supply side of the economy. These reforms increase the economy's potential output – the amount of output that can be sustainably produced without leading to distortions in factor markets – by raising the inputs to production, such as the supply or quality of labour or capital, or by ensuring that these inputs are used more efficiently. They also augment the resilience of an economy to adjust to shocks and facilitate the re-allocation of resources within and across sectors.[2]

In recent years the Maltese Government implemented a number of reforms to address the objectives of the Europe 2020 Strategy, including those targeted to raise the female participation rate in the labour market. These reforms have started to bear fruit. Between 2008 and 2014, the female participation rate in Malta increased by 11.7 percentage points, by far the highest increase registered among European Union (EU) countries (see Chart 1). Despite this improvement, however, the female participation rate, at 52.1% in 2014, still remains one of the lowest in the EU.

The increase in female employment was facilitated by a number of government initiatives undertaken to raise the participation rate of women in the labour market. Measures include back-to-work fiscal incentives, new income tax computations, an increase in maternity and adoption leave, tax credits for self-employed and exemptions from means-testing for income earned by women working part-time. Self-employed women working on a part-time basis, as in the case of employed persons, were given the opportunity to choose to pay a 15% tax rate on their income.

Childcare facilities were made more available and affordable. A number of public childcare centres were opened and their operational hours extended to 1600hrs to cater for working parents. After-school care services were also introduced in several schools to bridge the gap between day school and regular working hours of parents in employment. Other initiatives were undertaken to provide care for children before schools' official opening hours, to allow additional flexibility to working parents.

Chart 1
FEMALE PARTICIPATION RATE IN EU COUNTRIES
(percentage points; per cent)



Source: Eurostat.

In conjunction with the above initiatives, a number of measures were taken to further improve basic skill attainment and reduce the

[1] Prepared by Brian Micallef. The author is a Principal Research Economist in the Bank's Modelling and Research Department. This Box summarises the main findings of Micallef, B., "Estimating the impact on potential output of structural reforms to increase the female participation rate", *Policy Note*, Central Bank of Malta, November 2015. Any errors, as well as the views expressed in this note, are the author's sole responsibility.

[2] Draghi, M., "Structural reforms, inflation and monetary policy", *Speech* delivered to the ECB Forum on central banking, May 2015.

number of early school leavers to strengthen the employability prospects of people joining the labour market.

Against this background, this Box estimates the impact of structural reforms on the economy's supply potential through an increase in the female participation rate. First, the potential output of the Maltese economy is calculated using a production function approach, which decomposes potential output into the effects of labour, capital and total factor productivity. The impact of reforms is then calculated by adjusting the rise in the participation rate using two different approaches to account for the effects of an ageing population and compositional changes, both in terms of demographics and educational attainment.

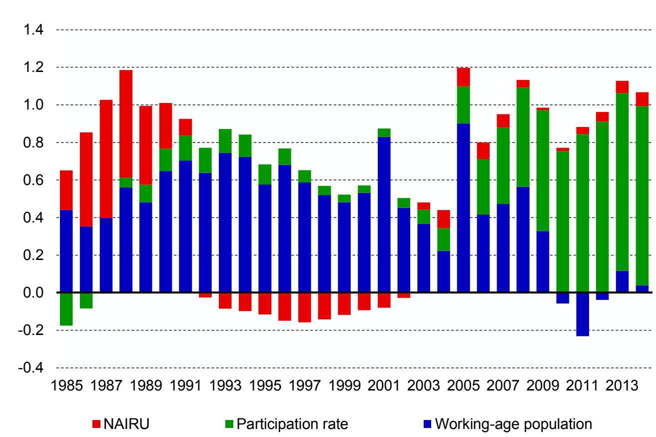
Estimating the supply side

The impact of changes in the participation rate on potential output is calculated using a production function to model the supply side of the Maltese economy. The production function relates output to the level of technology and factor inputs, namely labour and capital, by means of a constant-returns-to-scale Cobb-Douglas specification. The labour component is further decomposed into the effects of the working-age population, the trend participation rate and the structural unemployment rate.

The results point to substantial changes in potential output growth over the past three decades, with a trend decline in potential output in the 2000s compared with the growth rates registered in the 1980s and 1990s. The slowdown in the early 2000s is attributable to both demand and supply-side elements, with the cyclical upswing between 2005 and 2008 being interrupted by the Great Recession of 2009.[3] Contrary to the experience of other countries, however, potential output in Malta has recovered after the crisis and has even exceeded the pre-crisis peak, standing at 3.1% in 2014.

Chart 2 decomposes the contribution of labour to potential output growth. In the years before the recession, the increase in the working-age population was the main driver of the trend labour supply. Since 2009, however, the unfavourable effects of an ageing population started to weigh in, with a gradual decline in the contribution of the working-age population. These effects have been outweighed by the rising participation rate, mostly of females, which has contributed, on average, 0.8 percentage point per annum to potential output growth between 2008 and 2014. Although to a much lesser extent, developments in the non-accelerating inflation rate of unemployment (NAIRU) have also positively contributed to potential

Chart 2
THE CONTRIBUTION OF LABOUR SUPPLY
(percentage point contribution to potential output growth)



Source: Author's calculations.

3 Grech, A. G. and Micallef, B., "Assessing the supply side of the Maltese economy using a production function approach", *Quarterly Review* 2013:4, Central Bank of Malta.

output growth after the crisis, as the increase in the unemployment rate during the recession proved to be temporary and has since declined to near historical lows.[4]

Adjustments to the participation rate

While it is undeniable that government initiatives played an important role in raising the female participation rate in recent years, the overall increase masks the effects of factors unrelated to reforms. After all, in addition to government policy, the participation of women in the labour force is determined, to a large extent, by the level of female education, the overall labour market conditions and cultural attitudes. In the case of Malta, the decline in the working-age population and changes in the structure of the labour force could also have exerted an impact on the participation rate.

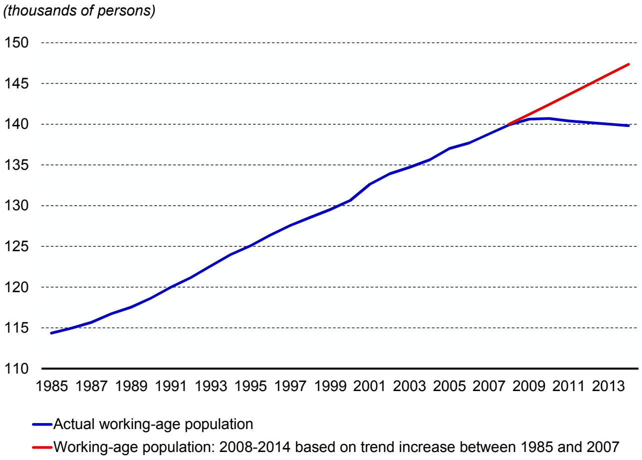
The impact of structural reforms is identified using two different approaches.[5] The first is based on an aggregate approach, in which adjustments are made to account for both the decline in the working-age population and the trend increase in the female labour supply. The second method is based on a cohort model of labour participation to focus on the importance of compositional changes in the female participation rate, both in terms of demographics and educational attainment.

Method 1: Aggregate approach

Apart from the reforms, there are at least two factors – the decline in the working-age population and changes in the structure of the labour force – that could have positively influenced the female participation rate in Malta in recent years. For instance, women finishing tertiary education will join the labour force irrespective of government incentives to attract more women back in employment.

Chart 3 shows that the impact of an ageing population kicked in around 2008-2009, with a sharp decline in the growth rate of the working-age population. An ageing population could create an upward bias on the impact of reforms on the participation rate. To adjust for this effect, Chart 3 considers an alternative, hypothetical scenario in which the working-age population is assumed to increase by 0.9% per annum between 2008 and 2014, its average growth over the period 1985-2007. According to this assumption, the working-age population of females would have increased to around 148,000 in 2014 instead of 139,800.

Chart 3
ACTUAL AND HYPOTHETICAL WORKING-AGE POPULATION
(thousands of persons)



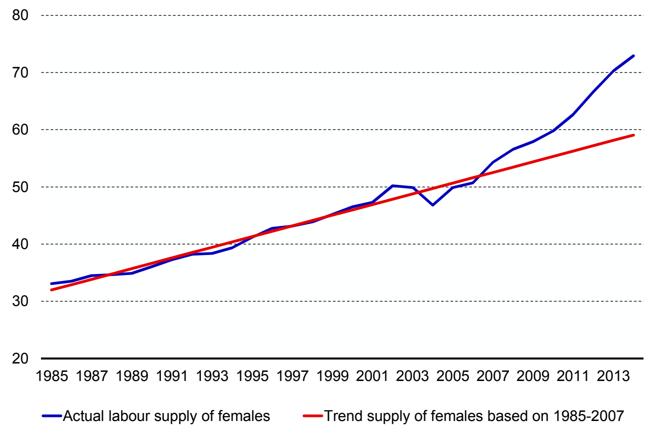
Sources: Labour Force Survey; author's calculations.

[4] Micallef, B., "Developments in Malta's structural unemployment rate", *Quarterly Review* 2014:2, Central Bank of Malta.

[5] A common approach to study the impact of reforms is to use the difference-in-differences (DID) estimator. This approach is used to identify the impact of policy changes when only part of the population is affected by the change in policy. The population is divided in two categories, the treatment group that is affected by policy and the control group, which remains unaffected. The key identifying assumption behind this approach is that trends for both the treatment and control groups would have been the same in the absence of a change in policy. An application of DID for Malta is particularly challenging. Identifying an appropriate control group is difficult as a number of initiatives targeted women in all age brackets, while the reforms were staggered over a number of years. An application using the DID estimator to calculate the impact of reforms on the female participation rate will be left for future research.

Turning to the labour supply, Chart 4 plots the labour supply of females, together with a fitted trend estimated over the period between 1985 and 2007, which is extended between 2008 and 2014. The latter is intended to simulate the trend increase in female labour supply that would have occurred irrespective of labour market reforms. The chart clearly shows that the increase in female labour supply since 2008 has by far outpaced the fitted trend line.

Chart 4
ACTUAL AND HYPOTHETICAL LABOUR SUPPLY OF FEMALES
(thousands of persons)



Sources: Labour Force Survey; author's calculations.

Adjusting for these two effects would lower the female participation rate by 3.3 percentage points in 2014, from 52.1% to 48.9%. This means that, according to this approach, out of the 11.7 percentage point increase in the female participation rate since 2008, around one-fourth could not be explained by the decline in the working-age population and the natural increases in the labour supply of females. Hence, it could potentially be attributable to labour market reforms.

Method 2: Cohort model of labour force participation

The second approach is based on a cohort model of labour force participation. This method decomposes the participation rate into the weighted sum of the participation rate of different demographic groups.

Over the past decade, there were changes in both the demographic composition of the female population and the participation rates by age bracket. During this period the population share in the 25-39 age category has remained broadly unchanged at around 25% of the population aged 15 and above. The shares of the other categories have declined with the exception of the older group, especially those above 65 years of age. The latter category has seen its share rising from 17% in 2000 to 22% in 2014.

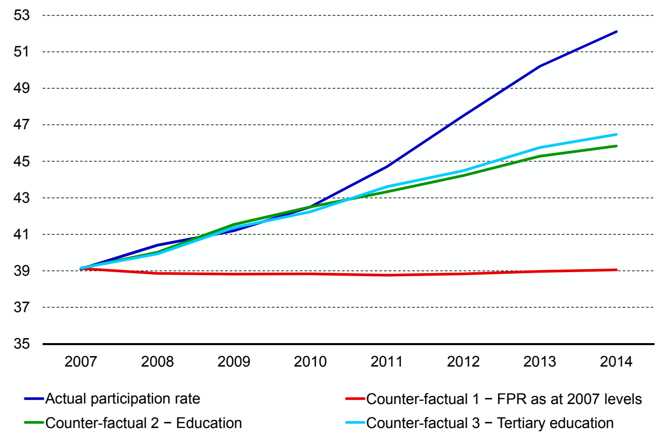
There were also notable changes in the participation rate of different age groups. Increases were registered in the participation rate of almost all age brackets, with the exception of teenagers and young adults. The participation rate of the latter group has been declining, a trend that is also observed in EU countries, as more young people opt to further pursue their studies.

To understand the importance of changes in labour force participation rates of different demographic and educational groups, Chart 5 presents three different counter-factual exercises.[6] In the first exercise, female participation is kept fixed at its 2007 level, while the demographic composition of the population is allowed to follow its actual path. The second exercise keeps the participation rate for the three different education categories unchanged at 2007 levels and allows the demographic composition by education level to follow its actual path. In the third exercise, the female participation rate for low and medium education is fixed at 2007 levels but the demographic composition by education and the participation rate of those with a tertiary level of education is allowed to follow its actual path.

[6] A similar exercise is presented in Kudlyak, M., "A cohort model of labour force participation", *Economic Quarterly*, Volume 99, Number 1, Federal Reserve of Richmond, First Quarter 2013.

The simulations point to different results. The hypothetical participation rate from the first exercise, which kept the participation rate fixed at 2007 levels, remained broadly unchanged, as the decline in some age brackets was offset by increases in the older category. The share in the largest age bracket, those between 25 and 39, remained broadly constant. In contrast, the other two simulations point to increases in the participation rate owing to a rise in the share of the population with a medium and high level of education, and to a corresponding drop of those with only a primary or lower secondary education. However, the latter two exercises are not enough to explain the increase in the female participation rate observed since 2008: the impact of a higher level of education raises the hypothetical participation rate to 46% - 47% by 2014, around 6 percentage points lower than the actual participation rate of 52.1%. Moreover, the gap between the actual and hypothetical participation rate started to increase from 2011, suggesting that, on their own, demographic and educational changes in the female population are not enough to explain the sharp increase in the female participation rate.

Chart 5
COUNTER-FACTUAL EXERCISES FROM COHORT MODELS
(per cent)



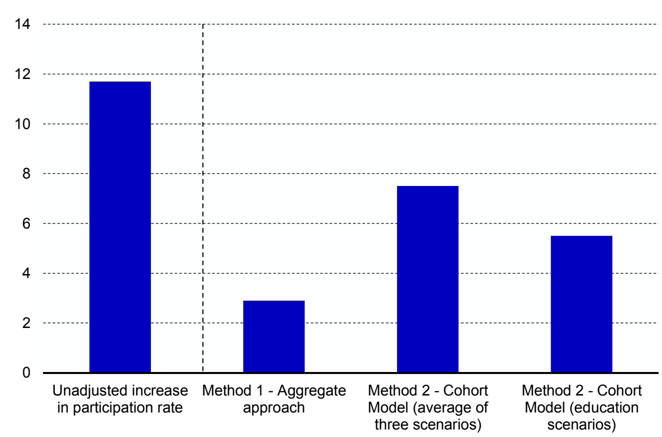
Source: Author's calculations.

The impact of reforms

The exercises in the previous section point to a positive impact of labour market reforms on the female participation rate in recent years. Calculating the precise impact of reforms, however, is challenging and surrounded by a degree of uncertainty since different methods provide different estimates. The fact that the reforms consist of various measures that were introduced gradually over a number of years further complicates this task.

Chart 6 compares the various approaches outlined in this Box with the unadjusted participation rate, which increased by 11.2 percentage points between 2008 and 2014. The first approach adjusts both the labour supply and the working-age population to account for the trend increase in the female participation rate in the labour market that is

Chart 6
IMPACT OF REFORMS ON FEMALE PARTICIPATION RATE
(percentage point difference between 2008 and 2014)

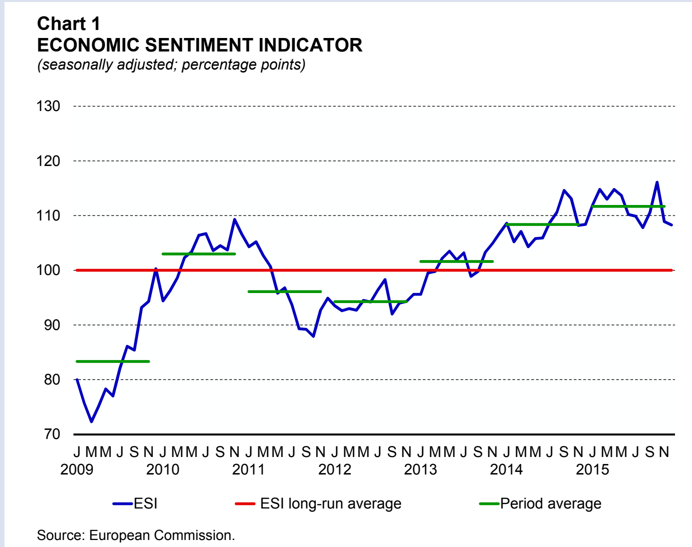


Source: Author's calculations.

unrelated to reforms and the ageing population. According to this approach, the increase in the participation rate owing to reforms amounted to around 3 percentage points since 2008. The second approach was based on a cohort model of the participation rate that accounted for changes in both the demographic composition and the education attainment of the female population. According to these models, the impact of reforms on the participation rate since 2008 stood between 5.5 and 7.5 percentage points.

Taking the median of the three approaches in Chart 6, slightly less than half of the 11.7 percentage point rise in the female participation rate between 2008 and 2014 is attributable to labour market reforms. According to the production function approach, the trend increase in participation rate contributed, on average, to 0.8 percentage point per annum to potential output growth between 2008 and 2014. The latter includes the effect of both males and females. During this period, females accounted for around 80% of the increase in the labour force. Combining all these effects, the impact of various labour market reforms to raise the female participation rate is calculated to have augmented the economy's potential output growth by 0.3 percentage point per annum over the past six years.

BOX 3: BUSINESS AND CONSUMER SURVEYS



During 2015 business and consumer sentiment generally continued to improve. The European Commission's Economic Sentiment Indicator (ESI) for Malta rose again, with all sub-components faring better. Firms operating in the services sector were, on average, more optimistic than a year earlier. Consumer confidence also increased, reaching an average of 0 in 2015. Sentiment also significantly improved and turned positive in the manufacturing, retail and construction industries. These developments led to a 4-percentage point increase in the average ESI reading to 112 in 2015. Hence, this remained above its long-term average of 100 throughout the year (see Chart 1).[1,2]

As Chart 1 shows, the ESI fluctuated during 2015, rising at the beginning of the year before declining steadily until August and recovering again in the subsequent two months. In the fourth quarter, falls in the services, consumer, retail and construction sentiment indicators outweighed a rise in the industrial confidence indicator, leading to a drop in the ESI. As a result, this indicator fell from 111 in September to end the year at 108.

Table 1 presents the annual average of the sentiment indicator for each sector of the economy and the change in absolute terms. All sectoral indicators improved. Similar to 2014, the construction sector recorded the largest gain, although it has a small weight in the overall index (see Table 1).

Table 1
SENTIMENT INDICATOR BY SECTOR
Annual average; absolute change

	2014	2015	Change
Industrial confidence indicator	-1	0	1
Services confidence indicator	25	26	1
Construction confidence indicator	-21	11	32
Consumer confidence indicator	-1	0	1
Retail trade confidence indicator	-6	17	23
Economic sentiment indicator	**108**	**112**	**4**

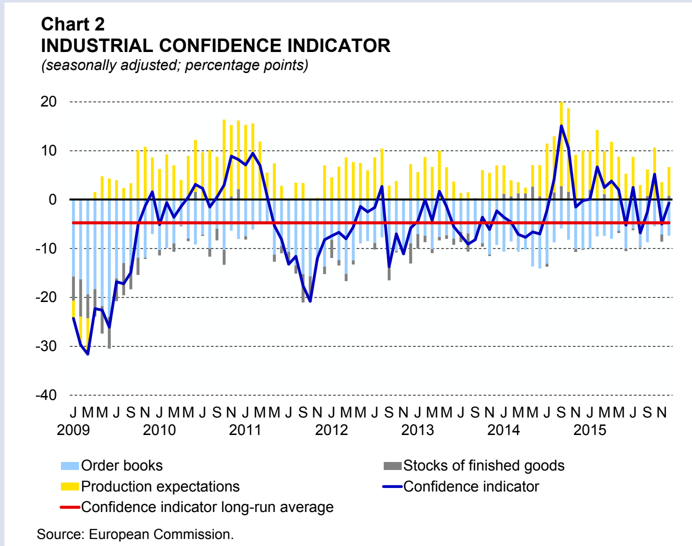
Source: European Commission.

1 The ESI summarises developments in confidence in the five surveyed sectors (industry, services, consumer, retail and construction).

2 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 service, construction and retail confidence indicator data became available in May of 2007, 2008 and 2011, respectively. The long-term average of the ESI is computed from November 2002.

Industrial confidence[3]

Sentiment among manufacturing firms improved moderately and turned positive during 2015, with the score averaging 0 from -1 in the previous year. This score stood above its long-term mean of -5.



Confidence among firms operating in manufacturing generally fluctuated in a narrow range around 0 for much of the year (see Chart 2). It picked up in the first few months of 2015, following weakened confidence in the last quarter of 2014. The sentiment indicator peaked at 7 in February, before declining to a low of -7 in August.

In particular, during the fourth quarter of 2015, confidence increased from -3 in September to -1 in December. All sub-components contributed to this rise in sentiment, but improved order book levels were the main positive factor.

Looking at the three sub-components of the industrial confidence indicator, order books improved, production expectations declined and changes in the level of stocks were small.

Although the majority of respondents continued to report weak order book levels, the assessment was somewhat less negative than a year earlier. Meanwhile, average production expectations remained positive on balance for 2015 at approximately the same level of the previous year, falling only marginally.

On average, during 2015 respondents reported slightly lower levels of stocks of finished goods when compared with 2014.[4] Overall, stocks were still assessed to be below, but very close to, normal levels. However, by the end of the year the assessment of stock levels fell marginally.

A breakdown of the main industrial sectors shows that, on average, compared with a year earlier confidence improved in 2015 among firms operating in the pharmaceutical, motor vehicle, and rubber and plastic sectors. These positive movements were mainly due to a more favourable assessment of order book levels and brighter demand prospects. On the other hand, confidence deteriorated among firms involved in food production, printing and reproduction of recorded media, and among manufacturers of fabricated metal products.

Supplementary data indicate that the share of respondents foreseeing a rise in employment was higher on average in 2015 than in 2014, and well above its long-term average. With regard to selling prices, similar to the previous year, on average, respondents anticipated a decrease. A large

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

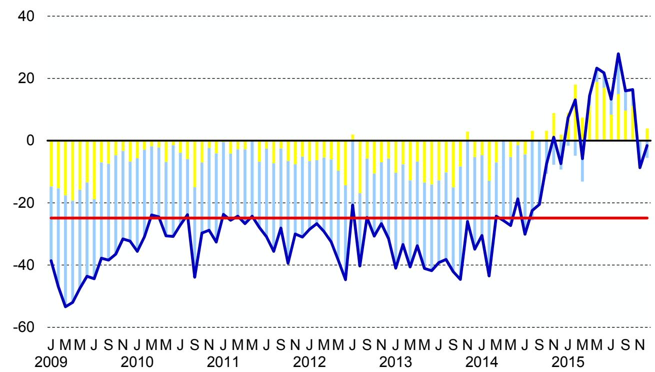
[4] A decline in stock levels indicates higher turnover and affects the overall indicator in a positive way. Such decreases are thus represented by bars above the 0 mark in Chart 2.

proportion indicated insufficient demand as the main factor inhibiting business activity.

Construction confidence[5]

Sentiment in the construction sector turned positive in 2015 on an annual average basis for the first time since the inception of the surveys. The confidence indicator averaged 11, up from -21 in the preceding year, and significantly exceeded its long-run average (see Chart 3). After having risen for most of the year, reaching an all-time high in August, the indicator turned negative in the last quarter, ending at -2 in December.

Chart 3
CONSTRUCTION CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



Source: European Commission.

Compared with the previous year, operators in this sector were on average more optimistic with regard to both employment prospects and order books. Both these sub-components turned positive for the first time since the surveys began. Regarding their labour complement, respondents continued to express positive expectations during the first ten months of 2015. Employment expectations turned marginally negative during November, but went back to positive territory in December.

With regard to order book levels, the majority of firms continued to consider them below normal during the first three months of the year. Order book levels became more than sufficient in April and remained positive until October 2015. However, respondents reported below normal order book levels in the final two months of the year.

Additional survey data suggest an amelioration in demand as the primary factor in building activity improvements. In addition, during 2015, on average, respondents reported anticipated higher selling prices for the first time since the inception of the survey.

Services confidence[6]

Within the services sector, confidence remained positive throughout the year (see Chart 4). The average confidence score marginally increased to 26 in 2015, as against 25 in 2014. The reading ended the year at its long-run average of 21.

Confidence levels increased during the first quarter of 2015, fell between April and July, rose again until October and then declined slightly during the last two months of the year. During the fourth quarter, the services sentiment indicator edged down to 21 in December from 22 in September. This was mainly driven by a fall in expected demand, which outweighed a more favourable assessment of the business situation and demand levels of the preceding three months.

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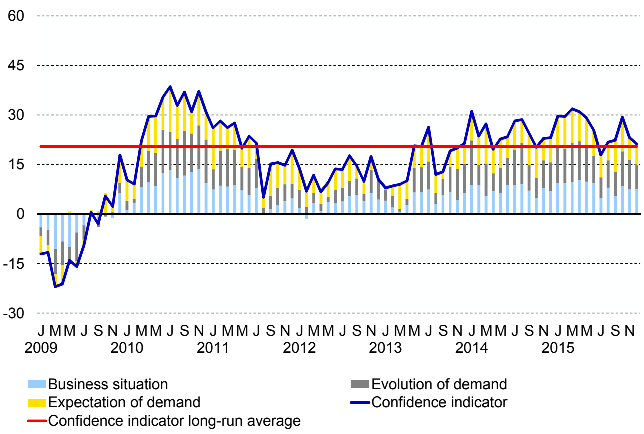
5 The construction confidence indicator is the arithmetic average of the seasonally adjusted balances (in percentage points) of replies to two survey questions, namely those relating to order books and employment expectations over the subsequent three months.

6 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.

The improvement in confidence was evident in two of the three components of the index, namely the business situation and the evolution of demand in the preceding three months. With regard to the third component, the share of respondents anticipating favourable demand in the near term remained as in the preceding year. By the end of the year, these sub-indicators stood above their respective long-term average.

Chart 4
SERVICES CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



Source: European Commission.

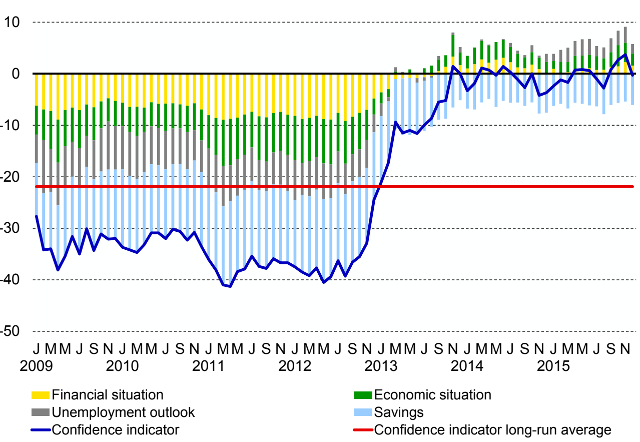
Supplementary data indicate that employment developments and expectations improved in 2015. Furthermore, on balance firms expected their selling prices to rise, whereas they had projected falling selling prices in 2014.

From a sectoral perspective, on average, during 2015 firms providing services related to employment activities, programming and broadcasting activities, and management and consulting activities reported a rise in confidence compared with 2014. Demand over the preceding three months was the main contributor to the increase in confidence for these three sectors. In contrast, confidence deteriorated among firms providing legal and accounting services, financial service activities and in the architectural and engineering sector. The fall in confidence in these sectors was mainly driven by trends of past and expected demand.

Consumer confidence[7]

The consumer confidence indicator fluctuated in a narrow range between positive and negative readings throughout 2015 (see Chart 5). In fact, over the year as a whole the index averaged at 0, marginally better than the previous year's average of -1. Amid month-on-month fluctuations, the consumer confidence indicator began to show some signs of optimism in the last quarter, rising to 4 in November, before

Chart 5
CONSUMER CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



Source: European Commission.

[7] 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.

falling back in the final month of the year. At 0 in December, however, it was still well above its long-term average of -22.

The rise in confidence in 2015 was mainly propelled by respondents' unemployment expectations over the subsequent 12 months, which fell significantly when compared with 2014. On average during the year, consumers' assessment of both the general economic situation and their savings expectations for the subsequent 12 months remained unchanged from 2014. Therefore, the savings sub-indicator was stable at -25, indicating that on balance respondents did not find it likely to save money in the subsequent 12 months. In contrast, although, on balance, consumers continued to expect their financial position to improve compared with 2014, the share of respondents expecting such an improvement declined.

Further survey information suggests that the share of consumers considering the timing appropriate to make major purchases, given the existing economic situation, increased compared with 2014. However, a larger share of respondents vis-à-vis 2014 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 compared with 2014. With regard to inflation expectations, during 2015 on balance a small proportion of respondents expected consumer prices to rise in the subsequent 12 months. In contrast, during the previous year, on balance a small majority of respondents had expected prices to fall.

Consumer prices

HICP[16]

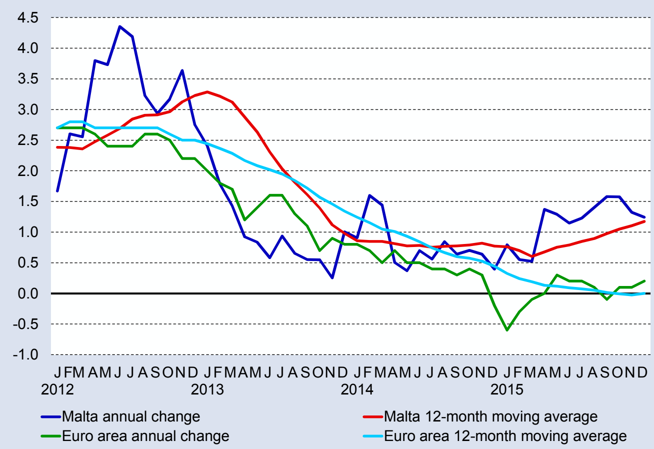
The average annual rate of inflation based on the Harmonised Index of Consumer Prices (HICP), which had eased to 0.8% in 2014, rose to 1.2% in 2015 (see Chart 3.11). The year-on-year inflation rate rose from the second quarter of the year onwards, primarily owing to higher contributions from unprocessed food and smaller negative contributions from the energy component. The latter reflected a statistical base effect as the sharp drop in electricity tariffs for households back in April 2014 dropped out of the year-on-year inflation measure. Inflation remained broadly stable for the rest of the year, fluctuating between 1.1% and 1.6%.

As Chart 3.11 shows, price pressures in Malta were rather muted compared with historical trends. However, annual HICP inflation remained above the corresponding euro area rate throughout 2015. Inflation in the euro area, on average, stood at nil in the year under the review. Consequently, the average inflation rate in Malta stood 1.2 percentage points above the euro area average over the year as a whole, in part reflecting the relatively faster pace of growth in the Maltese economy.

The acceleration in Malta's inflation rate between 2014 and 2015 was mainly attributable to developments in unprocessed food and, to a lesser effect, in energy prices (see Chart 3.12 and Table 3.9).

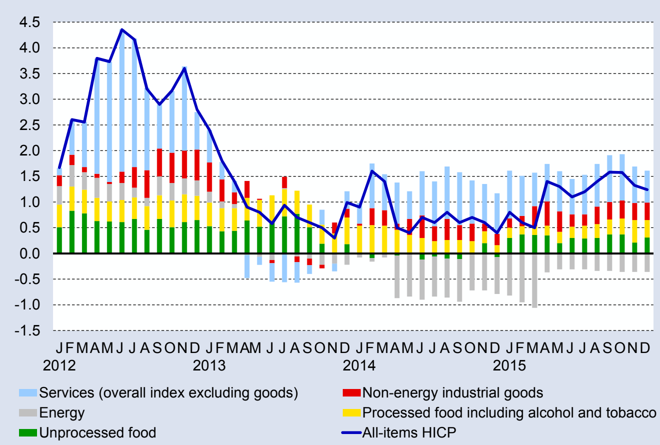
Food price inflation increased during the year under review, going to 2.9% from 1.5% a year earlier. This was mainly driven by a significant swing in the inflation rate for unprocessed food from -0.4% to 4.3% in 2015, largely on the back of a surge in vegetable prices and, to a lesser extent, prices of fish and seafood (see Chart 3.13). As a result, the contribution of unprocessed food prices to the overall inflation rate rose to 0.3 percentage point in 2015 from zero in the previous year.

Chart 3.11
HICP INFLATION RATES IN MALTA AND IN THE EURO AREA
(annual percentage changes; annual average percentage changes)



Sources: NSO; Eurostat.

Chart 3.12
CONTRIBUTIONS TO YEAR-ON-YEAR HICP INFLATION
(percentage points; annual percentage change)



Source: Eurostat.

[16] In January 2015 the HICP weights were revised to reflect changes in household consumption patterns. As a result, the weight for energy was reduced by 0.6 percentage point to 7.4%, while that allocated to services dropped by 0.3 percentage point to 7.4%. In contrast, the weight related to services increased by 1.0 percentage point to 43.4%, while that of processed food rose by 0.2 percentage point.

Table 3.9
CONTRIBUTIONS TO HICP INFLATION
Percentage points

	2012	2013	2014	2015
Unprocessed food	0.6	0.5	0.0	0.3
Processed food including alcohol and tobacco	0.5	0.5	0.3	0.3
Energy	0.3	-0.1	-0.6	-0.5
Non-energy industrial goods	0.3	0.1	0.3	0.3
Services (overall index excluding goods)	1.4	-0.1	0.8	0.7
HICP (annual average inflation rate)	**3.2**	**1.0**	**0.8**	**1.2**

Source: Eurostat.

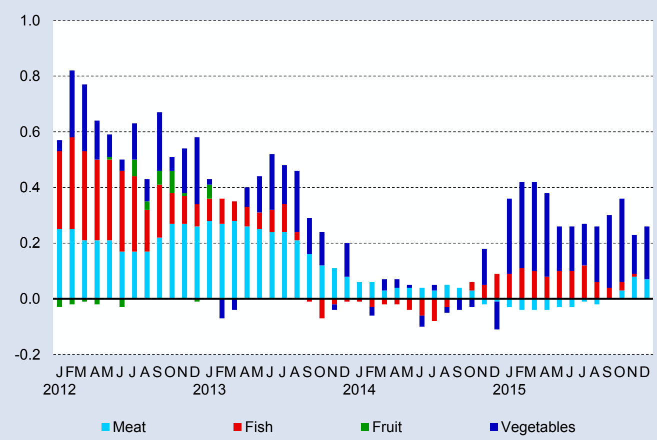
In addition, the average annual inflation rate of the energy sub-component rose to -6.5% in 2015 from -7.6% in the previous year. This pulled down overall HICP inflation by 0.5 percentage point in 2015, following a negative contribution of 0.6 percentage point in 2014.

On the other hand, processed food prices rose at a slower pace, increasing by an average of 2.0% in 2015, as against 2.7% in 2014.

Moreover, the inflation rate of the services index – which has the highest weight in the overall HICP index – remained stable, easing marginally from 1.8% in 2014 to 1.7% in the year under review. Thus, its contribution to overall inflation also edged down from 0.8 to 0.7 percentage point (see Table 3.9). This reflected offsetting price movements in the sub-components. A smaller positive impact from recreational and personal services, reinforced by a moderate fall in communication service prices, offset higher contributions from housing and transport services (see Chart 3.14).

