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ABBREVIATIONS

APP	asset purchase programme
BLS	Bank Lending Survey
ECB	European Central Bank
EER	effective exchange rate
EONIA	Euro OverNight Index Average
ESI	economic sentiment indicator
EURIBOR	Euro Interbank Offered Rate
FCI	Financial Conditions Index
FOMC	Federal Open Market Committee
GDP	gross domestic product
GVA	gross value added
HCI	harmonised competitiveness indicator
HICP	Harmonised Index of Consumer Prices
LFS	Labour Force Survey
MFI	monetary financial institution
MGS	Malta Government Stocks
MRO	main refinancing operation
MSE	Malta Stock Exchange
NEIG	non-energy industrial goods
NFC	non-financial corporation
NPISH	non-profit institutions serving households
NSO	National Statistics Office
OECD	Organisation for Economic Co-operation and Development
PPI	Producer Price Index
ROW	Rest of the World
RPI	Retail Price Index
SME	small and medium-sized enterprises
ULC	unit labour cost

FOREWORD

While remaining strong, the pace of economic expansion in Malta slowed down marginally in the first quarter of 2018. The Bank's Business Conditions Index also moderated, though it continued to signal above-average economic conditions.

Real gross domestic product (GDP) rose by 4.4% in annual terms, following an increase of 4.6% in the preceding quarter. Economic growth was driven by net exports. In contrast, domestic demand contracted as a decrease in investment offset growth in government and private consumption, while effect of changes in inventories on economic activity was minimal.

The moderation in GDP growth reflected that in potential output, which is estimated to have decelerated from 5.1% in the last quarter of 2017, to 4.5% in the quarter under review. The Bank's measure of the output gap indicates that the extent of overutilization of the economy's productive capacity has decreased from the high levels recorded in 2015 and 2016, but remains close to the level prevailing in 2017.

Labour market conditions remained favourable in the first quarter of 2018, as employment grew strongly and the unemployment rate fell compared with the preceding year, notwithstanding increased supply of labour, due to both enhanced labour market participation and higher inflows of foreign workers. At 4.4%, the unemployment rate remained below the structural measure of 4.8%, and continued to suggest a degree of tightness in the labour market.

Price pressures remained moderate, with annual inflation based on the Harmonised Index of Consumer Prices (HICP) remaining unchanged at 1.3% in March compared with December. Services inflation remained the main contributor to overall inflation. Nonetheless, inflation in this subcomponent eased, as did energy inflation. Meanwhile, food inflation remained broadly unchanged, while inflation in non-energy industrial goods (NEIG) picked-up. The Bank's estimate of core inflation, which excludes the more volatile components, stood slightly below the headline figure in March, at 1.1%.

Domestic cost inflation accelerated further with the Producer Price Index rising at a stronger pace on an annual basis, solely as a result of developments in the prices of intermediate goods. Malta's unit labour cost index also accelerated during the first quarter, although the annual rate of change remained moderate from a historic perspective. Likewise, Malta's Harmonised Competitiveness Indicators also rose and continued to indicate a deterioration in competitiveness, owing to unfavourable exchange rate and relative price movements.

Despite these developments, the current account of the balance of payments remained in surplus. This reflected a higher surplus on services, though there was also a narrowing of the merchandise trade deficit. The Bank's analysis suggests that the strong balance of payments position reflects structural rather than cyclical developments.

A similar assessment holds for public finances. Though, during the first quarter of 2018, the general government registered a deficit for the first time in two years, this reflected the fact that government expenditure was boosted by a one-off transaction. In fact, when measured as a four-quarter moving sum, the general government balance remained in surplus. Its ratio to GDP

declined to 3.3% of GDP from 3.9% in the fourth quarter of 2017, but remained above the 2.0% recorded a year earlier. Meanwhile, general government debt as a share of GDP fell slightly to 50.4% at the end of March, from 50.7% at the end of 2017.

Residents' deposits with monetary financial institutions operating in Malta rose at a slower pace compared with December, partly reflecting weaker growth in overnight deposits. In contrast, credit growth picked up, as credit to residents outside general government accelerated. Growth in mortgage loans to households remained strong, while growth in bank loans to non-financial corporations (NFC) showed the first signs of recovery after an extended period of decline. Meanwhile, the Bank's Financial Conditions Index continued to signal broadly neutral financial conditions from a historical perspective.

In the context of low inflationary pressures, the Governing Council of the European Central Bank (ECB) maintained an accommodative monetary policy stance during the first quarter of 2018. The interest rates on main refinancing operations, the marginal lending facility and the deposit facility were kept at 0.00%, 0.25% and -0.40%, respectively. The Council maintained the comprehensive package of non-standard measures, which include purchases of eligible securities under the asset purchase programme (APP). The Council confirmed that it continued to expect interest rates to remain at their current levels for an extended period of time, and well past the horizon of the net asset purchases.

In June, the Council clarified that key ECB interest rates are expected to remain at their present levels at least through the summer of 2019 and in any case for as long as necessary to ensure that inflation continues to develop in line with the current expectations of a sustained adjustment path. It also announced that the pace of monthly purchases will be reduced from €30 billion to €15 billion after September 2018. These purchases will end in December.

Pass-through from the accommodative monetary conditions of the ECB to interest rates offered by domestic credit institutions remained partial and uneven. The weighted average interest rate on deposits held by Maltese residents with domestic banks declined further during the March quarter. However, the weighted average lending rate was unchanged, as an increase in lending rates to non-financial corporation offset a small decrease in rates charged to households. Yields on Treasury bills rose slightly, while those on ten-year Malta Government Stocks (MGS) fell during the first quarter of 2018. Meanwhile, in the equity market, domestic share prices declined.

ECONOMIC SURVEY

1. THE EXTERNAL ENVIRONMENT AND THE EURO AREA

In the first quarter of 2018, economic growth as measured by real gross domestic product (GDP) slowed down in the euro area, the United States and the United Kingdom. The three-month average unemployment rate edged down marginally in the euro area and the United Kingdom but was unchanged in the United States.

In the euro area, annual consumer price inflation decelerated to 1.3% in March from 1.4% in December. At 2.5%, inflation in the United Kingdom was 0.5 percentage point lower compared with December. On the other hand, inflation in the United States reached 2.4% from 2.1%. In all the three countries, monetary policy remained accommodative. While the European Central Bank (ECB) and the Bank of England kept their key interest rates unchanged, the Federal Reserve raised its key policy rate.

Brent oil prices increased at the beginning of the year before decreasing somewhat as US crude production increased. In March, energy prices regained some of their earlier losses, ending the quarter 1.7% higher than the level prevailing at the end of 2017. Non-energy commodity prices also rose during the first quarter of 2018.

Key advanced economies

Economic activity in the United States slows down

In the first quarter of 2018, the US economy grew at a slower pace, with real GDP rising by 0.5% quarter-on-quarter, from 0.7% in the previous quarter (see Table 1.1).

The deceleration in real GDP growth was mainly driven by slower growth in personal consumption expenditure and, to a lesser extent, in government spending and investment. In particular, residential fixed investment, which was previously expanding, contracted during the quarter, offsetting faster growth in non-residential fixed investment and a smaller decrease in inventories. Net exports, which had a negative contribution in the fourth quarter, had a neutral impact on GDP growth during the quarter under review.

In the labour market, the participation rate averaged 62.9% in the first quarter of 2018, compared with 62.7% in the final quarter of 2017. Meanwhile, employment grew at a faster pace in

Table 1.1
REAL GDP GROWTH IN SELECTED ADVANCED ECONOMIES

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

	2016			2017			2018	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
United States	0.6	0.7	0.4	0.3	0.8	0.8	0.7	0.5
Euro area	0.3	0.4	0.7	0.7	0.7	0.7	0.7	0.4
United Kingdom	0.2	0.5	0.7	0.4	0.2	0.4	0.4	0.2

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

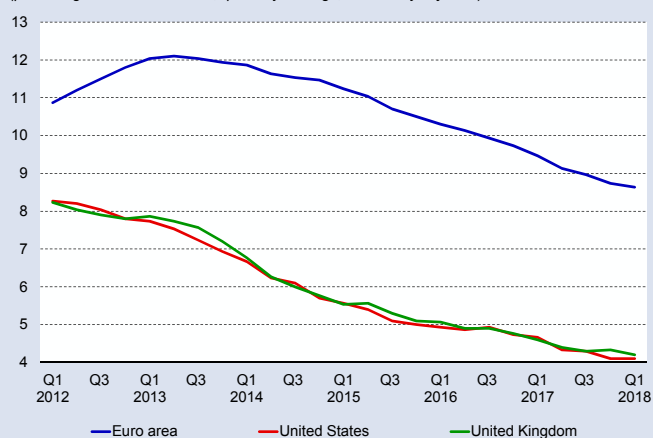
the first quarter, with the annual rate of increase rising to 1.6% from 1.2% in the previous quarter. Payroll data show that the pick-up in employment growth reflected faster increases in the number of employees working in the manufacturing and construction sectors. Meanwhile, the unemployment rate remained unchanged at 4.1% compared with the last quarter of 2017 (see Chart 1.1).

The annual rate of change of the US consumer price index (CPI) edged up to 2.4% in March from 2.1% at the end of 2017 (see Chart 1.2). The increase in the inflation rate between December and March was mainly attributable to an increase in services price inflation, although energy inflation also edged up marginally. In contrast, weaker growth was recorded in food prices. Inflation excluding food and energy edged up to 2.1% in March, from 1.8% in December.

In January, the Federal Open Market Committee (FOMC) maintained the target range for the federal funds rate unchanged between 1.25% and 1.50% but said that it expected further gradual increases in this rate (see Chart 1.3). In this regard, on 21 March, the FOMC revised the range for the federal funds rate to between 1.50% and 1.75%, in view of realised and expected labour market conditions and inflation. The stance of monetary policy was assessed as accommodative, thereby supporting favourable labour market conditions and a

**Chart 1.1
UNEMPLOYMENT RATE**

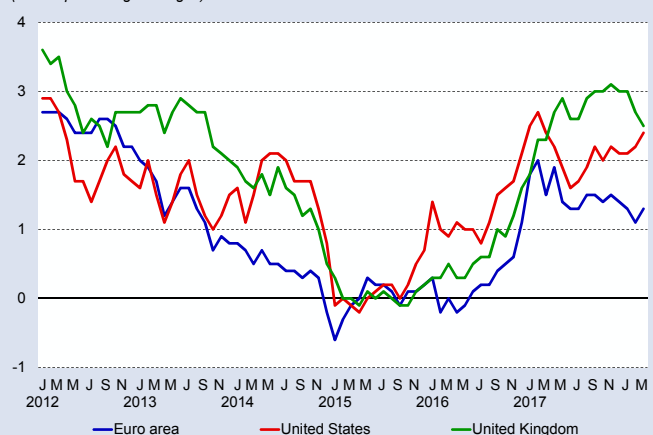
(percentage of the labour force; quarterly average; seasonally adjusted)



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

**Chart 1.2
CONSUMER PRICE INFLATION**

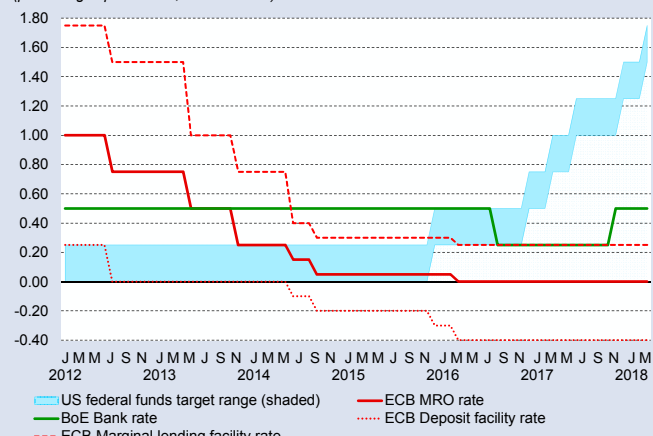
(annual percentage changes)



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

**Chart 1.3
OFFICIAL INTEREST RATES**

(percentages per annum; end of month)



Sources: ECB; Federal Reserve; Bank of England.

sustained return to the Committee's 2% inflation target. The Committee added that it expected economic conditions to evolve in a manner that will warrant further gradual increases in the federal funds rate. Nonetheless, the federal funds rate is likely to remain, for some time, below levels that are expected to prevail in the longer run and that the actual path of the federal funds rate will depend on the economic outlook as informed by incoming data. The Committee also maintained its existing policy of reinvesting principal payments from its agency debt and agency mortgage-backed security holdings in agency mortgage-backed securities, and rolling over maturing Treasury securities at auction.¹

UK economic growth halves

In the United Kingdom, quarter-on-quarter GDP growth eased to 0.2% in the March quarter, from 0.4% in the previous quarter (see Table 1.1). Investment growth turned negative, while private consumption registered a slightly lower annual rate of change. In contrast, government consumption rose at an unchanged rate compared with the last quarter of 2017. The deceleration in domestic demand was amplified by a decrease in the positive contribution of net exports.

In the labour market, employment increased at a slightly faster annual pace of 1.3% in the first quarter of 2018, from 1.2% in the preceding quarter. Unemployment averaged 4.2% in the three months to March, 0.1 percentage point lower than in the previous three-month period (see Chart 1.1).

Consumer price inflation decreased to 2.5% in March, from 3.0% at the end of 2017 (see Chart 1.2). Energy prices decelerated as did those of non-energy industrial goods and food. In March, the prices of services remained unchanged compared with December. Inflation excluding energy, food, alcohol and tobacco eased to 2.3% from 2.5% three months earlier.

In its meetings held in February and March, the Bank of England's Monetary Policy Committee maintained the Bank Rate unchanged at 0.50% (see Chart 1.3). The Committee agreed that any future increases in the Bank Rate are likely to be *"at a gradual pace and to a limited extent"*. According to the Committee, developments regarding the United Kingdom's withdrawal from the European Union, remain the most significant influence on, and source of uncertainty about, the economic outlook. In such exceptional circumstances, the MPC's remit specifies that the Committee must balance any significant trade-off between the speed at which it intends to return inflation sustainably to the target and the support that monetary policy provides to jobs and activity. At the same time, the Committee reiterated that its best collective judgement remained that, *"given the prospect of excess demand over the forecast period, an ongoing tightening of monetary policy over the forecast period will be appropriate to return inflation sustainably to its target at a more conventional horizon."*

The Committee maintained the stock of sterling non-financial investment-grade corporate bond purchases and the stock of UK government bond purchases, financed by the issuance of central bank reserves, at GBP 10 billion and GBP 435 billion, respectively.²

¹ This assessment was broadly confirmed at the FOMC's meeting held in May. In June, the FOMC increased the target range of the federal funds rate to between 1.75% and 2.00%.

² The Bank of England's Monetary Policy Committee kept the rate on hold in May and June and confirmed its target value of asset purchases financed by central bank reserves.

The euro area

Euro area economic growth moderates

The pace of economic expansion in the euro area moderated during the first quarter of 2018, with real GDP rising by 0.4% on a quarterly basis following five quarters of constant growth at 0.7% (see Table 1.2). The deceleration in the quarter under review partly reflects temporary factors, including bad weather conditions, strikes in some euro area countries and an unusually high level of sick leave in the context of a seasonal flu outbreak in Germany.

Domestic demand was the driver behind growth during the first quarter of the year. The largest contribution stemmed from private consumption growth, which accelerated to 0.5% and added 0.3 percentage point to real GDP growth. Gross fixed capital formation growth moderated, but together with changes in inventories added a further 0.3 percentage point. Government consumption remained unchanged on the previous quarter and had a negligible impact on activity.

On the other hand, net exports shed 0.1 percentage point from growth, as the contraction in exports outweighed that in imports.

Euro area inflation eases marginally

The annual rate of inflation in the euro area, measured on the basis of the Harmonised Index of Consumer Prices (HICP), moderated further during the first quarter of 2018. The rate of inflation slowed down to 1.3% in March from 1.4% in December (see Chart 1.4).

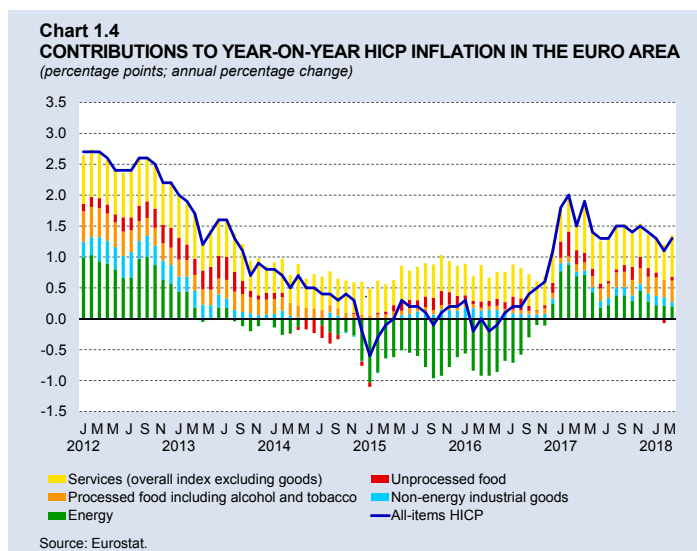


Table 1.2

CONTRIBUTIONS TO QUARTERLY REAL GDP GROWTH IN THE EURO AREA⁽¹⁾

Seasonally and working day adjusted

	2017				2018
	Q1	Q2	Q3	Q4	Q1
<i>Percentage point contributions</i>					
Private consumption	0.2	0.3	0.2	0.1	0.3
Government consumption	0.0	0.1	0.1	0.1	0.0
Gross fixed capital formation	0.0	0.4	-0.1	0.3	0.1
Change in inventories	-0.1	0.1	0.0	-0.1	0.2
Exports	0.7	0.5	0.7	1.1	-0.2
Imports	-0.3	-0.7	-0.2	-0.6	0.1
GDP	0.7	0.7	0.7	0.7	0.4

⁽¹⁾ Figures may not add up due to rounding.