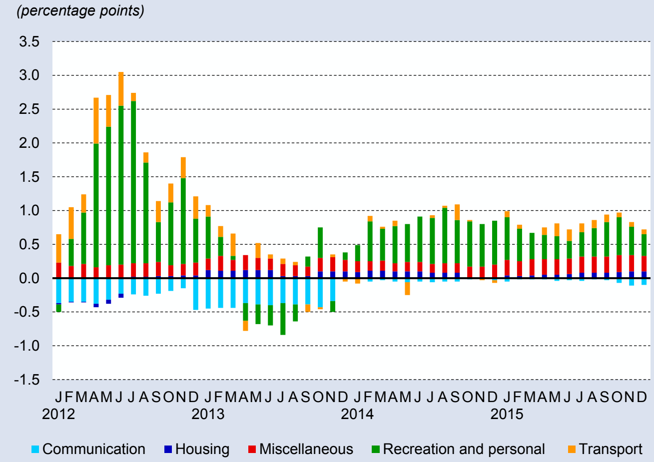
A minor increase in the inflation rate of non-energy industrial goods (NEIG) was also registered during the year under review. On average, NEIG prices rose by 1.1% in 2015, up by 0.2 percentage point from the previous year. Therefore, the NEIG's contribution to headline HICP inflation remained unchanged at 0.3 percentage point over 2015.

Chart 3.13
CONTRIBUTIONS TO HICP INFLATION FROM UNPROCESSED FOOD
(percentage points; annual percentage change)



Source: Eurostat.

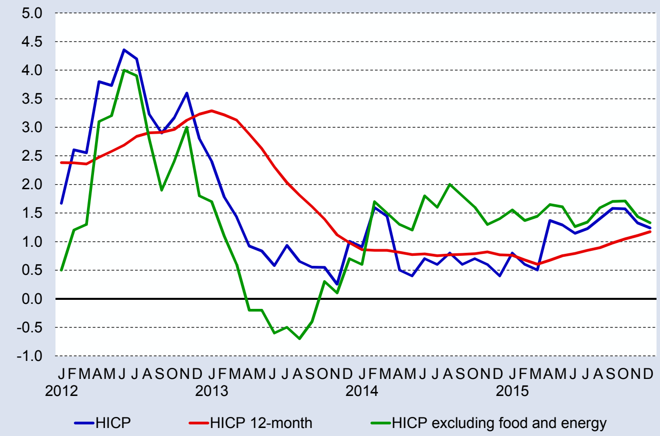
Chart 3.14
CONTRIBUTIONS FROM SERVICES TO HICP INFLATION
(percentage points)



Source: Eurostat.

To better gauge underlying inflationary pressures in the economy, central banks often rely on inflation measurements that exclude the more volatile components of the price index. A widely used measure in this regard is the change in the HICP excluding energy and food. This measure of inflation in Malta was broadly stable during 2015, and persistently above the overall HICP figure since February 2014, with the difference largely stemming from movements in energy prices. In 2015 the average annual rate of change in HICP excluding energy and food stood at 1.5% in 2015, unchanged on a year earlier (see Chart 3.15).

Chart 3.15
HICP IN MALTA: OVERALL AND EXCLUSION MEASURE
(annual percentage changes; annual average percentage change)

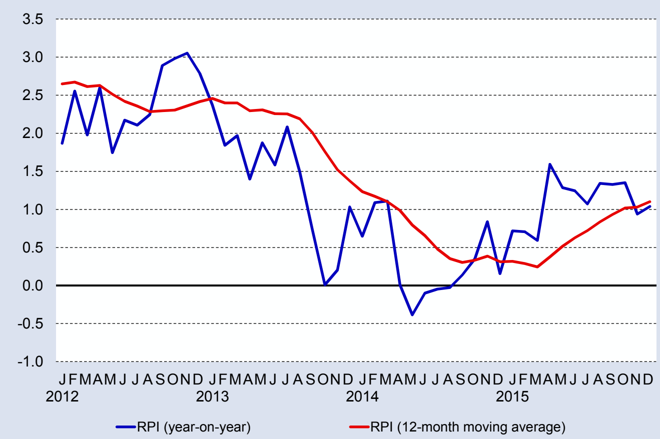


Sources: Central Bank of Malta estimates; NSO.

RPI [17]

The moderate increase in consumer prices in Malta was also captured by the Retail Price Index (RPI). The 12-month moving average inflation rate based on the RPI rose to 1.1% in 2015 from 0.3% in the previous year (see Chart 3.16).

Chart 3.16
RPI INFLATION
(annual percentage changes; annual average percentage change)



Sources: Central Bank of Malta estimates; NSO.

As with the HICP, the acceleration in RPI inflation between 2014 and 2015 was mainly due to developments in food prices and to smaller negative contributions from energy (see Table 3.10).

On average, food prices rose by 3.0% in 2015 compared with 0.5% in the previous year, mostly reflecting higher vegetable prices. The food component, which accounts for over one-fifth of the overall RPI basket, thus contributed 0.6 percentage point to total inflation, more than half the average annual rate during 2015 (see Table 3.9). Additionally, energy prices contracted by 5.7% as opposed to a drop of 13.9% in 2014. Although in the latter part of 2015 lower gas prices contributed negatively, this was not enough to offset the statistical base effect following the reduction in electricity tariffs in April 2014. As a result, although remaining negative, the contribution of energy prices to the overall inflation rate eased from -0.5 percentage point to -0.1 percentage point.

Furthermore, other components saw an acceleration in their respective inflation rates during 2015. Clothing and footwear prices rose by 1.8% as opposed to 0.9% in 2014. Housing costs also rose, with the average annual inflation rate rising to 0.8% from 0.5% in the previous year. Prices charged for personal care and health services also gained momentum, with average annual rate inflation climbing to 1.3% in 2015 from

[17] Different patterns in inflation as measured by the HICP and the RPI reflect differences in the way the two indices are compiled. For instance, whereas RPI weights are based on expenditure by Maltese households, HICP weights also reflect expenditure by tourists in Malta. Thus, for example, while the RPI excludes hotel accommodation prices, the latter account for a significant weight in the HICP. The RPI also allocates a larger weight to the food component.

Table 3.10
CONTRIBUTIONS TO RPI INFLATION (1)
Percentage points

	Weights	2012	2013	2014	2015
Food	21.23	1.0	1.0	0.1	0.6
Beverages and tobacco	6.09	0.3	0.3	0.3	0.3
Clothing and footwear	7.41	-0.1	0.0	0.1	0.1
Housing	7.61	0.0	0.1	0.0	0.1
Water, electricity, gas and fuels	3.36	0.0	0.0	-0.5	-0.1
Household equipment and house maintenance costs	6.59	0.1	0.1	0.1	0.1
Transport and communications	22.76	0.5	-0.5	-0.1	-0.6
Personal care and health	8.57	0.1	0.2	0.1	0.1
Recreation and culture	9.28	0.1	0.2	0.3	0.3
Other goods and services	7.10	0.3	0.0	0.0	0.1
RPI (annual average inflation rate)	**100.00**	**2.4**	**1.4**	**0.3**	**1.1**

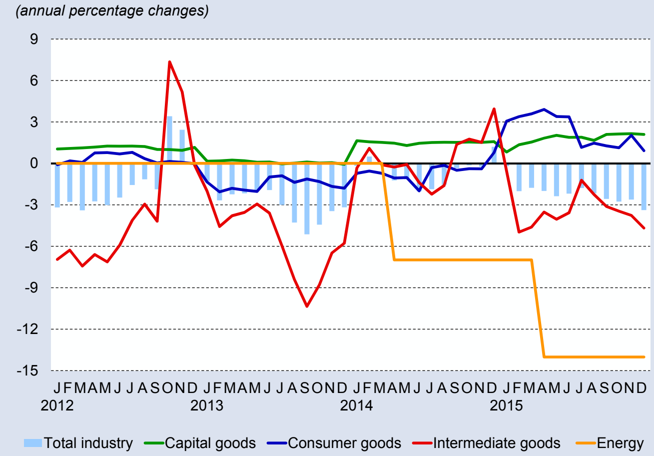
(1) Totals may not add up due to rounding.
Source: NSO.

1.1%. Other goods and service prices also accelerated, rising by 2.2% in 2015 from 0.5% in 2014. As a result, the combined contribution of these categories to overall RPI inflation rose from 0.5 to 0.7 percentage point.

In contrast, the transport and communication sub-index fell by 1.5% in 2015, following a 0.5% drop a year earlier, mostly reflecting lower fuel prices. As a result, the contribution of this component to the overall increase in the RPI fell to -0.3 percentage point from -0.1 percentage point a year earlier.

Moreover, inflation on beverages and tobacco moderated from 4.4% in 2014 to 3.5% in the year under review, while recreation and culture services price inflation eased to 2.5% in 2015, from 2.9% a year earlier. However, their contribution to overall RPI inflation remained broadly unchanged between 2014 and 2015.

Chart 3.17
INDUSTRIAL PRODUCER PRICE INFLATION
(annual percentage changes)



Source: NSO.

Costs and competitiveness

Producer prices[18]

Producer prices, as measured by the industrial Producer Price Index (PPI), extended their downward trend throughout 2015. As Chart 3.17 shows, there was an overall decline in producer prices, which

[18] The Industrial PPI measures the prices of goods at the factory gate and is commonly used to monitor inflationary pressures at the production stage. It monitors the ex-works sale prices of leading products as reported by a sample of 77 large enterprises accounting for over 80% of total industrial turnover. The index covers three areas of economic activity: mining and quarrying, manufacturing and the supply of electricity, gas and water. Products are divided into five main groupings: intermediate goods, capital goods, consumer durables, non-durable consumer goods and energy. In turn, producer prices are divided between export and domestic markets for each of the groupings, with the bulk of the weight given to the export index. Producer price inflation in Malta has been more volatile than consumer price inflation in recent years, reflecting relatively sharp fluctuations in producer prices in the energy and intermediate goods sectors.

contracted at a faster pace than in the previous year. In fact, the 12-month moving average rate stood at -2.2% in 2015 compared with -0.6% in 2014.

The stronger decline in producer prices during 2015 largely reflected movements in the prices of intermediate goods, which include semiconductors, pharmaceutical, paper and plastic products, and account for almost half of the overall index. Intermediate goods prices contracted by an average of 3.3% throughout 2015, after having grown by 0.3% during the previous year. As a result, their contribution to overall producer price inflation turned negative, moving to -1.6 percentage points, from 0.1 percentage point in 2014.

Furthermore, following the reduction in electricity tariffs for commercial users that came into effect in April, energy producer prices fell again in 2015, dropping by 12.3% following a decline of 5.2% in the previous year. As a result, this component's contribution to average annual producer price inflation was more negative, falling from -0.7 percentage point in 2014 to -1.6 percentage points in the year under review.

On the other hand, consumer goods prices measured at the factory gate rose by 2.4% on average during 2015. This pulled up overall PPI inflation by 0.7 percentage point, compared with a contribution of -0.2 percentage point in 2014. Meanwhile, capital goods prices contributed 0.2 percentage point on an average annual basis, as in the previous year.

Labour costs

In the context of a dynamic labour market, there are signs of an acceleration in wage growth, following subdued growth in the previous year. National accounts data show that overall compensation per employee grew by 1.5% in nominal terms, following an increase of 0.9% in2014.[19] Similarly, according to the LFS, over the first three quarters of 2015 the average annual salary per employee went up by 2.7%, following a rise of 1.4% over the same period of 2014.

In contrast, growth in negotiated wages appears to have marginally slowed down. Central Bank of Malta estimates of wage inflation based on collective agreements show that negotiated wage growth on average slightly moderated to 3.3% in 2015 from 3.4% in 2014 (see Table 3.11). Private sector wage growth edged down to 3.2% whereas the public sector growth rate fell by 0.2 percentage point to 3.5%. Around one-quarter of all employees are covered by collective agreements, with coverage being more prevalent in the public sector.

External competitiveness

Two measures of Malta's competitiveness in overseas markets are the harmonised competitiveness indicator (HCI) and relative unit labour costs (ULC).

Table 3.11
ESTIMATED CHANGE IN AVERAGE NEGOTIATED WAGES [1]
Annual percentage changes

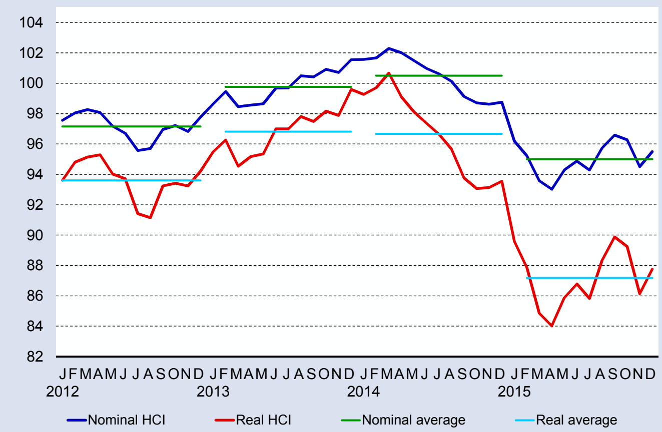
	2012	2013	2014	2015
Private sector	2.8	3.1	3.3	3.2
Public sector	2.9	3.6	3.7	3.5
Overall	2.8	3.3	3.4	3.3

[1] The average wage is computed as a weighted mean of the minimum average wage and the maximum average wage.
Sources: Central Bank of Malta; Department for Employment and Industrial Relations; Ministry for Finance.

19 Compensation per employee is the total remuneration, in cash or in kind, that is payable by employers to employees, i.e. gross wages and salaries, as well as bonuses, overtime payments and employers' social security contributions, divided by the total number of employees.

The trend reduction in competitiveness in evidence from late 2012 to early 2014, as measured by the nominal and real HCI indices, was more than reversed during 2015. Both indices extended their steep downward path until April 2015.[20] The resumption of increases in the HCIs − and the corresponding decline in competitiveness − in the latter part of the year was not enough to offset the sharp gains in competitiveness experienced in the early part of 2015. In fact, by the end of the year the nominal HCI index was 3.3% lower than its end-2014 level, while the real index was 6.2% lower (see Chart 3.18).

Chart 3.18
HARMONISED COMPETITIVENESS INDICATORS
(May 2004 = 100)



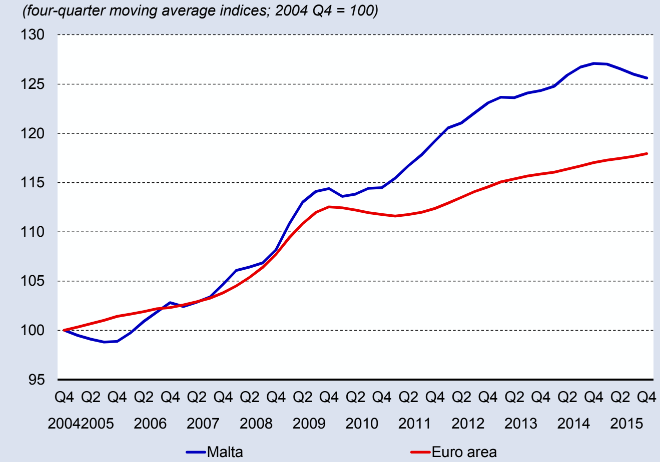
Source: ECB.

The decline in the nominal HCI between January and April 2015, implying competitiveness gains, mainly reflected the generally persistent weakening of the euro against most world currencies, in the wake of the ECB's expanded asset purchase programme. From the second quarter of 2015 onwards, the decline in the nominal index halted and slowly began to rise. This was largely due to moderation in the euro's depreciation against other currencies towards the latter part of the year.

The real HCI takes into account relative consumer price changes along with exchange rate movements. The larger drop in the real HCI during 2015 indicates an increasingly favourable gap between Malta's inflation and inflation in the country's main trading partners. The difference between the nominal and the real HCI resulted from lower local inflation rates compared with rates of trading partners, notably those outside the euro area.

In 2015 Malta's ULC index decreased by 1.2%, following an increase of 2.2% in 2014 (see Chart 3.19). This was the first annual decrease in ULCs since 2005.[21]

Chart 3.19
UNIT LABOUR COSTS IN MALTA AND IN THE EURO AREA
(four-quarter moving average indices; 2004 Q4 = 100)



Sources: ECB; Central Bank of Malta estimates.

[20] A higher (or lower) score in the HCI indicates a deterioration (or improvement) in a country's international competitiveness. The nominal HCI tracks movements in the country's exchange rate against the currencies of its main trading partners, while the real HCI incorporates both exchange rate changes and the relative inflation of a country vis-à-vis its main trading partners. In the computation of the indicators, exchange rate and price changes are weighted according to the direction of trade in manufactured goods only. Therefore, the HCI should only be considered as a partial measure of Malta's international competitiveness. Changes in the HCI should be interpreted with caution.

[21] ULCs measure the average cost of labour per unit of output and are calculated as the ratio of compensation per employee to labour productivity per person employed. A degree of caution is required in the interpretation of ULCs in Malta in view of contemporaneous structural shifts in the composition and factor intensity of production. 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.

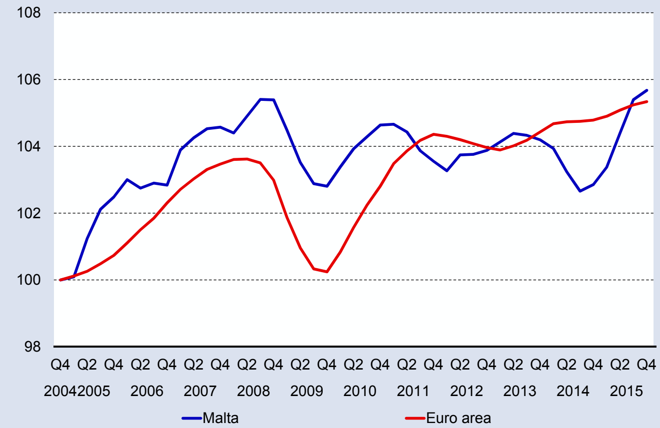
The decrease between 2014 and 2015 was a result of growth in labour productivity, which rose by 2.7% during the year under review as GDP outpaced employment. This was a marked improvement from the 1.3% drop in productivity seen in 2014 and exceeded the productivity gains registered in the euro area as a whole.

The downward pressure on ULCs caused by the recovery in productivity, however, was slightly dampened by faster growth in compensation per employee. This picked up slightly in 2015, rising by 1.5% following a 0.9% increase in the previous year (see Charts 3.20 and 3.21).

On a four-quarter moving average basis, growth of ULCs turned negative in the second half of the year, as productivity significantly outpaced compensation in both the third and fourth quarters. In more detail, the annual growth rate of productivity picked up to around 4% in the second and third quarters of 2015, before moderating to 1.1% in the last quarter. Annual growth in compensation per employee averaged 2.1% in the first three quarters of the year, before falling to -0.2% in the final quarter.

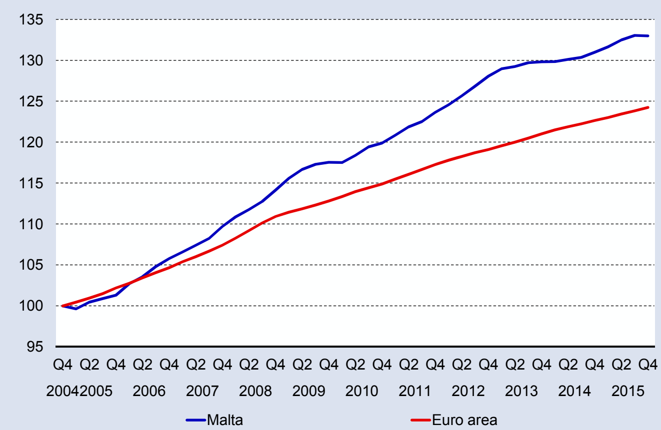
In the euro area, ULC growth remained positive but moderated to 0.8% from 1.0% in 2014. This marginal deceleration was the result of slightly stronger gains in productivity. In 2015 the latter rose by 0.5% from 0.3% a year earlier. Meanwhile, compensation per employee increased at an unchanged rate of 1.3%.

Chart 3.20
PRODUCTIVITY IN MALTA AND THE EURO AREA
(four-quarter moving average indices; 2004 Q4 = 100)



Sources: ECB; Central Bank of Malta estimates.

Chart 3.21
COMPENSATION PER EMPLOYEE IN MALTA AND THE EURO AREA
(four-quarter moving average indices; 2004 Q4 = 100)



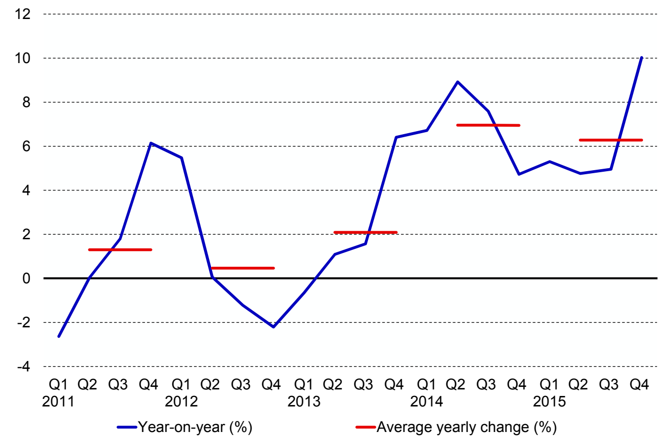
Sources: ECB; Central Bank of Malta estimates.

BOX 4: RESIDENTIAL PROPERTY PRICES[1]

The residential property market continues to be propelled by strong economic growth and an environment of low interest rates. Higher demand is also prompted by fiscal incentives for first-time buyers and the IIP.

The Bank's index of advertised residential property prices increased at an average rate of 6.3% in 2015, somewhat down from the 7.0% growth registered in 2014 (see Chart 1).[2] This follows a period of declining or moderately increasing prices between 2007 and 2013.

Chart 1
MOVEMENTS IN RESIDENTIAL PROPERTY PRICES BASED ON ADVERTISED PRICES



Source: Central Bank of Malta.

Robust growth in advertised property prices was evident throughout 2015, with year-on-year growth averaging 5% during the first three quarters before peaking at 10% in the fourth quarter.

The property price index compiled by the NSO also shows an increase in prices. However, this index, which is based on actual transactions covering apartments, maisonettes and terraced houses, shows a more moderate rise of 3.9% during the first three quarters of 2015. Variation between the two measures can reflect methodological differences, lagged effects and a heightened tendency to boost asking prices in an upswing. Moreover, the advertised property price index is more likely to capture high-value properties.

Advertised price increases of apartments, the largest component of the index, and of maisonettes were the main drivers behind growth in 2015. The other two components, namely terraced houses and "other properties", also contributed positively to price growth despite contracting at the start of the year.[3] Prices for terraced houses, in particular, recovered as the year progressed and were the main driver behind the strong year-on-year growth rate in advertised property prices during the fourth quarter.

1 This Box takes into account information available up to 8 March 2016.

2 The Central Bank of Malta's residential property price index tracks movements in residential property prices compiled from newspaper advertisements sampled each month.

3 "Other properties" consist of houses of character, villas and townhouses.

BOX 5: ECONOMIC PROJECTIONS FOR 2016 AND 2017

Outlook for the Maltese economy[1]

Following three years of strong expansion, the Bank's latest macroeconomic projections point to continued robust growth in real GDP in 2016 and 2017. However, growth is expected to decelerate from 6.3% in 2015 to 5.3% in 2016 and 4.2% in 2017 (see Table 1).

Table 1
PROJECTIONS FOR THE MAIN MACROECONOMIC AGGREGATES FOR MALTA(1)

	2014	2015	2016(2)	2017(2)
Real economic activity (percentage change)				
GDP	3.7	6.3	5.3	4.2
Private consumption expenditure	2.4	4.9	4.4	3.6
Government consumption expenditure	7.2	4.8	5.0	6.3
Gross fixed capital formation	7.3	21.4	6.9	0.6
Exports of goods and services	0.1	2.4	2.9	3.2
Imports of goods and services	-0.2	3.0	2.7	2.6
Contribution to real GDP growth (in percentage points)				
Final domestic demand	4.0	7.5	4.7	3.2
Net exports	0.4	-0.6	0.5	1.0
Changes in inventories	-0.6	-0.5	0.0	0.0
Real disposable household income (percentage change)(3)	4.4	3.6	3.5	3.2
Household saving ratio(3)	12.7	11.6	10.8	10.4
Balance of payments (per cent of GDP)				
Goods and services balance	7.7	6.9	7.4	8.1
Current account balance	3.4	9.9	8.6	8.9
Labour market (percentage change)				
Total employment	5.1	3.5	3.7	3.3
Unemployment rate (per cent of labour force)(4)	5.6	5.2	5.1	5.2
Prices and costs (percentage change)				
GDP deflator	1.9	2.3	2.1	2.0
RPI	0.3	1.1	0.8	1.6
Overall HICP	0.8	1.2	1.2	1.8
HICP excluding energy	1.5	1.8	1.5	1.8
Compensation per employee	0.9	1.5	1.7	2.4
ULC	2.2	-1.2	0.2	1.5
Public finances (per cent of GDP)(4)				
General government balance	-2.1	-1.6	-1.1	-0.9
General government debt	67.1	63.6	61.0	58.6
Technical assumptions				
EUR/USD exchange rate	1.33	1.11	1.11	1.12
Oil price (USD per barrel)	98.9	52.5	34.9	41.2

(1) Data on GDP were sourced from NSO *News Release* 041/2016 published on 8 March 2016. Data on the current account balance were sourced from NSO *News Release* 047/2016.

(2) Central Bank of Malta projections.

(3) Data for 2014 and 2015 are Central Bank of Malta estimates.

(4) Data for 2015 are Central Bank of Malta estimates.

[1] The Bank's outlook for the Maltese economy is based on information available up to 11 March 2016 and is conditional on the technical assumptions shown in Table 1, which are sourced from the European Central Bank. These projections were prepared by the Central Bank of Malta and do not represent the views of the Eurosystem.

Compared with the Bank's previous projections, GDP growth has been revised up by 1.8 percentage points in 2016 and by 1.0 point in 2017.[2] These revisions are motivated by stronger than expected growth in 2015, when GDP grew by 6.3%, significantly faster than the 4.1% growth projected in the previous exercise.

Domestic demand

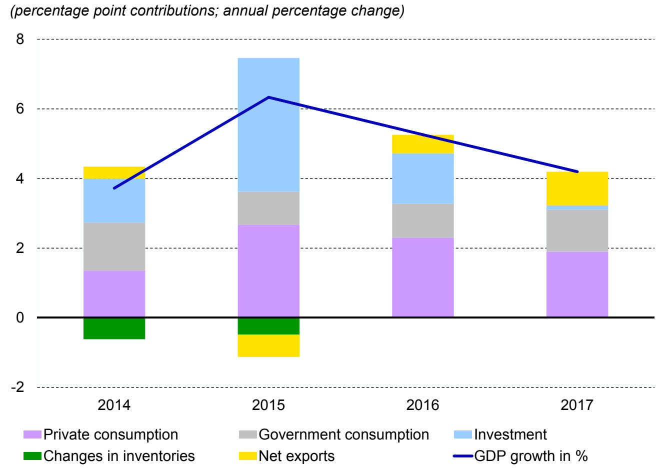
The Bank expects domestic demand to remain the primary driver of economic growth in 2016 and 2017. Moreover, the contribution of net exports is forecast to turn positive in 2016 and to increase in the following year. However, the contribution of net exports to growth will remain smaller when compared with that of domestic demand (see Chart 1).

Private consumption is expected to maintain a strong positive contribution towards economic growth during the projection horizon, supported by continued but moderating growth in real disposable income. Following an increase of 4.9% in 2015, private consumption growth is expected to moderate to 4.4% in 2016 and 3.6% in 2017. In turn, this mirrors developments in real disposable income, which is expected to decelerate slightly from 3.6% in 2015 to 3.5% and 3.2% during the projection horizon as inflation picks up. With private consumption expected to outpace real disposable income, the saving ratio is envisaged to decline.

Following a rise of 4.8% in 2015, real government consumption is expected to pick up in 2016 and grow by 5.0%. Growth in government consumption is projected to accelerate further to 6.3% in 2017. The profile of government consumption depends heavily on the inflows related to the IIP. These inflows, which are netted against consumption expenditure, rose significantly in 2015. They are expected to increase at a slower pace in 2016 and to decline in 2017. This reduces their negative impact on growth in real government consumption over the forecast horizon, pushing up the headline growth rate. This factor outweighs a slowdown in underlying government consumption over the forecast period. Employment growth and wages in the government sector are projected to remain strong but to decelerate throughout the projection horizon. Intermediate consumption, which increased sharply in 2015, is projected to moderate, as Government is expected to pursue a degree of expenditure restraint.

After having expanded strongly in 2015, investment is expected to slow down sharply. It is forecast to grow by 6.9% and 0.6% in 2016 and 2017, respectively, following an increase of 21.4% in 2015. This mirrors expected developments in both private and government investment. While the former is envisaged to slow down in both 2016 and 2017, government investment is expected to contract in 2016 and recover in 2017.

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



Sources: NSO; Central Bank of Malta calculations.

[2] See *Quarterly Review* 2015:3, Central Bank of Malta, pp. 86-91.

Private investment is estimated to have grown by 20.5% in 2015, and is forecast to grow by 11.8% in 2016 and 0.3% in 2017. This profile is heavily influenced by expected movements in investment in machinery, which in turn mirrors the investment in the new gas power plant and the conversion of the existing oil-fired power plant to gas. The bulk of the spending on machinery related to the power plant is assessed to have taken place in 2015 and, hence, investment outlays on machinery are foreseen to decelerate sharply in 2016. Moreover, as work on the new gas power plant finishes this year, investment in machinery is forecast to drop in 2017.

Following a strong rebound in 2015, growth in dwelling investment is expected to moderate in 2016 and decelerate further to around 7% in 2017. The growth foreseen over the projection period follows a protracted period of decline in dwelling investment. Indeed, investment in dwellings is set to continue to benefit from the Eurosystem's accommodative monetary policy stance, fiscal incentives targeting first-time buyers and interest from non-residents in the context of the IIP.

On the other hand, non-residential construction is set to accelerate markedly in 2016 and 2017, following a strong contraction in 2015. The projected strong pick-up in 2016 and 2017 mirrors the start of new projects related to education, health and tourism, and buoyant economic growth that is expected throughout the projection horizon. Other investment, such as investment in software, is projected to rebound this year following a contraction in 2015, and grow less rapidly in 2017.

After two years of very strong growth, government investment is set to contract in 2016, as the take-up of funds under the EU 2014-2020 Financing Framework is projected to be low. It is then expected to rise by 1.9% in 2017, as projects partly financed under this Framework get under way.

Net exports

Following a rise of 2.4% in 2015, export growth is set to accelerate further in 2016 and 2017, to 2.9% and 3.2%, respectively. The acceleration in 2016 is expected to be primarily driven by foreign sales of goods. In turn, this stems from a recovery foreseen in the semiconductor industry and the assumption that fuel re-exports would stabilise following the decline seen in 2015. On the other hand, growth in service exports is expected to be broadly unchanged in 2016 as a result of offsetting movements across various components. In 2017 export growth is forecast to gain momentum in line with an expected recovery in foreign demand.

Largely mirroring the outlays on the gas power station and the consequent deceleration in investment growth in 2016 and 2017, imports are projected to grow less rapidly than in 2015. Import growth is expected to slow down from 3.0% in 2015, to 2.7% and 2.6% in the subsequent two years. Moreover, efficiency gains owing to new energy projects are expected to continue dampening imports of fuel for domestic use.

On balance, net exports are foreseen to contribute positively to GDP growth during the projection horizon, as the completion of major projects leads to more moderate import growth and exports respond to a recovery in foreign demand.

The balance of payments

As a result of these developments, the surplus on external trade in goods and services is expected to widen from 6.9% of GDP in 2015 to 7.4% in 2016 and further to 8.1% of GDP in 2017.[3]

In contrast, the current account surplus is expected to decline in 2016, as the net balance on the primary income account, which turned positive in 2015, is expected to revert to a negative position,

[3] Data on the trade balance in this Box are consistent with NSO *News Release* 041/2016 and with projections for real exports and imports reported in Table 1. These may differ from the balance of payments data published in NSO *News Release* 047/2016.

reflecting historical patterns. Meanwhile, net inflows on the secondary account, which also increased strongly in 2015, are set to decline slightly as a share of GDP, partly reflecting lower utilisation of EU funds. In 2017, however, the current account surplus is expected to widen, mirroring developments in the trade balance.

The labour market

Following a 5.1% increase in 2014, employment went up by 3.5% in 2015. In 2016 employment growth is expected to pick up slightly to 3.7%, before it decelerates to 3.3% in 2017. Although employment growth in the general government sector is set to moderate over the forecast horizon, in the private sector it is set to accelerate slightly in 2016. The profile of private sector employment is influenced by the Bank's view that, in the context of a buoyant services sector, part-time employment should begin to recover from the decline reported in 2015. As a result, overall headcount numbers are set to slightly accelerate in 2016. In 2017 private sector employment growth is set to decelerate on the back of slower growth in activity.

The unemployment rate is estimated to have reached a low of 5.2% in 2015 and to remain around this level in the subsequent two years.[4] The forecast takes into account LFS data up to the third quarter and a continued drop in the number of registered unemployed in the last quarter of 2015.

Notwithstanding the still robust employment growth in 2015, growth in overall compensation per employee was relatively subdued. This is attributed to a steady supply of foreign workers, as well as subdued cost pressures in Malta's main trading partners, which may have limited the scope of faster wage increases in the private sector. These factors are expected to continue restraining wage growth. At the same time, following a period of negative or very subdued growth, the real wage in the private sector is expected to recover over the forecast horizon, particularly in the context of a continued quick pace of economic activity and the significant recovery in productivity in 2015. Reflecting this view and the expectation of a pick-up in inflation, nominal compensation per employee is set to accelerate from 1.5% in 2015 to 2.4% by 2017.

With regard to unit labour costs (ULC), these declined by 1.2% in 2015, following a sequence of increases. The decrease in 2015 arose as productivity growth, at 2.7%, significantly outpaced growth of 1.5% in compensation per employee. In 2016 and 2017 ULCs are set to return to an increasing path, as growth in compensation per employee accelerates while productivity growth moderates.

Fiscal developments

The Bank estimates that the general government deficit-to-GDP ratio fell from 2.1% of GDP in 2014 to 1.6% in 2015. The narrower deficit partly reflects increased intakes under the IIP. At the same time, favourable economic conditions and indirect tax measures are estimated to have led to robust growth in underlying tax revenue, offsetting the impact of reduced income tax rates for households. Revenue is estimated to have grown at a faster rate than expenditure.

The deficit ratio is set to narrow further in 2016 and 2017 to 1.1% and 0.9%, respectively.

The decline in 2016 largely reflects the expectation that capital transfers to the national airline cease as the airline returns to profitability. Inflows under the IIP, moreover, are set to increase, while Government is expected to exercise an element of restraint in relation to wages and, particularly, intermediate consumption. These factors, along with additional indirect taxes announced in the Budget 2016

[4] In the Bank's projection exercise, the unemployment rate is computed as the ratio of the number of unemployed (reported in the LFS) to a measure of the labour force based on LFS and national accounts data. For this reason, references to the unemployment rate in this Box may differ from those mentioned elsewhere in this *Report*.

are expected to offset a widening of the tax-free income bracket and increases in certain categories of pensions.[5]

In 2017 the fiscal deficit is expected to narrow slightly further. Although a degree of restraint in recurrent expenditure is foreseen to prevail in that year, this would be partly offset by an expected decline in revenue, reflecting the profile of inflows under the IIP. The Bank's projections for 2017 assume no new fiscal measures.

Lower interest payments are also expected to contribute to the narrowing of the deficit ratio over the projection horizon.

The general government debt-to-GDP ratio is estimated to fall from 63.6% in 2015 to 58.6% by 2017, partly reflecting a favourable interest growth differential and the expected improvement in the primary fiscal balance.