Source: Eurostat.

The moderation in overall inflation reflected slower growth in the prices of unprocessed food, energy and non-energy industrial goods. These developments offset faster growth in processed food and services prices. In fact, HICP excluding energy and food rose marginally during the quarter, standing at 1.0% in March from 0.9% in December.

Labour market conditions improve further

Labour market conditions in the euro area continued to improve over the quarter under review. The seasonally-adjusted unemployment rate fell marginally to 8.5% in March from 8.7% in December and from 9.4% a year earlier (see Chart 1.1). The three-month average rate also eased, from 8.7% in the last quarter of 2017 to 8.6% in the first quarter of 2018. Moreover, the number of employed continued to grow, rising by 1.4% in the March quarter, from 1.6% in the previous quarter.³

Euro area recovery to continue

According to the latest Eurosystem staff macroeconomic projections, published in June 2018, the euro area economy will continue to grow at a pace above potential. Real GDP growth is expected to be primarily supported by domestic demand, particularly by private consumption and investment, in line with elevated levels of business and consumer sentiment. The economy is set to benefit from the accommodative monetary policy stance of the ECB, continued growth in lending to the private sector, lower deleveraging needs and healthy labour market conditions. Additionally, the ongoing expansion of global economic activity and euro area foreign demand would benefit exports. Nonetheless, economic growth is projected to slow down over the forecast horizon, mainly reflecting the past appreciation of the euro and labour supply constraints. Real GDP growth is projected to stand at 2.1% in 2018 as a whole, before slowing down to 1.9% and 1.7% in the following two years (see Table 1.3).

Private consumption growth is projected to continue growing strongly, supported by favourable consumer confidence, a further enhancement in labour market conditions and rising real wages. Private consumption should also benefit from favourable bank lending conditions, progress in deleveraging and rising household net worth.

Residential investment is forecasted to expand further, although at a slower pace than that recorded previously. Despite buoyant demand for housing, the expansion is expected to moderate due to increasing supply-side constraints in some euro area countries, particularly labour shortages, as well as tighter financing conditions and adverse demographic trends.

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

	2018	2019	2020
GDP	2.1	1.9	1.7
Private consumption	1.6	1.7	1.5
Government consumption	1.3	1.3	1.2
Gross fixed capital formation	4.2	3.3	2.8
Exports	4.2	4.4	3.8
Imports	4.1	4.7	4.0
HICP	1.7	1.7	1.7

⁽¹⁾ Eurosystem staff macroeconomic projections (June 2018).

Source: ECB.

³ Employment data for the euro area are based on the national accounts.

Business investment is also expected to continue to recover, though at a slower pace. Growth is anticipated to be supported by strong business confidence, favourable financing conditions and higher profits. Additionally, the strong recovery in stock prices and moderate debt financing growth has brought the leverage ratio in the non-financial corporation sector close to historical lows. However, business investment will also be affected by a deceleration in domestic and foreign demand. Government consumption growth is expected to remain relatively constant over the forecasted period.

On the external side, extra-euro area exports are forecasted to be dampened by the past appreciation of the euro together with slowing foreign demand, which will imply some further losses in export market shares. Extra-euro area imports are set to benefit from the robust growth in euro area domestic demand and, in the coming quarters, from the stronger euro. As the projected slowdown in imports is more gradual than that of exports, net exports are set to contribute marginally to economic activity over the forecasted period.

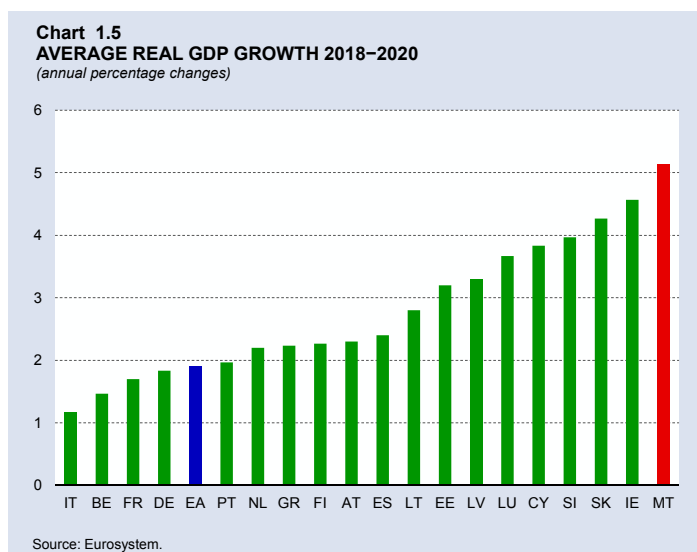
Compared with the ECB staff projections published in March 2018, euro area real GDP growth was revised downwards by 0.3 percentage point in 2018, reflecting the lower-than-expected growth in the first quarter. It is unchanged thereafter.

Growth in the euro area is expected to be broad-based across Member States, with real GDP rising in all countries, (see Chart 1.5). Nevertheless, the average growth rates over the projected horizon are expected to be quite diverse, ranging from a low of 1.2% in Italy to a high of 5.1% in Malta.

HICP inflation is set to remain flat at 1.7% in each year of the projection horizon. HICP energy inflation is set to strengthen in the coming months partly reflecting the recent increases in oil prices, before decreasing sharply and contributing negatively to the overall index. On the other hand, food inflation is projected to remain broadly flat.

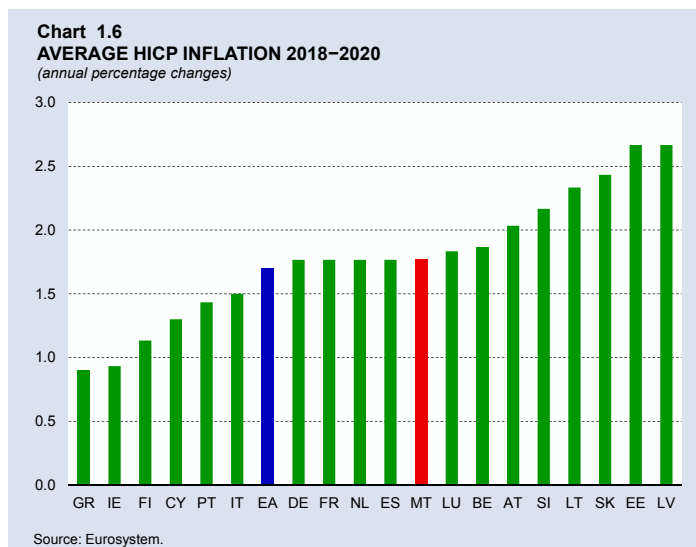
HICP inflation excluding energy and food is set to offset the negative contribution from energy as it is projected to rise progressively over the forecast horizon, partly because binding labour supply constraints are expected to push up wage growth and eventually start feeding into consumer prices. Upward pressures on prices are also expected to develop in response to the past increases in oil prices and the assumed rises in non-energy commodity prices. HICP inflation excluding energy and food is set to rise gradually to 1.9% in 2020.

Overall inflation was revised upwards by 0.3 percentage



point in 2018 and 2019 compared with the projections that were published in March.

From a cross-country perspective, inflation is expected to decelerate in the majority of euro area countries over the projection horizon. The lowest average inflation rate between 2018 and 2020 is expected to be recorded in Ireland and Greece, at 0.9%, while the highest average rate is projected in Estonia and Latvia, at 2.7% (see Chart 1.6). Inflation in Malta is set to average 1.8% over the forecast horizon, marginally above the average of 1.7% for the euro area as a whole.



ECB maintained its accommodative monetary policy stance

The ECB's Governing Council continued with its accommodative monetary policy stance during the first three months of 2018. The interest rates on the main refinancing operations (MRO), on the marginal lending facility and on the deposit facility were kept at 0.00%, 0.25% and -0.40%, respectively (see Chart 1.3). The Council confirmed that it continued to expect these rates to remain at their current levels for an extended period of time and well past the horizon of the net asset purchases.⁴

The Council also continued with the current comprehensive package of non-standard measures. The Council confirmed that the purchases under the asset purchase programme (APP) will continue at the monthly pace of €30 billion until the end of September 2018, or beyond, if necessary, and in any case until it sees a sustained adjustment in the path of inflation consistent with the inflation aim. Additionally, the Governing Council would be ready to increase the size and/or duration of the APP if the outlook becomes less favourable or if financial conditions become inconsistent with further progress towards a sustained adjustment in the path of inflation.

The Council also confirmed that principal payments from maturing securities purchases under the APP will be reinvested for a prolonged period of time after the end of its net asset purchases, and in any case for as long as required.

Money market rates remained at historical lows

Money market rates in the euro area remained at historical lows during the first quarter of 2018, reflecting the accommodative monetary policy stance by the ECB. The EONIA overnight deposit rate reached a new low of -0.36% in March, from -0.34% in December (see

⁴ The Governing Council kept the key interest rates unchanged during its April and June 2018 monetary policy meetings. At the same time, in June the Council clarified that the key ECB interest rates are expected to remain at their present levels at least through the summer of 2019 and in any case for as long as necessary to ensure that the evolution of inflation remains aligned with the current expectations of a sustained adjustment path. It also announced that after September, the monthly pace of net asset purchases would be reduced to €15 billion. Such purchases will end in December 2018.

Chart 1.7). Meanwhile, the three-month and twelve-month EURIBOR rate remained at -0.33% and -0.19%, respectively.⁵

Euro area bond yields rise

Ten-year benchmark government bond yields in the euro area generally rose during the March quarter. The strongest rise was seen in Irish bond yields which rose by 47 basis points to 1.01%. German, Italian and French bond yields followed, rising by 23, 18 and 17 basis points to 0.53%, 1.97% and 0.84%, respectively in March. On the other hand, Greek and Spanish bond yields declined by 17 and 11 basis points to 4.27% and 1.33%, respectively. The decline in Greek bond yields partly reflects an upgrade by a rating agency, while the fall of Spanish bond yields reflected improved positive sentiment and strong demand for its bond sale. In Portugal, the long-term government bond yield remained relatively constant over the quarter.

As in most countries government bond yields rose by less than in Germany, or declined, spreads between yields in the euro area and the ten-year German bond yields generally narrowed over the first quarter, with the largest compression recorded for Greece, Spain and Portugal (see Chart 1.6). On the other hand, the spread between German and Irish yields increased, as the increase in the latter country's long-term government bond yield was more significant than in Germany.

The euro appreciates further

The euro exchange rate appreciated further against a number of major currencies during the first quarter of 2018, with the nominal effective exchange rate against the EER-19 group of countries

Chart 1.7
KEY INTEREST RATES
(percentages per annum; monthly averages)

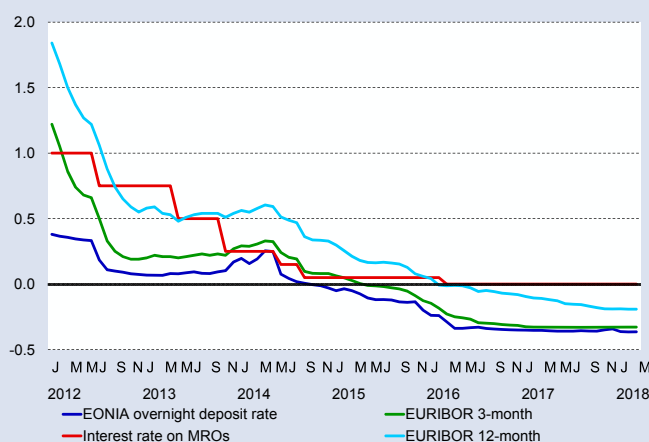
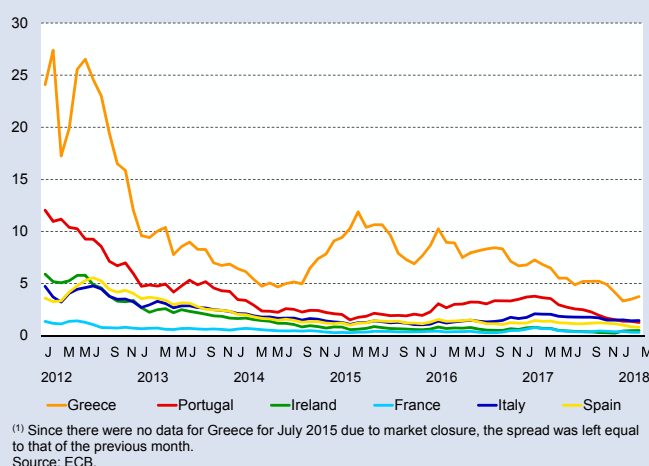


Chart 1.8
EURO AREA TEN-YEAR GOVERNMENT BOND YIELD SPREADS⁽¹⁾
(vis-à-vis German ten-year government bond yields)



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.

rising by 0.5% between end-December and end-March.⁶

The euro rose by 2.7% against the US dollar during the March quarter, as investors became more optimistic about the euro area's recovery (see Chart 1.9). On the other hand, the euro fell by 1.4% against the pound sterling and a number of other currencies, such as the Chinese yuan renminbi.

Commodities

Commodity prices on the rise

The price of Brent crude oil rose from just above USD 67 at the end of 2017 to over USD 70 around mid-January, on the back of supply disruptions and political turmoil in the Middle East (refer to Chart 1.10). Subsequently, oil prices declined somewhat driven by an increase in US crude production, a build-up in US inventories and a stronger US dollar. By mid-February, the price of Brent crude oil had retreated to around USD 63. Brent oil prices regained some of their earlier losses in the second part of the

quarter amid renewed geopolitical tensions and indications that OPEC members would adhere to agreed production cuts and take further action to boost prices. The price of Brent crude oil stood at USD 68.22 per barrel at the end of March, a rise of 1.7% on the price prevailing at the end of 2017.

As regards non-energy commodity prices, World Bank data show that these increased during the first quarter. Between December and March, non-energy commodity prices rose by 4.1%.

Chart 1.9
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)

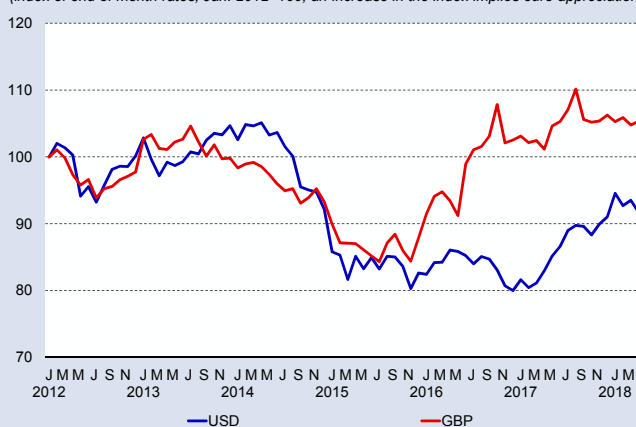
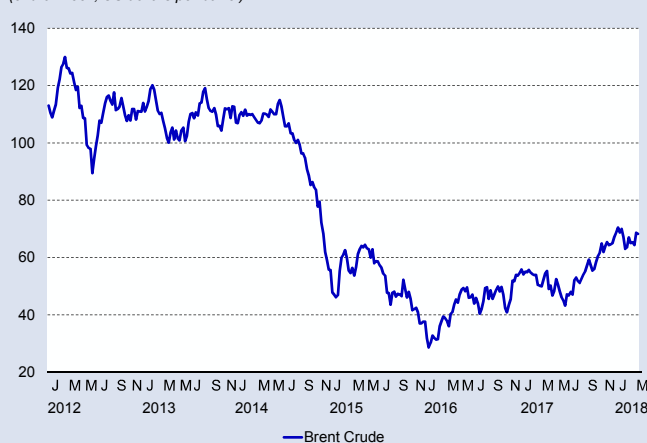


Chart 1.10
PRICE OF OIL
(end of week; US dollars per barrel)



⁶ The effective exchange rate (EER), 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.

BOX 1: CENTRAL BANK OF MALTA 50TH ANNIVERSARY CONFERENCE¹

As part of a series of events organised to commemorate the Central Bank of Malta's 50th anniversary, the Bank hosted a conference entitled "Central Banks in Historical Perspective: What Changed after the Financial Crisis?" on 4 May 2018. The conference brought together economists, policymakers and representatives from financial institutions and the business community.

The Minister for Finance, Professor Edward Scicluna, delivered the opening remarks. The Minister recounted the setting up of the Central Bank of Malta and its achievements, milestones and main challenges over the last 50 years. Minister Scicluna stated that the Bank's "role has changed considerably, but it has always remained instrumental in supporting Malta's economic development over the years". The Minister also acknowledged that the monetary policy pursued by the Central Bank of Malta has served the country well as shown by Malta's steady economic growth throughout the last five decades.

The keynote speech was delivered by the outgoing Vice-President of the ECB, Vítor Constâncio and focused on the ECB's monetary policy strategy since its establishment.² He identified four key phases in the practice of monetary policy in the euro area. The first phase started with the launch of the euro in 1999 and encompassed the revision of the monetary policy strategy in May 2003, when the framework of monetary policy became more in line with the flexible inflation targeting regime adopted by many other central banks around the world. The second phase, from approximately 2003 to the beginning of the financial crisis in 2007, was characterised by several policy rate increases in an environment of strong economic growth. The third phase marked the expansionary monetary policy during the global financial crisis and the subsequent European sovereign debt crisis in 2012. The fourth phase started in 2014, when deflationary pressures in the euro area required the launch of a new set of non-standard monetary policy measures. He concluded by drawing some lessons from this experience, both for economic thinking and monetary policy making.

The Chief Officer of the Bank's Economics Division, Aaron G. Grech, delivered a presentation on the Bank's publication, entitled "*The Central Bank of Malta's First Fifty Years: A Solid Foundation for the Future*", launched specifically for this event.³ This publication provides a comprehensive overview of the transformation of the Maltese economy and of the Central Bank of Malta over the last 50 years. The presentation first analysed the main trends and structural changes in the Maltese economy, including its financial system, before reviewing the changing role of the Central Bank of Malta since its inception.

The second session consisted of two speeches related to the theme of the conference. Professor Charles Goodhart from the London School of Economics delivered a speech on

¹ Prepared by Tiziana Gauci, a senior research economist at the Research Department of the Central Bank of Malta.

² Dr Constâncio's term in office came to an end on 28 May 2018. For the full text of the speech see Constâncio, V., (2018), 'Past and future of the ECB monetary policy', ECB speeches available at: <https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp180504.en.html>.

³ The publication "The Central Bank of Malta's First Fifty Years: A Solid Foundation for the Future" can be viewed at: <https://www.centralbankmalta.org/site/excel/publications/CBM-50-Anniversary-Publication.pdf>.

central bank policies before and after the crisis.⁴ The pre-crisis years were characterized by low inflation, stable growth and subdued unemployment in most developed economies. Over-optimism in financial markets led to the global financial crisis, which necessitated a swift response by monetary and fiscal authorities around the world. These measures were successful in avoiding a depression but productivity growth remained sluggish after the crisis in most developed countries. The crisis has also led to what Professor Goodhart referred to as a “debt trap”, with interest rate normalization risking a severe worsening of debt servicing given the prevailing high debt ratios. He concluded his presentation by considering some potential routes out of this debt trap although he conceded that there are no silver bullets, especially with the demographic challenges facing many economies over the medium term.

The second speech was delivered by the Deputy Governor of the Central Bank of Ireland, Sharon Donnery, who focused on gender diversity from a central banking perspective.⁵ She discussed the benefits of gender diversity to organisations as well as the challenges ahead, including cultural perceptions. Ms Donnery believes that gender diversity in the boards and management of firms can help mitigate issues such as groupthink, insufficient challenge and poorly assessed risk – traits which she believes contributed to the financial crisis and which can be associated with a lack of diversity at senior levels. She also outlined the progress made at the Central Bank of Ireland to promote diversity since the early 2000s. Ms Donnery also commented on whether regulation should promote gender diversity. While the Central Bank of Ireland would prefer that the firms that it supervises increase diversity levels on a voluntary basis, specific requirements are not excluded.

The final session consisted of a policy panel focusing on the challenges facing central banks after the financial crisis. The panel consisted of the Governor of the Central Bank of Iceland, Már Guðmundsson, the Deputy Governor of the Bank of Canada, Lawrence Schembri and the Deputy Governor of the Central Bank of Malta, Alexander Demarco. The speakers gave an overview of the respective central banks’ response to the 2008 financial crisis. The ensuing discussion focused on financial integration and the role of cross-border financial flows. It was noted that the current international monetary system and the global financial safety net do not reflect the high level of global financial integration reached in this century. A number of desirable reforms were highlighted including the need to further reduce financial regulatory flaws and gaps with regards to capital flows and cross-border banking.

The Governor of the Central Bank of Malta, Mario Vella, delivered the concluding comments. He provocatively remarked that there is more to the national economy than finance, and emphasized the importance of fiscal policy and strengthening the real economy to ward off another crisis. The conference brought together a large number of professionals and policy makers who highlighted the Central Bank of Malta’s journey and its role in supporting Malta’s economic development over the years. It also offered an opportunity for participants to voice their thoughts and views about the future of central banking.

⁴ For the full text of the speech see Goodhart, C. (2018), ‘Central Bank Policies in Recent Years’, *Quarterly Review*, 51(2), pp. 71-78, Central Bank of Malta.

⁵ For the full text of the speech see Donnery, S. (2018), ‘The importance of diversity in central banks and supervised entities’, BIS speeches available at: <https://www.bis.org/review/r180511f.pdf>.

2. OUTPUT AND EMPLOYMENT

The Bank's Business Conditions Index (BCI) continues to suggest above-average economic conditions, with the average reading for the first three months of the year standing at 0.5. This compares with 1.0 in the last quarter of 2017.

Meanwhile, potential output, continued to grow at a brisk pace, although it is estimated to have decelerated from 5.1% in the last quarter of 2017, to 4.5% in the quarter under review.

The Maltese economy registered further strong economic growth during the first quarter of 2018. However, partly in line with the deceleration in potential output, annual growth in real gross domestic product (GDP) eased to 4.4%, following 4.6% in the previous quarter. Economic activity was driven by net exports as domestic demand contracted. Nominal sectoral data on gross value added (GVA) continue to point towards services as the main driver of growth, although the manufacturing, construction as well as the sector comprising mining, quarrying and utilities also supported growth. In contrast, agriculture and fishing activities continued to have a negligible impact on activity.

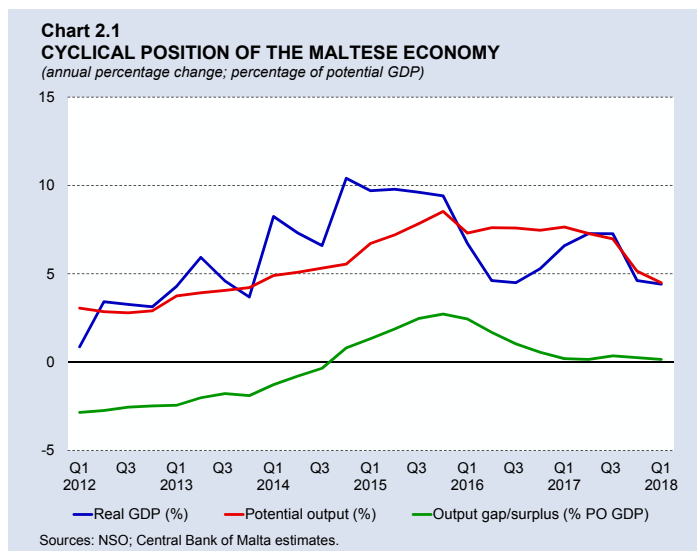
The output gap, measured on a four-quarter moving average basis, remained positive, but narrowed from recent highs. In the quarter under review, it is estimated at 0.2% of potential output.

Labour market conditions remained favourable in the first quarter of 2018, as employment grew strongly. The unemployment rate based on the Labour Force Survey (LFS) fell compared to the preceding year, notwithstanding a further increase in labour market participation rates and rising foreign employment. In part, this reflects improved job matching in the context of a buoyant economy. The unemployment rate remained below the structural measure and thus continued to suggest a degree of tightness in the labour market during the quarter under review.

Potential output and Business Conditions Index

Positive output gap narrows^{1,2}

In the first quarter of 2018, potential output growth decelerated, although it remained relatively elevated from a historical perspective (see Chart 2.1). Potential output growth is estimated to have eased to 4.5%, from 5.1% in the last quarter of 2017. Meanwhile, GDP growth eased from 4.6% to 4.4%. The positive output surplus, measured as a four-quarter moving

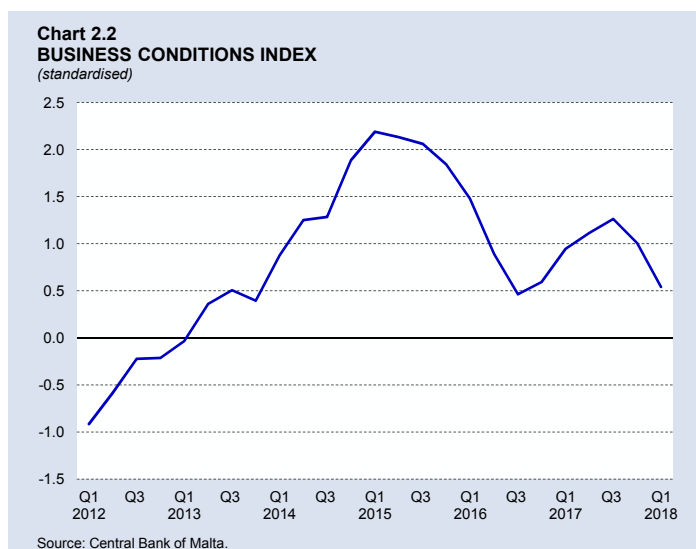


¹ Potential output measures the medium-to-long-term level of real output which is sustainable in an economy. The estimates presented here are derived using a production function approach. For further details on the methodology adopted see Micallef, B., and Ellul, R. (2017), "Medium-term Estimates of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

² Real GDP and potential output are reported as annual growth rates in the respective quarter. The output gap/surplus is expressed as a percentage of potential output on the basis of four-quarter moving averages.

average is estimated at 0.2% of potential output in the first quarter of 2018, narrowing from the high levels seen in 2015 and 2016, but in line with the rates observed in 2017. This indicates that the extent of overutilization of the economy's productive capacity is decreasing over time.³

The deceleration in potential output growth reflects the spike in investment and total factor productivity observed in recent years. The latter developments are being partially offset by an increasing number of foreign workers working in Malta and higher labour participation, with the labour contribution rising to historical highs.



Central Bank's Business Conditions Index (BCI) eases⁴

The Central Bank's BCI eased slightly over the previous quarter (see Chart 2.2). The index stood at 0.5 in the first quarter of the year, lower than the revised value of 1.0 measured in the last quarter of 2017 and below its value of 0.9 a year earlier. The BCI continued to show above average conditions, with changes reflecting a slowdown in industrial production, and offset partially by a decrease in unemployment.

The BCI tracks closely developments in quarterly GDP growth, with the indicator slowing down in line with decelerating GDP growth in the first quarter of 2018. The latest estimates suggest that economic conditions appear to be easing back towards average levels, from the exceptional high rates seen in the recent past.

GDP and industrial production

Economic growth remains robust

The Maltese economy continued to expand strongly during the first quarter of 2018, although growth was marginally lower than that recorded in the last quarter of 2017. Real GDP rose at an annual rate of 4.4% in the first three months of the year, following growth of 4.6% in the previous quarter.⁵

³ The output gap may be viewed as a gauge of over or underutilisation of the productive capacity of the economy over the business cycle. A positive gap signals overutilisation of resources, whereas a negative one indicates underutilised resources.

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

⁵ The analysis of GDP in this Chapter of the *Quarterly Review* is based on data published in NSO *News Release* 089/018 and released on 5 June 2018.

Table 2.1
GROSS DOMESTIC PRODUCT⁽¹⁾

	2017				2018
	Q1	Q2	Q3	Q4	Q1
<i>Annual percentage changes</i>					
Private final consumption expenditure	5.2	4.6	3.4	2.4	3.0
Government final consumption expenditure	-4.0	-7.6	15.4	-4.7	10.2
Gross fixed capital formation	6.8	-27.5	-6.6	0.2	-15.2
Domestic demand	1.8	-8.5	3.0	1.2	-0.5
Exports of goods and services	1.2	6.9	3.2	5.9	-0.7
Imports of goods and services	-2.1	-4.5	-0.5	3.5	-4.5
Gross domestic product	6.6	7.3	7.3	4.6	4.4
<i>Percentage point contributions</i>					
Private final consumption expenditure	2.6	2.2	1.5	1.1	1.4
Government final consumption expenditure	-0.7	-1.4	2.1	-0.7	1.7
Gross fixed capital formation	1.6	-7.7	-1.4	0.0	-3.6
Changes in inventories	-1.8	-1.2	0.2	0.6	0.0
Domestic demand	1.7	-8.2	2.4	1.0	-0.6
Exports of goods and services	1.7	9.5	4.4	7.9	-0.9
Imports of goods and services	3.2	6.0	0.5	-4.3	5.9
Net exports	4.9	15.4	4.9	3.6	5.0
Gross domestic product	6.6	7.3	7.3	4.6	4.4

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

Sources: NSO; Central Bank of Malta calculations.

Annual growth in the first quarter of 2018 was driven by net exports, which added 5.0 percentage points to economic growth (see Table 2.1). Conversely, domestic demand shed 0.6 percentage point from GDP growth, as the increase in private and government consumption was offset by declines in gross fixed capital formation. Inventories had a negligible impact on economic activity.

Although exports declined by 0.7%, imports fell by 4.5% on an annual basis in the first quarter of the year. As the fall in imports outpaced that in exports by a significant margin, net exports rose and contributed 5.0 percentage points to economic activity. This development reflected trade in goods, as services exports and imports increased on an annual basis.

Private consumption continued to grow robustly during the first quarter, rising by 3.0% in annual terms and adding 1.4 percentage points to real GDP growth. Growth was sustained by a buoyant labour market and continued strong growth in compensation of employees. Nominal data continue to point towards higher expenditure across most categories, except food and non-alcoholic beverages, as well as furnishings and household equipment and maintenance.

After contracting in the last quarter of 2017, government consumption rose by 10.2% and added 1.7 percentage points to real GDP growth. The annual expansion was primarily driven by compensation of employees, which is one of the principal components of government expenditure. On the other hand, intermediate consumption was broadly unchanged from its level a year earlier. Sales, which are netted against expenditure in national accounts, declined significantly, and therefore also contributed to the strong growth rate of government consumption. This was mainly due to lower inflows under the Individual Investor Programme (IIP).

Gross fixed capital formation fell significantly in annual terms during the March quarter. It declined by 15.2%, after rising by 0.2% in the previous quarter, and shed 3.6 percentage points from real GDP growth. The overall decline mostly reflected lower expenditure on non-residential construction, due to a base effect from higher extraordinary capital outlays in the energy sector a year earlier. Investment in machinery and equipment also decreased, although to a limited extent. On the other hand, investment in dwellings, cultivated biological resources as well as intellectual property products rose on an annual basis. Changes in inventories had a negligible impact on real economic growth.

Nominal GDP growth moderates; services remain the main driver of growth

Nominal GDP growth moderated to 6.5% in annual terms during the first quarter of 2018, from 7.5% in the previous quarter (see Table 2.2). This slowdown mirrors developments in GVA, which decelerated to 6.7%, from 9.2% in the last quarter of 2017, although this still added 5.9 percentage points to nominal growth. Net taxes also increased compared to a year earlier.⁶

Services remained the main driver of GVA growth, contributing 5.5 percentage points to nominal GDP growth. The largest additions within the services sector stemmed from the sectors incorporating public administration, arts and entertainment as well as wholesale and retail activities. Together, these three sectors contributed 3.8 percentage points to nominal growth, equivalent to more than two-thirds of the increase in GVA in services. The sector comprising professional

Table 2.2
CONTRIBUTION OF SECTORAL GROSS VALUE ADDED TO NOMINAL GDP GROWTH
Percentage points

	2017				2018
	Q1	Q2	Q3	Q4	Q1
Agriculture, forestry and fishing	0.1	0.0	0.0	0.0	0.0
Mining and quarrying; utilities	-0.2	-0.2	0.1	0.9	0.1
Manufacturing	0.6	0.8	0.7	0.6	0.2
Construction	0.2	0.3	0.2	0.2	0.1
Services	6.6	7.8	7.1	6.2	5.5
<i>of which:</i>					
Wholesale and retail trade; repair of motor vehicles; transportation; accommodation and related activities	0.6	1.9	2.4	0.7	1.1
Information and communication	0.6	0.5	0.3	0.5	0.2
Financial and insurance activities	0.2	0.1	0.1	0.4	0.2
Real estate activities	0.1	-0.1	-0.1	-0.2	0.4
Professional, scientific, administrative and related activities	2.7	3.1	2.1	2.4	0.8
Public administration and defence; education; health and related activities	1.2	1.1	1.2	1.3	1.5
Arts, entertainment; household repair and related services	1.2	1.2	1.1	1.0	1.2
Gross value added	7.3	8.7	8.1	7.9	5.9
Taxes less subsidies on products	1.3	1.3	2.3	-0.5	0.6
Annual nominal GDP growth (%)	8.6	10.0	10.4	7.5	6.5

Source: NSO.