Inflation

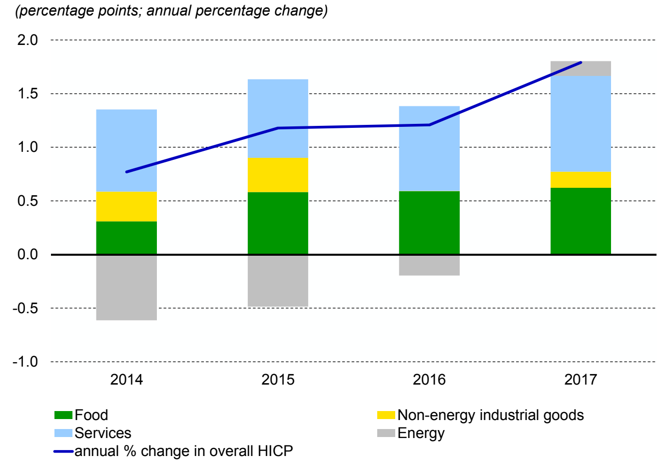
Inflation projections are influenced by the technical assumptions shown in Table 1, which entail a decline in the US dollar oil price in 2016 and a broadly stable exchange rate of the euro against the US dollar. In 2017 the US dollar oil price is set to increase, more than offsetting a marginal appreciation of the euro. As a result, the oil price in euro terms is expected to significantly fall in 2016, before it recovers in 2017.

The annual rate of inflation, measured by the HICP, is expected to remain unchanged at 1.2% in 2016, before it accelerates to 1.8% in 2017 (see Chart 2).

In 2016 services inflation is expected to accelerate slightly. Meanwhile, energy inflation is projected to turn less negative compared with a year earlier, in line with the technical assumptions, which foresee the oil price recovering in the course of the year. These elements outweigh a slowdown in NEIG inflation, partly reflecting the pass-through of earlier declines in international commodity prices.

The pick-up in overall HICP inflation in 2017 is largely driven by developments in the non-energy industrial goods and energy components. In both cases, their inflation rates are expected to turn positive that year, partly in response to the envisaged recovery of the oil price over the forecast horizon. At the same time, services inflation is also expected to accelerate, against a backdrop of rising cost pressures, while food inflation rises marginally.

Chart 2
HICP INFLATION OVER THE FORECAST HORIZON
(percentage points; annual percentage change)



Sources: Eurostat; Central Bank of Malta.

5 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.

Compared with the Bank's earlier projections, the latest inflation outlook entails a slight downward revision for 2016 and 2017, reflecting a lower path for international oil prices and weaker than expected outcomes for inflation around the turn of the year.

Risks to the projections

Risks to the GDP growth projections are balanced. Downside risks relate to the fragility of the global economy. In particular, a prolongation of weak activity in the euro area or a more persistent slowdown in emerging economies would negatively impact export growth. The latter could also surprise on the downside if the expected recovery in semiconductor exports is delayed. On the other hand, a weaker than expected euro would have a positive impact on exports. Imports could also be lower than expected, if efficiency gains in the energy sector prove stronger than assumed in the projections. GDP growth could also surprise on the upside if the assumed restraint in government expenditure does not materialise.

Risks to the inflation projections are on the downside. A continuation of the current weak inflation environment in Malta's main trading partners would limit growth in import prices, which should in turn translate into weaker domestic inflationary pressures. Inflation would also be lower than expected if domestic fuel and gas prices were to fall further in response to earlier declines in international oil prices. On the other hand, a renewed weakening of the euro, or a sharper than expected rebound in international commodity prices, would have an upward impact on inflation in Malta.

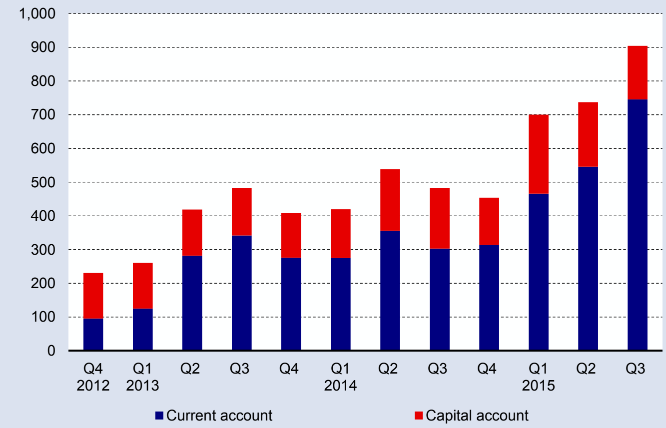
4. BALANCE OF PAYMENTS[1]

In the four quarters to September 2015, the current account of the balance of payments registered a surplus equivalent to 8.6% of gross domestic product (GDP), almost 5 percentage points higher than in the four quarters ending in September 2014.

The marked increase in the surplus was attributable to favourable developments in all the main components of the current account, except merchandise trade.

Lower net inflows were recorded on the capital account (see Chart 4.1). Meanwhile, the financial account balance showed a smaller net lending position compared with the four quarters to September 2014.[2] At the same time, net errors and omissions turned negative.[3]

Chart 4.1
CURRENT AND CAPITAL ACCOUNT BALANCES
(four-quarter moving sums in EUR millions)

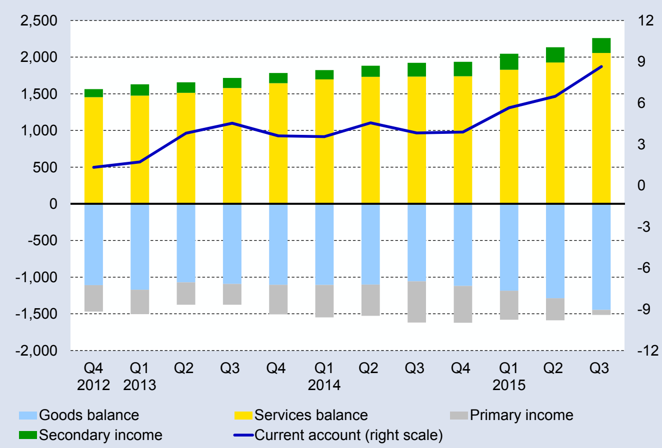


Source: NSO.

The current account

In the four quarters to September 2015, the current account surplus expanded by €442.4 million, to stand at €745.3 million (see Table 4.1). This improvement was largely attributable to lower net outflows on the primary income account, as well as to a rise in net receipts on services. Nonetheless, an increase in net inflows from secondary income also contributed (see Chart 4.2). In contrast, trade in goods continued to have

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



Source: NSO.

[1] This analysis is based on balance of payments data issued by the National Statistics Office (NSO) in accordance with the guidelines contained in the Sixth Edition of the International Monetary Fund's (IMF) Balance of Payments (BOP) and International Investment Position (IIP) Manual (BPM6). The most notable difference resulting from these guidelines compared with those of the Fifth Edition relates to the inclusion of data pertaining to Special Purpose Entities (SPE) and to a new treatment of international banks. From a local perspective, the inclusion of SPEs in external data raises the value of both service exports and imports, and also has an impact on the primary income account. For further information on the new methodology see *Release* 176/2014, NSO.

[2] Following the adoption of BPM6, increases in assets are not recorded with a negative sign and increases in liabilities are not recorded with a positive sign. Both increases are recorded with a positive sign. Decreases in assets and liabilities are both recorded with a negative sign.

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

Table 4.1
BALANCE OF PAYMENTS
EUR millions

	2012	2013	2014	Four-quarter moving sums	
				2014 Q3	2015 Q3
Current account	**95.6**	**276.2**	**314.1**	**302.9**	**745.3**
Goods	-1,108.4	-1,103.7	-1,119.5	-1,056.7	-1,446.2
Services	1,454.7	1,644.6	1,740.1	1,735.3	2,057.3
Primary income	-360.5	-403.8	-502.6	-562.4	-68.0
Secondary income	109.8	139.1	196.1	186.8	202.1
Capital account	**134.9**	**132.3**	**139.9**	**180.3**	**158.9**
Financial account(1)	**713.8**	**-261.2**	**478.4**	**862.2**	**239.4**
Direct investment	-9,154.0	-7,036.5	-6,864.2	-4,537.1	-8,587.2
Portfolio investment	9,318.2	8,796.0	12,678.3	9,687.6	5,131.8
Financial derivatives	-438.5	-102.4	-578.1	-489.0	-293.4
Other investment	866.7	-1,879.5	-4,769.6	-4,003.7	4,212.9
Reserve assets	121.4	-38.8	12.0	204.4	-224.7
Errors and omissions	483.3	-669.8	24.3	378.9	-664.8

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

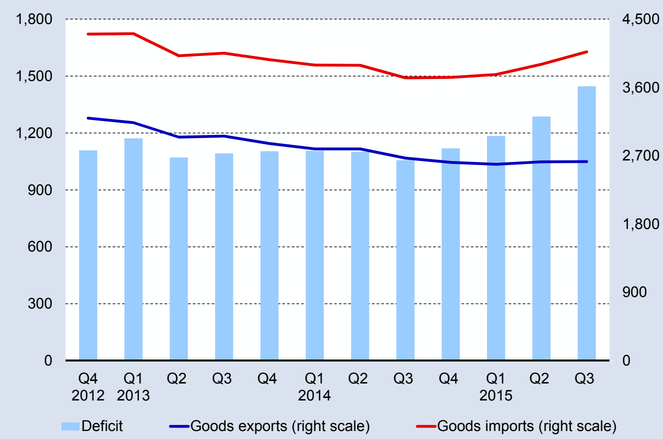
a negative effect on the current account, as the merchandise trade deficit expanded substantially during the period under review.

Goods

Balance of payments data show that, in the four quarters to September 2015, the merchandise trade gap widened by €389.5 million, to €1,446.2 million (see Chart 4.3).[4] During this period goods imports expanded by €343.2 million, while exports dropped by €46.3 million.

Merchandise trade developments based on customs data for 2015 as a whole are explained in detail in Box 6.

Chart 4.3
GOODS DEFICIT
(four-quarter moving sums in EUR millions)



Source: NSO.

BOX 6: MERCHANDISE TRADE DEVELOPMENTS IN 2015

Customs data show that in 2015 the visible trade gap narrowed considerably, contracting by 6.1% to stand at €2,500.7 million, as imports declined at a faster rate than exports (see Table 1). Merchandise trade developments continued to be heavily influenced by purchases and sales of fuels (see Table 2).[1]

[1] Customs data tend to show higher values for imports and exports than balance of payments data for comparable commodity groups. In particular, the former record the physical entry into, and the corresponding exit from Maltese territory of all goods, whereas balance of payments data only capture transactions that entail a change of ownership between residents and non-residents. These differences are especially pronounced in the case of trade in fuel, aircraft and ships.

[4] 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.

Table 1
MERCHANDISE TRADE BY BROAD ECONOMIC CATEGORY
EUR millions; annual percentage changes

	2013[1]	2014[1]	2015[1]	2014	2015
		Amount		%	
Imports	**5,639.2**	**6,399.5**	**6,013.6**	**13.5**	**-6.0**
Industrial supplies	1,550.0	1,412.8	1,461.3	-8.8	3.4
Capital goods and others	868.9	1,310.3	1,691.7	50.8	29.1
Consumer goods	1,040.6	1,115.3	1,189.2	7.2	6.6
Fuel and lubricants	2,179.9	2,561.1	1,671.4	17.5	-34.7
Exports	**3,925.5**	**3,737.6**	**3,512.9**	**-4.8**	**-6.0**
Trade deficit	**-1,713.7**	**-2,661.9**	**-2,500.7**	**55.3**	**-6.1**

[1] Provisional.
Source: NSO.

Table 2
MERCHANDISE TRADE BY MAJOR COMMODITY GROUP
EUR millions; annual percentage changes

	2013[1]	2014[1]	2015[1]	2014	2015
		Amount		%	
Imports	**5,639.3**	**6,399.5**	**6,013.6**	**13.5**	**-6.0**
Food, beverages and tobacco	578.7	595.3	597.7	2.9	0.4
Mineral fuels, lubricants and related materials	2,185.8	2,563.5	1,673.1	17.3	-34.7
Chemicals	440.7	509.0	501.8	15.5	-1.4
Semi-manufactured goods	311.0	342.4	404.9	10.1	18.2
Machinery and transport equipment	1,668.3	1,922.4	2,338.1	15.2	21.6
Miscellaneous manufactured articles	399.0	421.9	447.6	5.7	6.1
Others	55.8	45.0	50.4	-19.3	11.9
Exports	**3,925.5**	**3,737.6**	**3,512.9**	**-4.8**	**-6.0**
Food, beverages and tobacco	248.0	243.1	286.5	-2.0	17.9
Mineral fuels, lubricants and related materials	1,665.7	1,608.2	1,355.7	-3.4	-15.7
Chemicals	358.2	376.9	363.0	5.2	-3.7
Semi-manufactured goods	117.8	116.0	122.4	-1.5	5.5
Machinery and transport equipment	1,112.4	1,000.2	961.2	-10.1	-3.9
Miscellaneous manufactured articles	404.5	375.7	407.6	-7.1	8.5
Others	19.1	17.5	16.5	-8.3	-5.3

[1] Provisional.
Source: NSO.

During the year under review, the value of imported goods fell to €6,013.6 million, down by 6.0% on 2014. The contraction was driven by a drop of €889.7 million in the fuel import bill (see Table 1). This decline was partly offset by a marked increase in capital imports, and, to a lesser extent, by higher purchases of consumer goods and industrial supplies.

Capital imports rose by €381.4 million, mainly as a result of registrations of aircraft and ships. Nonetheless, imports within this category were also higher due to purchases of machinery, including equipment for the energy sector.

Meanwhile, consumer imports increased by €73.8 million on the previous 12 months, mainly influenced by a greater demand for foreign durable goods.

Imports of industrial supplies also expanded, going up by €48.5 million from their 2014 level. This increase was entirely driven by a rise in finished items.

In 2015 the value of exports fell by €224.7 million, or 6.0% over 2014. Mirroring developments on the import side, the contraction in exports was predominantly in fuel re-exports. These fell by €252.6 million on a year earlier (see Table 2).

Indeed, excluding fuel re-exports, overall merchandise exports rose by €27.8 million over 2014. Higher non-fuel exports were mostly spurred by a surge in sales of food, particularly fish. Although to a lesser extent, higher exports of semi-manufactured goods and manufactured articles also contributed. These favourable developments were partly offset by declines in exports of semiconductors, recorded in the machinery and transport equipment category, and of organic chemicals.

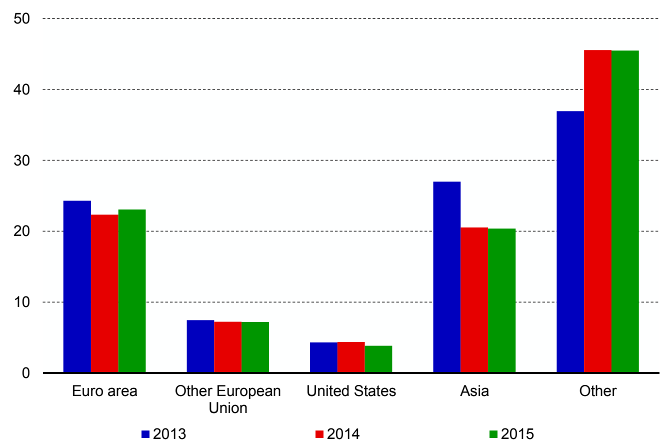
During 2015 merchandise exports to the European Union declined by €40.7 million, whereas imports expanded by €306.2 million. Still, the EU share in Malta's total merchandise exports edged up by 0.7 percentage point in 2015, to 30.3%. Meanwhile, the EU share in Malta's imports climbed by 8.3 percentage points to 58.7% (see Charts 1 and 2).

These increases largely mirrored trade with the euro area. In 2015 exports to the euro area accounted for 23.1% of Malta's exports of goods, up from 22.3% in the previous year. On the import side, the corresponding share was also significantly higher compared with 2014, standing at 46.4% during the year under review.

The rise in the share of goods imported from the euro area was largely driven by higher purchases from the Netherlands, although notable increases in imports from Italy and Germany also contributed. Italy remained Malta's most important source of imports during 2015, its share rising from 18.4% in 2014 to 21.0% in 2015.

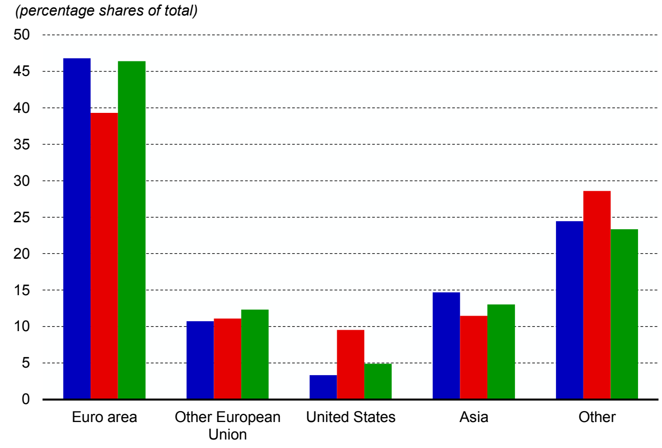
On the exports side, Germany and France remained Malta's prime markets within the European Union. Exports to these countries increased when compared with a year earlier. As a result, their combined share in goods exports was up by

Chart 1
DIRECTION OF EXPORTS
(percentage shares of total)



Source: NSO.

Chart 2
DIRECTION OF IMPORTS
(percentage shares of total)



Source: NSO.

2.4 percentage points to 16.1%. The United Kingdom remained Malta's largest EU trading partner outside the euro area. Malta's merchandise deficit with the United Kingdom narrowed marginally during 2015 as the increase in exports slightly outpaced imports.

Overall trade with Asian markets rose when compared with 2014. Their share in aggregate imports edged up by 1.5 points to 13.0%, whereas their share in exports was broadly unchanged compared with a year earlier, at 20.4%.

In contrast, trade with the United States decreased when compared with 2014. While exports marginally dwindled, the value of imports more than halved when compared with the previous 12 months. The dip in the latter was largely on account of a surge in the registration of ships and aircraft during 2014, which was not repeated in 2015.

With regard to trade with "other" markets, imports and exports declined. Although the value of exports decreased, their share in total exports remained largely unchanged. Merchandise exports were dominated by sales of fuel products to North African countries. Similarly, the dip in imports from "other" markets largely reflected a reduction in fuel purchases from North African countries, even though this was partly offset by a rise in registrations of yachts from the Caribbean.

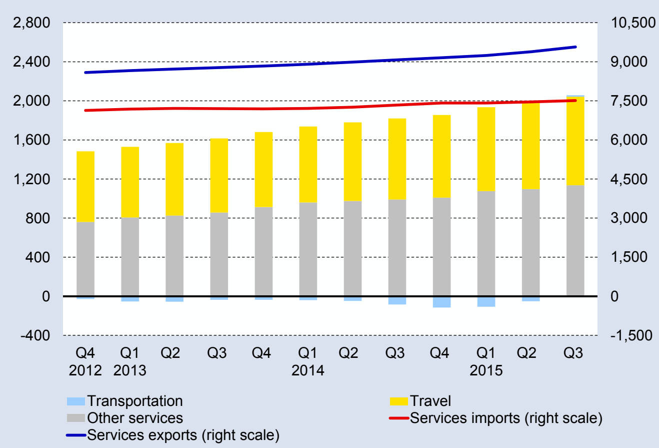
Services

Over the four quarters to September 2015, the positive balance on the services account reached €2,057.3 million, a rise of €322.1 million on a year earlier. The increased surplus reflected a surge of €495.9 million in receipts, which were partly offset by a rise of €173.9 million in payments.

Higher net receipts on services reflected favourable developments on all the main sub-components. The transport account swung from a net import position of €84.6 million to a net export position of €14.4 million, following higher air transport receipts. The buoyancy in the tourism sector also contributed significantly to the improvement in the services balance, with the net surplus on travel rising by €76.5 million to €906.7 million (see Chart 4.4). This was largely spurred by higher tourism receipts, which continued to outpace increased spending by Maltese residents travelling abroad.

Concurrently, higher net exports were also registered on the "other services" component. These reached €1,136.2 million in the year to September 2015, up by €146.5 million on the corresponding period of 2014. This improvement was mainly driven by higher net receipts from personal, cultural and recreational services, which include remote gaming and the film industry. However, telecommunications and other business services also made significant contributions.

Chart 4.4
SERVICES BALANCE
(four-quarter moving sums in EUR millions)



Source: NSO.

Primary income account[5]

The primary income account continued to be heavily influenced by activities of SPEs and internationally-oriented firms, including banks, which predominantly engage in financial operations with non-residents. During the year to September 2015, net outflows on this account stood at €68.0 million, almost €500 million less than in the same period a year earlier. This was largely driven by a decline in income payments related to direct investments by foreign firms operating in Malta. At the same time, higher net earnings on portfolio investment abroad, as well as a rise in net interest earnings on outstanding loans to non-residents, also contributed.

Secondary income account

During the year to September 2015, net inflows on the secondary income account increased by €15.3 million to €202.1 million. This rise 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.

The capital account

Over the period under review, the capital account recorded net inward flows of €158.9 million, a decrease of €21.4 million on a year earlier (see Table 4.1). This contraction was mostly attributable to lower transfers to Government, which were relatively high in the year to September 2014.

The financial account

Meanwhile, the financial account showed a net lending position of €239.4 million, a decline of €622.8 million on the four quarters to September 2014. Movements on this account were heavily influenced by transactions of internationally-oriented banks and SPEs.

The decline in the net lending position on the financial account during the period reviewed was primarily driven by a €4.6 billion drop in net portfolio investment assets. The latter was dominated by movements in long-term debt securities held by the banking sector. Developments on the financial account were also influenced by a substantial increase in net direct investment liabilities. These were up by around €4.1 billion on a year earlier, as liabilities rose at a faster pace than assets. To a lesser extent, a contraction of €224.7 million in reserve assets, as opposed to an expansion of €204.4 million in the same period ending September 2014, also contributed to the overall decline in net lending on the financial account.

These movements offset a swing of €8.2 billion to a net lending position on the "other" investment component, largely mirroring a decline in liabilities in the form of short-term interbank positions. At the same time, net liabilities relating to financial derivatives decreased on a year earlier.

International investment position

Malta's net creditor position vis-à-vis the rest of the world as at end-March 2015 markedly expanded on a year earlier.[6] NSO data on Malta's international investment position (IIP) show that Maltese residents' holdings of external financial assets stood at €226.0 billion at the end of March 2015, while the corresponding liabilities amounted to €223.0 billion (see Table 4.2). As a result, the net positive IIP stood at €3.0 billion, up from €2.0 billion at the end of March 2014.

Higher net external assets were propelled by a rise in the value of net portfolio assets, mainly reflecting increases in equity, investment fund shares and long-term debt securities held by residents. Conversely,

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[5] 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.

[6] The IIP statement issued by the NSO shows the stock of external assets and liabilities of residents vis-à-vis the rest of the world as at the end of a particular period. Developments in the IIP reflect financial transactions but also exchange rate movements and valuation changes.

Table 4.2
INTERNATIONAL INVESTMENT POSITION
End-of-month position; EUR millions

	2014				2015
	Mar.	June	Sep.	Dec.	Mar.
Net international investment position	**1,977.3**	**2,471.6**	**3,091.5**	**3,362.1**	**3,021.9**
Total assets	**211,935.4**	**213,114.8**	**216,754.6**	**221,608.4**	**225,979.3**
Direct investment	51,740.2	51,313.5	50,972.2	50,857.2	50,574.6
Portfolio investment	88,374.8	93,208.8	95,768.6	99,996.1	101,488.1
Financial derivatives	2,377.6	2,540.9	1,903.2	1,901.3	1,873.5
Other investment	68,748.3	65,193.8	67,463.5	68,343.9	71,518.3
Reserve assets	694.6	857.8	647.0	510.0	524.8
Total liabilities	**209,958.1**	**210,643.2**	**213,663.1**	**218,246.3**	**222,957.4**
Direct investment	152,672.8	152,527.9	153,918.8	156,121.0	157,503.1
Portfolio investment	5,009.0	5,108.6	4,681.7	4,922.3	5,602.5
Financial derivatives	608.0	510.2	519.0	544.4	679.1
Other investment	51,668.4	52,496.5	54,543.5	56,658.6	59,172.7

Source: NSO.

net liabilities in the form of direct investment increased while net assets in the form of other investment and financial derivatives declined.

The improvement in Malta's IIP over the four quarters to March 2015 mirrored net lending on the financial account over this period, as well as favourable changes in market valuation and exchange rates.

5. GOVERNMENT FINANCE

The general government deficit continued to narrow in 2015, extending the broad downward trend seen since 2013. According to the latest Central Bank of Malta estimates, the general government deficit was estimated to have decreased to 1.6% of GDP in 2015 from 2.1% in 2014, as revenue grew faster than expenditure.[1] Meanwhile, general government debt was estimated to have fallen to 63.6% of gross domestic product (GDP) at the end of 2015, from 67.1% a year earlier.[2]

General government

General government balance

In the first three quarters of 2015, the general government deficit narrowed by €21.1 million on a year earlier, to €225.7 million (see Table 5.1). Consequently, the ratio of the general government deficit to GDP, measured on the basis of four-quarter moving sums, stood at 1.7% in the third quarter of the year. This was 0.5 percentage point lower than in the previous quarter and a full percentage point below its level a year earlier (see Chart 5.1). The primary deficit, which excludes interest payments from total expenditure, declined to €56.3 million from €75.0 million in the corresponding period of 2014.

Between January and September, revenue expanded by €205.8 million, or 9.0% on the same period a year earlier. Tax revenue accounted for most of the increase, supported by buoyant growth in the Maltese

Table 5.1
GENERAL GOVERNMENT BALANCE
EUR millions

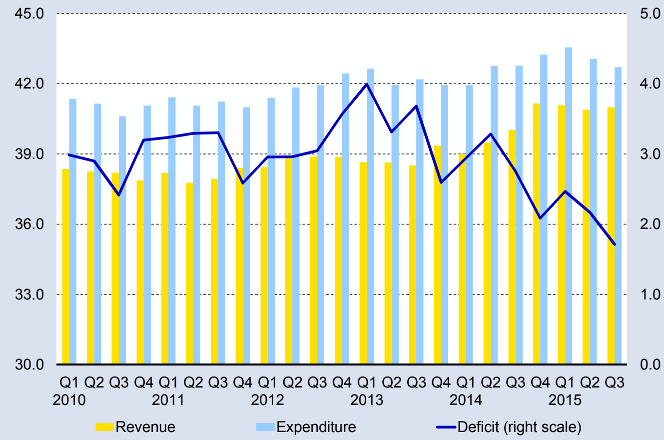
	2014 Q1-Q3	2015 Q1-Q3	Change Amount	Change %
Revenue	**2,282.6**	**2,488.4**	**205.8**	**9.0**
Taxes on production and imports	788.9	828.8	40.0	5.1
Current taxes on income and wealth	753.3	852.2	98.9	13.1
Social contributions	400.7	424.3	23.6	5.9
Capital and current transfers receivable	152.9	147.2	-5.7	-3.7
Other(1)	186.8	235.8	49.0	26.2
Expenditure	**2,529.4**	**2,714.1**	**184.7**	**7.3**
Compensation of employees	784.0	838.3	54.3	6.9
Intermediate consumption	368.9	390.8	22.0	6.0
Social benefits	742.5	769.0	26.5	3.6
Subsidies	77.5	84.6	7.0	9.1
Interest	171.9	169.5	-2.4	-1.4
Other current transfers payable	132.2	129.0	-3.2	-2.4
Gross fixed capital formation	191.2	258.2	67.0	35.1
Capital transfers payable	59.1	70.4	11.3	19.2
Other(2)	2.3	4.4	2.1	-
Primary balance	**-75.0**	**-56.3**	**18.7**	**-**
General government balance	**-246.8**	**-225.7**	**21.1**	**-**

(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.

[1] General government, which is defined to include extra-budgetary units, as well as local councils, captures all transactions on an accrual basis. In contrast, the Consolidated Fund only captures transactions of the central government on a cash basis. On the revenue side, discrepancies between the two sets of accounts mainly stem from timing differences in the recording of receipt of income tax and VAT revenue. On the expenditure side, significant differences often arise in the treatment of capital expenditure.
[2] Further information about the Bank's latest fiscal projections is available in Box 5 in this *Annual Report*.

economy. In particular, despite further cuts in income tax rates, intakes from current taxes on income and wealth grew by 13.1% and accounted for almost half of the rise in total revenue. In tandem, social contributions went up by 5.9% when compared with the same period in the previous year. The rise in direct taxes stemmed mainly from inflows from corporates but also reflected strong growth in employment that pushed up tax receipts from households.

Chart 5.1
GENERAL GOVERNMENT FINANCE DEVELOPMENTS
(four-quarter moving sums; % of GDP)



Source: NSO.

During the same period, inflows from taxes on production and imports rose by 5.1% in line with growth in private consumption and tourist expenditure. Consumption growth led to a rise in the intakes from VAT and excise duties. The latter were also affected by an increase in duty on a variety of items, including cigarettes, wines and spirits, and cement, announced in the Budget 2015. Higher revenues from duties on transactions from sale of property also contributed towards the increase in indirect taxes.

On the other hand, inflows from capital and current transfers, which had risen by almost one-third during the first three quarters of 2014, fell by 3.7% during the period reviewed. Whereas capital transfers, which include EU grants, continued to rise, current transfers dropped. In particular, current transfers decreased in the third quarter, partly on the back of lower revenue earned by extra-budgetary units. Meanwhile, "other" revenue increased by 26.2% owing to higher inflows from sales, partly driven by greater receipts from the Individual Investor Programme.

In the first three quarters of 2015, general government expenditure grew by €184.7 million, or 7.3%, compared with the same period a year earlier. More than half of the increase stemmed from recurrent spending. Compensation of employees and intermediate consumption grew by 6.9% and 6.0%, respectively. The rise in the former was mainly driven by higher outlays in the health, education and public administration sectors, while the increase in intermediate consumption reflected greater operational and maintenance expenditure, and outlays on medical supplies.

Spending on social benefits grew by 3.6%, principally driven by retirement pensions, while outlays on subsidies, partly related to the obligation to provide spare capacity in the energy sector, went up by 9.1%. Conversely, interest payments contracted by 1.4%, despite rising debt levels, reflecting the favourable impact of lower interest rates. Meanwhile, other current transfers payable went down by 2.4%.

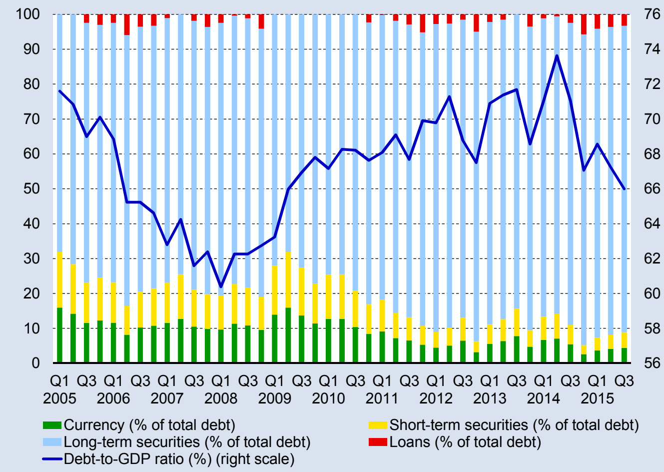
Spending on gross fixed capital formation was strong during the three quarters under review, growing by 35.1% owing to bigger outlays on infrastructural projects. At the same time, capital transfers grew by 19.2% following the higher equity injection by Government in the national airline.

General government debt

In September 2015 the stock of general government debt amounted to €5,687.7 million, up from €5,421.5 million nine months earlier. The increase in general government debt during the first three quarters of the year was larger than the general government deficit recorded during the same period. This was partly because government revenues were used to build up holdings of currency and deposits. Nonetheless, given the rapid growth in nominal GDP over this period, the debt-to-GDP ratio, computed on the basis of four-quarter moving sums, fell to 66.0% from 67.1% at the end of 2014 (see Chart 5.2).

Although, as Chart 5.2 shows, long-term debt securities continued to account for the bulk of general government debt outstanding, the debt composition shifted in favour of short-term liabilities. This largely reflected an increase in the stock of Treasury bills. Consequently, the share of short-term securities in total debt went up from 2.6% at the end of 2014, to 4.4%. Conversely, the proportion of long-term securities decreased by 1.2 percentage points to 87.8%. Meanwhile, the share of loans declined to 6.6%, while the proportion of government liabilities in the form of euro coins remained unchanged.

Chart 5.2
GENERAL GOVERNMENT DEBT



Source: NSO.

Consolidated Fund

Consolidated Fund balance

Between January and November 2015, the Consolidated Fund deficit narrowed by €27.9 million on a year earlier, as revenue outpaced expenditure (see Table 5.2). Meanwhile, the primary surplus rose by €29.4 million.

Table 5.2
CONSOLIDATED FUND BALANCE
EUR millions

	2014	2015	Change	
	Jan.-Nov.	Jan.-Nov.	Amount	%
Revenue	**2,709.6**	**2,940.5**	**230.9**	**8.5**
Direct tax	**1,268.9**	**1,390.1**	**121.2**	**9.6**
Income tax	861.0	958.0	97.1	11.3
Social security contributions[(1)]	408.0	432.1	24.1	5.9
Indirect tax	**1,090.8**	**1,170.5**	**79.7**	**7.3**
Value Added Tax	593.2	647.6	54.4	9.2
Customs and excise duties	278.8	269.0	-9.7	-3.5
Licences, taxes and fines	218.9	253.8	35.0	16.0
Non-tax[(2)]	**349.8**	**379.9**	**30.0**	**8.6**
Expenditure	**2,898.4**	**3,101.4**	**203.0**	**7.0**
Recurrent[(1)]	**2,528.0**	**2,722.3**	**194.3**	**7.7**
Personal emoluments	591.2	625.3	34.1	5.8
Operational and maintenance	119.4	135.0	15.6	13.1
Programmes and initiatives	1,367.1	1,472.2	105.1	7.7
Contributions to entities	239.6	277.7	38.1	15.9
Interest payments	210.6	212.1	1.5	0.7
Capital	**370.5**	**379.1**	**8.7**	**2.3**
Primary balance[(3)]	**21.7**	**51.1**	**29.4**	**-**
Consolidated Fund balance	**-188.9**	**-160.9**	**27.9**	**-**

[(1)] Government contributions to the social security account in terms of the Social Security Act 1987 are excluded from both revenue and expenditure.

[(2)] Includes grants but excludes proceeds from sale of assets, sinking funds of converted loans and borrowings.

[(3)] Revenue less expenditure excluding interest payments.

Source: NSO.

Revenue grew by 8.5%, mainly owing to higher tax receipts. Inflows from direct taxes, which rose by 9.6%, accounted for the largest increase reflecting growth in both income tax and social security contributions. At the same time, indirect taxes grew by 7.3% on the back of higher VAT receipts, as well as an increase in duty on documents. These offset a drop in customs and excise duties that reflected substantial cash inflows received in November 2014 to settle a backlog of outstanding duties on fuels. This swing did not affect the general government revenue measure, since this is compiled on an accruals basis. Dividends on investments and, to a lesser extent, grants boosted non-tax revenue, which grew by 8.6%.

Meanwhile, expenditure rose by 7.0% on a year earlier, driven mainly by higher recurrent spending. In particular, outlays on programmes and initiatives accounted for the largest increase in spending, going up by 7.7%. The latter involves spending on social benefits and includes the one-time payment transfer to low-income households, which had been announced in the 2015 Budget. It also includes Malta's contribution to the EU budget and subsidies to the energy sector, both of which rose on a year earlier. At the same time, operational and maintenance expenditure grew by 13.1%.

Spending on personal emoluments went up by 5.8%, while contributions to government entities rose by 15.9%. The increase in interest payments was marginal. At the same time, capital expenditure grew by 2.3% following additional spending on infrastructural projects.

Update on debt developments

Between December 2014 and November 2015, government debt, excluding debt issued by extra-budgetary units and local councils, increased by €339.1 million (see Table 5.3).[3] The rise in borrowing was greater than the amount needed to finance the deficit recorded in the Consolidated Fund in the same period. This occurred as Government increased its stock of financial assets, mainly in the form of bank deposits.