⁶ The difference between nominal GDP and GVA is made up of taxes on products, net of subsidies.

and administrative activities added a further 0.8 point, while manufacturing, construction as well as the sector comprising quarrying and utilities jointly added 0.4 percentage point. Agriculture and fishing activities registered higher activity when compared with the previous year. However, they had a negligible impact on nominal growth, as their share in overall GVA is small.

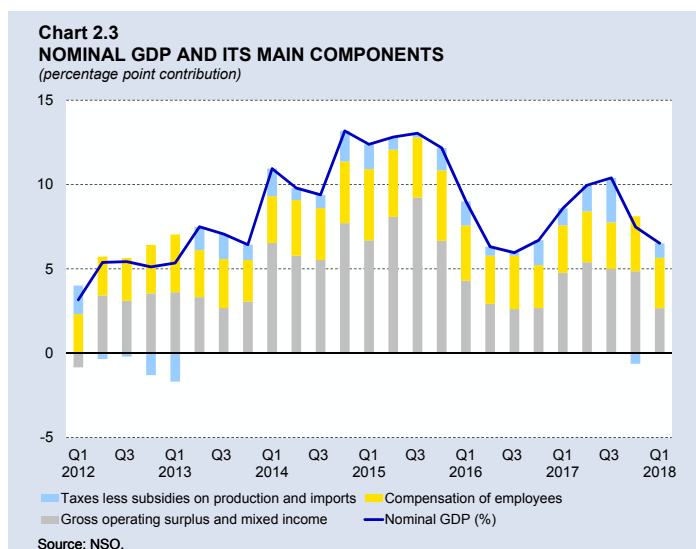
GDP data by income distribution show that the annual rate of growth in gross operating surplus and mixed income and compensation of employees both slowed down in the first quarter. However, the deceleration in profitability was more significant. This is reflected in a sharp decrease in the contribution of gross operating surplus and mixed income to nominal GDP growth, while the contribution of compensation of employees, while also lower, remained within the range of values observed recently (see Chart 2.3). Additionally, net taxes on production and imports increased again after falling in the previous quarter.

After rising by 10.8% in annual terms in the last quarter of 2017, gross operating surplus and mixed income rose by 5.8% and added 2.7 percentage points to nominal growth. The majority of sectors registered higher gross operating surplus, in absolute terms, compared to the same quarter in the previous year. The largest increases were recorded in arts, entertainment and recreation, in real estate as well as in the transportation and storage sector. On the other hand, the sector comprising wholesale and retail trade registered declines.

Compensation of employees continued to increase robustly during the first quarter of 2018, rising by 7.0% on an annual basis, following 7.8% growth in the previous quarter. In turn, it added 3.0 percentage points to nominal GDP growth. In absolute terms, the largest increases were registered in the sectors of public administration, professional, scientific and technical activities as well as wholesale and retail.

Industrial production declines for the first time since the end of 2016

During the first quarter of 2018, industrial production declined by 4.6% when compared with the same quarter a year earlier.⁷ This followed a 1.1% year-on-year increase in the last quarter of 2017 (see Table 2.3).



⁷ Methodological differences may account for divergences between developments in GVA in the manufacturing sector and industrial production. GVA nets input costs from output to arrive at value added and is expressed in nominal terms. Industrial production is a measure of the volume of output that takes no account of input costs. The sectoral coverage between the two measures also differs, since industrial production data also include the output of the energy and, water collection, treatment and supply sectors.

Table 2.3
INDUSTRIAL PRODUCTION⁽¹⁾

Percentages; annual percentage changes

	Shares	2017			2018	
		Q1	Q2	Q3	Q4	Q1
Industrial production	100.0	6.4	3.6	5.3	1.1	-4.6
Manufacturing	87.1	8.7	2.7	4.0	0.1	-5.3
<i>of which:</i>						
Food products	15.4	-3.7	-8.6	6.9	1.9	-13.3
Repair and installation of machinery and equipment	7.9	-0.3	-4.0	3.6	0.9	6.7
Basic pharmaceutical products and pharmaceutical preparations	7.3	9.9	-21.5	5.5	5.4	13.0
Printing and reproduction of recorded media	7.3	0.2	-0.9	-11.3	7.2	5.3
Beverages	5.6	8.8	3.0	3.0	5.4	2.2
Rubber and plastic products	5.4	19.3	10.5	10.5	1.1	-1.7
Computer, electronic and optical products	5.0	15.4	30.2	-12.3	-21.1	-27.9
Energy	12.5	5.6	0.8	8.7	2.9	0.6
Mining and quarrying	0.5	-11.8	-15.5	-21.3	23.2	-20.6

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

Sources: NSO; Eurostat.

This largely reflected a 5.3% decrease in the manufacturing sector, which accounts for over 80% of the index. Output fell even more significantly, by around one fifth, in the quarrying subsector. However, this sector has a very small share in the overall industrial production index. In contrast, production in the energy sector rose by a marginal 0.6%, following a 2.9% increase in the preceding quarter.

Within the manufacturing sector, output declined strongly for the third consecutive quarter among producers of computer, electronic and optical products. Smaller declines in production were registered among manufacturers of food products as well as within the rubber and plastics sub-sector. These declines offset increased production among producers of pharmaceuticals as well as among those involved in the repair and installation of machinery and equipment. Moderate increases were also recorded among firms involved in the printing and reproduction of recorded media and among beverage manufacturers. Output also rose in the “other manufacturing” sub-sector, which includes medical and dental instruments, toys and related products.

Business and consumer surveys

During the first quarter of 2018, the economic sentiment indicator (ESI) edged up to 121, from 120 in the preceding quarter, thus remaining well above its long-term average of 100 (see Chart 2.4).^{8,9} Sentiment improved among consumers and within industry and was broadly unchanged in construction. In contrast, sentiment declined within the retail and services sectors, though here too it remained high from a historical perspective. During the first quarter of 2018, the ESI for Malta remained higher than that in the euro area, which averaged 114.

⁸ The ESI summarises developments in confidence in five surveyed sectors (industry, services, construction, retail and consumers). Quarterly data represent three-month averages.

⁹ Long-term averages are calculated over the entire period for which data are available. For the consumer and industrial confidence indicators, data became available in November 2002, while the services and construction confidence indicator data became available in May 2007 and May 2008, respectively. The long-term average of the retail confidence indicator is calculated as from May 2011, when it was first published. However, the long-term average of the ESI is computed from November 2002.

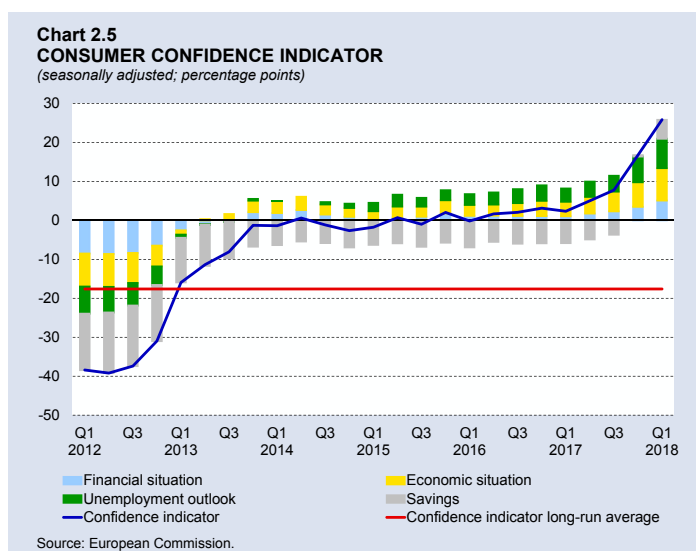
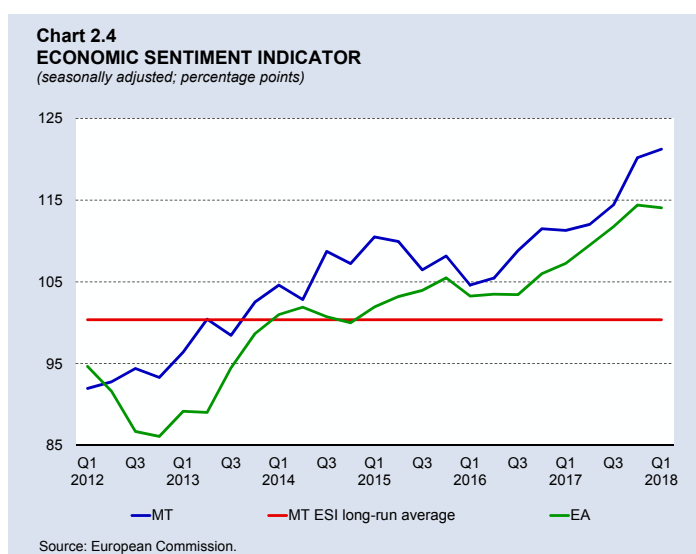
Consumer confidence increases significantly¹⁰

The consumer confidence indicator rose to 26 in the first quarter of 2018, from 17 in the preceding three-month period, with all of the indicator's components reaching the highest reading since the survey has been conducted in Malta (see Chart 2.5).¹¹ However, almost half of the improvement recorded in this quarter can be attributed to higher savings expectations.

Additional survey data suggest that on balance, a larger share of consumers anticipated a rise in inflation in the twelve months ahead. At the same time, the share of consumers intending to reduce major purchases over the subsequent 12 months increased.

Industrial confidence improves¹²

Confidence in the industrial sector rose to 14 in the first quarter of 2018, from 11 in the preceding quarter, thus rising further above its long-term average of -3 (see Chart 2.6).



The rise in industrial sentiment was driven by both firms' production expectations and their assessment of order books. During the quarter under review a small net share of respondents assessed order books to be above normal for the season. Meanwhile, respondents reported higher than normal stocks of finished goods in the first quarter.¹³

¹⁰ 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.

¹¹ Negative unemployment expectations affect the overall indicator in a positive way. Such falls are thus represented by positive bars in Chart 2.5.

¹² 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.

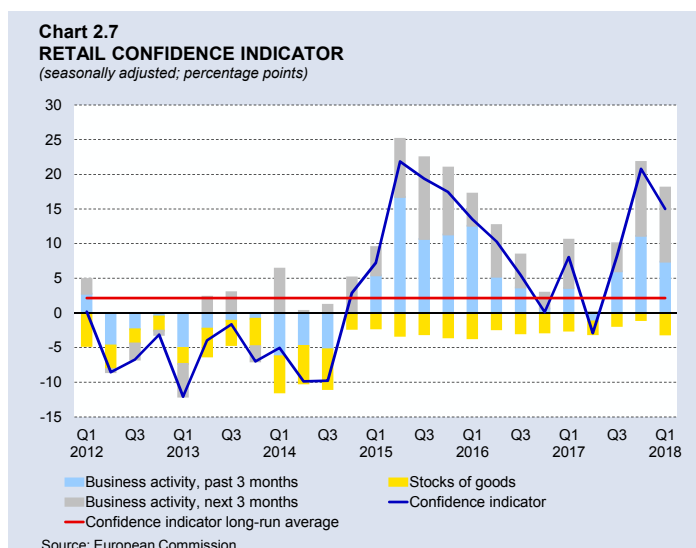
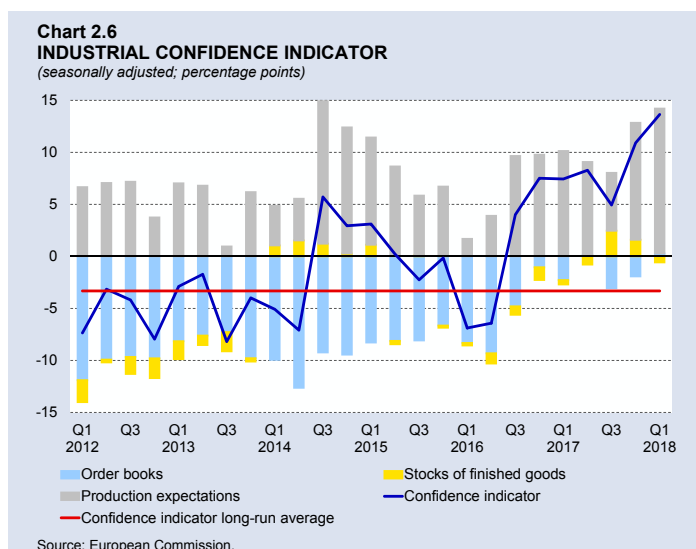
¹³ Above-normal stock levels indicate lower turnover and affect the overall indicator in a negative way. Such levels are thus represented by negative bars in Chart 2.6.

Looking forward, additional survey data show that a higher share of respondents expected to increase their labour complement. Furthermore, firms expected to increase their selling prices in the subsequent three months.

Confidence in the retail sector declines from a high level¹⁴

Sentiment in the retail sector fell to 15, from 21 in the last quarter of 2017. Despite this decline, sentiment among retailers stood substantially above its long-term average of 2 (see Chart 2.7).

The decline in confidence was driven by the assessment of past business activity, as well as stock levels. On balance, fewer firms considered that business activity had improved in the preceding three months, while more firms assessed stocks levels to be above normal.¹⁵ At the same time, the share of firms expecting an improvement in business activity in the months ahead was unchanged.



Additional survey data indicate that on balance, more firms expected employment to rise during the following quarter. Whereas in the fourth quarter of 2017, firms on balance anticipated selling prices to fall, in the quarter under review they expected a rise in selling prices.

Confidence in the services sector edges down¹⁶

In the first quarter of 2018, the services confidence indicator fell to 33, from 36 in the preceding quarter. Nonetheless, it remained above its long term average of 23, with all the indicator's components remaining positive (see Chart 2.8).

¹⁴ The retail confidence indicator is the arithmetic average of the seasonally adjusted balances (in percentage points) of replies to survey questions relating to the present and future business situation and stock levels.

¹⁵ A rise in the balance of above-normal stock levels affects the overall indicator in a negative way.

¹⁶ The services confidence indicator is the arithmetic average of the seasonally adjusted balances (in percentage points) of replies to survey questions relating to the business climate, the evolution of demand in the previous three months and demand expectations in the subsequent three months.

The fall in confidence was mainly driven by easing demand expectations for the three months ahead. Firms' assessment of the business situation in the preceding months also declined slightly. In contrast, firms' assessment of the evolution of demand in the past months edged up.

Additional survey data indicate that a smaller net share of respondents reported an increase in both their past and expected labour complement. Furthermore, compared with the last quarter of 2017, fewer respondents indicated that they expected an increase in prices in the three months ahead.

Confidence in the construction unchanged¹⁷

Sentiment in the construction sector was 27, broadly unchanged from the last quarter of 2017. This is the highest level recorded since survey results for Malta became available (see Chart 2.9).

Survey results show that a fall in the share of firms expecting higher employment for the months ahead was offset by an improved assessment of order books.

Additional survey data indicate that in the first quarter of 2018, more respondents, on balance, reported positive developments in building activity during the preceding three months. Overall the survey suggests that the construction sector has been increasingly meeting rising activity through higher utilisation of labour. Indeed, labour shortages remained one of the main factors limiting production in this sector. Meanwhile, a smaller net percentage of firms anticipated a rise in selling prices in the subsequent three months.

Chart 2.8
SERVICES CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)

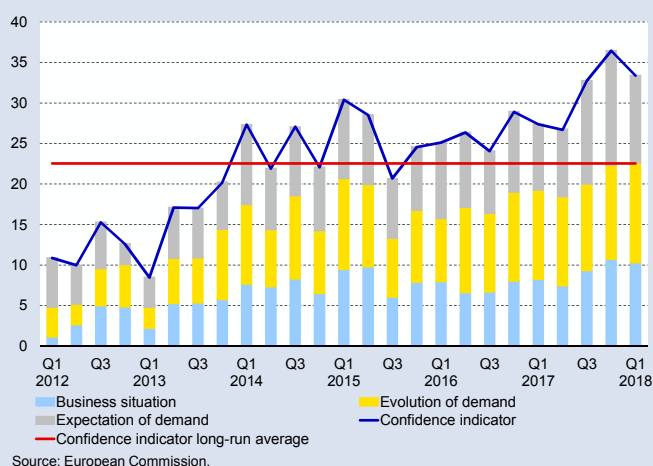
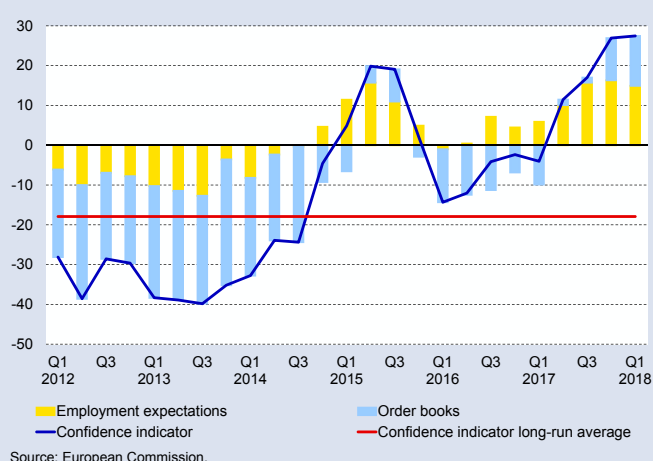


Chart 2.9
CONSTRUCTION CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



¹⁷ 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.

The labour market¹⁸

Labour force continues to grow strongly

LFS data show that in the first quarter of 2018 the labour force grew by 5.5% over the same quarter of 2017 (see Table 2.4).¹⁹ Employment rose by 5.7% in annual terms, while the number of unemployed increased slightly.

The activity rate stood at 71.2% in the March quarter, up from 68.9% in the corresponding quarter of 2017.²⁰ This reflected increased activity among both females and males, with the former registering the largest increase. Indeed, the female participation rate edged up by 2.6 percentage points, to reach 58.9%, while that of males rose by 2.1 percentage points to 82.9%.

Employment continues to grow at a fast pace

In the first quarter of 2018, the annual rate of change of employment stood at 5.7%. The annual increase in employment during the quarter reflected growth in both the number of full-time and part-time jobs (see Table 2.4). Full-time employment increased by 10,512, or 6.0% on the same

Table 2.4
LABOUR MARKET INDICATORS BASED ON THE LFS

Persons; annual percentage changes

	2017 Q1	2018 Q1	Annual change %
Labour force	215,449	227,225	5.5
Employed	205,569	217,259	5.7
<i>By type of employment:</i>			
Full-time	176,320	186,832	6.0
Part-time	29,249	30,427	4.0
Unemployed	9,880	9,966	0.9
Activity rate (%)	68.9	71.2	
Male	80.8	82.9	
Female	56.3	58.9	
Employment rate (%)	65.7	68.1	
Male	77.4	79.1	
Female	53.3	56.4	
Unemployment rate (%)	4.6	4.4	
Male	4.1	4.5	
Female	5.3	4.3	

Source: NSO.

¹⁸ This section draws mainly on labour market statistics from two sources: the LFS, which is a household survey conducted by the NSO on the basis of definitions set by the International Labour Organization and Eurostat, and administrative records compiled by Jobsplus according to definitions established by domestic legislation on employment and social security benefits. The LFS data for 2017 and the first quarter of 2018 are updated with the latest demographic revisions published by the NSO on 12 February 2018.

¹⁹ The LFS defines the labour force as all persons aged 15 and over who are active in the labour market. This includes those in employment, whether full-time or part-time, and the unemployed, defined as those persons without work but who are actively seeking a job and are available for work.

²⁰ The activity rate measures the number of persons in the labour force aged between 15 and 64, as a proportion of the working age population, which is defined as all those aged 15 to 64 years.

quarter of 2017, while the number of part-timers, which includes those employed on a full-time with reduced hours basis, rose by 1,178, or 4.0%.

During the first quarter of 2018 the overall employment rate rose by 2.4 percentage points in annual terms, reaching 68.1%.²¹ This reflected developments in both the male and female employment rates, which increased by 1.7 and 3.1 percentage points respectively. The male employment rate reached 79.1%, from 77.4% a year earlier, while that of females rose to 56.4% from 53.3%. The largest increases were registered among those in the 55 and 64 age bracket, where employment rates rose by 6.8 percentage points.

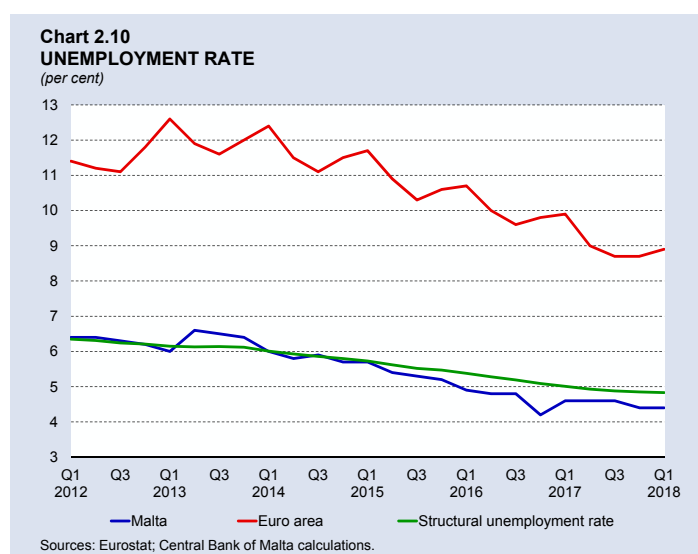
These developments in the employment rate imply that the Government continued to exceed the Europe 2020 target of 70% employment rate.²² Indeed, according to the LFS, the employment rate for those aged between 20 and 64 stood at 71.2% in the first quarter of 2018.

The unemployment rate declines

In the first quarter of 2018, the unemployment rate as measured in the LFS stood at 4.4%. This was lower than the 4.6% recorded a year earlier.²³ The jobless rate for males edged up by 0.4 percentage point to 4.5%, while that of females fell by one percentage point to 4.3% (see Table 2.4).

The LFS unemployment rate in Malta remains well below the average rate for the euro area, which stood at 8.9% in the quarter under review (see Chart 2.10). Following the decline in Malta's unemployment rate, the unemployment gap remained negative, as the unemployment rate remained below the structural measure of 4.8% in the first quarter of 2018.²⁴

Jobsplus data also show favourable labour market developments. The average number of registered unemployed stood at 1,986 in the first quarter of 2018, 782 persons



²¹ The employment rate measures the number of persons aged between 15 and 64 employed on a full-time or part-time basis as a proportion of the working-age population.

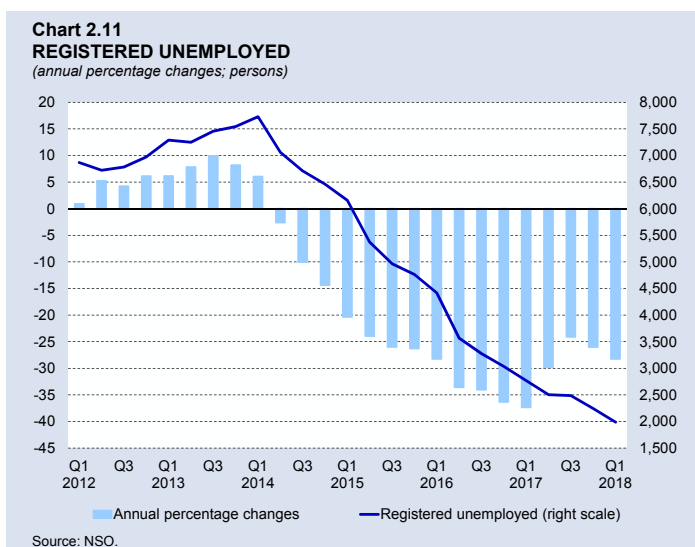
²² See *The National Employment Policy*, Ministry for Education and Employment, May 2014, p. 13 and *Malta: National Reform Programme 2018*, Ministry for Finance, April 2018, p. 27.

²³ According to the LFS the unemployed comprise persons aged between 15 and 74 years who are without work, available for work and who have actively sought work during the four weeks preceding the Survey. In contrast, the number of unemployed on the basis of the Jobsplus definition includes only those persons registering for work under Part 1 and Part 2 of the unemployment register.

²⁴ The structural unemployment rate in this chapter refers to the non-accelerating inflation rate of unemployment (NAIRU), i.e. the unemployment rate that is consistent with stable inflation. This measure of the unemployment rate is based on a multivariate filter as described in Micallef, B., (2014). "[A Multivariate filter to estimate potential output and NAIRU for the Maltese economy](#)", Working Paper 05/2014.

less than those registered in the same quarter of 2017 (see Chart 2.11).

Apart from a growing demand for labour, the drop in the number of registered unemployed since the beginning of 2014 was also influenced by a range of measures aimed at reducing reliance on social benefits, as well as the extension of schemes which encourage employment, training and re-skilling.



3. PRICES, COSTS AND COMPETITIVENESS

Consumer price pressures remained contained during the first quarter of 2018, with annual inflation based on the Harmonised Index of Consumer Prices (HICP) unchanged at 1.3% in March. At the same time, inflation based on the Retail Price Index (RPI) moderated to 0.8%, from 1.2% at the end of 2017.

On the other hand, domestic cost pressures accelerated further, with annual growth in the Producer Price Index (PPI) rising to 6.4% in March. Malta's unit labour cost (ULC) index also accelerated during the first quarter, although the annual rate of change remained moderate from a historic perspective. With regard to international competitiveness, Malta's Harmonised Competitiveness Indicators (HCI) continued to indicate a deterioration in competitiveness, owing to unfavourable exchange rate and relative price movements.

Inflation

Consumer price inflation remains contained

Price pressures remained contained during the first quarter of 2018. The annual rate of HICP inflation stood at 1.3% in March, unchanged when compared with the rate recorded three months earlier (see Chart 3.1).¹

In the euro area, HICP inflation also stood at 1.3% at the end of the first quarter, thereby leading to a zero differential between consumer price inflation in Malta and in the euro zone.

Services inflation remained the main contributor to overall inflation during the first quarter of 2018 (see Chart 3.2). Nonetheless, inflation in this sub-component eased marginally to 1.8% in March from 1.9% three months earlier (see Table 3.1). As a result, the contribution of this component to overall HICP dropped by 0.1 percentage point to 0.8.

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

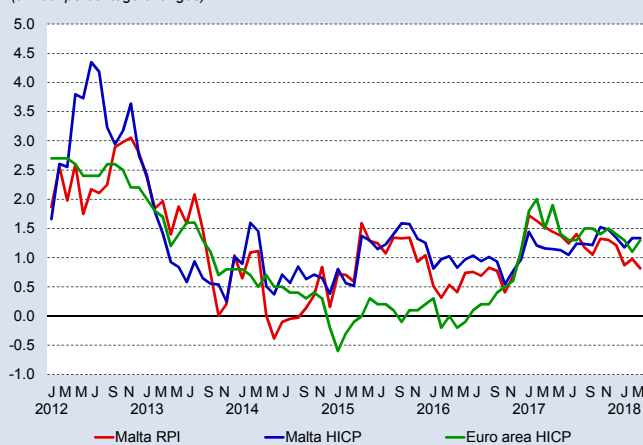
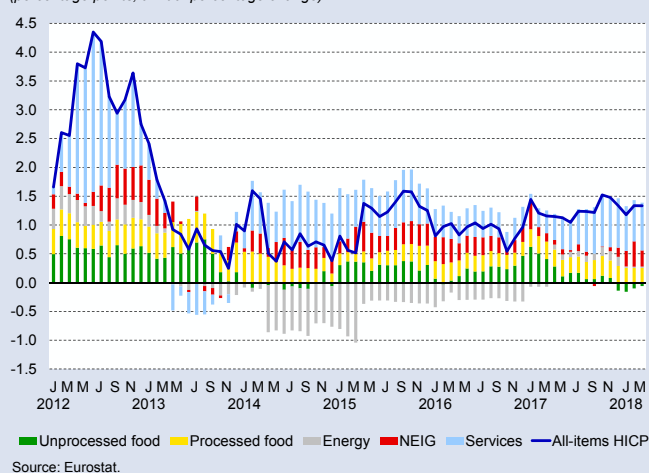


Chart 3.2
CONTRIBUTIONS TO YEAR-ON-YEAR HICP INFLATION
(percentage points; annual percentage change)



¹ The HICP weights are revised on an annual basis to reflect changes in household consumption patterns. In 2018 the weight allocated to energy stood at 6.3%, while that of non-energy industrial goods was 27.1%. Services accounted for 46.6% of the index, while the share allocated to food stood at 20.0%.

Table 3.1
HICP INFLATION

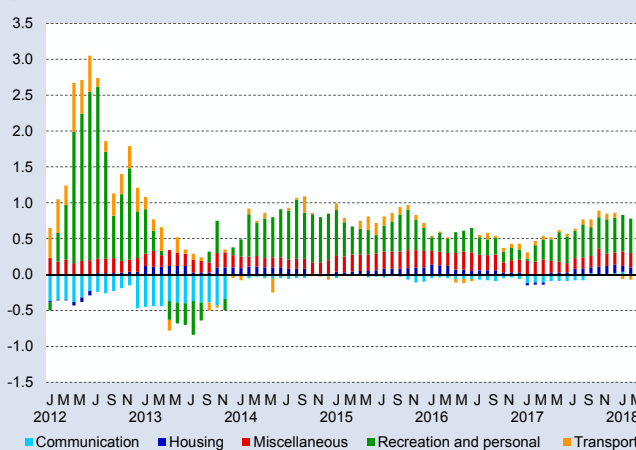
Annual percentage change

	2017						2018		
	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Unprocessed food	2.1	0.7	0.6	1.5	0.9	-1.8	-1.9	-1.3	-0.8
Processed food including alcohol and tobacco	2.3	2.5	2.7	2.8	2.4	2.3	2.0	2.0	2.0
Energy	1.5	1.7	1.7	2.4	2.4	2.4	0.4	0.4	0.4
Non-energy industrial goods	0.5	0.3	-0.2	0.1	0.3	0.6	0.8	1.4	0.9
Services (overall index excluding goods)	1.1	1.3	1.5	1.8	1.9	1.9	1.8	1.6	1.8
All Items HICP	1.2	1.2	1.2	1.5	1.5	1.3	1.2	1.3	1.3

Source: Eurostat.

Services inflation, which has the largest weight in the HICP index, continued to be supported mainly by the recreational and personal services subcomponent (see Chart 3.3). This component, which also includes restaurants, accommodation, and package holidays, contributed over two-thirds of services inflation at the end of the first quarter. On the other hand, the contribution of transport services fell, mainly reflecting a contraction in air fares on a year earlier.

Chart 3.3
CONTRIBUTIONS FROM SERVICES TO HICP INFLATION
(percentage points)



Source: Eurostat.

Energy inflation also eased during the first quarter, going to 0.4% in March from 2.4% three months earlier. Although gas inflation rose following the increase in gas prices that became effective in January, the impact of the increase in fuel prices a year earlier dropped out. Given the larger weight of transport fuel prices in energy inflation, the latter factor dominated. As a result, the contribution of energy inflation to overall HICP dropped to zero in March, from 0.2 percentage point at the end of 2017.

As regards the other main subcomponents of HICP, inflation in non-energy industrial goods (NEIG) closed the quarter under review at 0.9%, up from 0.6% three months earlier. This pick-up was mainly supported by robust growth in prices for durable goods such as furniture and furnishings. At the same time, prices of semi-durable goods, such as clothing, and non-durable goods, continued to fall in annual terms. Overall, these developments led to an increase in the contribution of NEIG to HICP inflation, by 0.1 percentage point to 0.3.

Food inflation was broadly unchanged at 0.9% during the period under review. Although the annual rate of decrease of unprocessed food prices more than halved, processed food inflation moderated. Unprocessed food inflation went from -1.8% in December to -0.8% in March, as an acceleration in fruit prices partly offset a continued contraction in vegetable prices. At the same time, inflation in the processed food component (including beverages and tobacco) eased further, going from 2.3% in December 2017, to 2.0% in March. This reflected a broad-based easing across most items in this

component. These contrasting developments in unprocessed and processed food inflation meant that the contribution of food to overall HICP inflation remained unchanged during the quarter under review, at 0.2 percentage point.

Core HICP inflation eases

Core inflation, as measured by the Bank's "trimmed mean" approach, eased slightly to 1.1% in March, from 1.2% three months earlier (see Chart 3.4).²

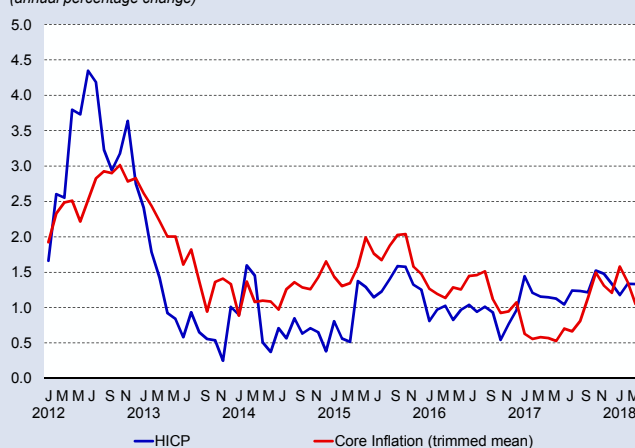
The lower rate of core inflation vis-à-vis the HICP inflation rate

suggests that some portion of the overall measure is being supported by strong growth in a limited number of volatile subcomponents. Nonetheless, the gap between the two measures remains relatively small.