At the end of November, the outstanding amount stood at €5,468.7 million. As with general government debt discussed above, during the period under review the maturity composition of debt changed in favour of short-term debt securities. By November, the outstanding amount of Treasury bills rose by €87.4 million from their level at end-2014. Thus, the Treasury bill share in total debt edged up to 4.2%. Although the outstanding amount of Malta Government Stocks rose by €253.2 million, their share in total debt fell to 93.0%.

Over the same period, foreign loans decreased by €8.1 million to €32.3 million, while the stock of loans issued by residents was unchanged. Meanwhile, the value of euro coins in issue, which represent a liability to Government, increased by €6.5 million to €66.9 million.

Table 5.3
GOVERNMENT DEBT[(1)]
EUR millions

	2014 end-Dec.	2015 end-Nov.	Change Dec. 14 - Nov. 15
Government debt[(1)]	**5,129.6**	**5,468.7**	**339.1**
Euro coins issued in name of the Treasury	60.4	66.9	6.5
Treasury bills	140.4	227.9	87.4
Malta Government Stocks	4,832.0	5,085.2	253.2
Local loans	56.4	56.4	0.0
Foreign loans	40.4	32.3	-8.1

(1) Excluding government debt issued by extra-budgetary units and local councils and debt held by sinking funds.
Source: Central Bank of Malta.

[3] This measure of debt differs from the general government debt measure referred to earlier as it excludes debt issued by extra-budgetary units and local councils. Nonetheless, it accounts for most of the debt issued by the general government sector. As the data are available monthly, they allow for a more up-to-date analysis of debt developments.

PART II

BANK POLICIES,

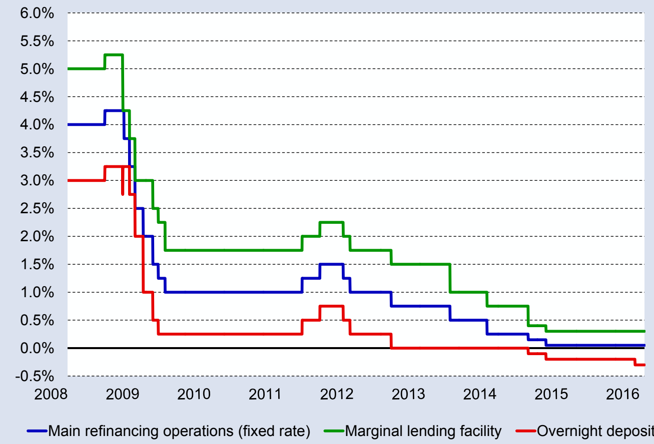
OPERATIONS AND ACTIVITIES

1. THE CONDUCT OF MONETARY POLICY

Monetary policy operations

The Central Bank of Malta implements the single monetary policy decisions of the Eurosystem in Malta. Thus, the Bank regularly conducts open market operations with local credit institutions.[1] It also offers standing facilities and administers the minimum reserve system.

Chart 1.1
OFFICIAL INTEREST RATES
(percentage per annum; end of month)



Source: ECB.

In 2015 the main refinancing operation (MRO) rate and the marginal lending facility rate were kept unchanged at 0.05% and 0.30%, respectively. However, on 9 December the overnight deposit facility rate was lowered by 10 basis points to -0.30% (see Chart 1.1).

The asset purchase programme (APP) launched in 2014 encompassed asset-backed securities and the covered bond purchase programme. On 22 January 2015, the Governing Council of the European Central Bank (ECB) decided to expand the APP to also include bonds issued by euro area central governments, agencies and European institutions in order to address the risks of a too prolonged period of low inflation. Combined monthly purchases of €60 billion were announced and were intended to be carried out until at least September 2016 and, in any case, until the Governing Council sees a sustained adjustment in the path of inflation.

On 3 December 2015, the Governing Council announced further measures relating to the APP. In fact, the monthly purchases of €60 billion are now intended to run until the end of March 2017, or beyond if necessary, and, in any case, until the Governing Council sees a sustained adjustment in the path of inflation consistent with its aim of achieving inflation rates below, but close to 2% over the medium term. Moreover, the Governing Council decided to reinvest the principal payments on securities purchased under the APP as they mature, for as long as necessary. Finally, the Governing Council decided to also include in the APP euro-denominated marketable debt instruments, which are issued by regional and local governments located in the euro area, in the list of assets that are eligible for regular purchases by respective national central banks (NCB).

On 10 March 2016, the Governing Council reduced the rate on its MROs by 5 basis points to 0.00% with effect from 16 March 2016. Furthermore, with effect from the same date, the ECB also reduced the rate on the marginal lending facility by 5 basis points to 0.25%, and the deposit facility rate by 10 basis points to -0.40%.

On the same day, the Governing Council announced that the monthly purchases under the APP would be expanded to €80 billion, starting in April 2016. It was also decided to increase the issuer and raise share limits for purchases of securities issued by eligible international organisations and multilateral development banks from 33% to 50%. Furthermore, it was decided to include investment grade euro-denominated bonds issued by non-bank corporations established in the euro area in the list of assets that would be eligible for regular purchases under a new corporate sector purchase programme. Purchases under the new programme would start towards the end of the second quarter of 2016.

[1] Local credit institutions include all banks established in Malta.

In addition, the Governing Council also decided to launch a series of four targeted longer-term refinancing operations (TLTRO II), starting in June 2016, each with a maturity of four years. Counterparties would be entitled to borrow up to 30% of the stock of eligible loans as at 31 January 2016. The interest rate under TLTRO II would be fixed over the life of each operation, at the rate on the Eurosystem's MROs prevailing at the time of take-up. For banks whose net lending exceeds a benchmark, the rate applied to the TLTRO II would be lower, and could be as low as the interest rate on the deposit facility prevailing at the time of take-up. There would be no requirement for mandatory early repayments under TLTRO II, and switches from TLTRO I would be allowed.

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 ECB official rates. The Eurosystem has various types of open market operations at its disposal.

MROs are short-term liquidity-providing reverse transactions, which are executed according to a pre-specified calendar. They take place on a weekly basis with a maturity of one week.

The Eurosystem also conducts long-term refinancing operations (LTRO), which consist of reverse transactions at a monthly frequency and with a normal maturity of three months. In addition, the Eurosystem uses fine-tuning operations with no fixed maturity to deal with unexpected liquidity fluctuations in the market. These operations can either be liquidity-providing or liquidity-absorbing.

Throughout 2015 the Eurosystem continued to provide the financial system with liquidity through fixed rate tender procedures with full allotment, through MROs and LTROs. A total of 52 MROs were conducted by the ECB during the year, all at a fixed rate and with full allotment. Eligible local credit institutions participated in almost all these weekly operations, bidding a total of €2.04 billion, compared with €0.51 billion in the previous year (see Table 1.1). Moreover, the ECB 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. Local credit institutions obtained €0.50 billion from the three-month LTROs, compared with €0.23 billion in the previous year (see Table 1.1).

On 3 December 2015, the Governing Council also decided to continue conducting MROs and three-month LTROs as fixed rate tender procedures with full allotment as long as necessary, and at least until the end of the last reserve maintenance period of 2017.

As part of non-standard measures, on 5 June 2014, the ECB Governing Council had decided to conduct eight TLTROs aimed at improving bank lending to the euro area non-financial private sector, but excluding loans to households for house purchases, over a window of two years. All TLTROs will mature in September 2018. Thus, during 2015 the ECB conducted four TLTROs in March, June, September and December. On 22 January 2015, the Governing Council decided that the interest rate for the six TLTROs to be conducted between March 2015 and June 2016 would be equal to the rate on the MROs prevailing at the time when

Table 1.1
PARTICIPATION OF ELIGIBLE LOCAL CREDIT INSTITUTIONS IN EUROSYSTEM OPEN MARKET OPERATIONS
EUR billions

Type of operation	Amount bid	Amount allotted
Main refinancing operations	2.04	2.04[1]
Three-month longer-term refinancing operations	0.50	0.50[1]
Seven-day US dollar collateralised operations	-	-

[1] In these Eurosystem open market operations, the amount allotted is equal to the amount bid according to the ECB's full allotment policy.

each TLTRO would be conducted. As a result of this decision, the 10 basis point spread over the MRO rate, which had been applied to the first two TLTROs conducted in 2014, was eliminated.

During 2015 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, local credit institutions did not utilise US dollar liquidity-providing operations.

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 2015 counterparties continued to place excess liquidity with the Eurosystem through the overnight deposit facility at an interest rate that has been negative since 11 June 2014. During 2015 recourse to the overnight deposit facility by local credit institutions amounted to €212.06 billion, an increase of €154.18 billion from the level of €57.88 billion in 2014. Recourse to the marginal lending facility rose from €0.05 billion in 2014 to €0.10 billion in 2015.

Reserve requirements

The ECB requires credit institutions established in the euro area to hold reserve deposits with NCBs. The objective of the Eurosystem's minimum reserve system is to contribute to the stability of money market interest rates and to help ensure efficient operation of the Eurosystem as a liquidity supplier. Each local credit institution is accordingly obliged to hold minimum reserve deposits with the Central Bank of Malta. During 2015 the reserve requirement ratio remained unchanged at 1.0%.

As from January 2015, the reserve maintenance period changed to a new six-week frequency, matching the decision of the ECB to set the Governing Council meetings dedicated to monetary policy to a six-week cycle.

Collateral management

The Central Bank of Malta is responsible for assessing the eligibility of domestic marketable issued assets and for reporting them to the ECB for inclusion in the Eligible Assets Database. As at end-December 2015, the nominal outstanding volume of eligible domestic marketable assets amounted to €5.34 billion.

At the end of the year the market value, after haircuts, of securities pledged by eligible local counterparties in the pool of collateral with the Central Bank of Malta stood at €0.50 billion. This amount consisted of both domestic and cross-border securities.

Liquidity management

The Bank continued to provide the ECB with daily forecasts of items on its balance sheet that are unrelated to monetary policy instruments, such as banknotes in circulation, government deposits, net foreign assets and net assets denominated in euro. 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 currency denominated assets. The former amounts to €2.3 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 maximise 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 shapes the investment strategy of the Bank's investment portfolios, is chaired by the Governor and includes the Bank's 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 2015.

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.

On 9 March 2015, the Eurosystem started the purchase of public sector securities under the Public Sector Purchase Programme (PSPP), as part of its efforts in addressing the risks of a too prolonged period of low inflation in the euro area. In its participation in the PSPP, the Central Bank of Malta purchased a total book value amount of approximately €282 million of Maltese government securities by the end of 2015, with a weighted average remaining maturity of 9.6 years.

During 2015 the Bank's external financial assets expanded by €100 million. As in previous years, these were also influenced by retail and wholesale transactions conducted by the Retail Banking Office.

The two existing external investment management mandates continued in 2015.

The Bank co-managed its portion of US dollar reserves on behalf of the ECB through a pooling mechanism jointly with the Central Bank of Ireland. During the year the Investments Office worked closely with their 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 an 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 2015.

Outright spot foreign currency purchases, including customer transactions, amounted to €755 million in 2015 compared with €591 million in 2014. Outright spot foreign currency sales, including customer transactions, amounted to €757 million in 2015, compared with €615 million in 2014.

Foreign exchange (FX) swap purchases registered an increase from €9 million in 2014 to €12 million in 2015. Swap sales amounted to €2 million compared with €3 million in the previous year.

The Bank also monitors developments in FX transactions in Malta. Compared with €11.6 million in 2014, credit institutions in Malta reported an increased combined FX turnover of €40.4 million. This rise was due to higher spot transactions.

The total FX turnover of credit and financial institutions with unrelated third parties in 2015 was €23.6 billion, compared with €15.7 billion in 2014. This higher turnover was mainly driven by additional euro FX transactions, which more than offset the lower volume of transactions in non-euro currencies. The euro transactions, at €20.9 billion, were largely distributed between corporates, as well as households and credit institutions outside the euro area, followed to a lesser extent by credit institutions in the euro area.

The largest share of spot deals at around half of total spot deals transacted, i.e. €6.6 billion, included mostly turnover in corporate and household sectors reflecting, in large part, sales relating to current account payments for trade, tourism, personal transfers and financial portfolio flows.

The FX turnover against the euro in 2015 was mainly distributed between spot transactions at €12.1 billion and new FX swaps at €7.9 billion. The remaining €3.6 billion related to new forwards and, to a lesser extent, other financial derivatives. In a similar fashion to 2014, the largest share of turnover in non-euro currencies in 2015, at €2.7 billion, was largely the result of growth in other financial derivatives. This consisted mainly of exercised options in non-euro currencies by a few large credit institutions in the non-euro area with unrelated third parties.

In 2015 the operational and technical infrastructure was completed for the start of repo activity on the Eurex platform in 2016.

The Agreement on Net Financial Assets, better known as ANFA, is an agreement between 19 NCBs and the ECB, which together form the Eurosystem. The agreement sets the rules for calculating the limits for holdings, which are related to national tasks of the NCBs. Every NCB holds assets and liabilities on its balance sheet that are not directly related to monetary policy. The difference between the two positions (assets and liabilities) is defined as Net Financial Assets or NFA.

ANFA limits the amount of NFA that an NCB can hold on average during a calendar year. In this manner, the Governing Council of the ECB can exert full control on the size of the Eurosystem's balance sheet, thus enabling the effective implementation of monetary policy.

The absolute NFA figure of the Central Bank of Malta as at end-2015 was €2,905 million.

Market-making operations

The Central Bank of Malta acts as market-maker in the secondary market for Maltese government debt, which includes Malta Government Stocks (MGS) and Treasury bills. In line with the Bank's statutory preclusion from participating in the primary market in all types of public sector debt instruments, the Bank did not intervene in the primary market for Malta government securities and did not provide any other form of financing to Government.

The Central Bank of Malta publishes the daily bid and offer prices, and the respective yields on all listed MGS, as well as the daily buying and selling rates for Treasury bills. The Bank also quoted on a daily basis the International Securities Market Association redemption yields of all MGS.

With the launch of the PSPP, Maltese sovereign bond prices experienced a significant increase compared with previous years. The rise was also in line with international sovereign bond market developments.

There was no secondary market activity in the Treasury bill market during 2015.

During the year the Bank continued to offer advisory services on external funding and debt management techniques to Government.

Relations with financial institutions

The Financial Markets Committee provides a forum for the Bank and all credit institutions operating in Malta to exchange views and information on various market-related issues. Discussions revolved mainly on domestic government bond issuance. The Committee also discussed the Eurosystem monetary policy framework, particularly collateral management and market expectations.

2. FINANCIAL STABILITY

The Central Bank of Malta is mandated to undertake macro-prudential analysis to identify and evaluate potential systemic risks and vulnerabilities in the financial system. The objective is to enhance the financial system's resilience through the formulation and implementation of appropriate macro-prudential policy measures.

The identification of potential risks to financial stability, including the publication of the *Financial Stability Reports*, continued to be analysed and discussed by the Bank's Financial Stability Committee, which met three times during 2015.[1] Macro-prudential policy measures and related issues were discussed within the Joint Financial Stability Board (JFSB), which met four times during 2015.[2] This Board establishes mechanisms of cooperation between relevant authorities on matters related to financial stability, including the formulation of macro-prudential policy and the identification and assessment of macro-prudential and micro-prudential instruments, when relevant. Throughout 2015, the JFSB discussed various policy issues, including results of stress tests and developments emanating from the Single Supervisory Mechanism (SSM). The main macro-prudential policy measures discussed were the counter-cyclical capital buffer rate and the capital buffer for other systemically important institutions (O-SII).

In September 2015 the Bank published its *Financial Stability Report* and an *Interim Report* the following December. As in previous editions, the analysis focused on key components of the financial sector, namely the three broad categories of banks: core-domestic, non-core domestic and international banks, and on the insurance and investment fund sectors. Both *Reports* analysed potential vulnerabilities within and outside the financial sector, and provided an outlook on the identified risks. Overall, the *Financial Stability Reports* concluded that in 2014 and during the first half of 2015 the financial sector remained resilient to risks, with a positive outlook supported by favourable domestic macroeconomic conditions.

The Bank continued to monitor the resilience of domestic credit institutions to a number of potential key risks through its stress-testing exercises. The univariate stress tests simulate:

1) credit quality deterioration in the securities portfolio;
2) an increase in non-performing loans (NPL) due to adverse macroeconomic conditions;
3) a drop in property prices;
4) persistent deposit withdrawals.

The latter test was revised to further align the methodology with international practice. The revised liquidity framework makes use of granular bank-specific bond holding data, as well as of bond-specific market information, such as bid-ask spreads. The other three sensitivity tests remained broadly unchanged and similar assumptions have been applied. Results show an overall improvement in the solvency position of core domestic banks, implying an improved adequate capital buffer to withstand adverse market conditions. Banks' solvency ratios remained well above the regulatory threshold, even under adverse scenarios. The results show that banks have also improved their liquidity position during 2015, as the core banking system was on average able to comfortably withstand the assumed liquidity shocks. The results of the univariate stress tests were published in the *Financial Stability Report* and in the *Interim Report*.

The Bank also runs on a regular basis a credit risk model developed around the Merton approach to assess credit risk inherent in the individual bank's loan portfolio level. Credit risk quantification is influenced by sectoral NPL correlation and sectoral default rates. The macro-stress-testing framework was further developed during the year. The model seeks to capture the impact of extreme but plausible macroeconomic and financial shocks on banks' balance sheets. The results of the model corroborate the conclusions drawn from the univariate stress tests relating to credit risk in the loan book.

[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 Bank, together with the MFSA conducted further rounds of the Quantitative Impact Study (QIS) under the guidance of the Bank for International Settlements. Following the implementation of the new capital regulatory legislation in January 2014, the QIS focused on the new liquidity regulatory regime, which will be implemented in stages in the forthcoming years, with a full implementation envisaged by 2018.

In 2015 the European Central Bank (ECB) conducted a comprehensive assessment similar to the one conducted in 2014, which consisted of an Asset Quality Review (AQR), followed by a bottom-up stress-testing exercise. Nine banks from eight Member States participated in the exercise, one of which was Medifin Holding Ltd.[3] Medifin Holding Ltd increased its CET 1 capital through a shareholder capital contribution of €28.7 million and the final CET 1 ratio under the adverse scenario, including the full impact of the AQR, was above the 5.5% minimum threshold. Medifin Holding Ltd was classified as a significant institution on the basis of the criteria established by the ECB, and is being directly supervised by the ECB as from January 2016.

In 2015 the Central Bank of Malta continued to contribute to the work of the SSM through its involvement in Supervisory Board meetings and the Governing Council's decision-making process. Moreover, throughout 2015 the Bank was directly involved in consultations with other domestic authorities with respect to the development of the new EU framework for crisis management and resolution. Most notably, this included the transposition of the Bank Recovery and Resolution Directive (BRRD) in Malta and the harmonisation of the resolution regime for domestic credit institutions with the rest of the European Union in connection with the role of the Single Resolution Mechanism (SRM). The SRM Regulation implements the BRRD in the euro area, and the full resolution powers of the Single Resolution Board.

The BRRD was transposed into Maltese law in September 2015 through four legal notices for credit institutions. These include the Recovery and Resolution Regulations; the Credit Institutions (Reorganisation and Winding-Up) (Amendment) Regulations; the Local Loans (Registered Stock and Securities) Ordinance (amendment) Act; and the amendments to the Banking Act. The legislative changes also entailed amendments to the MFSA Act and to the Investment Services Act.

Further to the above-mentioned developments, in July 2015 a National Resolution Authority (NRA) was established. The NRA is represented on the MFSA's Board of Governors. Moreover, the NRA has appointed a Resolution Committee, which shall have all the powers assigned to it under the BRRD. The latter consists of three officials representing the Central Bank of Malta, the MFSA and the Ministry for Finance.

At the end of September 2015, the Central Bank of Malta published on its website guidance on the treatment of central bank reserves with regard to the Liquidity Coverage Requirement. This guidance elaborates on the common understanding reached between the ECB and National Competent Authorities in accordance with Article 416 (1) (a) of the Regulation (EU) No 575/2013 and Article 10(1) (b) (iii) of the Commission Delegated Regulation (EU) 2015/61 of 10 October 2014.

In November 2015 the European Commission released a legislative proposal outlining the road map for a common European Deposit Insurance Scheme (EDIS), to be achieved by 2024. A common EDIS marks the third pillar of a fully-fledged Banking Union as it would act as a counterpart to both the SSM and the SRM. In this regard, the Bank started to participate in preliminary discussions with relevant authorities on the EDIS proposal.

Towards the end of 2015, the Central Bank of Malta and the MFSA launched a consultation on the methodology used for the identification of O-SIIs and the calibration of the related capital buffer, in line with Article 131 of the CRDIV (transposed domestically in Central Bank of Malta Directive No. 11 and MFSA Banking Rule 15). Comments submitted by stakeholders were taken into consideration by the Authorities, which communicated replies in a Feedback Statement published on their website. Subsequently, the Bank and the MFSA published a Statement of Decision, identifying Bank of Valletta Group, HSBC Group Malta and Medifin

[3] Medifin Holding Ltd is the holding company of Mediterranean Bank plc, and its subsidiaries Mediterranean Corporate Bank Ltd, and MeDirect Bank SA established in Belgium.

Holding Ltd as O-SIIs, with calibrated capital buffers of 2%, 1.5% and 0.5%, respectively. The capital buffers are applicable with effect from 1 January 2016 and are subject to a transition period of four years, with equal annual increments.

In accordance with Article 136(7) of EU Directive 2013/36/EU, transposed in Central Bank of Malta Directive No. 11, the Bank shall announce the setting of the counter-cyclical capital buffer rate based on a quarterly assessment of risks due to excess credit growth. Following this assessment for the first quarter of 2016, the Bank notified its decision of a 0% counter-cyclical capital buffer rate on its website.

In December 2015 the Central Bank of Malta published its macro-prudential policy strategy, which sets out the operational framework for macro-prudential policy and its implementation as defined in Recommendation C of the European Systematic Risk Board (ESRB) Recommendation on intermediate objectives and instruments of macro-prudential policy.

The Domestic Standing Committee, composed of senior officials of the Bank, the MFSA and the Ministry for Finance, met regularly during 2015. The Committee mainly focuses on issues related to the management of a potential crisis. Its work programme also included discussions on the domestic preparation for a request of a Financial Sector Assessment Programme, the running of a domestic crisis simulation exercise, the establishment of the domestic NRA and its representation on relevant domestic committees, and the transposition of relevant EU law.

During the year senior Bank officials participated in the work of the ESRB and of the ECB, as well as in the activities of 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 with the International Monetary Fund in relation to Article IV mission, the European Commission and with credit rating agencies to discuss issues related to financial stability.

During the year the Bank continued to provide policy advice to Government on new EU Directive and Regulations related to the financial system. Furthermore, the Bank and the MFSA held quarterly meetings with the Malta Bankers' Association to discuss issues that are of significance to the banking sector.

3. ECONOMICS, RESEARCH AND STATISTICS

Analysis, forecasting and research

The Bank monitors economic developments, while also participating in Eurosystem work related to macroeconomic projections and public finance. At the same time, the Bank has upgraded its promotion of published research.

During 2015 staff provided ongoing input into monetary policy formulation and implementation by briefing the Governor ahead of his participation in the Governing Council of the European Central Bank (ECB).

Staff continued to provide similar support to the Bank's senior management in the context of the work of the General Council of the ECB, European System of Central Bank (ESCB) committees and substructures, as well as external bodies, such as the European Commission, the International Monetary Fund (IMF), the Commonwealth, and credit rating agencies.

As in previous years, a comprehensive projection exercise was carried out twice during 2015 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 financial variables and on strengthening the Bank's short-term forecasting capability.

During 2015 the Bank, in conjunction with the Malta Chamber of Commerce, Enterprise and Industry, continued to survey firms on their access to finance, among other issues. The survey results were analysed in the Bank's *Quarterly Review*.[1]

The Bank published its analysis of domestic and foreign economic and financial developments in its *Quarterly Review* and *Annual Report*. During 2015 three issues of the *Quarterly Review* were published. The analysis that would have appeared in the fourth issue of the *Review* was incorporated in the *Annual Report*. During the year the Bank also began to release a monthly *Economic Update*, providing a commentary on the latest economic and financial developments in Malta. The monthly *Statistical Release on Monetary Developments in Malta* was discontinued.

Staff focussing on economic and monetary policy analysis undertook specialised research that covered a range of topics. During 2015 staff contributed to working papers and articles on the economic impact of easing restrictions on hotel heights and on fiscal multipliers in Malta that were published on the Bank's website or featured in its regular publications. During 2016 the Bank will continue developing its analytical tools to improve its short-term forecast capability. In addition, in the context of work being carried out across the Eurosystem, Bank staff will address issues related to forecasting house prices and assessing potential output.

Furthermore, staff specialising in modelling focused on six research strands:

- the changing structure of the Maltese economy;
- the relationship between output, prices and employment in Malta;
- developments in Malta's competitiveness;
- the impact of fiscal policy on the Maltese economy;
- the role of credit and housing markets in Malta;
- the evaluation of the Central Bank of Malta's econometric models and Maltese economic data.

The research resulted in five working papers that were published on the Bank's website and 12 articles in the Bank's publications. These articles deal with the impact of income tax reductions, industry-specific multipliers, estimates of the credit gap, the size of fiscal multipliers and the Phillips curve relationship in Malta.

[1] The Bank's publications, including the *Annual Report*, *Quarterly Review*, *Policy Notes* and *Economic Update*, can be found on its website at: https://www.centralbankmalta.org/publications

Moreover, in 2015 the Bank launched the publication of *Policy Notes*, which address current economic policy-related questions. These notes covered issues, such as developments in unit labour costs, the diversification of the Maltese economy, the impact of structural reforms that raised labour participation and the impact of foreign workers in Malta.

The Bank also published a study of the evolution of the Maltese economy in the 50 years since Independence, together with a database containing over 170 macroeconomic time series.[2] The latter attempted to address problems of post-Independence continuity of statistics owing to very significant changes in statistical methodologies in the published data sets.

During the year research findings on topics, such as structural changes in the Maltese economy, developments in potential output and pension reform, were presented at the ESCB, at local and international conferences or published in international journals.

Staff also continued to develop the Bank's macro-econometric model. The third version of the model since 2012 includes two key improvements: a richer financial block with enhanced macro-financial linkages and a re-estimation of the model using ESA 2010 chain-linked data. At the same time, a programme of technical cooperation in econometric modelling set up with the Banca d'Italia is resulting in the construction of new advanced models, namely a Quarterly Projection Model of Malta and the rest of the euro area and a calibrated Dynamic Stochastic General Equilibrium (DSGE) model of a two-sector small open economy within a monetary union.

Staff members participated actively in the drafting of the ECB's *Structural Issues Report*, which was dedicated to saving and investment trends. They all gave an input in two ECB taskforces on low inflation and in the work of two ESCB research networks: the Competitiveness Network developed a set of new competitiveness indicators – focusing on micro-data from each participating country, while the Wage Dynamics Network assesses, by means of harmonised country surveys, how firms price their products in conjunction with investigating the process of wage formation. A country report on the results of this survey for Malta was prepared and approved for publication by the ECB. Staff members were also co-authors in two ECB working papers, one comparing fiscal multipliers across models and countries in Europe and the other on public debt, population ageing and medium-term growth.

The Bank continued to provide training in econometrics for staff members, as well as for Malta Financial Services Authority (MFSA) employees. Staff also provided support to the Statistics Department on the creation of a hedonic house price index and a new measure of core inflation.

Looking ahead to 2016, research plans include studies on the Maltese economy's input-output tables, the relationship between sentiment indicators and economic activity, the level of house prices, revisions in macroeconomic data and the pass-through of foreign prices to local ones. Staff members will also apply estimation techniques to the Bank's DSGE model and broaden the range of applications of the Quarterly Projection Model, and the structural macro-econometric model. The Bank also intends to issue its first stand alone research publication incorporating ten studies on the main macroeconomic relationships in the Maltese economy, such as the economic cycle, structural unemployment, the demand for currency and core inflation.

Statistics

The Bank is primarily responsible for the compilation of monetary, financial, payment, securities, financial stability and financial institutions statistics in Malta. The Bank also contributes to the compilation of the balance of payments and international investment position, financial accounts and government finance statistics, in cooperation with the National Statistics Office (NSO).

The Bank also 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.

[2] This study can be found on the Bank's website at: https://www.centralbankmalta.org/en/working-papers-2015

During 2015 participation in Eurosystem-related work continued to broaden. Additional information from financial vehicle corporations was added to the ECB's Register of Institutions and Asset Database. The banks' balance sheet and interest rate statistics continued to be made available on a selective and granular basis to the Governing Council. The Bank collected and vetted the enhanced targeted longer-term refinancing operation templates from credit institutions participating in the programme, which is designed to enhance the functioning of the monetary policy transmission mechanism. Furthermore, the Bank stepped up the use of the ESCB's Centralised Securities Database for statistical purposes, to produce Malta's securities issues statistics and for other policy-making purposes.

In order to carry out its duties in the area of financial stability statistics the Bank collected the Common Reporting (COREP) statistics and Financial Reporting (FINREP) statistics from credit institutions. The first is the standardised reporting framework for the purposes of the Capital Requirements Directive and the Capital Requirements Regulation, while FINREP is the standardised framework for financial accounting data. Furthermore, the availability of the full COREP and FINREP information enabled the Bank to enhance the list of Financial Soundness Indicators, boosting its efforts for Malta to eventually join the IMF's Special Data Dissemination Standard Plus initiative together with the NSO. Meanwhile, the reporting of consolidated banking data was increased from an annual to a quarterly reporting obligation. The Bank is also in the process of amending Directive 5 to commence collection of Solvency II information from insurance corporations as from 2016 and, in the process, to enable the Bank to fulfil the amended ECB Regulation on insurance corporations.

During 2015 the Bank recorded significant progress in the preparations for the launch of the National Central Credit Register (CCR). The Register will be regulated by Article 24 of the Central Bank of Malta Act and by a subsidiary directive. The amendments to the Act were approved by Parliament in early 2016.

During the preparations for the CCR, the Bank consulted 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. The Bank organised a number of workshops with credit institutions and is currently testing the compilation and transmission of data. The Register will enhance credit market conditions by reducing information asymmetry and increasing competition in the banking sector.

Concurrently, the Bank continued to participate in the ESCB's AnaCredit Working Group, which is designed to provide a harmonised set of credit and credit risk data across participating countries. On 18 November 2015, the ECB's Governing Council published the related draft Regulation to increase transparency in the markets.

In the area of general economic statistics, the Bank continued working, in conjunction with the NSO, the Building Industry Consultative Council (BICC) and other stakeholders for an improved methodology in the compilation of a new house price index. The latter will be based on information that credit institutions provide to the Bank. Moreover, detailed analysis was presented in the Bank's publications and on its website on the results of the third wave of the Eurosystem's collaborative Wage Dynamics Network project, identifying key features of wage and price-setting behaviour. The final results are envisaged to be released during 2016.

The Bank also participated in the ESCB's Competitiveness Research Network (CompNet) initiative, by providing specialised statistical information. The CompNet project engages in research on the competitiveness of euro area Member States.

Meanwhile, the Bank, in collaboration with the NSO, continued to extend its databases with historical data, including statistics computed in accordance with ESA 2010, for time-series analysis.

The processing of statistics requires a robust, efficient and adaptable IT solution. During 2015 collaboration continued with the Banca d'Italia on the adoption of INFOSTAT, the Banca d'Italia's statistical information system. The related agreements were signed by both Banks, while the actual migration of the first statistical processes started in the latter half of 2015. Initially, effort was dedicated to the creation of the foundations of the project, namely the metadata, data dictionary and business register.

Concurrently, the Bank is undertaking a thorough re-engineering of most of its statistical processes to introduce higher efficiency. Meanwhile, the transmission of data to the ECB continued its migration to the new SDMX-ML reporting format.

Acknowledging the value of granular or micro-data for research and analysis, the Bank reached separate agreements with the Malta Hotels and Restaurant Association and with a private firm to supply the Bank with anonymised granular data on hotel room rates and financial statements of all private firms registered in Malta, respectively.

The internal Statistics Policy Committee, supported by its substructure, continued to meet to define and implement the policy on statistical information within the Bank. The Forum for Bank Statistics, which is chaired by the Bank and includes representatives from credit institutions, the MFSA, the NSO and the Malta Bankers' Association, met to promote dialogue on monetary and financial statistics among stakeholders. The Bank was once more represented on the Government Finance Statistics Committee (GFSC), which also includes officials from the NSO and the Ministry for Finance. The GFSC is responsible for the reporting of government finance statistics related to the Council regulation on the Excessive Deficit Procedure notification. It also participated in the BICC Property Market Working Group and in the Committee on Statistical Matters, which is chaired by the Ministry for Finance.

4. CURRENCY, PAYMENT SYSTEMS AND BANKING SERVICES

The Central Bank of Malta is responsible for the issue and circulation of euro banknotes and coins in accordance with the legal framework of the European System of Central Banks and the European Central Bank (ECB), and of the Central Bank of Malta Act. 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

The Bank issues euro banknotes and coins in line with the demand of the banking system (see Table 4.1 and Table 4.2). All banknotes and coins returned to the Central Bank of Malta are examined to ensure their authenticity. The quality of currency in circulation is sustained through the withdrawal of counterfeits and the destruction of unfit banknotes and coins.

Notes and coins

During 2015 notes inspected by the Bank numbered 86.2 million, compared with 86.8 million in 2014. The inspected notes had a value of approximately €2 billion, which was €28.2 million higher than in 2014. The proportion of banknotes that were destroyed decreased to 11% in 2015 from 15% in 2014. This drop is mainly due to the destruction during the last three months of 2014 of the €10 first series banknotes.

In November 2015 the ECB issued the new €20 banknotes, the third denomination of the Europa series.

As an agent for Government, the Bank is responsible for procurement, storage and circulation of euro coins, while the ensuing seigniorage is passed on to Government. During 2015 the outstanding volume of euro coins in circulation increased by 11.5%. At end-2015, the volume of euro coins issued and outstanding was €250.4 million (see Table 4.2). During 2015 a total of 62.6 million euro coins, with a value of €37.1 million, were examined by the Bank.

The Currency Operations Office continued with its information and educational responsibilities. It embarked on an intensive training programme regarding the security and fitness features of banknotes. These sessions

Table 4.1
BANKNOTES ISSUED BY AND PAID INTO THE CENTRAL BANK OF MALTA IN 2015
EUR millions

2015	Issued by Central Bank of Malta	Paid into Central Bank of Malta	Net issue	Issued and outstanding
January	141.3	156.7	-15.4	851.2
February	158.3	147.6	10.7	862.0
March	183.0	159.6	23.4	885.4
April	184.6	169.0	15.6	901.0
May	175.3	174.8	0.4	901.4
June	200.2	179.2	21.0	922.4
July	206.1	201.6	4.5	926.9
August	180.0	191.0	-10.9	916.0
September	185.2	178.7	6.4	922.4
October	180.5	180.0	0.5	922.9
November	182.4	172.5	9.9	932.8
December	218.8	177.4	41.3	974.1
Total 2015	**2,195.7**	**2,088.2**	**107.4**	**974.1**
Total 2014	**2,100.0**	**2,074.0**	**26.1**	**866.6**

Source: Central Bank of Malta.

Table 4.2
COINS ISSUED BY AND PAID INTO THE CENTRAL BANK OF MALTA IN 2015
EUR millions

2015	Issued by Central Bank of Malta	Paid into Central Bank of Malta	Net issue	Issued and Outstanding
January	2.8	2.9	-0.1	60.5
February	2.5	2.7	-0.1	60.4
March	2.9	2.7	0.2	60.6
April	3.6	3.1	0.5	61.1
May	3.9	2.8	1.1	62.2
June	3.9	3.0	1.0	63.2
July	4.8	3.4	1.3	64.5
August	3.9	3.1	0.8	65.3
September	3.7	3.3	0.4	65.7
October	4.5	3.2	1.3	67.0
November	3.2	3.0	0.2	67.2
December	4.5	2.9	1.6	68.8
Total 2015	**44.2**	**36.1**	**8.1**	**68.8**
Total 2014	**41.3**	**36.2**	**5.1**	**60.7**

Source: Central Bank of Malta.

also included hands-on training using counterfeit notes and testing of banknote authentication devices held by retailers.