RPI inflation moderates

Annual inflation based on the RPI index moderated during the first quarter of 2018, going to 0.8% in March from 1.2% three months earlier (see Table 3.2). This deceleration reflected lower contributions from a number of subcomponents, including transport and communications, clothing and footwear, household equipment and maintenance, and recreation and culture. Differences in recent developments between the RPI and the HICP inflation rates mainly reflect differences in their respective consumption baskets.³

Chart 3.4
HICP IN MALTA: OVERALL AND CORE MEASURE
(annual percentage change)



Sources: Eurostat; Central Bank of Malta estimates.

Table 3.2
CONTRIBUTIONS TO YEAR-ON-YEAR RPI INFLATION

Percentage points

	2017						2018		
	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Food	0.7	0.5	0.5	0.6	0.6	0.3	0.3	0.3	0.3
Beverages and tobacco	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Clothing and footwear	-0.1	-0.1	-0.3	-0.5	-0.3	-0.2	-0.5	-0.2	-0.3
Housing	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Water, electricity, gas and fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Household equipment and house maintenance costs	0.2	0.1	0.1	0.2	0.2	0.3	0.1	0.2	0.1
Transport and communications	0.0	0.0	0.1	0.3	0.4	0.3	0.4	0.3	0.2
Personal care and health	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Recreation and culture	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1
Other goods and services	0.0	0.0	-0.1	0.0	0.0	0.0	0.1	0.0	0.0
RPI (annual percentage change)	1.4	1.2	1.0	1.3	1.3	1.2	0.9	1.0	0.8

Source: NSO.

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

³ The RPI index differs from the HICP index in that RPI weights are based on expenditure by Maltese households, while HICP weights also reflect expenditure patterns by tourists in Malta (see Box 2).

BOX 2: HOUSEHOLD EXPENDITURE IN MALTA AND THE RPI INFLATION BASKET¹

In early 2018, the National Statistics Office (NSO) published the results of the latest Household Budgetary Survey (HBS) that was carried out between April 2015 and March 2016. The primary scope of the HBS is to illustrate patterns in household expenditure, although data is also collected on household characteristics, income and dwellings. Data on households' expenditure patterns collected from the HBS are also used to derive the weighting frame of the RPI and in the compilation of Malta's national accounts.

The first full-scale HBS was held in 1971. This was followed by additional surveys in 1988, 1994, 2000 and 2008. The 2015-2016 HBS was conducted among a net sample of 3,691 private households, chosen by means of systematic random sampling from the register of dwellings, which is in turn based on the 2011 Census of Population and Housing.²

Overview

Table 1 gives an overview of net household income and expenditure trends derived from the last four HBSs. Net household income has risen consistently since 2000, reaching an average of €26,610 in 2015.³ Most of the increase occurred in more recent years, with nominal net income rising by 28.6% between 2008 and 2015. Economic factors, such as activity growth and a strong pace of job creation, as well as social factors, such as the increase in households with multiple breadwinners, have all contributed to this rise.

In terms of outlays, total household expenditure stood at €22,344 in 2015, representing a 14.1% increase when compared with 2008. Given that growth in income was much higher than in expenditure, the savings ratio increased over this period, reaching 16.0% of net income.

Table 1
OVERVIEW OF HOUSEHOLD INCOME AND EXPENDITURE⁽¹⁾

Annual averages (EUR)

	1994	2000	2008	2015
Net Income ⁽²⁾	-	19,111	20,695	26,610
Expenditure	9,099	17,891	19,575	22,344
Implied Saving Ratio (%)	-	6.4	5.4	16.0

⁽¹⁾ Figures may differ marginally from the HBS due to rounding and the conversion of LM figures to EUR.

⁽²⁾ The 1994 HBS did not collect data on net income.

Source: Household Budgetary Survey (NSO).

¹ Prepared by Jude Darmanin. Mr Darmanin is a senior economist in the Economic Analysis Department of the Central Bank of Malta. Helpful comments by Dr Aaron G. Grech, Ms Rita Schembri, Ms Sandra Zerafa, and Mr Alexander Demarco are gratefully acknowledged. Any errors, as well as the views expressed in this article, are the author's sole responsibility.

² See NSO (2015), "Household Budgetary Survey Malta 2015" (available at <https://nso.gov.mt/en/nso/Media/Salient-Points-of-Publications/Pages/Household-Budgetary-Survey-2015.aspx>) and https://nso.gov.mt/en/nso/Sources_and_Methods/Unit_C1/Living_Conditions_and_Culture_Statistics/Pages/Household-Budgetary-Survey.aspx.

³ Net household income includes salaries, interest and dividend income, social benefits and subsidies, and any other form of earnings, net of tax and national insurance contributions. In surveys of this type household income may be under-declared.

These figures suggest that Maltese consumers responded to the upturn in economic activity during the 1990s by strongly increasing their consumption of goods and services.⁴ Growth in consumer expenditure slowed sharply between 2000 and 2008. This period was characterised by more subdued growth in domestic activity, weak growth in household net income, and global economic and financial uncertainties. The slowdown in household expenditure over this period could also have reflected some level of saturation among consumers, following the rapid increase in private consumption in the previous decade. Social factors, such as an ageing population and a reduction in household size, could also have held back average household expenditure.⁵

In the period between 2008 and 2015 household expenditure growth picked-up slightly, though at a relatively slow pace when compared with growth in net income. Consequently, the saving ratio increased significantly. In part, this could have reflected a diversification of consumer portfolios away from consumption and towards investment, with the period characterised by an upturn in the property market and historically low interest rates.

Expenditure patterns in Malta

Table 2 shows how consumer spending patterns have changed since the 1994 HBS. The largest component of nominal household expenditure has consistently been the food, beverages, and tobacco component. As at 2015, this component took up 22.2% of household consumption expenditure. Slightly more than half of this food budget was spent on just

Table 2
HOUSEHOLD EXPENDITURE SHARES BY MAIN ITEM⁽¹⁾

Percentage of annual average household expenditure

	1994	2000	2008	2015
Food, Beverages, and Tobacco	37.3	23.8	24.9	22.2
Restaurants and Hotels ⁽²⁾	-	7.0	7.1	8.3
Clothing and Footwear	10.1	8.3	7.1	7.9
Housing and Energy	7.8	9.0	8.4	8.4
Transport and Communication	16.0	19.4	17.8	18.8
<i>of which: Transport</i>	-	16.5	13.8	14.5
<i>of which: Communication</i>	-	2.9	4.0	4.3
Education, Recreation, and Culture	8.3	11.2	10.2	10.6
<i>of which: Education</i>	-	1.2	1.7	2.8
<i>of which: Recreation and Culture</i>	-	10.0	8.5	7.8
Household Equipment and Maintenance	9.3	10.6	8.9	7.4
Health	6.5	3.0	6.4	5.6
Miscellaneous	4.7	7.7	9.2	10.8
Annual Household Expenditure (€)	9,099	17,891	19,575	22,344

⁽¹⁾ Figures may differ marginally from the HBS due to rounding and the conversion of LM figures to EUR. Due to differences in expenditure classification, figures for 1994 may not be directly comparable with other years.

⁽²⁾ Expenditure on restaurants in the 1994 HBS was classified as part of Food, Beverages, and Tobacco.

Source: Household Budgetary Survey (NSO).

⁴ See Grech (2015), "The evolution of the Maltese economy since independence", Central Bank of Malta, Working Paper WP/05/2015.

⁵ Between 2000 and 2008, the number of single/separated/widowed households had risen from 23.9% to 29.4% of total households.

three categories, namely meat and fish, bread and cereals, and eggs, dairy and fats. In the case of meat and fish in particular, this could partly reflect higher relative prices.

Nonetheless, the share of food and beverages has dropped when compared with previous surveys. As incomes increase and the natural limit on consumption of basic necessities is reached, consumers tend to spend their additional cash on leisure goods and services. Indeed, the share of consumer spending on restaurants and hotels, which mainly consists of the former, increased between 2008 and 2015, suggesting a tendency for people to eat out more frequently.

Over the years, the second largest component of household spending has been transport. Most of this expenditure consists of purchases of motor vehicles and transport fuels, though spending on transport services, which includes air transport, has also increased in recent years.

Meanwhile, the share of spending on dwelling-related expenses fell in 2015 when compared with 2008. In particular, consumers have spent a lower share of their income on household goods, such as furniture, appliances, and non-durable household goods. At the same time, the share of spending on housing and energy, which primarily consists of utilities and household maintenance, remained constant between 2008 and 2015, despite higher prices for energy in 2015 when compared with 2008.⁶

Similarly, the share of spending on recreation and culture has fallen gradually since 2000. This component, which consists of a number of diverse categories, has in part been impacted by trends away from items such as package holidays and printed materials. With regard to clothing and footwear, expenditure shares are currently smaller when compared with the 1994 and the 2000 HBSs, possibly reflecting cheaper prices for imported items and online shopping. On the other hand, the share of expenditure on communication, particularly services such as internet and mobile telephony, has increased, though it remains small.

At the same time, spending on education remains small relative to other components, mainly mirroring the provision of free education across all levels by the State. Spending on health, which is also provided for by the State, is slightly higher than that on education, mainly due to expenditure on medicines.

The “miscellaneous” component, whose share has steadily increased in recent years, is in its majority composed of two sub-categories, namely personal care and personal artefacts, and financial and insurance services.⁷ In particular, spending on personal care, which includes hairdressing and personal grooming, represented one of the largest consumer outlays in 2015 (see Table 3 below).

⁶ The average RPI index for water, electricity, gas and liquid fuels was 20.2% higher in 2015 when compared with 2008. Electricity prices were increased in 2008 and in 2010. They were then reduced in 2014, though not enough to offset both the previous two increases. Since 2008 the increase in prices reflected the end of subsidies on water and electricity rates.

⁷ In earlier years of the HBS, the “miscellaneous” component contained non-durable household items which are now classified as “household” expenditure. On the other hand, expenditure on personal care, previously classified as “health”, is now classified in the “miscellaneous” component.

Table 3
EXPENDITURE BY SUB-ITEM⁽¹⁾

Categories ranked by highest annual average household expenditure as at 2015

	EUR	% Change from 2008	% of Total
Catering Services	1,748	+ 37.6	7.8
Garments (incl. related services)	1,254	+ 26.4	5.6
Meat & Fish	1,206	+ 4.5	5.4
Vehicles	1,187	+ 48.7	5.3
Transport Fuels and Lubricants	1,155	+ 12.9	5.2
Hairdressing and Personal Care	946	+ 3.1	4.2
Communication Services	850	+ 17.1	3.8
Transport Services	848	+ 29.9	3.8
Water, Electricity, Gas and Liquid Fuels	819	+ 23.5	3.7
Eggs, Dairy and Fats	729	- 1.6	3.3
Bread & Cereals	727	- 10.2	3.3
	11,469	+ 17.7	51.3

⁽¹⁾ Figures may differ marginally from the HBS due to rounding.

Source: Household Budgetary Survey 2015 (NSO).

Table 3 gives a more disaggregated analysis of household consumption expenditure. It shows that in 2015, slightly more than half of total consumer outlays were spent on just eleven sub-items. In line with the picture given by Table 2, a number of food items appear in the list, such as meat and fish, bread and cereals, and eggs, dairy and fats. Additionally, spending on catering services, closely linked with food consumption, tops the list, making it the largest single source of expenditure for Maltese households in 2015.

A number of items related to transport are also included in this list, particularly motor vehicle purchases, and transport fuels. Taken together, these two components amount to an annual average spend of €2,342 per household on personal transport. Other notable outlays include spending on clothing and on hairdressing and personal care.

An analysis of the changes in expenditure since 2008 underlines the impact of the improvement in the standard of living and incomes during this period. The strongest increases are observed in goods that would normally be considered as leisure goods, such as vehicles (+48.7%), catering services (+37.6%), garments (+26.4%), and transport services (29.9%), which is mostly made up of air transport. Within the food component, spending on “cheaper” items such as bread and cereals (-10.2%) and eggs, dairy, and fats (-1.6%) has fallen, while spending on the more luxurious meat and fish (+4.5%) category has increased. At the same time, the increased expenditure on utilities (+23.5%) mirrors the increase in the RPI index for the water, electricity, gas, and liquid fuels component (20.2%) during the period.

Determinants of household expenditure

Expenditure patterns can differ across households depending on a number of demographic and economic factors, such as income, age, and household size.

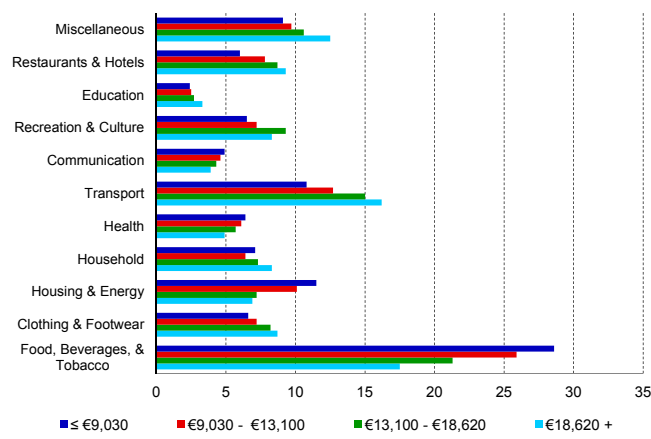
Analysing household expenditure by equivalised household disposable income for 2015 highlights the importance of the standard of living in determining spending trends (see

Chart 1).⁸ The higher the household income, the lower the share of spending on necessities such as food and beverages, health, and housing and energy. On the other hand, spending shares on leisure items, such as restaurants & hotels, clothing & footwear, and transport (which mainly comprises personal transport and air fares) increase as incomes rise.

Chart 2 depicts expenditure shares by age of the reference person in the household. Notably, higher spending shares on leisure goods and services is associated mainly with the younger cohort, which spends relatively more on restaurants and hotels, recreation and culture, transport, and clothing and footwear. For elderly persons (65+), significant portions of their budget are spent on food and beverages, housing and energy and health. This partly reflects the fact that elderly persons tend to have a lower income (mainly pension income) than the working age population, and hence have less to spend on leisure goods and services.

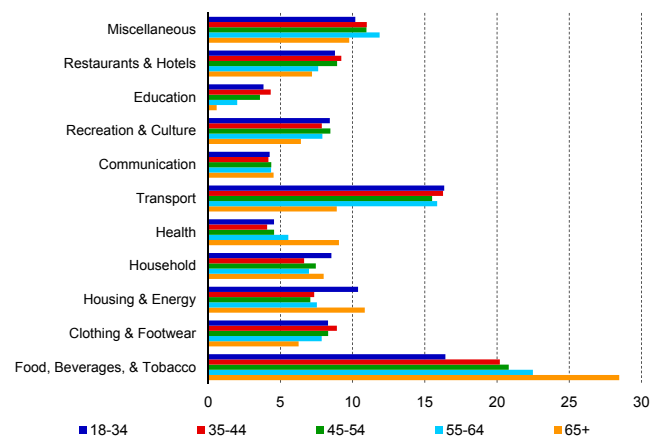
With regard to household size, larger households tend to spend higher shares on transport, clothing and footwear, recreation and culture, and education (see Chart 3). This is in line with the assumption that a larger household size would indicate the presence of children. On the other hand, smaller households tend to spend more on food and beverages, health, housing and energy, and restaurants and hotels. This category would include elder

Chart 1
EXPENDITURE BY EQUIVALISED HOUSEHOLD DISPOSABLE INCOME
(% of total annual average expenditure)



Sources: HBS 2015 (NSO); Central Bank of Malta calculations.

Chart 2
EXPENDITURE BY AGE OF REFERENCE PERSON
(% of total annual average expenditure)



Sources: HBS 2015 (NSO); Central Bank of Malta calculations.

⁸ The equivalised disposable income is the total disposable income of a household divided by the number of household members converted into equalised adults using a scale established by the OECD.

households, which tend to be smaller in size, and also younger households such as newly married couples and single parents, hence leading to a mixture in the consumption basket between necessity and leisure items.

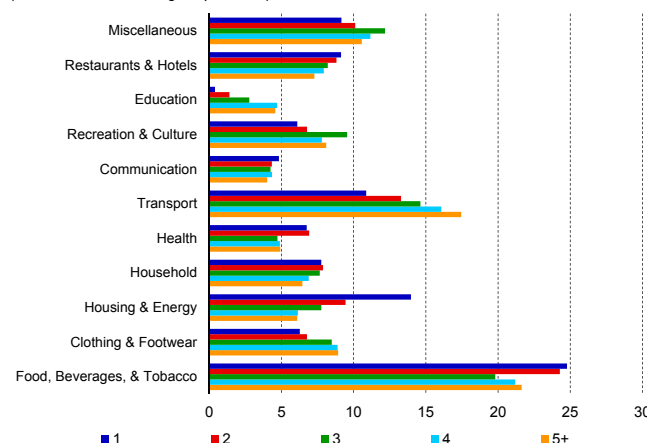
The RPI basket

One of the main implications of the HBS is that it acts as the basis for the weighting system of the RPI, as it determines the

importance of each item in the basket of goods and services used to compile the RPI.⁹ In January 2017, the NSO updated the weights used in the RPI with the results of the HBS 2015 (see Table 4).

In general, changes in the RPI weights mirror the trend in expenditure shares shown in Table 2.¹⁰ Taken together, food and beverages remain the largest subcomponent in the RPI basket, albeit with a declining share, while transport and communication form the second largest subcomponent. Items that have steadily increased their weight over the years include transport and communication, and personal care and health, reflecting changes in the spending patterns of Maltese households observed in the HBS.

Chart 3
EXPENDITURE BY SIZE OF HOUSEHOLD
(% of total annual average expenditure)



Sources: HBS 2015 (NSO); Central Bank of Malta calculations.

Table 4
RETAIL PRICE INDEX - COMPONENT WEIGHTS

% of basket

	1971/72	1980/81	1988/89	1994	2000/01	2010	2017
Food	40.1	41.9	36.8	29.9	23.8	21.2	21.5
Beverages and Tobacco	10.3	9.5	8.6	7.3	6.1	6.1	5.6
Clothing and Footwear	11.9	10.6	8.2	10.1	8.2	7.4	6.6
Housing	3.7	4.0	3.9	5.3	7.6	7.6	7.9
Water, Electricity, Gas and Fuels	2.9	3.1	2.8	2.5	2.3	3.4	3.3
Household Equipment and Maintenance	6.1	6.2	5.2	9.3	7.7	6.6	7.0
Transport and Communication	9.4	9.9	13.4	16.0	23.1	22.8	22.1
Personal Care and Health	4.8	5.6	6.4	6.5	6.2	8.6	8.8
Recreation and Culture	6.6	4.9	8.3	8.3	8.8	9.3	9.9
Other	4.3	4.4	6.4	4.7	6.2	7.1	7.3

Source: NSO.

⁹ See NSO (2008), "The Retail Price Index in Plain Language".

¹⁰ Some slight differences can be observed between the household expenditure shares in Table 2 and the RPI weights in Table 4. This can be attributed to some differences in the classification of items between the HBS and the RPI. For example, expenditure on restaurants is classified as "Food" in the RPI and under "Restaurants and Hotels" in the HBS.

The RPI and the HICP

Apart from the RPI, Malta's most commonly used index of consumer price inflation is the HICP. These two indices, though both acting as a measure of consumer prices, have a slightly different methodology and purpose.¹¹

The RPI is primarily based on a household consumption basket derived from the household spending patterns established in the HBS. It is widely used domestically for the adjustment of wages and rents, as it acts as a barometer for the cost of living. On the other hand, the HICP is primarily aimed at producing a measure of inflation that is harmonised across European Union Member States. Indeed, it is the inflation measure used by the European Central Bank in its monetary policy decision-making process.

The main dissimilarity between the RPI and the HICP is in their respective consumption baskets. While the RPI covers consumption expenditure incurred by Maltese residents, with item weights based primarily on the HBS, the HICP covers total household consumption expenditure, irrespective of nationality or residence status. Hence, the HICP also takes into account expenditure by foreigners in Malta, giving it a slightly different weighting structure. As a result, the HICP basket includes items, such as accommodation services, that are not part of the RPI basket. Furthermore, due to the availability of national accounts data, HICP weights are updated annually, while RPI weights can only be updated once a new HBS is held. Prior to 2017, the RPI weights had last been updated in 2010.

One issue that arises when comparing the baskets of the two indices is the difference in the classification of items. While the RPI is divided into the ten divisions shown in Table 4, the HICP is divided into twelve sections drawn from the "Classification of Individual Consumption by Purpose" (COICOP). In order to eliminate this difference and enable a direct comparison of the two consumption baskets, Table 5 uses disaggregated RPI data to classify the RPI basket items into the twelve COICOP divisions used in the HICP.¹²

Using this classification for 2017, when the new RPI weights were introduced, the differences in the two consumption baskets become clearer. In terms of the RPI, larger weights are given to those subcomponents more frequently purchased by resident households, such as food and non-alcoholic beverages, transport, and housing and energy. On the other hand, the HICP, which also takes into account consumption by foreigners in Malta, has higher weights for restaurants and hotels, alcohol and tobacco, and recreation and culture. Indeed, the change in HICP weights since 2010 (when the RPI weights were last updated) partly highlights the large increase in foreign expenditure in Malta during the period, with higher weights for subcomponents linked to the tourism sector, such as restaurants and hotels, and alcohol and tobacco.

Apart from the COICOP classification, the subcomponents of HICP are regularly divided using the "Main Industrial Grouping" (MIG) classification. Table 6 compares the HICP weights for 2017 with estimated RPI weights, based on this MIG classification. In this case, the main difference between the two baskets is the larger weight given to services in the

¹¹ See NSO (2008), "The RPI and the HICP".

¹² The RPI weights shown in Tables 5 and 6 are Central Bank of Malta estimates. Any official use of the RPI should be based on the weights published by NSO, shown in Table 4.

Table 5
HICP AND RPI WEIGHTS (2017) – COICOP CLASSIFICATION

% of basket

	%		Change (2010-2017)	
	HICP	RPI	HICP	RPI
Food and Non-Alcoholic Beverages	16.6	17.4	-0.7	-0.2
Alcohol and Tobacco	3.8	2.6	0.4	-0.2
Clothing and Footwear	5.7	6.6	-0.7	-0.8
Housing and Energy	8.3	11.0	-0.2	0.2
Household Equipment and Maintenance	7.8	9.4	-0.3	0.5
Health	4.4	4.7	0.4	0.1
Transport	14.0	16.6	-0.4	-0.3
Communications	3.8	5.5	-1.2	-0.4
Recreation and Culture	10.2	9.0	0.3	0.4
Education	1.8	1.8	0.3	0.3
Restaurants and Hotels	16.3	7.0	1.3	0.2
Miscellaneous	7.5	8.4	0.7	0.3

Sources: Eurostat; Central Bank of Malta estimates.

Table 6
HICP AND RPI WEIGHTS (2017) – MIG CLASSIFICATION

% of basket

	%		Change (2010-2017)	
	HICP	RPI	HICP	RPI
Unprocessed Food	7.4	7.7	-0.2	0.0
Processed Food	12.9	12.4	0.0	-0.5
Energy	6.6	7.4	0.3	-0.1
Industrial Goods excl. Energy	28.9	38.9	-2.8	0.5
Services	44.2	33.6	2.7	0.0

Sources: Eurostat; Central Bank of Malta estimates.

HICP index, while the RPI attributes a larger weight to industrial goods excluding energy (NEIG). Again, this highlights the different coverage of expenditure between the two indices. While NEIG is mainly composed of items that would normally be purchased by resident households, such as household equipment and clothing, services include items linked to the tourist industry, such as restaurants, hotels, and cultural services.

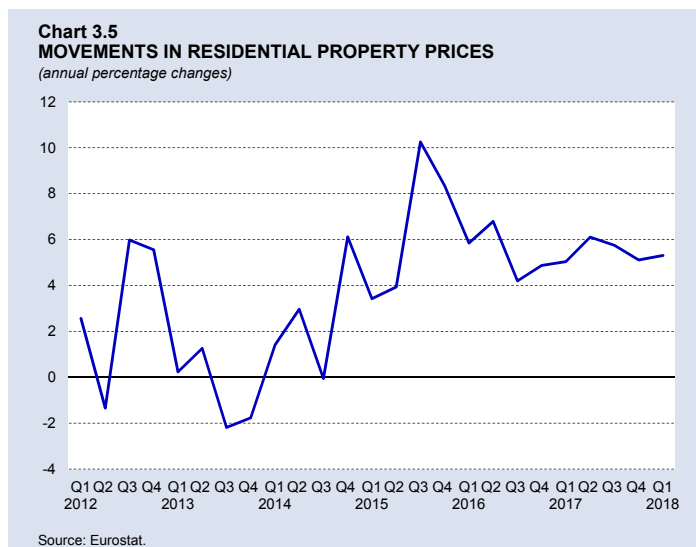
Conclusion

The aim of this article is to provide an analysis of household expenditure patterns in Malta. According to the HBS 2015, food and beverages, and transport and communication remain the largest sources of expenditure by resident households, making up over 40% of total expenditure. This is also confirmed when using a more disaggregated approach, with large outlays focussed on items such as restaurants, personal transport, transport fuels and a number of food items. However, expenditure patterns are more diverse when households are split by demographic characteristics, with factors such as age, size of household, and household income playing an important role in determining the expenditure pattern of households. These expenditure patterns are then reflected in the weighting system of the RPI, which, along with the HICP, is the most commonly used measure of price inflation in Malta.

Residential property prices

Residential property prices grow at a slightly faster pace

The NSO's Property Price Index increased at a slightly faster pace during the first quarter of 2018 (see Chart 3.5). The index, which is based on actual transactions involving apartments, maisonettes and terraced houses, increased by 5.2% on a year earlier, after rising by 4.9% in the fourth quarter of 2017.⁴ In the quarter under review, the rate of increase in Malta was slightly higher than that registered in the euro area, which stood at 4.5%.



The low interest rates environment and the Government's schemes for first-time and second-time buyers are two of the main driving forces behind the increase in residential property prices, as they make property more attractive as an investment. A buoyant labour market, strong growth in disposable income and the increase in foreign workers also continue to sustain residential property prices. The Individual Investor Programme is another factor that contributes to such growth, even though its effect has been limited.

Meanwhile, the number of residential permits issued has continued to increase on an annual basis during the quarter under review. As new construction activity catches up with the demand for housing, residential property price inflation should moderate.

Costs and competitiveness

Producer prices pick up further

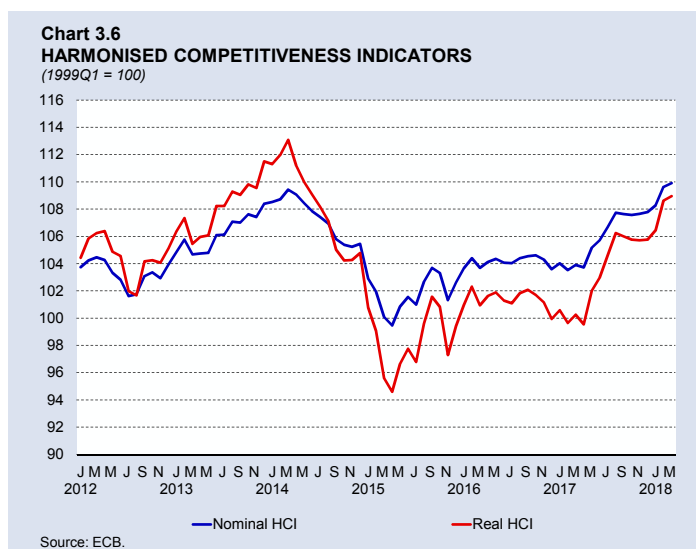
Cost inflation accelerated further during the quarter under review, with annual inflation based on the PPI reaching 6.4% in March, from 3.3% three months earlier.⁵ The intermediate goods sub-sector, which is the largest subcomponent of the index and includes items such as electronic products and semiconductors, was the sole driver behind this acceleration. Price pressures in this category have increased considerably since mid-2017. On the other hand, the contribution from consumer and capital goods was increasingly negative, while that from energy remained zero.

⁴ 'Apartments' are defined as dwellings with self-contained rooms or a suite of rooms that have a separate entrance accessible from a common passage way, landing or stairway. 'Maisonettes' have a separate entrance that is accessible from the street and are either at ground-floor level with overlying habitation, or at first-floor level with underlying habitation. 'Terraced houses' are dwellings with at least two floors, own access at street level and airspace and with no underlying structures that are not part of the house itself. They are attached to other structures on both sides.

⁵ The Industrial PPI measures the prices of goods at the factory gate and is commonly used to monitor inflationary pressures at the production stage.

*HCI*s point to deterioration in international competitiveness

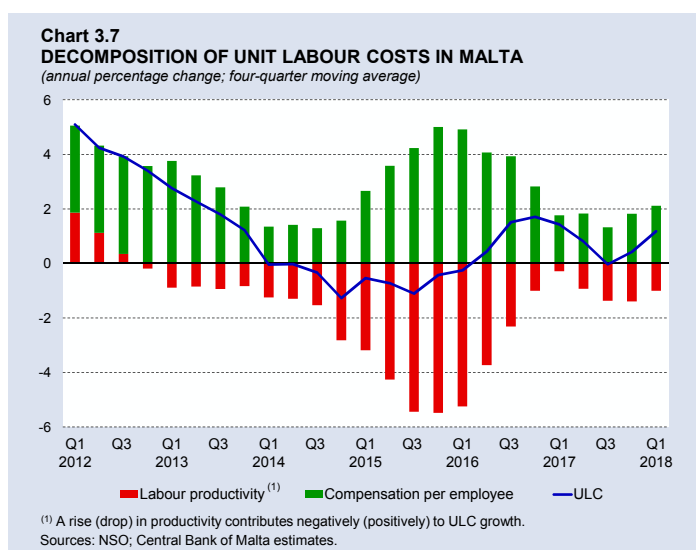
Annual growth in Malta's nominal HCI, a measure of international competitiveness, accelerated further to 5.8% at the end of the first quarter, from 4.0% three months earlier (see Chart 3.6).⁶ Similarly, annual growth in the real HCI, which also takes into account differences in relative consumer prices, rose from 5.8% in December to 8.7% in March. Malta's HCIs have accelerated strongly since mid-2017, suggesting a deterioration in international competitiveness. This is partly a result of developments in the euro exchange rate vis-à-vis currencies of international trading partners. However, the higher growth in the real HCI over the nominal HCI also suggests a negative impact on competitiveness from relative price developments vis-à-vis these trading partners.



*Unit labour costs accelerate*⁷

The ULC index, measured as the ratio of compensation per employee to labour productivity, increased further in the first quarter of 2018. In annual terms, ULCs in Malta grew by 1.2%, following 0.4% growth in the previous quarter. Nonetheless, ULC pressures remain contained from a historical perspective.

The recent acceleration in ULCs was driven by a combination of faster growth in compensation per employee and slower growth in labour productivity (see Chart 3.7). Annual growth in compensation per employee accelerated to 2.1%, from 1.8% in the previous quarter. At the same time, growth in labour productivity moderated to 1.0%, from 1.4% at the end of 2017.



⁶ The nominal HCI tracks movements in a country's exchange rate against the currencies of its main trading partners, weighted according to the direction of trade in manufactured goods. The real HCI incorporates both exchange rate changes and the relative inflation of a country vis-à-vis its main trading partners. A higher (or lower) score in the HCI indicates a deterioration (or improvement) in a country's international price competitiveness.

⁷ Annual growth in ULC, compensation per employee, and labour productivity is measured on a four-quarter moving average basis. A degree of caution is required in the interpretation of ULC in view of contemporaneous structural shifts in the composition and factor-intensity of production, notably the shift to labour-intensive services. See Micallef, B. (2015), "Unit labour costs, wages and productivity in Malta: a sectoral and cross-country analysis", Policy Note August 2015, Central Bank of Malta, available at <https://www.centralbankmalta.org/en/working-papers-2015>, and Rapa, N. (2016), "Measuring international competitiveness", *Quarterly Review* 2016:1, pp. 53-63, Central Bank of Malta.

BOX 3: DETERMINANTS OF LABOUR PRODUCTIVITY IN MALTA FROM A FIRM-LEVEL SURVEY¹

There is a broad consensus among economists that productivity plays a key role in economic success and is the main driver of per capita economic growth in the long-run.

The Maltese economy has been one of the best performing members of the euro area after the global financial crisis. Growth has been job-rich with the increase in employment after the crisis being four times higher than that achieved in the decade before the crisis. However, the changing structure of the Maltese economy has increased the complexity in the analysis of productivity. The main sectors generating growth since EU membership have similar value added multipliers across the two decades but much higher employment multipliers. In addition, the absence of sectoral price deflators renders an in-depth analysis of sectoral productivity particularly challenging at a time when it is being increasingly recognised that economy-wide measures of productivity need to be complemented by sectoral and, if available, firm-level developments.

This Box adds to the empirical literature on productivity in Malta by exploiting information from a firm-level survey carried out by the Central Bank of Malta in 2014 as part of the Wage Dynamics Network (WDN) project.² This survey provides rich evidence, directly from firms, with a detailed breakdown by sector and size classes that are not available from existing statistics. Using this dataset, developments in labour productivity compared to costs are investigated within an empirical multivariate framework that controls for the firm's characteristics, its workforce and environment, as well as the nature of shocks hitting the firm.