The Currency Operations Office continued the certification of professional cash handlers at credit institutions as part of the professional cash handlers' programme. The Office finalised the second phase of this certification at financial institutions.

During 2015 the Central Bank of Malta continued to closely monitor credit institutions and other professional cash handlers. Tests were performed on 11 types of banknote handling machines and 26 types of authentication devices. Results confirmed the reliability of the machines and devices.

Credit institutions reported operational data about the re-circulation of banknotes in a timely manner during 2015.

In 2015 meetings with credit institutions were held every two months to keep members updated on currency matters, especially on the cooperation required for the smooth launch of the new ES2 banknotes.

In 2015 approximately 1,600 professional cash handlers at credit institutions completed the e-learning modules on the Bank's electronic platform.

Maltese lira banknotes

A total of 61,972 Maltese lira banknotes with a value of €1.4 million were exchanged at the Bank during 2015. A total of 3.1 million Maltese lira banknotes remained in circulation at end-2015, equivalent to €39.7 million.

Numismatic and commemorative coins

In January 2015 the Bank issued a silver coin to commemorate the 400th Anniversary of the Wignacourt Aqueduct. Once again, the Bank took part in the Europa Star Programme, which focused on the theme, "The Fall of the Iron Curtain". The Bush-Gorbachev Summit held in Malta in 1989 was commemorated with a silver and gold coin issue in March. In April a gold coin was issued to commemorate Pope John Paul II, while in November a coin depicting the one-third farthing was issued as part of the Small Gold Coin Programme.

The series of coins depicting the Auberges of the Knights of St John was concluded in July 2015, with a gold and silver coin issue showing the Auberge de Baviere. In August a silver coin was issued to mark the 450th Anniversary of the Great Siege of Malta. This was part of a commemorative set that also contained a silver foil issued jointly between the Bank and Heritage Malta. In November the Bank also teamed up with Malta Post plc and De La Rue plc to issue a set consisting of a silver coin, a silver stamp and a steel banknote printing plate to commemorate the Commonwealth Heads of Government Meeting held in Malta.

The Brilliant Uncirculated Coin Set (dated 2015) was issued in June and again proved to be very popular with collectors.

During 2015 the Bank also issued three €2 commemorative coins – one in May to commemorate the 100th Anniversary of the first air flight from Malta, another in October featuring the Republic commemoration plaque and the last one in December, commemorating the 30th Anniversary of the EU flag. The design of the €2 coin commemorating the "100th Anniversary of the First Flight from Malta" was greatly appreciated by coin collectors, as it was voted the most attractive design in an online survey on a popular Coin Collector Forum.

The coin themes were approved after the submission of proposals made by the Currency Advisory Board, composed of experts in this field. All coin products were well received by collectors and dealers; in fact, a number of products were sold out shortly on issue.

In the course of the year, the numismatic collection of the Bank's Currency Museum was further enhanced with the purchase of a number of antique coins. For the 2015 edition of *Notte Bianca*, which attracted a record number of visitors to the Bank, an exhibition of coins and medals bearing portraits of the Grand Masters of the Order of St John was organised.

Anti-counterfeit measures

The Currency Surveillance Unit (CSU) within Currency Operations is responsible for the coordination of counterfeit analysis in Malta. During 2015 more than 4,930 counterfeit notes and 570 counterfeit coins were analysed and classified, and findings were uploaded onto the ECB's Counterfeit Monitoring System. CSU personnel also provided expert evidence during several court cases.

During 2015 the CSU issued two press releases on the status of counterfeit notes in the Eurosystem in general and, more specifically, on the local situation.

Counterfeit awareness was raised through participation in programmes on national TV stations, through a dedicated station set up during the annual Notte Bianca event, and by means of the ongoing educational campaign. In November the CSU issued an information booklet titled "The Euro", which was distributed to all cash handlers in Malta and is being giiven to school children during the current educational campaign.

Payment and securities settlement systems

The Bank is responsible for the regulation and oversight of the payment and securities settlement systems in Malta. During 2015 the Bank extended its oversight function to implement provisions relating to security of internet payments. These requirements emanated from the SecuRePay Forum and the European Banking Authority.

From a regulatory perspective, the Bank was appointed by the Minister for Finance as competent authority in charge of enforcing the Interchange Fee Regulation (IFR). The IFR's objective is to lower fees received by the issuers of payment cards and hence reduce fees charged to merchants. The main aim is to increase card acceptance by merchants and thus encourage further card usage by the general public. More transparency on charged fees is also within the scope of the Regulation. Moreover, another directive, the Payment Services Directive, was published in the *Official Journal of the European Union* on 23 December 2015, and entered into force on 13 January 2016. The Bank participated in the drafting stages

Table 4.3
NUMBER AND VALUE OF CHEQUES PROCESSED BY THE MALTA CLEARING HOUSE, 2014 AND 2015

	Number of cheques	Value (EUR)
2014	5,197,364	8,732,892,108
2015	5,260,199	9,045,401,809
Nominal change	62,835	312,509,701
Percentage change	1.21	3.58

Source: Central Bank of Malta.

and shall now work with the Malta Financial Services Authority (MFSA) on its transposition to effect implementation from January 2018.

During the year the Bank continued to exercise its oversight function on MaltaClear, the local Securities Settlement System, as a follow up on recommendations issued as part of the 2014 assessment based on the CPMI-IOSCO Principles for Market Infrastructures. Moreover, the Bank also assessed the progress of MaltaClear in preparations for TARGET 2 Securities (T2S) migration, which was successfully completed in June 2015.

At operational level, the Central Bank of Malta also managed the Malta Clearing House, which provides banks with a cheque clearing system.

In 2015 the total number of cleared cheques and their respective values showed an increase over the previous year of 1.21% and 3.58%, respectively, as shown in Table 4.3.

The total number of SEPA credit transfers processed by the Bank during 2015 increased and stood at 2.56 million for a total value of €3.4 billion, compared with 2.4 million for a value of €2.5 billion in 2014. The rise in SEPA credit transfers follows the promotion of these services by the Bank, which led to more government departments using these instruments to effect payments.

In 2015 the operation of TARGET2-Malta was very stable as no incidents were reported. During the year, two credit institutions joined TARGET2-Malta, bringing the total number of direct participants to seven.

Payment traffic in 2015 registered a decrease of 16.5% in terms of volume and an increase of 6% in terms of value when compared with 2014. Volumes decreased owing to a smaller amount of customer payments, while interbank transactions increased. The total volume of payments processed during 2015 was 66,296, for a value of €147.6 billion. Customer payments amounted to 48,841, reaching €5.0 billion. Interbank payments amounted to 17,455 for a total value of €142.6 billion.

Banker to the public sector

Banking services provided by the Bank to Government and public sector institutions during 2015 included, as in previous years, primarily, the maintenance of various accounts in euro and foreign currencies; encashment of cheques drawn on the Bank and issued by government departments; deposits of cash and cheques; provision of petty cash; night safe facility; safe custody facility; SEPA credit transfers; and payments via TARGET2 (see Table 4.4).

The number of cheques drawn on the Bank by the public sector in 2015 registered an increase of 5.3% on 2014, while their value saw a decrease of 13.9%. The rise can be mostly attributed to a change in the frequency of cheques issued by the Department of Social Security (from four-weekly cheques to weekly cheques). In addition, there was a one-time increase due to the issue of cheque payments by the Inland Revenue Department in connection with the additional bonus of €35 announced in the 2015 Budget, although this increase was mostly offset by a decrease in the issue of cheques in connection with the ex-gratia car grant scheme.

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

	Number of cheques	Value (EUR)
2014	846,799	777,499,333
2015	891,534	668,583,059
Nominal change	44,735	-108,916,274
Percentage change	5.28	-14.01

Source: Central Bank of Malta.

Foreign exchange services offered to Government and public sector organisations during 2015 included the sale and purchase of foreign currency banknotes, outward and inward payments by SWIFT, encashment of Bills Negotiated, and maintenance of foreign currency accounts.

Throughout 2015 the Bank made payments in connection with the servicing of the Government's external debt. Capital repayments amounted to €10.63 million, almost identical to the €10.62 million in 2014. The associated interest paid in 2015 was €1.82 million, lower than the €2.31 million recorded in 2014.

The total value of funds transferred to external debt sinking funds by debiting the government account during 2015 amounted to €9.73 million.

Banker to the banking system

The Bank continued to act as banker to the rest of the banking system by providing it with deposit facilities. Credit institutions maintain balances at the Bank mainly to meet their reserve deposit requirements. In addition, they may hold current accounts, margin call accounts and accounts pledged in favour of the Depositor Compensation Scheme.

Other financial services

On 22 June 2015, the Malta Stock Exchange and the Central Bank of Malta, together with other national central banks and Wave 1 Central Securities Depositories, successfully migrated to the T2S platform. Managed by the Eurosystem, the T2S platform is a single pan-European securities settlement engine that is designed to make securities transactions across European borders more secure and efficient.

The Bank also provided portfolio management services to the Investor Compensation and Depositor Compensation Schemes on the basis of parameters set by their Management Committees, whose members are appointed by the MFSA. During 2015 the Bank also set up an account for the purposes of the Single Resolution Fund.

5. INTERNAL MANAGEMENT

Governance

Board of directors

The Board is composed of Professor Josef Bonnici 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. Mr Alfred Mifsud was appointed Deputy Governor of the Central Bank of Malta on 5 May 2015, upon the end of the term of appointment of Mr Alfred DeMarco. All members of the Board are appointed for a statutory term of five years. Dr Bernadette Muscat acts as Secretary to the Board. Eleven Board meetings were held during 2015.

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 amendments to the Central Bank of Malta Act, the President of Malta, acting on the advice of the Prime Minister, appointed Mr Alfred Mifsud as Deputy Governor to focus on monetary policy for a period of five years with effect from 5 May 2015.

In March 2015 the Board of Governors approved the restructuring of the Financial Stability Department after acknowledging the additional responsibilities relating to the Single Supervisory Mechanism. Concurrently, the stress-testing and risk model function was transferred to the newly established Financial Stability Stress-Testing and Risk Model Office.

Similarly, with increased responsibilities related to the launch of the Public Sector Purchase Programme, in June 2015 the Board approved the restructuring of the Government Securities Office, which was divided into two sections: Government Securities Research Office and Government Securities Trading Office.

In October 2015 the General Economic Statistics, Securities and Data Management Office was also restructured into two offices: Macroeconomic, Payments and Securities Statistics Office, and Statistical Collection and Information Management Office. The new structure took into account the adoption of a new architecture for an integrated statistical information system.

To attain a stronger degree of synergy at the Bank, changes to the organisation structure were undertaken as a first step in a broad restructuring process. In December 2015 the Board introduced a new structure incorporating five Divisions to replace the current five Directorates, with every Division to be led by a Chief Officer.

In the new structure, the Corporate Services Division includes the Human Resources and Administration Department, comprising the Human Resources Office and the Administration Office, the Information Systems Department, comprising the Technology Services Office and the Projects and Applications Development Office, and the Knowledge Management Department.

The Economics and Statistics Division is composed of the Modelling and Research Department, the Economic and Monetary Analysis Department and the Statistics Department. The latter is made up of three areas: the Monetary, Financial and External Statistics Office, the Macroeconomic, Payments and Securities Statistics Office, and the Statistical Collection and Information Management Office.

The Financial Markets Operations and Control Division comprises the Investments Department, which includes the International Asset Management Office and the Market Analysis Office. This Division also includes the Financial Control Department and the Monetary Operations and Government Securities

Department. In turn, the latter is made up of the Monetary Operations and Collateral Management Office, the Government Securities Trading Office, and the Government Securities Research Office.

The Financial Stability and Risk Division includes the Financial Stability Department, which in turn comprises three areas: the Surveillance and Assessment Office, the Policy and Crisis Management Office and the Stress-Testing and Risk Model Office. This Division also includes the Risk Management Department, comprising the Operational Risk Management Office and the Financial Risk Management Office.

The Banking Operations Division includes the Currency Services and Security Department, comprising the Currency Operations Office and the Security Control Office. This division also includes the Payments and Banking Department, which incorporates the Payment and Banking Operations Office and the Regulation and Oversight Office.

The Chief Officers assigned to the Financial Stability and Risk Division, and to the Corporate Services Division report to the Deputy Governor – Financial Stability. The Chief Officers heading the Economics and Statistics Division, the Financial Market Operations and Control Division, and the Banking Operations Division report to the Deputy Governor – Monetary Policy.

Four departments, namely the Internal Audit Department, the Legal Department, the Communications Department, and the European Union and International Relations Department, along with the Governors' Office report directly to the Governors.

Governor's activities in Malta

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

In January 2015 the Governor delivered a presentation to the Parliamentary Committee on Economic and Financial Affairs on quantitative easing in the euro area.

The Governor presented the Bank's *Annual Report* 2014 at its press launch in April 2015. He was also the keynote speaker at the annual dinner of the Institute of Financial Services in December, when he presented his views on strengthening economic resilience.

In addition, the Governor also appeared on local public broadcasting programmes and was interviewed on various media.

Governor's international engagements

During 2015 the Governor participated in a number of high level events. In April the Governor attended the IMF/World Bank Spring Meetings in Washington, D.C.[1] During the same month, he participated in an international conference organised by the *Fondazione Centesimus Annus – Pro Pontifice*. In July he delivered a presentation at an event hosted by MNI Connect in London. In August he attended the annual Economic Symposium in Jackson Hole, Wyoming. In November he also delivered a speech during the Grand Opening Concert of the European Cultural Days of the European Central Bank. Over the course of the year, the Governor participated in several interviews on international media.

Strategy and planning

The implementation of the Bank's Strategic Plan for 2013–2015 continued through a number of cross-organisational and departmental initiatives, with several projects being completed during 2015. The initiatives' status was regularly monitored by the Management Committee, the Policy Advisory Committee and the Board of Directors. Some initiatives will continue into 2016, during which the strategic plan for 2017–2019 will also be formulated.

[1] IMF relations are described in more detail in the International Relations Chapter of the *Annual Report*.

Based on estimates provided by the business areas in the Corporate Calendar on activities undertaken, charts and tables showed the peaks and troughs, as well as the workforce's stretch and flexibility over the months.

Using the Project Portfolio Prioritisation Methodology, various important initiatives were assessed and prioritised. The methodology has proven itself to be a useful tool in assisting the Bank to identify its optimal project portfolio mix.

Governors' Office

The Governors' Office continued to provide expert advice and support to the Governors in connection with their internal and external engagements. The Office carries out quantitative and qualitative research in a broad range of topics in economics, financial stability, monetary policy and statistics. The office actively monitors economic developments at national, euro area and international levels. It contributes to the formulation of policy positions for the Governor, and also drafts speeches, articles, presentations and interviews for the Governor's interventions in Malta and abroad.

Audit Committee

In light of the retirement of Deputy Governor, Mr Alfred DeMarco, the Board appointed Dr Romina Cuschieri, a member of the Board, to the Audit Committee on 9 June 2015. The Audit Committee is now composed entirely of non-executive Directors. The Audit Committee held four meetings during 2015.

External auditors

In accordance with article 27.1 of the Statute of the ESCB and of the ECB, the accounts of the Bank are audited by independent external auditors. These are appointed by the Board and then, on the recommendation of the ECB, approved by the Council of the European Union. During 2015 PricewaterhouseCoopers carried out the statutory audit for the financial year ending 31 December 2014, and expressed their opinion on the financial statements. In addition, they presented their Management Letter to the Board.

Internal Audit Department

The Internal Audit Department continued to fulfil its assurance obligations through the conduct of risk-based audit engagements. The majority of these engagements, carried out in line with a plan approved by the Audit Committee, assessed the effectiveness and efficiency of governance, risk management and control processes. Recommendations mostly dealing with unwarranted exposure to risk were documented within audit reports and presented to various levels of management.

During 2015 the Internal Audit Department provided support to other business areas within the Bank through its consultancy role and its involvement in in-house fora. The Department provides support mainly on the cost effective implementation of controls, project management, policy deployment and consolidation of the Bank's risk assessment and information security framework.

In order to meet its ESCB-related responsibilities, the Internal Audit Department performed five audits as part of the Internal Auditors' Committee (IAC). The Department also participated in the work of the Audit Task Force on IT and attended meetings of the IAC.

During the year the Internal Audit Department continued to upgrade its methodology and consolidated the Bank's audit universe to focus on areas most susceptible to fraud, or where efficiencies could be gained through better deployment of resources. In this regard, the Department delivered presentations to officials and staff members at all levels as part of the ongoing fraud awareness programme. During the year changes in Bank procedures were mostly triggered by the deployment of the in-house developed audit system.

Operational risk assessment

The Risk Committee met eight times during 2015. A regular review of all risks was performed by committee members, who focused on risks related to Bank's operations, on assets under management, the Public

Sector Purchase Programme portfolio, the Malta Government Securities portfolio and various legal issues. Mitigation measures against identified risks and ancillary incidents were discussed and the measures' subsequent implementation was monitored. During these meetings, a number of new or updated policies, such as the Business Continuity Policy and Business Continuity Framework, were reviewed before being presented to the Audit Committee and Board of Directors. The Chief Risk Officer informed the Audit Committee on a quarterly basis of the activities of the Risk Committee and brought to their attention any pertinent issues.

The second cycle of the operational risk management exercise continued and the report relating to the Operational Market Operations Directorate was finalised. This exercise will be concluded by mid-2016.

During 2015 the Bank conducted a business impact analysis to gauge the financial, business and reputational impact on all Bank processes. The maximum tolerable outage for each process was established in conjunction with the relevant business areas, resulting in each process being categorised as being critical, important or other.

Each business area at the Bank also embarked on a review of the business continuity plans related to its activities. Testing of these plans was carried out together with members from the Operational Risk Management Office.

Legal issues

During 2015 the Legal Department was involved in the amending or drafting of new legislation as follows:

- the drafting of the Bill to amend the Central Bank of Malta Act to establish a Central Credit Register (CCR) to empower the Bank to issue directives imposing requirements on licensed institutions to provide information on borrowers and to regulate access to the Register;
- the drafting of Central Bank of Malta Directive No 14 on a CCR, which establishes the information and level of access given to the Register;
- the drafting of Central Bank of Malta Act (Appointment of Competent Authority on Interchange Fees for Card-Based Payment Transactions) Regulations, 2015, through which the Minister for Finance appointed the Bank as competent authority for the purposes of Regulation (EU) No 2015/751 of the European Parliament and of the Council of 29 April 2015 on interchange fees for card-based payment transactions;
- amendments to Central Bank of Malta Directive No 8 on Monetary Policy Instruments and Procedures to implement monetary policy measures introduced by ECB Guideline 2014/60.The objective of the amendments was to recast the Eurosystem's existing general framework for monetary policy implementation;
- more amendments by virtue of Guideline ECB/2015/27, which were implemented in Central Bank of Malta Directive No 8 accordingly. The provisions on counterparty eligibility were revised in the light of recent legislative developments relating to the implementation of the Banking Union;
- Central Bank of Malta Directives No 6 and 7 on the Harmonised Conditions for Opening and Operating Payments Module Accounts and Dedicated Cash Accounts in TARGET2-Malta and on the Provision of Intraday Credit and Auto-Collateralisation, which were amended to transpose Guideline ECB/2012/13;
- amendments to Central Bank of Malta Directive No 5 on Statistical Reporting Requirements to include the new Common Reporting and Financial Reporting obligations established by Regulation (EU) No 575/2013.

The Bank's legal staff also advised senior management on issues related to the Bank's governance structure and on various ESCB activities and other projects, including:

- the continued implementation of the Bank's Legal Risk Management Framework intended to eliminate or mitigate legal risks in the Bank's operational processes;
- legal support in relation to the implementation of the ECB's TARGET2 Securities project within the Bank;
- legal analysis of documents related to the Bank's participation in the EUREX platform;
- the review of agreements and legal issues related to the Victor Pasmore Exhibition and the Bank's new premises;

- participation in meetings organised by a Task Force which was set up by the Public Debt Management Advisory Committee to discuss opportunities for a possible local sovereign *sukuk* issuance and the analysis of legal frameworks applicable for sovereign *sukuk* issuances in foreign jurisdictions;
- assistance in the implementation of Regulation (EU) No 2015/751 of the European Parliament and of the Council of 29 April 2015, on interchange fees for card-based payment transactions in the local scenario in relation to the classification of current payment card schemes into three-party or four-party payment card schemes, and the definition of a limited network.

The Legal Department also provided advice on the establishment of the CCR and on drafting the necessary legislation. The Department participated in the Bank's internal Ethics Framework Task Force, which is reviewing the Bank's Policy on Insider Information and Ethics Policies. The Legal Department also conducted the annual data protection stocktake across the Bank and performed compliance and monitoring tasks related to data protection, freedom of information, and the prevention of money laundering and funding of terrorism.

During the year the Legal Department participated in the ECB's Legal Committee and its substructure, the Financial Law Experts Group, to advise the Governing Council on the implementation of its statutory duties. The Department also took part in the Eurosystem Ethics Framework Task Force, which had its mandate renewed by the Governing Council to monitor the implementation of ECB Guideline 2015/855, laying down the principles of a Eurosystem Ethics Framework. The Legal Department also continued to participate in the European Counterfeit Expert Group of the European Commission.

Human resources

During 2015 the Bank recruited 20 employees, while nine resigned. The number of full-time positions went up by 23, reaching 363 at the end of 2015, while part-timers stood at 11, 16 fewer than the year before. On a full-time equivalent basis, the number of employees stood at 333 at the end of 2015, four more than in 2014.

Six employees were seconded to offices within the public sector and with a charitable organisation, while another six were on secondment to the ECB. The latter group includes three employees who had taken up a three-year ongoing appointment in 2014 at the Single Supervisory Mechanism.

The Bank provided temporary work placement to four students from the University of Malta and to six others from the Institute of Business and Commerce at MCAST. The Bank also participated in a scheme administered by MCAST by offering apprenticeship work to three students. As part of its participation in "Jobs in Financial Services Exposure Programme", which is administered by the MFSA, the Bank provided two secondary students with a one-week job shadowing experience. Furthermore, the Bank offered a period of work practice at its Library to two students pursuing a Bachelor's degree in Knowledge and Information Management at the University of Malta, and to a student who was enrolled in a Bachelor's programme in Library and Archival Science at the *Haute École Paul-Henri Spaak Institute* in Brussels.

Training and development

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

The internal training programme consisted of 42 different courses mainly in IT, economics, statistics, health and safety, and general staff and management development. In addition, the Bank held a number of internal seminars on its medium-term strategic objectives. Induction programmes were also organised for all new employees. In addition, staff in the Modelling and Research Department organised various lectures in econometrics for Bank employees.

As shown in Table 5.1, 205 staff members participated in external training programmes in 2015. These were provided by the ECB, other central banks, and local and overseas professional institutions.

Table 5.1
STAFF TRAINING DURING 2015

Type of training	Number of courses or seminars	Number of participants
Internal	42	527
External	146	205
Local	65	122
Foreign	81	83

Source: Central Bank of Malta.

Table 5.2
ACADEMIC AND PROFESSIONAL COURSES DURING 2015

Type of degrees	Number of employees	
	Studies completed in 2015	Ongoing studies
Postgraduate	9	30
Undergraduate (Honours)	1	5
Diploma	0	1

Source: Central Bank of Malta.

During the year a number of employees benefited from the Bank's study programmes (see Table 5.2). Nine staff members completed their postgraduate education, while 36 continued their studies in degree or diploma programmes.

The "Heading for Leadership Programme", which is one of the ECB's open training events, was again hosted by the Bank in September 2015. As currently set up, this programme gives participants the opportunity to identify their personal leadership style and to adapt it to the needs and expectations of staff members being managed. It addresses issues including dealing with conflict, managing performance and teamwork skill development. Fourteen participants from various national central banks (NCB) took part in this event.

In March 2015 the Bank also hosted "Transformational Leadership in a European Context Programme". Its general objective was to enhance participants' leadership style to manage strategic organisational change and transformation. This event was attended by nine central bankers from NCBs within the ESCB. Two staff members from the Central Bank of Malta also participated. In addition, in November 2015 the Bank organised an internal residential management development programme for all office managers and staff in executive grades with managerial responsibilities.

The Human Resources Assessment Task Force finalised its work in 2015 and made a number of recommendations. These would be presented to senior management in early 2016 for possible endorsement or further study.

Information Systems and Knowledge Management

Information Systems

In 2015 the Bank provided IT solutions through tailored software applications developed in-house and generic IT services and infrastructure.

With the continual evolution and discovery of new threats, information security featured high on the Bank's agenda for 2015. In fact, throughout the year the Bank upgraded its existing perimeter defence infrastructure, its SWIFT hardware security modules and also implemented an additional layer of malware scanning on all incoming and outgoing communications. This was complemented with the launch of an information security awareness programme to refresh staff members' knowledge on the topic; the programme will continue throughout 2016.

The Target 2 Securities infrastructure upgrades and the in-house developments commenced in 2014, and culminated with the successful go-live of the project in June 2015. The Bank's Remote Access Solution was also upgraded to the latest release and a high availability setup was implemented to improve the resilience of the service offered to Bank staff. These projects, coupled with a new strategy to improve storage capacity management, continued to support the virtualisation platform established in previous years.

The Bank is also leading the implementation of a local CCR. Apart from the necessary legislation, the establishment of the CCR requires an IT infrastructure suitable to house the database, taking into account security, software functionality and communication requirements. The Single Supervisory Mechanism reporting has brought about a heightened demand for data collection and retrieval. The Statistical Information System was thus reviewed to cater for the additional datasets collected. Several ESCB application upgrades also triggered local reviews.

The Bank's intention to introduce teleworking and flexitime arrangements was also implemented through an extensive upgrade of the in-house Human Resources System.

During 2015 the Bank again participated in ESCB IT committees and substructures to effectively coordinate ESCB information systems and projects.

Knowledge Management

During the year the Knowledge Management Department continued to deploy Microsoft (MS) SharePoint within the Bank as a content management platform and as a collaborative tool. MS SharePoint is now used to store the Bank's records.

The Bank's library made further strides through its electronic portal in offering various e-library services to its staff and to external users. It enhanced its print and electronic collections on economics and finance, and acquired new books, periodicals, and other specialised publications. Further progress was made to make its services available remotely through the Bank's website. It upgraded its electronic collections with EBSCO Book summaries, a system which provides concise, yet comprehensive summaries of business books.

The library introduced internal blogging as a knowledge dissemination tool. It also made available in electronic format past editions of the Bank's *Annual Report* and *Quarterly Review*. The library continued to maintain a collection of publications issued by international financial institutions.

During the year the Knowledge Management Department uploaded all Bank records on MS SharePoint and intensified its preparation for the implementation of a knowledge management strategy at the Bank.

Premises and procurement

During 2015 the Bank proceeded with its refurbishment plans, as part of a ten-year energy plan, which includes the replacement of old electrical equipment, switchgear and power factor units to enhance energy efficiency and cost savings. The Bank also continued with its maintenance programme, while upgrading and embellishing St James Counterguard.

The construction of the new building at St James Counterguard included the covering of the external "envelope skin" and the remaining construction works, namely the roof works.

During 2015 the Bank participated again in the Eurosystem Procurement Coordination Office (EPCO), mostly in the areas related to software and market data. The EPCO enables members of the Eurosystem to benefit from efficiencies in the joint procurement of supplies and services.

Corporate Social Responsibility

As part of its commitment to the environment, the Bank reinforced its regular paper recycling exercises; paper material collected from bank offices amounted to 12.3 tonnes. The waste paper was baled by the Bank's contractor and sent 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 repeated 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 fourth 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, amongst which were *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. The Bank also sponsored the participation of staff members in the seventh 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. During 2015 the Bank's website continued to be upgraded. The Bank is currently engaged in the development of an e-shop concept to enable online purchases of numismatic products. An online remote library service system via the website is also being developed. This system will access the EBSCO Discovery Service and OLIB's Library Account.

The Communications 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, including the official visit to the Bank by Her Excellency, the President of the Republic, in July 2015.

The yearly Numismatic Symposium, during which the Coin Issuance Programme was launched, was held in January 2015. This event was jointly organised by the Currency Operations Department and the Communications Department. In November the Bank launched a national information campaign on the new €20 banknote of the Europa series. The banknote came into circulation on 21 November 2015.

Various educational visits were hosted throughout the year for local and foreign groups, and for secondary/ tertiary education students. The Communications Department and the Malta Bankers Association jointly hosted two foreign group visits in 2015, 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 2,450 persons were guided around the Bank's main premises, which also included exhibitions by musicians and artists.

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 is free and the services of the curator have been extended to cover the opening hours.

ECB External Governing Council meeting

On 22 October 2015, the Bank hosted the first ECB Governing Council meeting held in Malta. The Communications Department handled all the logistics related to the event and was responsible for coordination with the ECB's team. The meeting was chaired by President Mario Draghi and was followed by a press conference addressed by President Mario Draghi, Vice-President Vitor Constâncio and Governor Josef Bonnici.

European Cultural Days of the ECB – Malta 2015

The Communications Department was responsible for the planning and coordination of the European Cultural Days – Malta 2015 programme. The slogan chosen by the Bank was “Vibrant Malta – to showcase the vibrancy and uniqueness of Maltese culture”.

The programme took place in various prestigious venues in Frankfurt am Main and covered a wide spectrum of performances, including music, literature, drama, lectures and visual arts. It gave leading Maltese cultural and literary performers the opportunity to perform to international audiences. The programme opened with a Grand Concert on 3 November, with tenor Joseph Calleja and the Malta Philharmonic Orchestra under the direction of Maestro Brian Schembri at the *Alte Oper*, Frankfurt.

This concert was followed by other performances featuring violinist Carmine Lauri, vocal concerts by sopranos Lydia Caruana, Gillian Zammit, Claire Ghigo, a percussion performance by Renzo Spiteri, and concerts by the Cosmos Wind Ensemble, the Dominic Galea Jazztet and the Big Band Brothers. The programme also included performances by the national dance company – *ŻfinMalta*, a series of lectures on Maltese history and a joint sculpture and photographic exhibition by photographer Daniel Cilia and sculptor Joe Xuereb. The events came to a conclusion with the performance of Tennessee Williams’s “The Rose Tattoo” in February 2016. All events were well received, both in Frankfurt and by the local media.

During 2015 the Communications Department also coordinated three out-of-Frankfurt meetings for ECB committee substructures, held in Malta. These included the Good Guidance Group meeting on Security in March, the Working Group on Statistical Information Management meeting in April and the Financial Sector Assessment Working Group in July.

6. INTERNATIONAL RELATIONS

In 2015 the Central Bank of Malta continued to participate in the decision-making processes of 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, the International Monetary Fund (IMF), the World Bank Group, and the European Bank for Reconstruction and Development (EBRD).

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 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 euro area NCBs.

With the entry of Lithuania into the euro area on 1 January 2015, the number of governors in the Governing Council exceeded 18. Thus, a voting rotation system was introduced in accordance with a decision taken by the Council of the European Union in 2003, ensuring that the ECB would continue to take decisions in an efficient manner. Moreover, while the Governing Council maintained its fortnightly meeting schedule, as from January 2015 meetings dedicated to monetary policy were held every six weeks instead of once a month. In 2015 the Governing Council also held a number of separate meetings dedicated to the operation of the Single Supervisory Mechanism. In addition, a significant number of Governing Council decisions were taken through written procedures.

The Governor is also 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 NCB governors of all Member States of the European Union. The Governor also participated in the Macro-Prudential 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 and working groups, 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 2015 the Governor was a signatory to multilateral agreements related to the operations of the Eurosystem and the ESCB. In particular, these included agreements in connection with the operation of TARGET2 and TARGET2-Securities (T2S). The Governor also attended the launch of T2S in Milan in July.

Earlier, in May, the Governor attended the second ECB Forum on central banking entitled, "Inflation and Unemployment in Europe", held in Sintra, Portugal.

European Systemic Risk Board

The Governor, as member, took part in the General Board meetings of the ESRB during 2015, while senior officials of the Bank participated in the ESRB's Advisory Technical Committee and its substructures.

During the year the General Board exchanged views on various risks and vulnerabilities in the financial system. It also discussed issues, such as the potential use of the leverage ratio for macro-prudential purposes, the global repricing of risk premia, the impact of exposures of the financial system to specific sectoral risks, possible indirect channels of financial contagion and risks related to the insurance and real estate sectors.

Throughout the year the ESRB continued to publish its risk dashboard. This is a set of quantitative and qualitative indicators of systemic risk in the EU financial system, occasional papers and macro-prudential commentaries.

Other EU institutions

The Governor participated in the informal session of the Economic and Financial Affairs Council held in September in Luxembourg while the Deputy Governor for Financial Stability attended the earlier session in May held in Riga.

The Deputy Governors or other senior Bank officials regularly took part in meetings of the Economic and Financial Committee (EFC). The work of the EFC continued to focus on three main strategic objectives: promoting economic growth, ensuring fiscal sustainability and supporting financial stability.

During 2015 the EFC engaged in discussions on cross-border capital flows within the European Union and on the establishment of a Capital Markets Union. The EFC played a crucial role in the preparation of common European positions at the G-20 meetings and other international fora, such as the IMF and the Financial Stability Board (FSB).

Bank officials also participated in discussions related to the cumulative impact of regulation on the functioning of the financial sector, the close monitoring of market developments and risks to financial stability in the context of the European banking union. Other officials took part in meetings of a number of EFC subcommittees, in which matters of relevance to central banks, such as sovereign debt and IMF-related issues were discussed.

Apart from participating in the EFC and its substructures, Bank staff also took part in a number of other EU committee structures related to central banking functions. 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

The Bank monitored developments at the EBRD and collaborated with the Ministry for Finance on issues related to Malta's membership in this institution. In particular, the Bank provided advice to the Ministry on resolutions that required decisions by the EBRD's Board of Governors, such as those related to the membership of China and Lebanon in the EBRD, and the granting of recipient country status to Greece and Egypt.

The EBRD constituency, which is led by Austria and includes Malta, held its annual meeting in Jerusalem in March to discuss current developments of the EBRD ahead of its annual meeting. At the constituency meeting, the Central Bank of Malta was represented by the Deputy Governor for Monetary Policy. In May the EBRD held its Annual Meeting in Tbilisi, Georgia, during which it announced an increase in annual investment despite the difficult operating environment.

International Monetary Fund

The Governor, in his position as Governor for Malta on the Board of Governors of the IMF, attended the IMF/World Bank Spring Meetings in April. The Deputy Governor for Monetary Policy, in his role of Alternate Governor for Malta on the IMF Board, attended the Annual Meetings in October. During the year the Governor voted on a number of Resolutions proposed by the Fund's Executive Board.

In October 2015 the Deputy Governor for Monetary Policy represented Malta at the joint IMF-World Bank Annual Meetings held in Lima, Peru.

In November 2015 IMF staff members visited Malta in connection with the 2015 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.

Malta's quota in the IMF remained unchanged in 2015 at SDR102.0 million, pending the increase in quotas which came into effect in January 2016, in conjunction with the entry into force of amendments to the IMF's

Articles of Agreement. After the relative payments were effected, Malta's quota increased by SDR66.3 million to SDR168.3 million.

During 2015 Malta's net cumulative allocation of SDRs, which is computed in proportion to its quota share, remained unchanged at SDR95.4 million. However, the Bank's holdings increased from SDR84.5 million at the end of 2014 to SDR87.5 million by end-2015. This reflected purchases under the Bank's two-way voluntary arrangement with the Fund, which stipulates that Malta's SDR holdings may not be less than 65%, and not more than 117%, of its net cumulative SDR allocation.

The Bank also continued to carry out transactions related to the IMF's operational budget. The repayments received during 2015 by the Bank exceeded the amount of new loans which were extended. As a result, Malta's reserve tranche declined from SDR38.3 million to SDR29.3 million, while the Fund's holdings of the national currency with the Bank increased from the equivalent of SDR63.7 million to SDR72.7 million by the end of the year.

During 2015 no drawings were affected under the 2012 bilateral loan agreement between the Bank and the IMF. The protracted non-ratification of the 14th General Review of Quotas compelled the IMF to continue with the process of seeking alternative measures to supplement Fund resources through bilateral loan agreements. To this end, in July the Maltese authorities consented to the second and final one-year extension of the 2012 loan agreement, until February 2016.

World Bank Group

The Bank continued to assist the Ministry for Finance in monitoring developments within the World Bank Group and in providing advice on particular issues related to the Group when required.

Asian Infrastructure Investment Bank

During 2015 the Bank's Deputy Governor for Monetary Policy participated in the Chief Negotiators' Meetings for Prospective Founding Members of the Asian Infrastructure Investment Bank (AIIB). The Articles of Agreement were signed by 50 Prospective Founding Members, including Malta, on 29 June 2015 and the AIIB became operational early in 2016. Malta is represented on the AIIB's Board of Governors by the Minister for Finance with the Governor of the Central Bank of Malta serving as Alternate Governor.

Other matters

The Bank continued to monitor developments related to initiatives endorsed by the FSB and the Bank for International Settlements (BIS). Staff members also participated in BIS seminars on various topics of a financial nature.

STREAM: A STRUCTURAL MACRO-ECONOMETRIC MODEL OF THE MALTESE ECONOMY[1]

Owen Grech

Abstract
This article presents the third version of the Central Bank of Malta's core macro-econometric model of the Maltese Economy, STREAM (Structural and TRaditional Econometric model for Malta). It is a traditional structural model built around the neo-classical synthesis. Behavioural equations are estimated in error-correction form on the basis of quarterly data spanning from 2000Q1 to 2013Q4. Economic agents are assumed to have adaptive expectations. The novelty of the model is that it contains fully fledged fiscal and financial blocks, which is uncommon in traditional structural models. Given both the strong links these sectors share with the broader economy, as well as the substantial influence they have on each other, it is ideal to model them within the same framework. This third version of the model includes two key upgrades when compared with the previous version: (i) it has been extended to include an even richer financial block, and (ii) it has been re-estimated using more recent European System of Accounts (ESA) 2010, chain-linked data. Simulation results for a monetary policy shock illustrate the properties of the updated model and suggest that its mechanics are plausible from both a theoretical and empirical standpoint.

Introduction
Modern economies are considerably complex, with many variables and different sectors being interlinked. A macro-econometric model is a simplified description of this complex reality. It captures the key economic relationships underpinning an economy, usually based on both theory and historical data, and thus serves to assist economists and policymakers to understand the inner workings of the underlying economy.

This article presents the third version of the Central Bank of Malta's core macro-econometric model of the Maltese Economy, STREAM (Structural and TRaditional Econometric model for Malta).[2] The model was built with four key uses in mind. First, it can be used to conduct simulations and thus assess the impact of various shocks on the domestic economy, such as changes in world demand, the price of oil, the exchange rate, short-term interest rates (monetary policy), government consumption (fiscal policy), and financial conditions represented, for example, by a change in non-performing loans.

Second, the model can contribute towards the projection exercises carried out by the Bank, including the Eurosystem staff macroeconomic projection exercises.[3] Although other aids are used in the forecasting process, such as satellite models and expert judgement, the model serves as a useful input, particularly with regard to the medium to long run, when the role of judgement diminishes. In addition, it provides a framework that ensures internal consistency in the forecast, serves as a tool for rapidly updating the projections (e.g. upon the arrival of new external assumptions) and acts as an aid when considering the different interlinkages within the economy.

[1] Prepared by Owen Grech. Mr Grech is a Senior Research Economist in the Bank's Modelling and Research Department and a Visiting Assistant Lecturer at the Faculty of Economics, Management and Accountancy, University of Malta. He would like to thank Prof. Josef Bonnici, Mr Alfred Mifsud, Mr Alexander Demarco, Dr Bernard Gauci, 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.

[2] The first and second versions of the model are documented in Grech, O., B. Micallef, N. Rapa, A. G. Grech and W. Gatt, "A Structural Macro-Econometric Model of the Maltese Economy", *Working Paper* No. 02/2013, Central Bank of Malta; and Grech, O. and B. Micallef, "A Structural Macro-Econometric Model of the Maltese Economy", *Central Bank of Malta*, 2014, respectively.

[3] The Eurosystem staff macroeconomic projections are prepared jointly by staff from the euro area national central banks and from the ECB on a bi-annual basis. Based on a common set of assumptions and principles, all euro area national central banks produce projections of their respective economies that cover a range of macroeconomic variables, which are then aggregated to provide a short to medium-term outlook of the euro area. See European Central Bank, "A Guide to Eurosystem Staff Macroeconomic Projection Exercises", *European Central Bank*, Frankfurt, 2001, for further details.

Another potential use of the model is examining the impact of policy actions on the economy.[4,5] Finally, the model should deepen our understanding of how the Maltese economy functions and ignite further debate in this regard.

STREAM is a traditional structural model built around the neo-classical synthesis. Behavioural equations are estimated in error-correction form on the basis of quarterly data spanning from 2000Q1 to 2013Q4. Economic agents are assumed to have adaptive expectations. The novelty of the model is that it contains fully fledged fiscal and financial blocks, which is uncommon in traditional structural models. Given both the strong links these sectors share with the broader economy, as well as the substantial influence they have on each other, it is ideal to model them within the same framework.

This third version of the model includes two key upgrades when compared with the previous version: it has been extended to include an even richer financial block and it has been re-estimated using ESA 2010, chain-linked data that span an additional year.[6,7,8,9] Simulation results for a monetary policy shock illustrate the properties of the updated model and suggest that its mechanics are plausible from both a theoretical and empirical standpoint.[10]

An overview of the model

In line with many structural macro-econometric models, STREAM is built around the neo-classical synthesis, which asserts that the economy is classical in the long run, but Keynesian in the short run. In other words, output is driven by supply considerations (the factors of production) in the longer term; however, in the short run, as a result of the sluggish adjustment of quantities and prices, there are deviations from this long-run equilibrium and output is determined by the expenditure components of aggregate demand: private consumption, investment, stock building, government consumption and net exports. Departures from long-run output set in motion a sequence of wage and price adjustments that gradually bring the model back to its long-run equilibrium.

STREAM is composed of five blocks: a supply block, a demand block, a price-wage block, a fiscal block and a financial block. It consists of 232 equations, 28 of which are estimated behavioural equations, and 292 variables: 232 of which are determined endogenously, while the remaining 60 are exogenous. It is, therefore, a medium-scale model, which strikes a reasonable balance between containing sufficient detail to capture the key economic relationships underpinning the domestic economy, and being tractable and manageable. This is in line with the current modelling practice among many central banks worldwide, which generally rely on small or medium-sized models, even when modelling considerably large and complex economies.

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4 See, for example, Grech, A. G., "An Estimate of the Possible Impact of Lower Electricity and Water Tariffs on the Maltese Economy", *Working Paper* No. 01/2014, Central Bank of Malta; Micallef, B. and S. Attard, "Assessing the Macroeconomic Impact of Extending Hotel Height Limitations", *Working Paper* No. 01/2015, Central Bank of Malta; and Grech, A. G., "The Macroeconomic Impact of the Income Tax Reductions in Malta", *Working Paper* No. 02/2015, Central Bank of Malta.

5 The model is, however, subject to the Lucas critique, which suggests that if economic agents are rational and forward-looking, one cannot gauge their reaction to a change in policy on the basis of relationships observed in past data since the announcement of a change in policy will trigger a change in the behaviour of these economic agents. See Lucas, R. E., "Econometric Policy Evaluation: A Critique" in Brunner, K. and A. H. Meltzer (eds.), *The Phillips Curve and Labour Markets*, Carnegie-Rochester Conference Series on Public Policy, Vol. 1, Amsterdam: North Holland, 1976, pp. 19-46.

6 The previous version of the model was estimated until 2012Q4, using ESA 1995, constant base year (non-chain-linked) data.

7 The introduction of ESA 2010 coincided with a periodic revision. For further details on the transition from ESA 1995 to ESA 2010 and the periodic revision, including what these changes incorporate and the impact they have had on Maltese national accounts data, see Pace Ross, M., J. Bonello and V. Dimech, "A New National Accounts Framework", *Quarterly Review*, 47(2), Central Bank of Malta, 2014, pp. 82-90.

8 Refer to Robjohns, J., "Methodology Notes: Annual Chain-Linking", *Economic Trends*, No. 630, Office for National Statistics, 2006; and Scheiblecker, M., "Chain-Linking in Austrian Quarterly National Accounts and the Business Cycle", *OECD Journal: Journal of Business Cycle Measurement and Analysis*, Vol. 2010/1, for additional details on chain-linking.

9 See Pace Ross, M., J. Bonello and V. Dimech, "A New National Accounts Framework", *Quarterly Review*, 47(2), Central Bank of Malta, 2014, pp. 82-90, for further details on the chain-linking of Maltese National Accounts data.

10 Simulation results for other shocks, namely a world demand shock, an oil price shock, an exchange rate shock, a government consumption shock and a non-performing loans shock, can be found in Grech, O. and N. Rapa, "STREAM: A Structural Macro-Econometric Model of the Maltese Economy", *Working Paper* No. 01/2016, Central Bank of Malta, available at: https://www.centralbankmalta.org/macro-econometric-model.

The behavioural equations are estimated – rather than calibrated – and specified in error-correction form, as is customary in traditional macro-econometric models.[11] Under the error-correction framework, dynamic equations are specified such that changes in a variable depend on the deviation of its actual values from the long-run cointegrating relationship in the previous period, which is gradually corrected via the error-correction term, and also on the short-run dynamics of other variables. The error-correction approach, therefore, reflects the underlying inertia in the economy since long-run relationships only assert themselves gradually in the face of shocks. The model is estimated using seasonally unadjusted, ESA 2010, chain-linked, quarterly data covering the 2000Q1 to 2013Q4 period.[12] The 2014Q4 vintage was used. The use of quarterly data allows the economy's short-run dynamics to be captured more closely than would be the case with lower frequency data and this, in turn, enhances the model's usefulness with regard to forecasting.

The model is backward-looking with expectation formation entering implicitly through the inclusion of lagged values in the dynamic equations, as is the case with many models in its class. The model thus embodies adaptive expectations.

STREAM can therefore be classified as a traditional structural macro-econometric model. The models to which it bears closest resemblance are the European System of Central Banks Multi-Country Models.[13] It is also similar to the models found in Bank of England (2000), Daníelsson et al. (2009) and Livermore (2004).[14] STREAM, however, is different from these models in two important respects: its fiscal and financial blocks generally contain a higher degree of detail. The financial block draws from Miani et al. (2012).[15]

A closer look at the model

The supply block

In the long run, output is driven by supply-side developments, that is, by the factors of production. This long-run equilibrium level of output – or potential output – is determined by an economy-wide Cobb-Douglas production function with constant returns to scale.[16,17] The supply block consists of another two elements: labour supply and total employment, both of which are modelled via a behavioural equation.

[11] In contrast to estimation, which allows the modeller to estimate parameter values from historical data, calibration involves setting these values on the basis of prior information, such as that obtained from micro-studies, generally with the intention of being more faithful to economic theory and/or producing a model with properties that are in line with some stylised facts about the underlying economy.

[12] Seasonality was treated through the use of seasonal dummy variables as in Daníelsson, Á., M. Gudmundsson, S. Haraldsdóttir, T. Ólafsson, Á.Ó. Pétursson and R. Sveinsdóttir, "QMM: A Quarterly Macroeconomic Model of the Icelandic Economy", *Working Paper* No. 41, Central Bank of Iceland, 2009.

[13] For examples of European System of Central Banks Multi-Country Models, see Angelini, E., F. Boissay and M. Ciccarelli, "The Dutch Block of the ESCB Multi-Country Model", *Working Paper* No. 646, European Central Bank, 2006; Angelini, E., A. D'Agostino and P. McAdam, "The Italian Block of the ESCB Multi-Country Model", *Working Paper* No. 660, European Central Bank, 2006; Beņkovskis, K., and D. Stikuts, "Latvia's Macroeconomic Model", *Working Paper* No. 2·2006, Latvijas Banka; Boissay, F. and J. P. Villetelle, "The French Block of the ESCB Multi-Country Model", *Working Paper* No. 456, European Central Bank, 2005; Fagan, G., J. Henry and R. Mestre, "An Area-Wide Model (AWM) for the Euro Area", *Working Paper* No. 42, European Central Bank, 2001; Fagan, G. and J. Morgan (eds.), *Econometric Models of the Euro-area Central Banks*, Edward Elgar, 2005; Fenz, G. and M. Spitzer, "AQM: The Austrian Quarterly Model of the Oesterreichische Nationalbank", *Working Paper* No. 104, Oesterreichische Nationalbank, 2005; Sideris, D. and N. Zonzilos, "The Greek Model of the European System of Central Banks Multi-Country Model", *Working Paper* No. 20, Bank of Greece, 2005; Vetlov, I., "The Lithuanian Block of the ESCB Multi-Country Model", *BOFIT Discussion Papers* No. 13, Bank of Finland, 2004; Vetlov, I. and T. Warmedinger, "The German Block of the ESCB Multi-Country Model", *Working Paper* No. 654, European Central Bank, 2006; and Willman, A. and A. Estrada, "The Spanish Block of the ESCB Multi-Country Model", *Working Paper* No. 149, European Central Bank, 2002.

[14] Bank of England, "Economic Models at the Bank of England", *Bank of England*, London, 2000; Daníelsson, Á., M. Gudmundsson, S. Haraldsdóttir, T. Ólafsson, Á.Ó. Pétursson and R. Sveinsdóttir, "QMM: A Quarterly Macroeconomic Model of the Icelandic Economy", *Working Paper* No. 41, Central Bank of Iceland, 2009; Livermore, S., "An Econometric Model of the Slovak Republic", Financial Policy Institute, Ministry of Finance of the Slovak Republic, 2004.

[15] Miani, C., G. Nicoletti, A. Notarpietro, and M. Pisani, "Banks' Balance Sheets and the Macroeconomy in the Bank of Italy Quarterly Model", *Occasional Paper (Questioni di Economia e Finanza)* No. 64, Banca d'Italia, 2012.

[16] The Cobb-Douglas production function can be represented as: $Y=AL^{\alpha}K^{\beta}$, where Y is potential output, A is total factor productivity, L is the labour input and K is the capital stock. α and β are the elasticity of output with respect to labour and capital, respectively, and $\alpha + \beta$ gives the returns to scale. If $\alpha + \beta = 1$, there are constant returns to scale; if $\alpha + \beta > 1$, there are increasing returns to scale; and if $\alpha + \beta < 1$, there are decreasing returns to scale. Total factor productivity is an unobservable, catch-all variable that incorporates all those factors that influence economic growth but are not captured explicitly by the measures of labour and capital. Therefore, while it is often associated with technological progress assumed to enhance the productivity of both labour and capital (hence the term total factor productivity), it also includes measurement errors associated with the quality of the factor inputs and their factor shares. It is for this reason that total factor productivity is also referred to as the Solow residual.

[17] For further details on estimating Malta's potential output using the production function approach, see Grech, A. G. and B. Micallef, "Assessing the Supply Side of the Maltese Economy Using a Production Function Approach", *Quarterly Review*, 46(4), Central Bank of Malta, 2013, pp. 37-44.

The demand block

Short-run output is determined by aggregate demand. Real aggregate demand is split into ten real expenditure components, with each modelled separately: private consumption, non-dwelling private investment, dwelling private investment, government investment, changes in inventories, government consumption, exports of goods and selected services, exports of other services, imports of goods and selected services and imports of other services.[18] Private consumption, non-dwelling private investment, dwelling private investment, exports of goods and selected services, and imports of goods and selected services are modelled through a behavioural equation. The remaining five variables, however, could not be modelled adequately using this approach. Therefore, an alternative modelling strategy was employed, namely constructing the variable via decomposition in the case of government consumption, or assuming the variable maintains its share in a broader macroeconomic aggregate.

The price-wage block

The model distinguishes between seven deflators for the following variables: gross domestic product (GDP), private consumption, investment, inventories, government consumption, exports and imports. Following a substantial portion of the literature, a top-down approach is adopted in modelling prices, through which the GDP deflator is modelled directly and the deflators for the expenditure components of GDP are influenced by developments in the former.[19] The deflators for GDP, private consumption, investment, exports and imports are modelled via a behavioural equation. The other two deflators had to be modelled in an alternative manner. The government consumption deflator is assumed to grow in line with the GDP deflator, while the inventory deflator is computed as an identity, serving as a residual that ensures consistency between the overall GDP deflator and its components. STREAM also contains two types of wages: the private sector wage – which is modelled by means of a behavioural equation – and the public sector wage – which is assumed to grow in line with the former.

The fiscal block

In constructing the fiscal block, the standard approach in the literature was followed.[20] At the highest level of disaggregation, there are 15 components on the revenue side and 12 components on the expenditure side, which make the fiscal block one of medium scale.[21] Many of these fiscal variables, 12 in all, are modelled by multiplying an exogenous effective revenue or expenditure rate by a suitable macroeconomic base – a macroeconomic variable to which the fiscal variable is closely tied – where the effective rate is the ratio of the fiscal variable to the chosen base. Since the macroeconomic base is determined endogenously, the same applies to the fiscal variable.[22,23,24] In cases when this approach was not deemed to be a suitable one, a different modelling strategy was employed. Ten fiscal variables are assumed to maintain their share in a broader fiscal aggregate.[25] Four fiscal variables are constructed via decomposition, while the remaining fiscal variable is given an exogenous path.[26,27]

[18] Exports of selected services consist of those services which are relatively “well behaved” and can thus be modelled within the context of a behavioural equation, such as tourism exports. Exports of other services, on the other hand, include services which contain a considerable degree of noise. They were therefore separated from remaining exports to avoid introducing noise in the behavioural equation, and are modelled in an alternative manner. The distinction between imports of goods and selected services, and imports of other services is analogous to that of exports. The import components that contain a substantial degree of noise, which were thus separated from remaining imports, are identical to those for exports.

[19] Another modelling option is a bottom-up approach, through which the deflators for the expenditure components of GDP are modelled without any influence from developments in the GDP deflator. The latter is then calculated as a residual. The top-down approach, however, is usually preferred because the GDP deflator is generally more “well behaved” than the deflators for the expenditure components of GDP since it measures prices at a more aggregate level.

[20] For examples and descriptions of fiscal blocks within traditional structural macro-econometric models, see Fagan, G. and J. Morgan (eds.), *Econometric Models of the Euro-area Central Banks*, Edward Elgar, 2005; and Bank of England, “Economic Models at the Bank of England”, *Bank of England*, London, 2000.

[21] In this context, a component at the highest level of disaggregation is not one that cannot be subdivided further, but rather one which is not decomposed to a greater degree in the model.

[22] The variables that are modelled using the “effective base multiplied by base” approach are: direct taxes on households, direct taxes on corporations, VAT receipts, excise duties, other indirect taxes, private employers’ social security contributions (SSC), public employers’ SSC, private employees’ SSC, public employees’ SSC, imputed SSC, sales and intermediate consumption.

[23] See European Central Bank, “Government Finance Statistics Guide”, *European Central Bank*, Frankfurt, 2014, for definitions of fiscal variables.

[24] In the absence of additional information, the effective rate is generally based on trends in the actual data.

[25] These variables are: property income, other current revenue, capital taxes, capital transfers on the revenue side, other social benefits in cash, social benefits in kind, subsidies, other current expenditure, investment and capital transfers on the expenditure side.

[26] These four variables are: compensation of employees, pension benefits, unemployment benefits and interest payments.

[27] This variable is acquisitions less disposals.

Model users are also likely to be interested in fiscal aggregates, such as government revenue and government expenditure, and key fiscal variables, such as government consumption, the government balance, the government primary balance and government debt.[28] These variables can easily be computed by identities, since they are composed almost entirely of the 15 components of government revenue and the 12 components of government expenditure.[29] Moreover, the response of these fiscal aggregates and key fiscal variables is endogenous since the variables needed to compute them are determined endogenously. The fiscal block also includes a fiscal rule that ensures some degree of fiscal sustainability.[30,31,32,33]

The financial block

The model also contains a detailed financial block that captures several interlinkages that exist, not only within the financial sector itself, but also between the financial sector and the broader economy, so called macro-financial linkages. The simultaneous response of the financial sector and the wider economy generates a financial accelerator mechanism and makes the model a useful tool for macro-prudential purposes.

The financial block distinguishes between three types of credit: consumer and other credit, housing credit and credit to non-financial corporations, each of which is modelled through a behavioural equation. The block also contains behavioural equations for four retail rates: three bank lending rates that determine the price of the three types of credit considered in the model and a deposit rate that governs the return on deposits held at local banks. A distinction is made between two types of probabilities of default: that on household credit and that on credit to non-financial corporations, with a behavioural equation for each. House prices also emerge from the financial block and are modelled via behavioural equation. This block also models the banking sector's profit and loss account, and balance sheet, with behavioural equations for banks' net interest income, fixed non-interest income and other expenses. Therefore, the financial block does not only model the demand aspect of domestic financial intermediation, but also takes into account supply side considerations by capturing the ability and willingness of banks to extend credit. Finally, the block also models other variables, such as deposits, risk-weighted assets, probabilities of default and bank equity.[34]

Chart 1 provides a schematic representation of the demand block and other variables, which is useful in understanding the mechanics of the model.[35] It displays the demand block's structure, links within the block itself and links that the block shares with the rest of the model.[36] Variables enclosed in blue are endogenous. Some of these endogenous variables are identities or governed by a behavioural equation. These are marked in black and dashed blue, respectively. Exogenous variables are enclosed in red, while other blocks are marked in green. Arrows indicate the direction of influence which, in some cases, runs in both directions.

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[28] For definitions of these key fiscal variables, see Grech, O., "A Fiscal Block for the Bank's Structural Macro-Econometric Model of the Maltese Economy", *Quarterly Review*, 47(2), Central Bank of Malta, 2014, pp. 60-67.

[29] The only two variables that are needed to calculate the key fiscal variables but do not emerge from the revenue side or from the expenditure side are consumption of fixed capital and the deficit-debt adjustment. In this context, consumption of fixed capital refers to depreciation of public sector capital, while the deficit-debt adjustment, commonly referred to as the stock-flow adjustment, captures those transactions or factors that influence the outstanding debt but are not reflected in the primary balance. For further details on the deficit-debt adjustment, see Farrugia, J. and O. Grech, "Assessing the Sustainability of Maltese Government Debt", *Working Paper* No. 04/2013, Central Bank of Malta. In the model, both consumption of fixed capital and the deficit-debt adjustment are given an exogenous path.

[30] For further details on fiscal sustainability, see Farrugia, J. and O. Grech, "Assessing the Sustainability of Maltese Government Debt", *Working Paper* No. 04/2013, Central Bank of Malta, and references therein.

[31] See Mitchell, P., J. Sault and K. Wallis, "Fiscal Policy Rules in Macroeconomic Models: Principles and Practice", *Economic Modelling*, 17(2), 2000, pp. 171-193, for a comparison of fiscal rules.

[32] For further details on the fiscal block, particularly the data used, see Grech, O., "A Fiscal Block for the Bank's Structural Macro-Econometric Model of the Maltese Economy", *Quarterly Review*, 47(2), Central Bank of Malta, 2014, pp. 60-67.

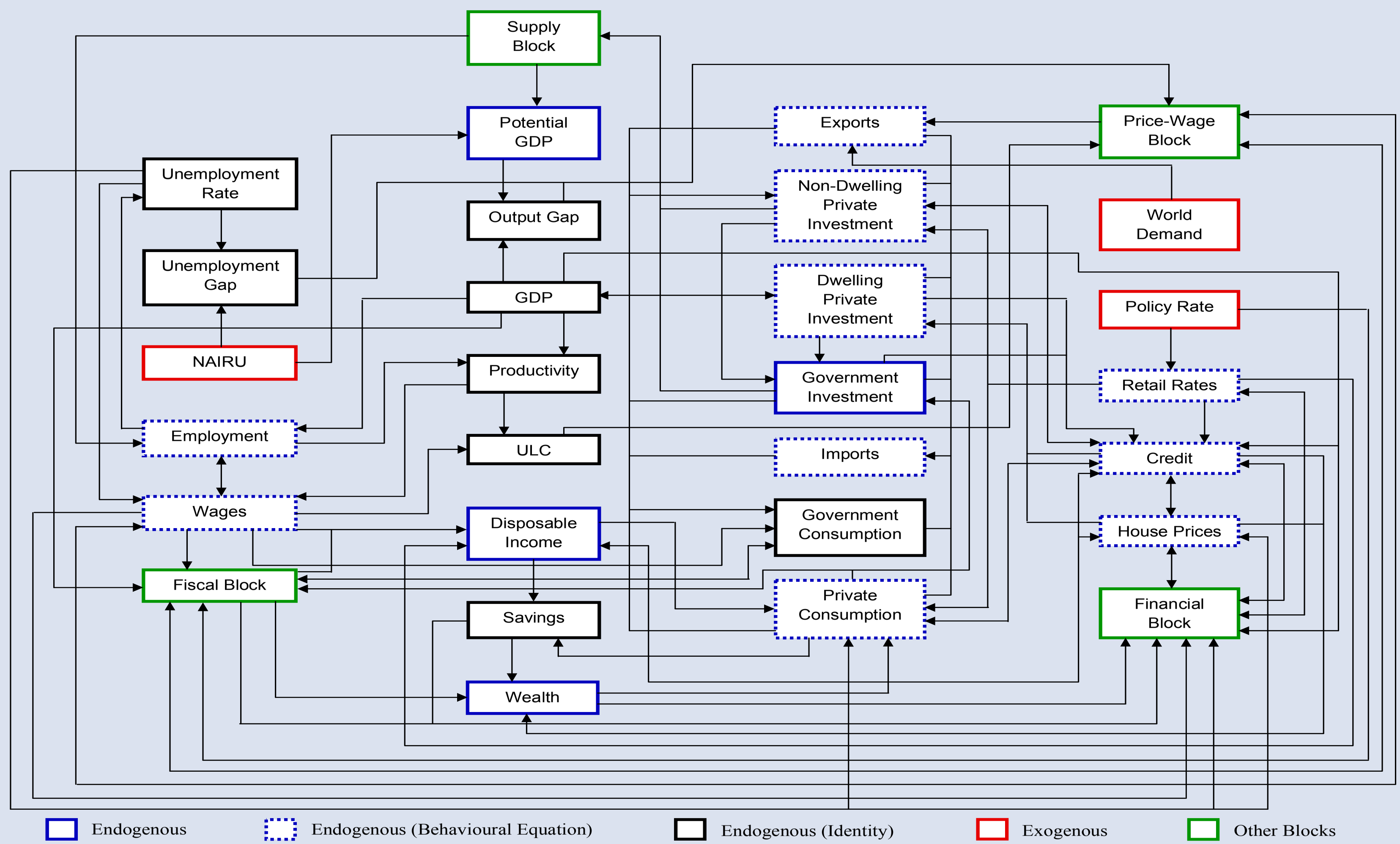
[33] For an application of the fiscal block, namely calculating the size of fiscal multipliers in Malta, see Borg, I., O. Grech and B. Micallef, "Fiscal Multipliers in the Maltese Economy", *Quarterly Review*, 48(3), Central Bank of Malta, 2015, pp. 59-68.

[34] For further details on the financial block, see Rapa, N., "The Banking Sector Extension to the Bank's Macro-Econometric Model", *Quarterly Review*, 48(3), Central Bank of Malta, 2015, pp. 78-85.

[35] Schematic representations for other blocks are not shown for brevity, but are presented in Grech, O. and N. Rapa, "STREAM: A Structural Macro-Econometric Model of the Maltese Economy", *Working Paper* No. 01/2016, Central Bank of Malta, available at: https://www.centralbankmalta.org/macro-econometric-model.

[36] For conciseness, the schematic representation does not display all of these links, but rather the main ones.

Chart 1
SCHEMATIC REPRESENTATION OF THE DEMAND BLOCK



Simulation results

To illustrate the properties of the model, this section presents the results of a standard monetary policy shock. The objective of simulation analysis is largely twofold. First, it sheds light on the dynamic properties of the model and the main propagation channels. Second, it allows us to examine the plausibility of the simulation results the model generates, both from a theoretical and an empirical perspective.

The monetary policy shock is defined as a permanent increase in the policy rate, by 50 basis points, that also leads to an appreciation of the euro against other currencies by 0.5%. The results are displayed in Table 1. A contractionary monetary policy shock raises lending rates and thus reduces the demand for credit. A decrease in the demand for mortgages exerts downward pressure on house prices, which causes net wealth to decline. As a result of a higher lending rate to households, as well as lower demand for credit by households and net wealth, private consumption falls. Investment also contracts owing to an increase in the user cost of capital, together with weaker demand for credit and house prices. The appreciation brought about by the monetary policy shock gives rise to a loss in competitiveness and, consequently, a drop in exports. The decline in private consumption, investment and exports results in lower GDP. This leads to a decrease in employment and wages. Subdued economic activity also gives rise to a fall in government consumption because of reductions in public compensation of employees and public intermediate consumption, and dampens investment even further. These developments cause GDP to contract more, offset to some degree by lower imports. Weak economic activity exerts downward pressure on prices, which improves competitiveness, in turn reducing the negative impact of the shock on exports. The decline in GDP translates into higher unemployment.

Table 1
THE MACROECONOMIC IMPACT OF A MONETARY POLICY SHOCK
Percentage changes from baseline levels unless otherwise specified

	Year 1	Year 2	Year 3
Economic activity			
Real GDP	-0.05	-0.08	-0.08
Private consumption	-0.08	-0.24	-0.16
Government consumption	-0.01	-0.04	-0.03
Gross fixed capital formation	-0.09	-0.53	-0.62
Exports	-0.07	-0.03	-0.01
Imports	-0.10	-0.19	-0.14
Prices			
GDP deflator	-0.01	-0.03	-0.06
Labour market			
Unemployment rate(1)	0.00	0.01	0.01
Fiscal developments			
Balance(2)	-0.07	-0.13	-0.17
Gross debt(2)	0.11	0.28	0.46
Financial developments			
Loans to the private sector	-0.70	-1.34	-1.78
Non-performing loans ratio(1)	0.16	0.10	0.06
House prices	-0.21	-0.82	-1.20

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

On the fiscal front, government revenue shrinks owing to lower macroeconomic bases. This adverse impact on government finance is reinforced by elevated government expenditure, as a result of higher interest payments paid by Government outweighing declines in public compensation of employees, public intermediate consumption and government investment. Consequently, the government balance ratio deteriorates, which causes the government debt ratio to rise. Turning to financial developments, the increase in bank lending rates, together with weaker economic activity, bring about a rise in non-performing loans which, in turn, raises the probability of default of non-financial corporations and households. The latter are also affected by the fall in house prices, which reduces the incentive of mortgage holders to honour their debt. The probability of default channel prompts banks to decrease the volume of loans extended to the private sector, both directly via credit rationing, as well as indirectly through an increase in lending rates. The slowdown in private credit improves the liquidity position of the banking sector, which, as a consequence, exerts downward pressure on deposit rates through the bank lending channel. This partially offsets the rise in deposit rates following the contractionary monetary policy shock. On balance, the effects of higher interest rate margins outweigh those of the probability of default channel, which leads to an increase in bank profits and the capital adequacy ratio.

The model therefore generates simulation results that are plausible from both a theoretical and an empirical perspective.[37]

Conclusion

This article presents the third version of the Central Bank of Malta's core macro-econometric model of the Maltese economy, STREAM. It is a traditional structural model built around the neo-classical synthesis. Behavioural equations are estimated in error-correction form on the basis of quarterly data spanning from 2000Q1 to 2013Q4. Economic agents are assumed to have adaptive expectations. The novelty of the model is that it contains detailed fiscal and financial blocks, which is uncommon in traditional structural models. Given the strong links these sectors share, not only with the broader economy but also between them, it is ideal to model them within the same framework.

This third version of the model includes two key upgrades when compared with the previous version: (i) it has been extended to include an even richer financial block, and (ii) it has been re-estimated using ESA 2010, chain-linked data that span an additional year. Simulation results for a monetary policy shock illustrate the properties of the updated model and suggest that its mechanics are plausible from both a theoretical and empirical standpoint. STREAM is a valuable tool in the Bank's toolkit, particularly in view of recent developments, such as the increased attention directed towards macro-prudential policies aimed at safeguarding financial stability, and the sustainability of public finances, in the wake of the global financial crisis and the European sovereign debt crisis, respectively.

The development of STREAM has now reached an advanced stage and therefore no major changes to its structure are envisaged in the short term. That said, further refinements are possible, such as an enhanced integration of the supply side, particularly with regard to the labour market. Moreover, the model will continue to be evaluated on a regular basis to ensure that it is able to fulfil its ultimate purpose: serving as a reliable simplification of how the Maltese economy functions.[38]

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37 For a range of simulation results, covering a number of shocks, that emerge from traditional structural macro-econometric models, see Fagan, G. and J. Morgan (eds.), *Econometric Models of the Euro-area Central Banks*, Edward Elgar, 2005.

38 Further details on this third version of the model, particularly on the modelling of the five blocks, the key changes between the second and third versions of the model and simulation results for other shocks, can be found in Grech, O. and N. Rapa, "STREAM: A Structural Macro-Econometric Model of the Maltese Economy", *Working Paper* No. 01/2016, Central Bank of Malta, available at: https://www.centralbankmalta.org/macro-econometric-model.

ECONOMIC AND FINANCIAL POLICY CALENDAR 2015

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

Monetary policy measures of the Eurosystem

22 January: The European Central Bank (ECB) announced the expansion of its asset purchase programme (APP) to combat historically low inflation, committing to purchase euro-denominated investment-grade bonds issued by euro area governments and agencies, as well as European institutions, in the secondary market. The extended APP, which encompasses the asset-backed securities purchase programme and the third covered bond purchase programme, both introduced in 2014, along with the above-mentioned public sector purchase programme (PSPP), caters for combined monthly asset purchases amounting to €60 billion. The programme is projected to run until September 2016 or until the Governing Council sees a sustained adjustment in the path of inflation consistent with the achievement of the ECB's target of below, but close to, 2%.

The ECB also announced that the interest rate on the remaining targeted longer-term refinancing operations (TLTRO) announced in 2014 would be equal to the rate on the Eurosystem's main refinancing operations (MRO) prevailing at the time when each TLTRO would be conducted, hence eliminating the 10 basis point spread over the MRO rate.

3 September: The ECB decided to raise the limit on PSPP purchases from 25% of each issue to 33%, subject to a case-by-case verification so that such an increase would not result in the Eurosystem having blocking power. The limit on PSPP purchases of not more than 33% of each issuer's debt was retained.

3 December: The ECB lowered the interest rate on the deposit facility by 10 basis points. Hence, the deposit facility rate ended 2015 at -0.30%. The corresponding rates on the MRO and on the lending facility ended the year at 0.05% and 0.30%, respectively.

The ECB also announced that its asset purchases of €60 billion per month under the extended APP would be carried out until at least March 2017, or until the Governing Council would see a sustained adjustment in the path of inflation consistent with the achievement of inflation rates below, but close to, 2% over the medium term. Meanwhile, the ECB's regular open market operations would be conducted as fixed rate tender procedures with full allotment for as long as necessary, and at least until the end of the last reserve maintenance period of 2017. It was also decided that the principal payments on the securities purchased under the APP as they matured would be reinvested for as long as necessary, while regional and local government bonds were included in the list of assets that were eligible for purchase.

ECB policy and supervisory developments

1 January: Lithuania became the 19th EU Member State to adopt the euro as its national currency. As the Bank of Lithuania became a member of the Eurosystem, a system of rotating voting rights started being applied at the ECB's Governing Council.

20 February: The ECB amended its monetary policy implementation framework through a new guideline consolidating, simplifying and improving the clarity of the framework, while updating cross references to recent legislation, such as the Capital Requirements Directive IV, the Capital Requirements Regulation, and the European System of Accounts 2010. Further revisions to the framework were

made on 31 August, as the eligibility criteria for counterparties taking part in the monetary policy operations were amended and the list of assets eligible as collateral was expanded.

22 June: TARGET2-Securities, the Eurosystem's platform enabling integrated securities settlement across Europe, was launched. The depository of the Malta Stock Exchange (MSE) was among the first four depositories to be connected to the platform, with the full complement expected to be connected by February 2017.

25 November: A new €20 banknote entered into circulation in the euro area, the third in the Europa series following the €5 and the €10 notes issued in previous years. The new notes feature a refreshed look and a new security feature in the form of a portrait window in the hologram stripe, exhibiting the mythological figure Europa, which becomes transparent when the note is held against the light. The same portrait is also visible on the watermark, alongside an emerald number which displays an effect of the light moving up and down when the note is titled.

1 January 2016: The European Union's single resolution mechanism (SRM) entered into force, signalling the completion of the second pillar of the European banking union. The objective of the SRM is to ensure the orderly resolution of failing banks without recourse to taxpayers' money, through bail-ins of shareholders and creditors, and recourse to a single resolution fund. The first pillar of the banking union, the Single Supervisory Mechanism (SSM), was launched in 2014.

Central Bank of Malta announcements

5 May: Mr Alfred Mifsud was appointed Deputy Governor of the Central Bank of Malta for a period of five years with effect from 5 May 2015. Mr Mifsud will focus primarily on monetary policy at the Bank.

8 May: The Bank announced the "National Project for the Certification of Professional Cash Handlers", designed to train professional cash handlers to assist in the fight against banknote counterfeiting, money laundering and terrorism funding. The project was jointly developed with the Financial Intelligence Analysis Unit and with the support of the Malta Bankers' Association.

9 October: Legal Notice 326 of 2015 enacted the Central Bank of Malta Act (Appointment of Competent Authority on Interchange Fees for Card-based Payment Transactions) Regulations which established the Central Bank of Malta as the competent authority for interchange fees for card-based payment transactions.

22 October: The Bank hosted a meeting of the Governing Council of the ECB. The meeting, which focused on monetary policy in the euro area, was one of two meetings that were held outside Frankfurt in 2015.

Fiscal and economic policy developments

1 January: The Malta Fiscal Advisory Council (MFAC), established by the Minister for Finance under the Fiscal Responsibility Act, 2014, started functioning with effect from 1 January 2015. The main purpose of the MFAC is to review and assess the extent to which the fiscal and economic policy objectives proposed by the Maltese Government are being achieved and thus contribute to more transparency and clarity about the aims and effectiveness of economic policy in Malta. The MFAC is independent in the performance of its functions.

6 January: Legal Notice 2 of 2015 established the National Development and Social Fund in the form of a government agency under the Public Administration Act. The Fund, to which a percentage of the

revenue from the Individual Investor Programme will be transferred, shall invest in projects of national importance and initiatives in the public interest.

26 February: The European Commission published its *Country Report* for Malta. The Commission recognised Malta's progress on a number of Country Specific Recommendations (CSR), including the implementation of measures to contain the government deficit and debt, to improve labour market participation, to reform the energy sector and to increase the relevance of education and training in meeting the needs of industry. However, the *Report* also reiterated the need for additional pension and health care reforms, further measures to ensure the sustainability of public finances and policies to improve participation among women and older workers.

15 April: The Government presented the *National Reform Programme* to the European Commission, outlining its policies to address Malta's CSRs and measures to reach the Europe 2020 targets.

30 April: The Government submitted the seventh *Update of the Stability Programme* to the European Commission, setting out its budgetary objectives until 2018. The *Update* foresaw a narrowing of the general government deficit-to-gross domestic product (GDP) ratio to 1.6% in 2015, and a further gradual decline to 0.2% by 2018. The debt-to-GDP ratio was expected to drop to 61.2% by the end of the forecast horizon.

30 April: Act No. XIII of 2015 amended various laws to bring into effect the measures announced in the Budget presented in November 2014. The Act also authorised Government to borrow a sum of money not exceeding €500 million in 2015.

19 June: The Economic and Financial Affairs (ECOFIN) Council abrogated the excessive deficit procedure against Malta, given that Malta's deficit had fallen below the 3% of GDP threshold in 2013 and narrowed further in 2014.

19 June: The ECOFIN Council, under the 2015 European Semester, approved draft recommendations to 26 Member States on economic and fiscal policies as set out in their National Reform and Stability/Convergence Programmes. The Council recommended that Malta: (i) achieve a fiscal adjustment of 0.6% of GDP towards the medium-term budgetary objective in 2015 and 2016; (ii) take measures to improve basic skills and further reduce early school-leaving; (iii) ensure the long-term sustainability of public finances and continue the ongoing pension reform; and (iv) improve access to finance to small and micro-enterprises.

12 October: The Minister for Finance presented the government budget estimates for 2016. In line with the targets announced earlier, the general government deficit was expected to have fallen to 1.6% of GDP in 2015, down from 2.1% in 2014. Thereafter, a gradual decline to 0.2% by 2018 was foreseen. Meanwhile, the general government debt was expected to have reached 66.6% of GDP in 2015, and a further easing to 61.4% in 2018 was projected. The main revenue measures which were announced included an increase in the income tax exempt band for households, a new environmental contribution on tourist nights and a rise in excise duties. On the expenditure side, the minimum pension, as well as in-work benefits, were increased. The budget was subsequently approved by Parliament on 9 December.

16 November: The European Commission published an opinion stating that Malta's Draft Budgetary Plan submitted in October 2015 was broadly compliant with the provisions of the Stability and Growth Pact. However, there was a risk of some deviation from the required adjustment to reach the objective of a structural balance by 2019. The Commission also stated that Malta had made some progress towards complying with the CSR issued by the European Council relating to fiscal governance.

26 November: The European Commission issued its *Alert Mechanism Report*, re-starting the annual cycle of the Macroeconomic Imbalance Procedure, which aims to identify and address imbalances in Member States' economies. In the case of Malta, the *Report* concluded that further surveillance was not warranted for 2016. Nonetheless, the *Report* highlighted risks associated with Malta's weak export performance and its high level of private debt, though it concluded that these risks were contained.

International assessments of the Maltese economy

26 February: The International Monetary Fund (IMF), following its Article IV mission in 2014, issued a *Country Report* on Malta, noting that Malta's recent economic performance was strong. This reflected a relatively diversified economy and a stable banking sector, which had withstood well the economic slowdown and shocks from international financial markets. The IMF highlighted, however, that a number of vulnerabilities remained, including the relatively high level of public debt, a high cost of capital, the challenge of maintaining competitiveness, and elevated non-performing loans.

30 September: The World Economic Forum published the *Global Competitiveness Report 2015-2016*, ranking Malta in the 48th place (out of 140 countries) in the Global Competitiveness Index. Malta ranked high in factors such as health, primary education, technological readiness, and the general macroeconomic environment, but was held back by low scores in market size and innovation. Government bureaucracy, access to finance and capacity constraints were the most problematic factors highlighted by businesses operating in Malta.

16 November: The IMF concluded its 2015 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 policy initiatives. The outlook was favourable and risks were balanced. Nonetheless, there were challenges, including external uncertainty and improved competitiveness in euro area neighbouring countries. The Fund recommended the building of fiscal buffers to cope with adverse shocks, ensuring financial stability and sustaining structural reforms.

Credit Ratings

10 January: Standard and Poor's confirmed Malta's "BBB+" long-term rating and reaffirmed the outlook of the Maltese economy as Stable.

27 February: Fitch reaffirmed Malta's "A" rating with a Stable outlook.

4 April: DBRS assigned its first credit rating to Malta, awarding an "A" rating. It noted that Malta had avoided the financial imbalances that had emerged in other euro area countries.

11 July: Standard & Poor's confirmed Malta's "BBB+" long-term rating, while revising Malta's outlook from Stable to Positive. The revision reflected Malta's robust economic growth and Government's efforts to diversify the economy, with government finances expected to improve further as a result of high output growth and a decline in public expenditure.

22 August: Fitch affirmed Malta's "A" rating with a Stable outlook.

2 October: DBRS confirmed Malta's long-term rating at "A" with a Stable outlook.

10 November: Moody's confirmed Malta's government bond rating at A3, with a Stable outlook.

Capital market developments

Malta Government Stocks

13 February: The Government, through Legal Notice 48 of 2015, announced two Malta Government Stock (MGS) issues for a total amount of €120.0 million, subject to an overallotment option of up to €60.0 million. The issue was oversubscribed and the Treasury allotted €6.0 million to the 2.00% MGS 2020 (V) (Fungibility Issue) and €162.3 million to the 3.00% MGS 2040 (I). The bonds were listed on the MSE on 4 March and 23 March, respectively, at issue prices of €105.75 and €100.00.

26 May: The Government, through Legal Notice 172 of 2015, announced the issue of two MGS for a total amount of €50.0 million, subject to an overallotment option of up to €40.0 million. The issue was oversubscribed and the Treasury allotted €73.9 million to the 2.00% MGS 2020 (V) (Fungible Issue) and €16.1 million to the 2.30% MGS 2029 (II). The bonds were listed on the MSE on 17 June at issue prices of €105.71 and €102.08, respectively.

7 August: The Government, through Legal Notice 243, announced the issue of a €2.0 million 7.00% MGS, maturing in 2025. The bonds, which were issued directly to the Foundation for Church Schools at par, were listed on the MSE on 14 August.

25 September: The Government, through Legal Notice 305, announced the issue of two MGS amounting to €120.0 million, subject to an over-allotment amount of up to €60.0 million. The issue was oversubscribed and the Treasury allotted €52.5 million to the 2.00% MGS 2020 (V) (Fungibility Issue) and €127.4 million to the 2.30% MGS 2029 (II) (Fungibility Issue). In the case of the 2.00% MGS 2020 (V) (Fungibility Issue), the issue price was €106.39 for wholesale investors and €106.25 for retail investors. Similarly, with regard to the 2.30% MGS 2029 (II) (Fungibility Issue), the issue price was €103.51 for wholesale investors and €102.50 for retail investors. The listing on the MSE was completed on 19 October.

20 November: The Government, through Legal Notice 364 of 2015, announced the issue of a floating rate MGS 2019 (VI), amounting to €35.0 million. The interest rate was linked to the six-month EURIBOR, plus a spread of 35 basis points. The issue was oversubscribed, at an issue price of €100.58, with all bids made through competitive auction. The MGS were listed on the MSE on 30 November.

Private sector issues

10 April: International Hotel Investments plc announced the issue of €45 million in bonds maturing in 2025. The bonds, which carry a coupon rate of 5.75%, were listed on the MSE on 19 May.

1 May: Izola Bank plc announced the issue of €12 million in bonds maturing in 2025. The bonds, which offer a coupon rate of 4.50%, were listed on the MSE on 30 June.

8 June: 6pm Holdings plc announced the issue of €13 million in bonds maturing in 2025. The bonds, which carry a coupon rate of 5.10%, were listed on the MSE on 7 August.

22 June: Mediterranean Investment Holding plc announced the issue of €20 million in bonds maturing in 2020 and offering a coupon rate of 5.50%. The bonds were listed on the MSE on 31 July.

23 September: Hili Properties plc announced the issue of €37 million in bonds maturing in 2025. The bonds, which carry a coupon rate of 5.50%, were listed on the MSE on 21 October.

10 November: Bank of Valletta plc announced a €75 million note issue maturing in 2030. The notes, which offer a coupon rate of 3.50%, were listed on the MSE on 22 December. This issue was the first of two tranches of a Subordinated Debt Programme, which was partly intended to strengthen the bank's Tier II Capital in line with European Banking Regulations.

4 December: Central Business Centres plc announced the issue of €3 million bonds maturing in 2025, as part of the second series of its Unsecured Bond Issuance Programme. The bonds, which were reserved in favour of specific investors, carry a coupon rate of 5.25% and were listed on the MSE on 28 December.

23 December: Medserv plc published a prospectus announcing a €30 million bond in either euro or US dollars, along with a €15 million rights issue. The bond, which matures in 2026, offers a coupon rate of 5.75% for the USD denomination and 4.50% for the euro denomination. The company later announced that the bonds had been oversubscribed through private placements, and hence no offer to the general public was made.

Financial sector developments

Credit institution licences

13 January: The Malta Financial Services Authority (MFSA) announced that Investkredit International Bank plc had surrendered its licence to undertake credit institution activities as from 3 November 2014.

9 June: The MFSA granted a banking licence to Credorax Bank Limited. The Bank is licensed to undertake payment services, to trade for its own account, and to issue electronic money, among other functions.

16 June: The MFSA announced that SaadGroup Bank Europe Limited had surrendered its licence as a credit institution as from 20 November 2014.

29 October: Deutsche Bank announced that it would cease all operations in Malta, as part of a world-wide restructuring exercise.

Banking and finance legislation

6 January: Legal Notices 4–10 of 2015 brought into force the provisions of the Retirement Pension Act from the beginning of 2015, and replaced the Special Funds (Regulation) Act. The Legal Notices supplement in more detail the framework for the licensing and regulation of retirement schemes, retirement funds and related service providers. Legal Notices 11 and 12 of 2015 amended the Investment Services Act (Exemption) Regulations and the Investment Companies with Variable Share Capital as Retirement Schemes or Retirement funds Regulations under the Companies Act, respectively, to take into account some provisions of the Retirement Pensions Act.

6 January: Legal Notice 13 of 2015 implemented certain provisions of Directive 2013/14/EU on the activities and supervision of institutions for occupational retirement provision, Directive 2009/65/EC on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities, and Directive 2011/61/EU on Alternative Investment Funds Managers in respect of overreliance on credit ratings.

20 February: Act No. III of 2015 amended various laws relating to the prevention of money laundering and the funding of terrorism.

27 March: Legal Notice 111 of 2015 amended the Financial Conglomerates Regulations, 2013 by requiring the MFSA to apply the Joint Guidelines issued by the European Banking Authority, the European Securities and Markets Authority, and by the European Insurance and Occupational Pensions Authority on the convergence of supervisory practices relating to the consistency of supervisory coordination arrangements for financial conglomerates.

10 April: Act No. X of 2015 amended the Banking Act to transpose the relevant provisions of Directive 2013/36/EU, referred as the Capital Requirements Directive (CRD IV).

17 July: Act XXI of 2015, along with Legal Notices 298–301 of 2015, amended various financial service laws to establish a framework for the recovery and resolution of credit institutions and investment firms in line with Directive 2014/59/EU (the Bank Recovery and Resolution Directive).

20 November: Act No. XXXIII of 2015 amended various financial service laws to transpose Directive 2009/138/EC (the Solvency II Directive), with the aim of codifying and harmonising EU insurance legislation. The provisions of the Act were set to come into force on 1 January 2016. Legal Notices 390–411, of 10 December, amended several Regulations under the Insurance Business Act and other financial services legislation to implement the various articles of the Directive.

4 December: Legal Notice 380 of 2015 declared the 28 March 2016 and the 26 December 2016 as bank holidays.

4 December: Legal Notice 383 of 2015 replaced the Depositor Compensation Scheme Regulations, 2013, to implement the relevant provisions of Directive 2014/49/EU, which revises the 1994 Deposit Guarantee Schemes (DGS) Directive requiring each EU Member State to provide a deposit guarantee scheme protecting up to €100,000 per depositor per bank. The revision is aimed at harmonising and simplifying the Directive to improve protection of deposits, with new funding requirements for schemes ensuring that DGS will be able to fulfil their obligations towards depositors, and to enable faster access to deposits after a bank failure in order to stabilise the confidence of depositors and ensure financial stability.

22 December: Act No. XLIV of 2015 established Malta as a founding member of the Asian Infrastructure Investment Bank. This Bank was founded to invest in infrastructural and other productive sectors in Asia in order to foster sustainable economic development, to improve infrastructure connectivity, and to promote regional cooperation in addressing development challenges.

International economic and financial news

EU Economic and Financial Affairs Council

27 January: The ECOFIN Council amended the European Union's Parent-Subsidiary Directive (Directive 2003/123/EC), adding a binding anti-abuse clause to combat tax avoidance and aggressive tax planning by corporate groups.

27 January: The ECOFIN Council adopted a regulation adapting Regulation 2532/98 to allow the ECB to impose sanctions, in light of its supervisory role on euro area banks. The amended Regulation states that the decision on whether to initiate an infringement procedure shall be taken by the ECB, acting on its own initiative or on the basis of a motion addressed to it by the national central

bank of the Member State in whose jurisdiction the alleged infringement has occurred. The ECB shall publish any decision imposing sanctions on an undertaking in case of a breach of an ECB regulation or decision, though in exceptional circumstances the decision may be published on an anonymous basis. The Regulation also imposes limits within which the ECB may impose fines and periodic penalty payments.

5 March: The ECOFIN Council approved a regulation aimed at ensuring the quality and reliability of EU statistics, paving the way for its adoption by the European Parliament. The regulation amends the legal framework for EU statistics (Regulation 223/2009), strengthening governance of the European statistical system by ensuring the autonomy of national statistics institutions and by requiring Member States to establish "commitments on confidence in statistics" to be monitored annually by the European Commission.

20 April: The ECOFIN Council adopted a regulation capping interchange fees for payments made with debit and credit cards to reduce costs for both retailers and consumers, and to help create an EU-wide payments market. Interchange fees are charged by a cardholder's bank to a retailer's bank every time a consumer makes a card-based purchase. The level of the fees varies widely from one Member State to another, creating barriers to the EU internal market.

20 April: The ECOFIN Council adopted a regulation to increase the pool of capital available for long-term investment in the EU economy by creating a new form of fund vehicle, the European long-term investment fund (ELTIF). ELTIFs will focus on alternative investments that fall within a defined category of long-term asset classes whose successful development requires a long-term commitment from investors.

25 June: The ECOFIN Council adopted a regulation on a European Fund for Strategic Investments intended to stimulate the European Union's economy through the participation of private investors in a broad range of new investment projects. The fund, which forms part of the Investment Plan for Europe, will be built on guarantees from the EU budget and from the European Investment Bank.

4 August: The ECOFIN Council approved a regulation amending the European Financial Stability Mechanism (EFSM). The regulation ensures that financial assistance from the EFSM to a euro area Member State is only granted if legally binding provisions, which guarantee that Member States outside the euro area are immediately and fully compensated for any liability they may incur as a result of a failure by the beneficiary to repay the financial assistance, are in place.

10 November: The ECOFIN Council repealed Directive 2003/48/EC on savings taxation, which had allowed Member States to exchange information on private savers. The repeal followed recent measures to prevent tax evasion, which had created overlaps in the legislation.

16 November: The ECOFIN Council adopted Directive (EU) 2015/2366 to develop an EU-wide market for electronic payments, revising the previous Directive 2007/64/EC. The new Directive caters for emerging and innovative payment services, as well as ensuring a more secure environment for payments.

16 November: The ECOFIN Council adopted a regulation to improve the transparency of securities lending and repurchase transactions by introducing binding reporting requirements to discourage financial institutions from shifting transactions outside the banking system to the less regulated shadow banking sector.

14 December: The ECOFIN Council adopted the Insurance Distribution Directive establishing new rules on insurance distribution, improving consumer protection for insurance products. The text recasts and repeals Directive 2002/92/EC on insurance mediation.

Institutional developments in Europe

19-20 March: The European Council meeting of the leaders of EU Member States was held, with the main focus being the EU's energy policy, the economic situation, the European Semester and the geopolitical situation. The Council endorsed the three main pillars of the Annual Growth Survey and invited Member States to reflect these priorities in their National Reform Programmes and Stability Programmes.

22 June: The Presidents of the European Commission, the Euro Summit, the Eurogroup, the ECB and the European Parliament published the *Five Presidents' Report*, which laid down a plan to strengthen the Economic and Monetary Union by 2025. The plan includes the use of existing instruments and EU legislation to boost competitiveness and structural convergence, achieving responsible fiscal policies and completing the financial union. There are also measures to make the convergence process more binding. Further steps will be presented in more detail by the Commission in a White Paper in 2017.

25-26 June: The European Council met and discussed the situation in Greece, migration, the upcoming referendum in the United Kingdom, security and defence, and other economic issues. Additionally, the Council concluded the 2015 European Semester by endorsing the Country Specific Recommendations and called for their implementation by the respective Member States.

15-16 October: The European Council meeting of the leaders of EU Member States focused on the ongoing migration and refugee crisis. In this context, leaders discussed improving cooperation with third countries to stem the flows, strengthening the protection of the European Union's external borders, and Europe's response to the current influx of refugees. Other items discussed included developments in Syria and Libya, and the completion of Europe's Economic and Monetary Union.

27 November: The European Retail Payments Board invited the European Payments Council to develop a scheme for instant payments in euro by November 2016, and to implement it by November 2017. The scheme will be based on the Single European Payments Area credit transfer, and is expected to greatly speed up credit transfers between accounts, even after bank hours. The scheme, which is voluntary, will be available to all service providers in Europe.

17-18 December: At the last quarterly meeting of the European Council in 2015, the Council confirmed its commitment to work towards completing the Economic and Monetary Union, following the release of the *Five Presidents' Report* in June. The Council also welcomed the climate agreement reached in Paris in December.

Global institutional developments

7-8 June: Leaders of the G7 countries met in Elmau, Germany, to discuss international, economic and political issues. Although the global economic recovery had progressed since the preceding meeting, most G7 economies were still operating below potential. Thus, the participants committed to stimulate output growth in a sustainable manner by promoting education and innovation, supporting private investment, improving infrastructure, stimulating international trade and implementing key structural reforms. The G7 leaders also agreed to strengthen the international financial system through appropriate regulation and to tackle cross-border tax base erosion and evasion.

9 October: The International Monetary and Financial Committee met in Lima as part of the Annual Meetings of the IMF and the World Bank Group. The Committee noted that the global economic recovery continues but remains modest and uneven, with medium-term prospects weakening in the face of uncertainty and financial market volatility. It called on advanced economies to maintain an accommodative monetary stance and implement sustainable fiscal policy to support growth and job creation. Meanwhile, emerging and developing economies should remove bottlenecks to stronger growth while smoothing the adjustment to less favourable external conditions, such as lower commodity prices.

11-12 November: Leaders of European and African states met in Malta for the Valletta Summit on Migration. A joint action plan was announced, with 16 priority initiatives to be launched before the end of 2016. Furthermore, EU leaders formally launched an emergency trust fund for Africa to combat poverty and conflicts driving migration to Europe.

15-16 November: Leaders of the G20 met in Antalya, Turkey, to determine further collective actions to achieve strong, sustainable and balanced growth. The participants reiterated their commitment to increase collective G20 GDP by an additional 2% by 2018, as announced last year.

PART III

FINANCIAL STATEMENTS

FOR THE YEAR ENDED

31 DECEMBER 2015

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 2015.

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 2015, 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 are outlined in the Guideline ECB/2010/20 of 11 November 2010 on the legal framework for accounting and financial reporting in the European System of Central Banks (recast), as amended.

Financial results

The Bank’s financial statements for the year ended 31 December 2015 are set out on pages A-6 to A-42 and disclose an operating profit of €58.9 million (2014: €56.8 million). The amount payable to the Government of Malta is €50.0 million (2014: €48.0 million).

Board of Directors

The members of the Board of Directors during the year ended 31 December 2015 and up to the date of authorisation for issue of the financial statements were:

Professor Josef Bonnici – Governor
Mr Alexander Demarco – Deputy Governor Financial Stability
Mr Alfred Mifsud – Deputy Governor Monetary Policy (appointed 5 May 2015)
Mr Alfred DeMarco – Deputy Governor Monetary Policy (up to 31 March 2015)
Ms Philomena Meli
Mr Victor Busuttil
Mr Peter J Baldacchino
Dr Romina Cuschieri

During the financial year under review, Dr Bernadette Muscat was Secretary to the Board.

Statement of Directors’ responsibilities in respect of the financial statements

The Board of Directors is responsible for ensuring that the financial statements are drawn up in accordance with the requirements of the Central Bank of Malta Act (Cap. 204). The Bank is required to prepare financial statements in accordance with the requirements of the Guideline ECB/2010/20 of 11 November 2010 on the legal framework for accounting and financial reporting in the European System of Central Banks (recast), as amended.

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 2015 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 2015 are included in the Annual Report 2015, 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.

Professor Josef Bonnici Governor	Mr Alexander Demarco Deputy Governor	Mr Alfred Mifsud Deputy Governor

Central Bank of Malta
Pjazza Kastilja
Valletta VLT 1060
Malta

23 March 2016

* https://www.centralbankmalta.org/annual-reports

Independent Auditor's report

To the Board of Directors of the Central Bank of Malta

Report on the Financial Statements

We have audited the financial statements of the Central Bank of Malta on pages A-6 to A-42, which comprise the Balance Sheet as at 31 December 2015 and the Profit and Loss account for the year then ended and a summary of significant accounting policies and other explanatory information.

Directors' responsibility for the financial statements

As explained in the Statement of Directors' responsibilities in respect of the financial statements on page A-2, 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 (ECB/2010/20 as amended by ECB/2011/27, ECB/2012/29, ECB2014/54 and ECB/2015/24) on the legal framework for accounting and financial reporting in the European System of Central Banks adopted by the Governing Council on 11 November 2010 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.

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of financial statements that give a true and fair view 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 entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Directors, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion the financial statements:

- give a true and fair view of the financial position of the Bank as at 31 December 2015, and of its financial performance for the year then ended in accordance with the requirements of the Accounting Guideline (ECB/2010/20 as amended by ECB/2011/27, ECB/2012/29, ECB/2014/54 and ECB/2015/24) on the legal framework for accounting and financial reporting in the European System of Central Banks adopted by the Governing Council on 11 November 2010; and
- have been properly prepared in accordance with the requirements of the Central Bank of Malta Act (Cap. 204).

pwc

78, Mill Street
Qormi
Malta

Fabio Axisa
Partner

23 March 2016

Balance Sheet as at 31 December 2015

	Assets	2015 €'000	2014 €'000
A 1	**Gold and gold receivables**	**4,497**	**4,547**
A 2	**Claims on non-euro area residents denominated in foreign currency**	**527,561**	**518,901**
A 2.1	Receivables from the IMF	150,505	154,542
A 2.2	Balances with banks and security investments, external loans and other external assets	377,056	364,359
A 3	**Claims on euro area residents denominated in foreign currency**	**157,557**	**105,516**
A 4	**Claims on non-euro area residents denominated in euro**	**945,653**	**837,405**
A 4.1	Balances with banks, security investments and loans	945,653	837,405
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**	**114,970**	**411,320**
A 5.1	Main refinancing operations	-	6,800
A 5.2	Longer-term refinancing operations	114,970	404,520
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**	**815**	**358**
A 7	**Securities of euro area residents denominated in euro**	**1,477,301**	**1,399,875**
A 7.1	Securities held for monetary policy purposes	334,588	67,108
A 7.2	Other securities	1,142,713	1,332,767
A 8	**General government debt denominated in euro**	**-**	**-**
A 9	**Intra-Eurosystem claims**	**53,411**	**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)	-	-
A 10	**Items in course of settlement**	**8,911**	**5,930**
A 11	**Other assets**	**1,215,450**	**989,077**
A 11.1	Coins of euro area	123	194
A 11.2	Tangible and intangible fixed assets	26,322	23,806
A 11.3	Other financial assets	1,133,525	911,634
A 11.4	Off-balance sheet instruments revaluation differences	319	-
A 11.5	Accruals and prepaid expenses	46,576	46,143
A 11.6	Sundry	8,585	7,300
Total Assets		**4,506,126**	**4,326,340**

* Only an ECB balance sheet item

	Liabilities	2015 €'000	2014 €'000
L 1	**Banknotes in circulation**	**920,915**	**864,057**
L 2	**Liabilities to euro area credit institutions related to monetary policy operations denominated in euro**	**1,457,495**	**499,098**
L 2.1	Current accounts (covering the minimum reserve system)	408,359	257,271
L 2.2	Deposit facility	1,049,136	241,827
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**	**342,926**	**341,991**
L 5.1	General government	270,858	297,316
L 5.2	Other liabilities	72,068	44,675
L 6	**Liabilities to non-euro area residents denominated in euro**	**206**	**3,407**
L 7	**Liabilities to euro area residents denominated in foreign currency**	**157,493**	**50,264**
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**	**121,427**	**113,757**
L 10	**Intra-Eurosystem liabilities**	**973,419**	**1,929,665**
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	53,173	2,575
L 10.4	Other liabilities within the Eurosystem (net)	920,246	1,927,090
L 11	**Items in course of settlement**	**-**	**-**
L 12	**Other liabilities**	**74,964**	**94,467**
L 12.1	Off-balance sheet instruments revaluation differences	1,108	10,503
L 12.2	Accruals and income collected in advance	22,914	28,456
L 12.3	Sundry	50,942	55,508
L 13	**Provisions**	**50,135**	**34,700**
L 14	**Revaluation accounts**	**11,794**	**18,559**
L 15	**Capital and reserves**	**345,352**	**328,375**
L 15.1	Capital	20,000	20,000
L 15.2	Reserves	325,352	308,375
L 16	**Profit for the year**	**50,000**	**48,000**
Total Liabilities		**4,506,126**	**4,326,340**

* Only an ECB balance sheet item

Profit and Loss account for the year ended 31 December 2015

		2015 €'000	2014 €'000
1.1	Interest income	55,165	67,741
1.2	Interest expense	1,876	(2,652)
1	**Net interest income**	**57,041**	**65,089**
2.1	Realised gains/losses arising from financial operations	30,742	16,602
2.2	Write-downs on financial assets and positions	(2,505)	(475)
2.3	Transfer to/from provisions for foreign exchange rate, interest rate, credit and gold price risks	(16,100)	(15,000)
2	**Net result of financial operations, write-downs and risk provisions**	**12,137**	**1,127**
3.1	Fees and commissions income	204	162
3.2	Fees and commissions expense	(741)	(682)
3	**Net income/expense from fees and commissions**	**(537)**	**(520)**
4	**Income from equity shares and participating interests**	**885**	**834**
5	**Net result of pooling of monetary income**	**1,434**	**2,354**
6	**Other income**	**6,105**	**5,199**
	Total net income	**77,065**	**74,083**
7	**Staff costs**	**(11,152)**	**(10,520)**
8	**Administrative expenses**	**(6,100)**	**(5,687)**
9	**Depreciation of tangible and intangible fixed assets**	**(762)**	**(655)**
10	**Banknote production services**	**(178)**	**(458)**
11	**Other expenses**	**(10)**	**(6)**
	Profit for the year	**58,863**	**56,757**
	Transfer to reserves for risks and contingencies	**(8,863)**	**(8,757)**
	Payable to the Government of Malta in terms of article 22(2) of the Central Bank of Malta Act (Cap. 204)	**50,000**	**48,000**

The financial statements on pages A-6 to A-42 were approved for issue by the Board of Directors on 23 March 2016 and are signed on its behalf by:

Professor Josef Bonnici
Governor

Mr Alexander Demarco
Deputy Governor

Mr Alfred Mifsud
Deputy Governor

Mr Raymond Filletti
Chief Officer
Investments and Financial Control

Mr Robert Caruana
Head
Financial Control

Notes to the financial statements for the year ended 31 December 2015

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 European Central Bank (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 ECB/2010/20 (recast) issued on 11 November 2010, as amended (Guideline ECB/2010/20 as amended).[2] In the absence of requirements and guidance provided by Guideline ECB/2010/20 as amended, 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 2015 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

The basic accounting principles applied by the Eurosystem and the Bank in the preparation of these financial statements are:

- economic reality and transparency;
- prudence;
- post-balance sheet events;
- materiality;
- going concern;
- accrual; and
- consistency and comparability.

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[1] The European Central Bank (ECB), together with national central banks (NCBs), 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.

[2] Guideline of 11 November 2010 on the legal framework for accounting and financial reporting in the ESCB (ECB/2010/20) OJ L 35, 9.2.2011, p. 31, as amended by Guideline of 21 December 2011 (ECB/2011/27) OJ L 19, 24.1.2012, p. 37, by Guideline of 10 December 2012 (ECB/2012/29) OJ L 356, 22.12.2012. p. 94, by Guideline of 15 December 2014 (ECB/2014/54) OJ L 68, 13.3.2015, p. 69 and by Guideline of 2 July 2015 (ECB/2015/24) OJ L 193, 21.7.2015, p. 147.

(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 the Bank, and the cost or value of the asset or the amount of the obligation 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 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 cost of the inflows for each respective currency or 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 entered into deeper negative territory. Premiums or discounts arising from the difference between the average acquisition cost and the redemption price on 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, will give rise to either a change in the average cost of that currency or to the realisation of a further profit or loss depending on whether the Bank has a long or short position in that currency respectively. Every day, a weighted average price is calculated, firstly on inflows and secondly on outflows. The realised gain or loss is calculated by applying the difference between these average 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 unrealised revaluation 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 recorded 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 accounting policy (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, regardless of the holding intention.

(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 circumstances:[3]

- if the quantity sold is considered not significant in comparison with the total amount of the held-to-maturity securities portfolio;
- if the securities are sold during the month of the maturity date;
- under exceptional circumstances, such as a significant deterioration of the issuer’s creditworthiness.

Marketable securities other than those held-to-maturity 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 2015, 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

[3] In accordance with Article 7(5) of the Guideline of 11 November 2010 on the legal framework for accounting and financial reporting in the ESCB (ECB/2010/20) OJ L 35, 9.2.2011, p. 31 as amended.

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 liability sub-item L12.3 'Sundry other liabilities', while unrealised losses are recognised in asset sub-item A11.6 'Sundry other assets'.

(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, the face value of the 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 Central Bank of Malta Act (Cap. 204), 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, with the exception of land and works of art which are stated at historical cost. Historical cost includes expenditure that is directly attributable to the acquisition of the items. 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 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 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/2010/20 as amended by Guideline ECB/2012/29.[4] 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 on 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/2010/20 as amended in the manner outlined in the accounting policy 3 (f) 'Income recognition' above.

(p) Post-balance sheet events

The values of assets and liabilities are, in principle, adjusted for events that occur between the annual balance sheet date and the date of authorisation for issue of the financial statements, if such events materially affect the condition of assets and liabilities at the balance sheet date.

Post-balance sheet events that do not affect the condition of assets and liabilities at the balance sheet date are disclosed in the notes.

4 Capital key

The capital key determines the allocation of the ECB share capital to the national central banks (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 2014 and 2015 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 year ended 31 December 2015 stood at 0.0921% (2014: 0.0926%) due to the entry of Lietuvos bankas in the Eurosystem.

[4] Guideline of the ECB of 10 December 2012 amending Guideline ECB/2010/20 on the legal framework for accounting and financial reporting in the ESCB (2012/833/EU) OJ L 356, 22.12.2012, p. 94.

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.[5] 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.[6]

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 2014 and 2015 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[7] 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 recorded 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 recorded 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[8] 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,[9] and the average value of banknotes which would have been allocated to it during that period in accordance with its capital key. The adjustments are reduced in annual stages until the first day of the sixth year after the cash changeover year, when income on banknotes will be allocated fully in proportion to the NCB's paid-up shares in the ECB's capital.

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

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[5] ECB Decision of 13 December 2010 on the issue of euro banknotes (recast) (ECB/2010/29), OJ L 35, 9.2.2011, p. 26, as amended by ECB Decision of 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.

[6] 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.

[7] ECB Decision of 25 November 2010 on the allocation of monetary income of the NCBs of Member States whose currency is the euro (ECB/2010/23) (recast) OJ L 35, 9.2.2011, p. 17, as amended by ECB Decision of 15 December 2014 (ECB/2014/56) OJ L 53, 25.2.2015, p. 24 and ECB Decision of 19 November 2015 (ECB/2015/37) OJ L 313, 28.11.2015, p. 42.

[8] Cash changeover year refers to the year in which the euro banknotes are introduced as legal tender in the respective Member State, for Latvijas Banka this was 2014 and for Lietuvos bankas this is 2015.

[9] The reference period refers to 24 months which start 30 months before the day on which euro banknotes become legal tender in the respective Member State.

7 ECB profit distribution

The Governing Council of the ECB (Governing Council) has decided that the seigniorage income of the ECB, which arises from the 8% share of euro banknotes allocated to the ECB, as well as income arising from the securities held under (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, the ECB distributes this income in January of the following year by means of an interim distribution of profit.[10] It is distributed in full unless the ECB's net profit for the year is less than its income earned on euro banknotes in circulation and securities purchased under the aforementioned programmes, and subject to any decisions by the Governing Council to make transfers to the provision for foreign exchange rate, interest rate, credit and gold price risks. The Governing Council 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'.

[10] 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, holdings with counterparties and numismatic coins. During the year ended 31 December 2015, the Bank purchased 175 troy ounces of gold and disposed of 157 troy ounces attributable to numismatic coins. On the balance sheet date, gold was revalued at €973.225 (2014: €987.769) per fine troy ounce. The resultant unrealised valuation gains of €471,373 (2014: €536,516) are disclosed under L14 'Revaluation accounts'.

	€'000	Fine troy ounces
Balance as at 31 December 2014	4,547	4,603
Net transactions during the year	15	18
Decrease in valuation on 31 December 2015	(65)	-
Balance as at 31 December 2015	**4,497**	**4,621**

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:

	2015	2014	Change
	€'000	€'000	€'000
US dollar	**359,044**	338,621	20,423
Great Britain pound	**590**	15,840	(15,250)
Special drawing rights	**150,505**	154,542	(4,037)
Other	**17,422**	9,898	7,524
Total	**527,561**	518,901	8,660

A 2.1 Receivables from the IMF

(a) IMF quota

Malta's membership subscription to the IMF as at 31 December 2014 and 2015 was SDR102,000,000. The Bank's financial position relating to this subscription is reflected in the balance sheet as follows:

The net reserve tranche position included in the table below is equivalent to SDR29,364,359 (2014: SDR38,295,734). This amount is a claim on the IMF and represents the difference between the quota of SDR102,000,000 and the balances in euro at the disposal of the IMF.

During the period under review, Malta's net reserve tranche decreased by SDR8,931,375 mainly due to early repurchases of euro from borrowing members under the IMF Financial Transaction Plan.

	2015	2014	Change
	€'000	€'000	€'000
Reserve tranche position (net)	**37,375**	45,664	(8,289)
SDR holdings	**111,388**	100,764	10,624
IMF borrowing agreement	**1,742**	8,114	(6,372)
Total	**150,505**	154,542	(4,037)

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 only became effective on 26 January 2016 after the required level of consent among members was reached.

Under this Review, Malta's quota increased by SDR66,300,000 to SDR168,300,000. In this respect, on 18 February 2016, 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.

(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 2015, there were net purchases of SDR3,000,000 under this agreement (2014: net sales of SDR5,000,000). Malta's SDR holdings, as at 31 December 2015, including interest received thereon, stood at SDR87,514,042 (2014: SDR84,505,053).

The total SDRs allocated to Malta remained unchanged from 2010 at SDR95,401,757 to 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. The total term of this interest-bearing agreement did not exceed four years. As at 31 December 2015, the amount still outstanding under this facility stood at €1,741,987 (2014: €8,114,280) equivalent to SDR1,368,625 (2014: SDR6,805,000). 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 has agreed to lend to the IMF an SDR denominated amount up to €260,000,000. The total term of this interest bearing agreement will not exceed four years. Up to 31 December 2015, no amounts have 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.

	2015	2014	Change
	€'000	€'000	€'000
Marketable debt securities other than those held-to-maturity	**256,316**	273,912	(17,596)
Held-to-maturity debt securities	**97,894**	54,496	43,398
Current accounts and overnight deposits with banks	**22,441**	35,632	(13,191)
Other external assets	**405**	319	86
Total	**377,056**	364,359	12,697

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:

	2015	2014	Change
	€'000	€'000	€'000
US dollar	**135,459**	92,648	42,811
Great Britain pound	**22,098**	12,868	9,230
Total	**157,557**	105,516	52,041

During 2015, the ECB conducted the regular US dollar liquidity-providing operations with maturities of one week. 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. As at 31 December 2014 and 2015, the Bank did not have any claims arising from these operations.

	2015	2014	Change
	€'000	€'000	€'000
Marketable debt securities other than those held-to-maturity	**118,254**	91,806	26,448
Held-to-maturity debt securities	**13,826**	-	13,826
Fixed-term deposits with banks	**25,286**	12,839	12,447
Current accounts and overnight deposits with banks	**191**	871	(680)
Total	**157,557**	105,516	52,041

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.

	2015	2014	Change
	€'000	€'000	€'000
Marketable debt securities other than those held-to-maturity	**260,945**	257,047	3,898
Held-to-maturity debt securities	**683,537**	578,883	104,654
Current accounts and overnight deposits with banks	**1,171**	1,475	(304)
Total	**945,653**	837,405	108,248

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[11] of the Eurosystem.

The total Eurosystem holding of monetary policy assets amounts to €558,989,120,187 (2014: €630,340,809,644) of which the Bank holds €114,970,000 (2014: €411,320,000). In accordance with Article 32.4 of the Statute, losses from monetary policy operations (if they were to materialise) are 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.

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 generally a maturity of one week, normally by means 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 2015, the aggregate MROs carried out with the Bank during the year amounted to €2,038,800,000 (2014: €514,000,000). There were no outstanding MROs at the end of the year (2014: €6,800,000).

Throughout the financial year ended 31 December 2015, the MRO rate remained unchanged at the level of 0.05%. The following table highlights the changes in the MRO rate during 2014 as decided by the Governing Council.

With effect from:	Changes in basis points (bps)	Effective rate (%)
1 January		0.25
11 June	-10 bps	0.15
10 September	-10 bps	0.05

[11] On 10 March 2016, the ECB issued a press release with new monetary policy decisions: https://www.ecb.europa.eu/press/pr/date/2016/html/pr160310.en.html.

A 5.2 Longer-term refinancing operations

Longer-term refinancing operations (LTROs) are regular liquidity-providing reverse transactions aimed at providing counterparties with additional longer-term refinancing liquidity. In 2015, operations were conducted with maturities ranging from three to forty-eight months. Participation in LTROs requires the availability of eligible collateral.

During the year, the three month LTROs were conducted at 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, the maintenance period operations that were conducted on the last day of the reserve maintenance period remained in operation until June 2014. The maintenance period operations were conducted at fixed rate full allotment.

During 2015, the ECB conducted four targeted longer-term refinancing operations (TLTROs) aimed at improving bank lending to the euro area non-financial private sector excluding loans to households for house purchases, over a window of two years. To this effect, the ECB conducted the four TLTROs in March, June, September and December 2015. On 22 January 2015, the Governing Council decided that the interest rate for the TLTROs to be conducted between March 2015 and June 2016 would be equal to the rate on the MROs prevailing at the time when each TLTRO is conducted. With this decision, the 10 basis points spread over the MRO rate which was applied in the first two TLTROs conducted during 2014 was eliminated.[12]

The aggregate volume of LTROs and TLTROs carried out during 2015 amounted to €523,850,000 (2014: €308,470,000). Outstanding operations at the end of the current year amounted to €114,970,000 (2014: €404,520,000).

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 2014 and 2015.

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 2014 and 2015.

A 5.5 Marginal lending facility

Marginal lending facilities may be used by counterparties to obtain overnight liquidity from NCBs at a pre-specified interest rate against eligible assets. During 2015, the aggregate volume of such transactions with the Bank amounted to €104,000,000 (2014: €48,000,000). There were no outstanding balances as at 31 December 2014 and 2015.

Throughout the financial year ended 31 December 2015, the marginal lending facility rate remained unchanged at the level of 0.30%. The following table highlights the changes in the marginal lending facility rate during 2014 as decided by the Governing Council.

With effect from:	Changes in basis points (bps)	Effective rate (%)
1 January		0.75
11 June	-35 bps	0.40
10 September	-10 bps	0.30

[12] On 10 March 2016, the ECB issued a press release with a new series of targeted longer-term refinancing operations (TLTRO II): https://www.ecb.europa.eu/press/pr/date/2016/html/pr160310_1.en.html.

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 current accounts and overnight deposits with banks which as at 31 December 2015 amounted to €815,248 (2014: €357,982).

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

This sub-item contains securities acquired within the scope of the Eurosystem non-standard monetary policy purchase programmes for covered bonds, the SMP, and the PSPP.

Purchases under the first covered bond purchase programme[13] were completed on 30 June 2010, while the second covered bond purchase programme[14] ended on 31 October 2012. The SMP[15] was terminated on 6 September 2012.

On 2 October 2014, the Governing Council announced the operational modalities of the CBPP3[16] and the ABSPP. The aim of these programmes is to facilitate credit provision to the euro area economy, generate positive spill-over effects to other markets and, as a result, ease the ECB's monetary policy stance. Under the two programmes, the ECB and the NCBs may purchase, in both the primary and secondary markets, euro-denominated covered bonds issued in the euro area and senior and guaranteed mezzanine tranches of asset-backed securities that are denominated in euro and issued by entities resident in the euro area.

On 22 January 2015, the Governing Council decided that asset purchases should be expanded to include a secondary market public sector purchase programme. This programme aims to further ease monetary and financial conditions, including those relevant to borrowing conditions of euro area and non-financial corporations and households, thereby supporting aggregate consumption and investment spending in the euro area. Ultimately, this programme aims to contribute to the return of inflation rates to levels below but close to 2% over the medium term. Under this programme, the ECB and the NCBs may purchase, in the secondary market, euro-denominated securities issued by euro area central governments, agencies and European institutions.

The combined monthly purchases of CBPP3, ABSPP and PSPP are intended to amount to EUR 60 billion and are expected to be carried out until, at least, March 2017.[17] Securities purchased under existing programmes are valued on an amortised cost basis subject to impairment. Annual impairment tests are conducted on the basis of estimated recoverable amounts as at the year-end.

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[13] ECB Decision of 2 July 2009 on the implementation of the CBPP (ECB/2009/16), OJ L 175, 4.7.2009, p. 18
[14] ECB Decision of 3 November 2011 on the implementation of the second CBPP (ECB/2011/17), OJ L 297, 16.11.2011, p. 70.
[15] ECB Decision of 14 May 2010 establishing a securities markets programme, OJ L 124, 20.5.2010, p. 8.
[16] 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.
[17] On 10 March 2016, the ECB issued a press release adding a corporate sector purchase programme (CSPP) to the asset purchase programme (APP) and announced changes to the APP: https://www.ecb.europa.eu/press/pr/date/2016/html/pr160310_2.en.html.

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:

	2015		2014		Change	
	Amortised cost	**Market value**	Amortised cost	Market value	Amortised cost	Market value
	€'000	**€'000**	€'000	€'000	€'000	€'000
Securities markets programme	**56,204**	**35,541**	67,108	46,581	(10,904)	(11,040)
Public sector purchase programme	**278,384**	**278,332**	-	-	278,384	278,332
Total	**334,588**	**313,873**	67,108	46,581	267,480	267,292

The Governing Council assesses on a regular basis the financial risks associated with the securities held under these programmes. The total Eurosystem NCBs' holding of such securities amounts to €725,326,352,210 (2014: €199,454,333,708).

In accordance with Article 32.4 of the ESCB Statute, losses from holdings of SMP, CBPP3, ABSPP and PSPP securities issued by international organisations or multilateral development banks if they were to materialise, are shared in full by the Eurosystem NCBs, in proportion to the prevailing ECB capital key shares.

In the context of the impairment test carried out as at 31 December 2015 on securities purchased under the SMP, the Governing Council identified an impairment indicator, relating to the holdings of Greek Government bonds. Such an impairment indicator occurred in the course of 2015 and was triggered by the Hellenic Republic failing to honour debt repayment obligations with respect to both the IMF and the Bank of Greece on 30 June 2015. The Governing Council considered that the identified impairment indicator had not affected the estimated future cash flows. No impairment losses were therefore recorded at the year-end on the Bank's holdings under the SMP.

As a result of the impairment tests conducted as at 31 December 2015 on securities purchased under the three covered bond purchase programmes, the ABSPP and the PSPP, the Governing Council 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.

	2015	2014	Change
	€'000	€'000	€'000
Marketable debt securities other than those held-to-maturity	**331,140**	331,416	(276)
Held-to-maturity debt securities	**811,573**	1,001,351	(189,778)
Total	**1,142,713**	1,332,767	(190,054)

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.

[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 9.1 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 2015, 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 2014.

Based on the Council Decision 2003/517/EC of 15 July 2003 on the statistical data to be used for the determination of the key for subscription of the capital of the ECB,[19] the capital key shares of NCBs were adjusted as follows:

	Key for subscription of the ECB's capital until 31 December 2014	**Key for subscription of the ECB's capital from 1 January 2015**
Nationale Bank van België/ Banque Nationale de Belgique	2.4778	2.4778
Deutsche Bundesbank	17.9973	17.9973
Eesti Pank	0.1928	0.1928
Central Bank of Ireland	1.1607	1.1607
Bank of Greece	2.0332	2.0332
Banco de España	8.8409	8.8409
Banque de France	14.1792	14.1792
Banca d'Italia	12.3108	12.3108
Central Bank of Cyprus	0.1513	0.1513
Latvijas Banka	0.2821	0.2821
Lietuvos bankas	-	0.4132
Banque centrale du Luxembourg	0.2030	0.2030
Central Bank of Malta	0.0648	0.0648
De Nederlandsche Bank	4.0035	4.0035
Oesterreichische Nationalbank	1.9631	1.9631
Banco de Portugal	1.7434	1.7434
Banka Slovenije	0.3455	0.3455
Národná banka Slovenska	0.7725	0.7725
Suomen Pankki	1.2564	1.2564
Subtotal for euro area NCBs	**69.9783**	**70.3915**
Българска народна банка (Bulgarian National Bank)	0.8590	0.8590
Česká národní banka	1.6075	1.6075
Danmarks Nationalbank	1.4873	1.4873
Hrvatska narodna banka	0.6023	0.6023
Lietuvos bankas	0.4132	-
Magyar Nemzeti Bank	1.3798	1.3798
Narodowy Bank Polski	5.1230	5.1230
Banca Naţională a României	2.6024	2.6024
Sveriges Riksbank	2.2729	2.2729
Bank of England	13.6743	13.6743
Subtotal for non-euro area NCBs	**30.0217**	**29.6085**
Total	**100**	**100**

[19] OJ L 181, 19.7.2003, p. 43.

	Subscribed capital until 31 December 2014	Paid-up capital until 31 December 2014	Subscribed capital from 1 January 2015	Paid-up capital from 1 January 2015
Nationale Bank van België/ Banque Nationale de Belgique	268,222,025	268,222,025	268,222,025	268,222,025
Deutsche Bundesbank	1,948,208,997	1,948,208,997	1,948,208,997	1,948,208,997
Eesti Pank	20,870,614	20,870,614	20,870,614	20,870,614
Central Bank of Ireland	125,645,857	125,645,857	125,645,857	125,645,857
Bank of Greece	220,094,044	220,094,044	220,094,044	220,094,044
Banco de España	957,028,050	957,028,050	957,028,050	957,028,050
Banque de France	1,534,899,402	1,534,899,402	1,534,899,402	1,534,899,402
Banca d'Italia	1,332,644,970	1,332,644,970	1,332,644,970	1,332,644,970
Central Bank of Cyprus	16,378,236	16,378,236	16,378,236	16,378,236
Latvijas Bankas	30,537,345	30,537,345	30,537,345	30,537,345
Lietuvos bankas	-	-	44,728,929	44,728,929
Banque centrale du Luxembourg	21,974,764	21,974,764	21,974,764	21,974,764
Central Bank of Malta	7,014,605	7,014,605	7,014,605	7,014,605
De Nederlandsche Bank	433,379,158	433,379,158	433,379,158	433,379,158
Oesterreichische Nationalbank	212,505,714	212,505,714	212,505,714	212,505,714
Banco de Portugal	188,723,173	188,723,173	188,723,173	188,723,173
Banka Slovenije	37,400,399	37,400,399	37,400,399	37,400,399
Národná banka Slovenska	83,623,180	83,623,180	83,623,180	83,623,180
Suomen Pankki	136,005,389	136,005,389	136,005,389	136,005,389
Subtotal for euro area NCBs*	**7,575,155,922**	**7,575,155,922**	**7,619,884,851**	**7,619,884,851**
Българска народна банка (Bulgarian National Bank)	92,986,811	3,487,005	92,986,811	3,487,005
Česká národní banka	174,011,989	6,525,450	174,011,989	6,525,450
Danmarks Nationalbank	161,000,330	6,037,512	161,000,330	6,037,512
Hrvatska narodna banka	65,199,018	2,444,963	65,199,018	2,444,963
Lietuvos bankas	44,728,929	1,677,335	-	-
Magyar Nemzeti Bank	149,363,448	5,601,129	149,363,448	5,601,129
Narodowy Bank Polski	554,565,112	20,796,192	554,565,112	20,796,192
Banca Naţională a României	281,709,984	10,564,124	281,709,984	10,564,124
Sveriges Riksbank	246,041,586	9,226,559	246,041,586	9,226,559
Bank of England	1,480,243,942	55,509,148	1,480,243,942	55,509,148
Subtotal for non-euro area NCBs*	**3,249,851,149**	**121,869,417**	**3,205,122,220**	**120,192,082**
Total*	**10,825,007,070**	**7,697,025,340**	**10,825,007,070**	**7,740,076,935**

*Due to rounding, subtotals and totals may not correspond to the sum of all figures shown.

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 2014.

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.

As disclosed in the table below, the claim of the Bank with respect to the foreign reserve assets transferred to the ECB as at 31 December 2014 and 2015 was €37,552,276.

	Claim equivalent to the transfer of foreign reserves until 31 December 2014	Claim equivalent to the transfer of foreign reserves from 1 January 2015
Nationale Bank van België/ Banque Nationale de Belgique	1,435,910,943	1,435,910,943
Deutsche Bundesbank	10,429,623,058	10,429,623,058
Eesti Pank	111,729,611	111,729,611
Central Bank of Ireland	672,637,756	672,637,756
Bank of Greece	1,178,260,606	1,178,260,606
Banco de España	5,123,393,758	5,123,393,758
Banque de France	8,216,994,286	8,216,994,286
Banca d'Italia	7,134,236,999	7,134,236,999
Central Bank of Cyprus	87,679,928	87,679,928
Latvijas Banka	163,479,892	163,479,892
Lietuvos bankas	-	239,453,710
Banque centrale du Luxembourg	117,640,617	117,640,617
Central Bank of Malta	37,552,276	37,552,276
De Nederlandsche Bank	2,320,070,005	2,320,070,005
Oesterreichische Nationalbank	1,137,636,925	1,137,636,925
Banco de Portugal	1,010,318,483	1,010,318,483
Banka Slovenije	200,220,853	200,220,853
Národná banka Slovenska	447,671,807	447,671,807
Suomen Pankki	728,096,904	728,096,904
Total*	**40,553,154,707**	**40,792,608,417**

*Due to rounding, totals may not correspond to the sum of all figures shown.

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 2014 and 2015, 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 2014 and 2015, the Bank's claims were netted off from liability sub-item L10.4 'Other liabilities within the Eurosystem (net)'.

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 2014	24,981	6,505	31,486
Additions	2,314	964	3,278
As at 31 December 2015	**27,295**	**7,469**	**34,764**
Accumulated depreciation			
As at 31 December 2014	2,681	4,999	7,680
Charge for the year	224	538	762
As at 31 December 2015	**2,905**	**5,537**	**8,442**
Net book value			
As at 31 December 2014	22,300	1,506	23,806
As at 31 December 2015	**24,390**	**1,932**	**26,322**

The net book value as at 31 December 2015 includes an amount of €4,990,552 (2014: €3,229,370) related to assets which are not yet available for use.

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) of the General notes to the financial statements). During the preceding year, the Bank transferred marketable debt securities which formed part of the earmarked portfolio and were measured at mid-market prices, to the held-to-maturity portfolios in asset sub-items A4.1 'Balances with banks, security investments and loans', and A7.2 'Other securities'. The transfer was effected at the market values on the date of transfer amounting to €209,434,930.

The Bank also held another earmarked portfolio comprising MGS and Treasury bills 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 years ended 31 December 2014 and 2015, the Bank's investment in these two funds was increased by a further €50,000,000 each year.

The contractual funds are measured in the balance sheet at the net asset value of the respective fund.

	2015	2014	Change
	€'000	€'000	€'000
Earmarked investments	**318,429**	207,058	111,371
Earmarked Malta Government Stocks	**457,995**	398,349	59,646
Fixed income investment funds	**357,101**	306,227	50,874
Total	**1,133,525**	911,634	221,891

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 2015, these unrealised gains amounted to €319,357 (2014: €498).

A 11.5 Accruals and prepaid expenses

This sub-item consists of accrued interest income of €46,440,404 (2014: €46,142,796) on income-earning assets, including an amount of €16,706 (2014: €53,196) 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 2015, the total value of banknotes in circulation within the Eurosystem increased by 6.6% from €1,016,537,995,180 at 31 December 2014 to €1,083,428,688,080 at 31 December 2015. According to the banknote allocation key, the Bank had an allocated amount of euro banknotes in circulation of €920,914,650 at the end of the year compared to €864,057,300 at the end of 2014.

The value of the euro banknotes actually issued by the Bank in 2015 increased by 12.4% from €866,631,800 to €974,087,955 at year end. As this is more than the allocated amount, the difference of €53,173,305 (2014: €2,574,500) 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[20] conducted by the Bank on behalf of the Eurosystem.

	2015	2014	Change
	€'000	€'000	€'000
Current accounts (covering the minimum reserve system)	**408,359**	257,271	151,088
Deposit facility	**1,049,136**	241,827	807,309
Total	**1,457,495**	499,098	958,397

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 NCBs at pre-specified rates. Under normal circumstances, the interest rate on the facility provides a floor for the overnight market interest rate. During 2015, the aggregate volume of such transactions with the Bank amounted to €212,064,346,260 (2014: €57,881,787,591). The outstanding balance as at year-end amounted to €1,049,136,167 (2014: €241,827,188).

[20] See footnote 11.

The following table highlights the changes in the overnight deposit facility rate during 2014 and 2015 as decided by the Governing Council.

With effect from:	Changes in basis points (bps)	Effective rate (%)
	2014	
1 January		0.00
11 June	-10bps	-0.10
10 September	-10bps	-0.20
	2015	
9 December	**-10bps**	**-0.30**

L 2.3 Fixed-term deposits

These liabilities relate to liquidity-absorbing fine-tuning operations for a fixed-term at variable rate tender. No liquidity-absorbing fine-tuning operations were conducted by the ECB during 2015. Accordingly, there were no outstanding liquidity-absorbing fine-tuning operations at the end of the year.

Weekly seven-day liquidity-absorbing operations used to be conducted to sterilise the liquidity provided through the SMP, with an intended volume covering the amount of securities settled by the previous week. The aggregate volume of such transactions with the Bank during 2014 amounted to €17,605,517,537. This operation was terminated by the Governing Council as from June 2014. Accordingly, there was no outstanding balance as at 31 December 2014.

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 2014 and 2015, and accordingly there were no outstanding operations at the end of the year.

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 2014 and 2015.

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.[21]

[21] 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 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.

	2015	2014	Change
	€'000	€'000	€'000
Current accounts	**166,508**	216,906	(50,398)
Sinking fund accounts	**104,350**	80,410	23,940
Total	**270,858**	297,316	(26,458)

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. These balances are remunerated in accordance with the provisions established by the Governing Council.[22]

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.[23]

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.[24]

	2015	2014	Change
	€'000	€'000	€'000
Government of Malta current accounts	**54,736**	34,580	20,156
Government of Malta sinking funds accounts	**130**	391	(261)
Liabilities to banks	**94,402**	12,841	81,561
Other current accounts and fixed-term deposits	**8,225**	2,452	5,773
Total	**157,493**	50,264	107,229

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.

[22] See footnote 21.
[23] See footnote 21.
[24] See footnote 21.

L 10.3 Net liabilities related to the allocation of euro banknotes within the Eurosystem

This sub-item consists of the liability of the Bank vis-à-vis the Eurosystem relating to the excess of euro banknotes issued by the Bank over and above the amount allocated to the Bank by the ECB in accordance with the banknote allocation key (see note L1 'Banknotes in circulation' above). The increase in the excess euro banknotes reflects the relatively higher increase (12.4%) in additional banknotes issued by the Bank during 2015, as compared to the increase in banknotes put into circulation by the Eurosystem as a whole (6.6%).

L 10.4 Other liabilities within the Eurosystem (net)

These liabilities comprise balances attributable to the transfers issued and received through TARGET2 by the ESCB NCBs, including the ECB, plus the balances held with Eurosystem NCBs through correspondent accounts. Also included are balances resulting from the pooling and allocation of monetary income within the Eurosystem pending settlement reflecting the difference between monetary income to be pooled and that distributed (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.

The remuneration of the credit 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.

	2015	2014	Change
	€'000	€'000	€'000
TARGET2 balance	**922,428**	1,930,223	(1,007,795)
Net result from pooling of monetary income	**(1,434)**	(2,354)	920
ECB profit distribution	**(748)**	(779)	31
Total	**920,246**	1,927,090	(1,006,844)

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.

	2015	2014	Change
	€'000	€'000	€'000
Deferred income in respect of demonetised			
Maltese Lira currency notes	**20,737**	27,090	(6,353)
Accrued interest payable	**617**	244	373
Income collected in advanced	**94**	-	94
Other	**1,466**	1,122	344
Total	**22,914**	28,456	(5,542)

L 12.3 Sundry

Sundry liabilities mainly include unrealised revaluation gains attributable to MGS held as part of the earmarked portfolio amounting to €32,805,725 (2014: €38,250,888). These liabilities also include realised losses attributable to off-balance sheet positions, principally foreign exchange swap and forward transactions outstanding on 31 December 2015, 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 €2,048,671 (2014: €3,264,903) reflecting the unrealised revaluation gains on marketable debt securities which formed part of the earmarked portfolio[25] and were transferred to held-to-maturity portfolios (refer to 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 €50,000,000 (2014: €33,900,000) approved by the Board of Directors in accordance with the amendment to the Guideline which came into force on 31 December 2012. 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[26] 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 2014 and 2015, 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.

[25] Comprising investments held as a counterpart to the Bank's capital and statutory reserves.

[26] Above-the-line buffers include provisions, profit for the year and revaluation accounts. Below-the-line buffers include capital and reserves.

	2015	2014	Change
	€'000	€'000	€'000
Gold	**471**	537	(66)
Foreign currency positions	**4**	116	(112)
Securities and other instruments	**11,319**	17,906	(6,587)
Total	**11,794**	18,559	(6,765)

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 2014	20,000	75,505	172,473	60,397
Net issuance of euro coins	-	-	-	8,114
Transfer from profits for the year	-	-	8,863	-
Balance as at 31 December 2015	**20,000**	**75,505**	**181,336**	**68,511**

L 15.1 Capital

In terms of article 19(1) of the Central Bank of Malta Act (Cap. 204), 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 Central Bank of Malta Act (Cap. 204), 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 Central Bank of Malta Act (Cap. 204) 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, certain financial liabilities have given rise to interest income rather than interest expense during the year. Accordingly, net interest income is in effect the aggregate of interest income and interest expense with the latter being positive, rather than negative.

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. During the year, a number of these financial instruments generated negative interest income which is netted off within the amounts presented in the table below.

	2015	2014	Change
	€'000	€'000	€'000
Marketable debt securities			
- In euro	**44,907**	56,810	(11,903)
- In foreign currency	**6,084**	5,070	1,014
Fixed-term deposits			
- In euro	**-**	4	(4)
- In foreign currency	**24**	39	(15)
Current accounts and overnight deposits			
- In euro	**(9)**	-	(9)
- In foreign currency	**(9)**	7	(16)
IMF	**10**	37	(27)
Monetary policy operations			
- Main refinancing operations	**20**	15	5
- Longer-term refinancing operations	**145**	351	(206)
- Marginal lending facility	**1**	1	-
- Securities acquired under the SMP	**4,200**	5,529	(1,329)
- Securities acquired under the PSPP	**1,831**	-	1,831
Intra-Eurosystem claims			
- Claims arising from the transfer of foreign reserves	**16**	53	(37)
- Net claims related to the allocation of banknotes within the Eurosystem	**(9)**	(42)	33
Forward foreign exchange contracts	**(2,077)**	(164)	(1,913)
Other interest income	**31**	31	-
Total	**55,165**	67,741	(12,576)

1.2 Interest expense

Interest expense arises from interest payable 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. During the year, most of these financial liabilities have given rise to negative interest expense which is netted off within the amounts presented in the table below.

	2015	2014	Change
	€'000	€'000	€'000
Government accounts			
- In euro	**(713)**	263	(976)
- In foreign currency	**-**	8	(8)
Other customer accounts			
- In euro	**(150)**	(44)	(106)
- In foreign currency	**33**	30	3
Monetary policy operations			
- Minimum reserves	**133**	393	(260)
- Overnight deposits	**(1,744)**	(254)	(1,490)
- Fixed-term deposits	**-**	762	(762)
Intra-Eurosystem liabilities			
- TARGET2 balances	**580**	1,340	(760)
Other interest expense	**(15)**	154	(169)
Total	**(1,876)**	2,652	(4,528)

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.

	2015	2014	Change
	€'000	€'000	€'000
Net gains/losses on disposal of financial instruments	**29,960**	14,923	15,037
Net gains/losses on foreign currency positions	**782**	1,679	(897)
Total	**30,742**	16,602	14,140

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.

	2015	2014	Change
	€'000	€'000	€'000
Write-downs on debt securities	**2,492**	457	2,035
Write-downs on foreign currency positions	**13**	18	(5)
Total	**2,505**	475	2,030

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 2015, the Bank received €137,153 (2014: €55,300) representing its relative share of the ECB's distributable remaining profits for 2014 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 €747,623 (2014: €778,508) due to the Bank with respect to the ECB's 2015 interim profit distribution (see note 7 'ECB profit distribution' in the general notes to the financial statements).

Income from equity shares and participating interest also reflects the increase/decrease in the relative share of the Bank in the net equity of the ECB as at 31 December 2015 due to the ECB's capital key changes (see note A9.1 'Participating interest in the ECB' in the notes to the balance sheet).

5 Net result of pooling of monetary income

This item contains the net result of pooling of monetary income for 2015 amounting to an income of €1,433,791 (2014: €2,353,762).

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; 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. Gold is considered to generate no income.

Securities held for monetary policy purposes under Decision ECB/2009/16 of 2 July 2009 on the implementation of the covered bonds purchase programme, under Decision ECB/2011/17 of 3 November 2011 on the implementation of the second covered bond purchase programme and under Decision ECB/2015/10 of 4 March 2015 on the implementation of the secondary markets public sector asset purchase programme are considered to generate income at the latest available marginal interest rate used by the Eurosystem in its tenders for main refinancing operations.

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 2014 and 2015 was a receipt by the Bank which is the difference between the net monetary income pooled amounting to €6,827,887 (2014: €7,461,688) and the amount redistributed of €8,267,269 (2014: €9,210,696). In 2015, an expense of €5,590 was paid in relation to an adjustment for the previous year and in 2014 a net income of €604,735 was received in relation to previous years' adjustments.

6 Other income

Other income includes an amount of €5,000,000 (2014: €4,000,000), reflecting the recognition of income in respect of the balance of unredeemed Maltese lira fifth series currency notes, which as at 31 December 2015 amounted to the equivalent of €39,737,377 (2014: €41,089,805). 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 Central Bank of Malta Act (Cap. 204) (see note 3(l) 'Demonetised Maltese lira currency notes' in the general notes to the financial statements). This item also includes income from numismatic issues of coins.

7 Staff costs

Staff costs include salaries and other ancillary costs.

	2015	2014	Change
	€'000	€'000	€'000
Staff salaries	**9,154**	8,760	394
Other staff costs	**984**	936	48
Training, welfare and other related expenditure	**1,014**	824	190
Total	**11,152**	10,520	632

The full-time equivalent average number of staff employed by the Bank during the year was as follows:

	2015	2014	Change
	Number	Number	Number
Governors	**3**	3	-
Director general	**0**	1	(1)
Chief Officers	**5**	5	-
Heads and executives	**102**	99	3
Officers II and I	**190**	186	4
Non-clerical staff	**37**	35	2
Total	**337**	329	8

8 Administrative expenses

This item consists of operating expenditure incurred by the Bank.

Administrative expenses of €6,099,691 (2014: €5,687,318) 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 current financial year amounted to €62,000 (2014: €62,000).

Compensation to the members of the Board of Directors for the financial year under review amounted to €226,174 (2014: €222,664). 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 2015, the Bank had outstanding foreign exchange forward and swap contracts which relate to the forward purchases of €539,900,000 (2014: €419,200,000) against the sale of other currencies (principally the US dollar), the forward sale of €184,600,000 (2014: nil) against the purchase of other currencies (principally the US dollar), and the net forward sale of SDR22,800,000 (2014: SDR34,100,000) against the euro. Unsettled net spot transactions as at 31 December 2015 were €41,300,000 (2014: €38,200,000).

At the balance sheet date, the Bank had outstanding interest rate future contracts linked to German government securities (long position with a notional amount of €5,575,500; short positions with a notional amount of €95,433,360) and US treasury notes (long position with a notional amount of US$16,353,594; short positions with a notional amount of US$62,331,721).

(b) Contingent liabilities and commitments

	2015	2014	Change
	€'000	€'000	€'000
Guarantees and letters of credit	**218**	218	-
Increase in IMF quota (see note A2.1)	**84,387**	-	84,387
Total	**84,605**	218	84,387

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.

The Bank also has commitments in respect of tangible/intangible fixed assets which extend beyond the balance sheet date. Capital commitments, which amount to €17,465,514 (2014: €18,780,020), are expected to be incurred up to 2018 and relate mainly to 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 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. The principal outstanding transactions as at the balance sheet date in this respect are reflected in note (b) 'Contingent liabilities and commitments' above.

(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 €9,118,791 (2014: €10,890,189) 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 2015, demonetised Maltese lira currency notes presented for redemption amounted to €1,352,428 (2014: €1,680,519). At 31 December 2015, the value of unpresented demonetised currency notes amounted to €39,737,377 (2014: €41,089,805).

(f) Investment securities pledged as collateral

As at 31 December 2015, investment securities have been pledged as collateral against the provision of credit lines by a counterparty up to an amount of US$95,000,000 or approximately €87,000,000 (2014: US$95,000,000 or approximately €78,000,000). No amounts were borrowed under these facilities at the balance sheet dates.

(g) Assets held in custody

As at 31 December 2015, assets held in custody by the Bank in terms of the Insurance Business Act (Cap. 403) amounted to the equivalent of €28,740,817 (2014: €29,224,491).

(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 2015, the Investor and Depositor Compensation Schemes had deposits of €41,205 (2014: €241,758) and €31,278 (2014: €49,212) 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 Central Bank of Malta Act (Cap. 204).

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 2015

	EUR €'000	GBP €'000	USD €'000	Total €'000
Cash and balances with banks				**26,146**
Gold balances				**4,497**
Placements with banks by exposure country:				
France	-	22,071	3,215	**25,286**
Securities by issuer category:				
Government	1,700,798	-	21,034	**1,721,832**
Insurance	6,670	-	-	**6,670**
Monetary financial institutions	1,200,138	-	401,358	**1,601,496**
Other financial institutions	9,038	-	961	**9,999**
Non-financial institutions	244,524	-	46,121	**290,645**
Supranational	13,674	-	16,816	**30,490**
	3,174,842	**-**	**486,290**	**3,661,132**
Claims on the International Monetary Fund				**150,505**
Participating interest in the European Central Bank				**15,859**
Transfer of foreign reserves to the European Central Bank				**37,552**
Fixed income investment funds				**357,101**
Other foreign currency assets				**23,568**
Total investments				**4,301,646**