Literature review

In the neo-classical growth model, labour productivity depends on total factor productivity (TFP) and capital deepening. Within this class of models, improvements in TFP growth or technological progress are the key determinants of long-run growth. Modern growth theories, which seek to explain TFP within the model, point to the importance of innovation, such as investment in research and development (R&D), in driving productivity growth.³

The literature has identified a broad set of factors that explain cross-country differences in productivity or TFP growth. In these studies, macroeconomic and institutional factors, trade openness and policies that enhance the quality of human and capital stock are commonly found to play an important role in raising productivity growth.⁴ For instance, a number of studies find that a skilled workforce tends to promote innovation, which, in turn, raises productivity.⁵ Similarly, investment in information and communication technology (ICT) and in research and development (R&D) is commonly found to play a crucial role in explaining

¹ Prepared by Brian Micallef. The author is the Manager of the Research Department. Any errors, as well as the views expressed in this article, are the author's sole responsibility. The views expressed in this Box are those of the author and should not be interpreted as reflecting the views of the Central Bank of Malta.

² The fieldwork for the WDN survey, consisting of face-to-face interviews with 178 firms, was conducted in 2014 for the reference period 2010-2013. Despite covering only the three-year period in the aftermath of the 2009 recession, the analysis in this Box still remains policy relevant given its focus on the 'structural' characteristics underpinning labour productivity in Malta.

³ Romer, P. (1990), "Endogenous technological change", *Journal of Political Economy*, Vol. 96, pp. 71-102.

⁴ Barro, R. (2001), "Human capital and growth", *American Economic Review*, 91, No. 2 (May), pp. 12-17.

⁵ Sondermann, D. (2012), "Productivity in the euro area: any evidence of convergence?", Working Paper No. 1431, European Central Bank.

productivity performance.⁶ Turning to the micro evidence, studies point to large differences in productivity among firms even within narrowly defined industries.⁷ Using a harmonized cross-country firm-level database, the Competitiveness Network documents a large degree of heterogeneity in terms of firm productivity and size, both within and across countries.⁸ Productivity distribution tends to be highly skewed across countries, with a small percentage of high productivity firms and thick left tail of low productive ones.

Studies have also looked at the link between financing constraints and productivity, especially during and after the financial crisis. Financial market imperfections could amplify financial constraints during a recession due, for instance, to collateral constraints and debt overhang.

Within-firm differences in productivity can be classified in two broad categories.⁹ The first set of determinants include factors that operate within the firm, such as managerial talent, the quality of labour and capital inputs, product innovation and the organisational structure of the firm's production units. The second set of factors refers to environmental determinants, such as the productivity spillovers from knowledge transfer, the degree of competition in labour and product markets and the impact of regulation. This category affects productivity by incentivising producers to become more efficient or, alternatively, by shifting economic activity towards more efficient ones.

There are also complementarities between micro and macro factors. For instance, strong competition and flexible labour markets allows firms to adopt better people management practices.¹⁰ Multinational firms have a strong positive effect on management practices and their influence is felt throughout the countries in which they operate. On average exporters are 20% more productive than non-exporters in the same sector, although there are wide cross-country differences.¹¹

The survey

The analysis is based on a survey conducted by the Central Bank of Malta in 2014 that was designed in close collaboration with other EU central banks as part of the WDN project for the reference period between 2010 and 2013. The survey focused on changes in the economic environment after the crisis as well as various pricing and wage setting practices. It also contained questions both on developments in labour productivity as well as on a number of covariates that can be proxied for some of the main drivers of productivity identified in the literature.

A total of 271 companies were selected from the Business Register of the National Statistical Office to participate in the survey. Companies were selected to ensure a stratified

⁶ Griffith, R., Redding, S., & van Reenen, J. (2004), "Mapping the two faces of R&D: productivity growth in a panel of OECD industries", *The Review of Economics and Statistics*, Vol. 86(4), pp. 883-895.

⁷ Bartelsman, E., Haltiwanger, J., & Scarpetta, S. (2013), "Cross-country differences in productivity: the role of allocation and selection", *American Economic Review*, 103 (1): pp. 305-334.

⁸ The Competitiveness Network (CompNet) is a research network of the European System of Central Banks. Further details are available in Lopez-Garcia, P., di Mauro, F., & the CompNet Task Force (2015), *Assessing European competitiveness: the new CompNet micro-based database*, Working Paper 1764, European Central Bank.

⁹ Syverson, C. (2010), "What Determines Productivity?" *Journal of Economic Literature*, 49(2), pp. 326-365.

¹⁰ Bloom, N., Sadun, R., & Van Reenen, J. (2012), "Americans do IT better: US multinationals and the productivity miracle", *American Economic Review*, 102 (1), pp. 167-201.

¹¹ Berthou, A., Dhyne, E., & the CompNet Task Force (2015), "Assessing European firms' exports and productivity distributions: the CompNet trade module", Working Paper 1788, European Central Bank.

sectoral representation in three employment brackets: 10-49, 50-199 and those with more than 200 employees. Firms with less than ten employees, public corporations and those operating in the agriculture and fisheries sectors were excluded. Firms falling within the top decile of each sector by employment were included since these capture the main developments in the labour market. The fieldwork lasted from May till July 2014 and was carried out using face-to-face interviews. 178 companies agreed to participate in the survey, implying an overall response rate of 66%. These firms employ around one-third of the target population, with coverage being strongest in the financial sector and manufacturing.¹²

Productivity and its determinants

Firms were asked the following question on developments in productivity: *“How did average productivity per employee (compared to labour costs per employee) evolve in your firm during 2010-2013?”* Respondents were asked to choose from the options ‘strong decrease’, ‘moderate decrease’, ‘unchanged’, ‘moderate increase’ and ‘strong increase’.

Around 33% of firms reported that growth in labour productivity exceeded labour costs during the reference period. Another 55% claimed unchanged developments. This implies that for almost 90% of firms the increases in labour costs were matched or even exceeded by gains in labour productivity. Improvements in productivity were especially pronounced in manufacturing and, to a lesser extent, in other market services, being reported by around 60% and 35% of firms, respectively. In terms of size classes, the improvements in productivity were slightly more pronounced in medium and large firms compared to smaller ones.

The structural determinants of higher productivity are further investigated within an empirical multivariate framework. More specifically, the analysis is conducted using a probit model with the dependent variable being a binary variable that takes the value of 1 if the firm has registered a ‘moderate’ or ‘strong’ increase in productivity compared to labour costs between 2010-2013 and zero otherwise.

The probability of a firm registering an increase in productivity during this period is conditioned on a set of covariates that aim to capture the main determinants of productivity identified in the literature. The exact definition of the covariates is as follows:

1. **Firm characteristics:** a set of variables that capture the sector of economic activity (manufacturing, construction, wholesale & retail trade and other services) and the size of the firm in terms of number of employees (10-49, 50-199, 200+);
2. **Labour share:** the share of labour costs (e.g. wages, salaries, bonuses, social security contributions) in total costs (a continuous variable ranging from 0 to 1);
3. **Workforce characteristics:** the share of high-skilled manual and non-manual workers; and the share of part-time and temporary employees in total employment (continuous variables ranging from 0 to 1);
4. **Workforce stability:** a dummy variable that takes the value of 1 if worker flows (both entries and exits) decreased ‘strongly’ or ‘moderately’ in 2013 compared to 2010;
5. **Outsourcing:** a dummy variable that takes the value of 1 for firms that have outsourced part of their activity during 2010-2013;

¹² Micallef, B., & Caruana, K. (2015), “Results of the 2014 Wage Dynamics Network for Malta”, Central Bank of Malta. Available at: https://www.ecb.europa.eu/home/pdf/research/wdn/WDN_Country_Report_MT_final.pdf?7a1aa775335f737091e097051def82a8.

6. **Adjusted labour input:** a dummy variable that takes the value of 1 for firms that needed to significantly reduce their labour input or alter its composition during 2010-2013;
7. **Exposure to foreign markets:** the share of revenue generated by the firm in foreign markets (continuous variable ranging from 0 to 1);
8. **Shocks:** a set of dummy variables that take the value of 1 for firms that reported a 'strong' or 'moderate' decrease in demand (demand shock), access to external finance (credit constraint shock) and availability of supplies from usual suppliers (supply shock); or a 'strong' or 'moderate' increase in uncertainty (uncertainty shock).

Table 1 reports the average marginal effects from the probit regressions.¹³

Table 1
DETERMINANTS OF FIRM LEVEL PRODUCTIVITY

Average Marginal Effects

	Probit (1)	Probit (2)	Probit (3)	Ordered Probit (4)	Ordered Probit (5)
Firm size					
10-49 (Reference group)					
50-199	0.082	0.066		0.026	
200+	0.055	0.034		-0.010	
Sector of economic activity					
Manufacturing (Reference group)					
Construction	-0.465 **	-0.468 **	-0.512 ***	-0.310 *	-0.342 **
Trade	-0.054	-0.099	-0.135	-0.168	-0.261 **
Other market services	0.060	0.001	-0.011	-0.008	-0.094
Production technology & workforce characteristics					
Share of labour in total costs	-0.387 **	-0.378 **	-0.414 **	-0.508 ***	-0.545 ***
Workforce stability	0.194 **	0.239 ***	0.230 ***	0.177 *	0.207 **
Share of part-timers and temporary workers	-0.161	-0.173		-0.150	
Share of high skilled manual workers	0.303 **	0.251 *	0.229 *	0.173	
Share of high skilled non-manual workers	0.060	0.048		0.090	
Restructuring, firm structure & competition					
Outsourcing	0.162 **	0.149 **	0.166 **	0.154 **	0.158 **
Labour force adjustment	0.042	0.101		0.127	
Exposure to foreign markets	0.013	0.038		0.001	
Nature of shocks					
Demand shock		-0.108		-0.210 **	-0.180 **
Uncertainty shock		-0.057		-0.073	
Credit constraint shock		-0.359 *	-0.343 *	-0.310 **	-0.301 **
Supply shock		-0.109		-0.107	
Observations	177	177	177	177	177
Likelihood ratio test	$\chi^2(13)=35.77$	$\chi^2(17)=41.52$	$\chi^2(8)=36.57$	$\chi^2(17)=38.81$	$\chi^2(8)=33.73$
Prob> χ^2	0.001	0.001	0.000	0.002	0.000
Pseudo R2	0.1578	0.1832	0.161	0.1163	0.1011

Note: ***, ** & * denote statistical significance at 1%, 5% and 10%, respectively.

In Probit models (1), (2) and (3), the dependent variable is a dummy that takes the value of 1 if the firm reported a 'moderate' or 'strong' increase in productivity compared to labour costs. In ordered probit (4), the dependent variable is a categorical variable that takes the value of 1 if productivity decreased, 2 if unchanged and 3 if productivity increased relative to labour costs. Column 5 reports the AME of outcome 3 (i.e. increase in productivity) to be comparable with Models (1) and (2). Model (5) re-estimates Model (4) using only statistically significant variables.

¹³ It is common practice in the empirical literature using probit models to retain covariates in the model that are recommended by theory or used in similar studies despite not being statistically different from zero. The bottom rows of Table 1 show the Likelihood ratio test. In all models, the hypothesis that all coefficients are equal to zero can be rejected at the 1% level of significance. Models (3) and (5) in Table 1 show that the results are very robust to the exclusion of non-statistically significant variables.

Estimates in Model (1) point to some degree of sectoral heterogeneity, with construction firms less likely to benefit from higher productivity compared with the manufacturing sector (the reference category). On the contrary, there is no statistically significant difference between productivity in manufacturing and services. Differences between these two sectors are however captured by the labour share, which is twice as high in services compared with manufacturing. The results show that labour productivity is more likely to be lower in firms with a higher share of labour in total costs.

Differences due to size classes are not statistically significant. This finding runs contrary to what is usually found in the micro literature and could be due to the exclusion of micro companies from the survey. The latter constitute more than 95% of firms in Malta, accounting for around one third of employment and one quarter of value added. The exclusion of these companies, which are usually less productive than larger firms, could thus explain this counterintuitive result.

The characteristics of the workforce matter for productivity. Workforce stability and a higher share of skilled workers increase the likelihood that a firm reports to have registered an increase labour productivity. Skilled manual workers are found to have a greater and more statistically significant effect compared to skilled non-manual workers. On the contrary, the share of part-timers and temporary employees is negatively related with productivity, although this effect is not statistically significant at conventional levels.

Restructuring efforts are found to increase the likelihood of higher productivity. Firms that have implemented changes to their production structure, for instance, by outsourcing part of their operations, are more likely to experience an improvement in productivity. Companies that adjusted their labour force or exposed to foreign markets are also likely to report an improvement in productivity although, in both cases, the effects are not statistically significant.

Model (2) augments the covariates in the previous model with the nature of the shocks hitting the firm. Out of the four adverse shocks considered – a drop in demand, higher uncertainty, a reduction in the access to finance and in the availability of supplies – firms faced with credit constraints were found to be less likely to experience an improvement in productivity. This finding suggests that credit impairments, not only via the quantity but perhaps also its price, could provide another important channel through which the financial sector affects labour productivity.

Model (3) includes only those covariates that were statistically significant in the previous two models. The marginal effects of the statistically significant variables are very similar to those reported in Models (1) and (2).

To assess the robustness of the results, Model (4) presents the estimates of an ordered probit approach. This time, the dependent variable, instead of a binary 0-1 variable, is a categorical one that increases with productivity, taking values from 1 to 3, where 1=the firm reported a '*moderate decrease*' or '*strong decrease*' in productivity; 2=the firm reported

‘*unchanged*’ productivity; 3=the firm reported a ‘*moderate increase*’ or ‘*strong increase*’ in productivity. Table 1 reports the average marginal effects of category 3 – an increase in productivity – to make it comparable to the first two columns. Model (5) is estimated using only the statistically significant covariates of Model (4).

The main conclusions remain unchanged with three differences. First, the share of high skilled manual workers no longer remains statistically significant. Second, sectoral heterogeneity becomes more pronounced, with both construction and trade less likely to benefit from higher labour productivity compared with the manufacturing sector. Finally, demand shocks also turn out to be important, with firms facing adverse demand shocks less likely to register an improvement in productivity. This could be due, for instance, to labour hoarding as firms may prefer to retain workers rather than incur hiring and retraining costs when demand conditions return to normal. As in Model (3), the ordered probit model confirms the negative relationship between credit constrained firms and productivity, as well as the role played by the declining share of labour, workforce stability and outsourcing.

Discussion and policy recommendations

The analysis in this Box, which is based on a survey conducted in 2014, points to a number of structural characteristics that affect labour productivity. Despite covering only the three-year period from 2010 to 2013, the analysis in this Box still remains policy relevant, given its focus on the ‘structural’ characteristics underpinning labour productivity in Malta.

The changing structure of the Maltese economy, with a very pronounced shift towards the services industry, complicates the use and reliance on aggregate unit labour costs as a measure of competitiveness. Sectoral estimates of hourly labour costs suggest that Malta remains quite competitive compared with other euro area countries in terms of costs, and has even maintained its cost competitiveness despite the reduction in labour costs in a number of stressed economies since the financial crisis.¹⁴

Another interesting finding is the relationship between productivity and outsourcing. The latter has been on the rise in recent years, spanning both IT and non-IT activities, such as security and cleaning activities. Productivity benefits from outsourcing as the firm reorganises its production activities. However, it also calls for caution in the interpretation of the decline in the share of certain sectors, such as manufacturing, since a considerable proportion could be the result of outsourcing of certain tasks.

The results confirm the importance of skills and workforce stability to foster productivity growth. The positive relationship between employment stability and productivity is very robust across model specifications. Employment stability or tenure increases the gains of learning-by-doing and provides incentives for employers to invest in training since they will be reaping the rewards of their investment. More generally, these findings support policies that raise the workforce’s skill base, not only through investment in education but also to strengthen active labour market policies, such as lifelong learning and the provision of

¹⁴ Micallef, B. (2015), “[Sectoral and cross-country estimates of hourly labour costs](#)”, *Quarterly Review*, 2015(2), pp. 56-60, Central Bank of Malta.

adequate incentives, for both employers and employees, that promotes the development of job-specific skills.

The negative relationship between productivity and credit constrained firms calls for policies that improve access to credit, especially for SMEs. In this regard, judicial reforms that reduce the time required to recover collateral and the introduction of a credit registry should improve both the access and the cost of credit by reducing informational asymmetries and the risk premium charged by banks. Equality in the tax treatment of equity injection and borrowing should also help to lower the cost of borrowing and improve access to finance. The establishment of the Malta Development Bank should also facilitate SME financing and lower the cost of credit.

Firms facing adverse demand conditions are less likely to register improvements in productivity although this finding is not robust across all model specifications. To an extent, this could be due to labour hoarding, especially if disturbances are deemed to be transitory. However, it strengthens the need for prudent fiscal policy in good times, thereby allowing room for manoeuvre during periods of subdued demand to stimulate economic activity and productivity.

4. THE BALANCE OF PAYMENTS

During the first quarter of 2018 the surplus on the current account of the balance of payments widened when compared with the corresponding quarter of 2017. The higher surplus was predominantly attributable to a narrowing in the merchandise trade gap and to a lesser extent, higher net inflows from secondary income. These movements offset higher net outflows from primary income and marginally lower net services receipts. Meanwhile, net inflows on the capital account increased on a year earlier, while net borrowing was recorded on the financial account.

When measured on a four-quarter moving sum basis, the current account balance was equivalent to 14.7% of gross domestic product (GDP), compared with 3.6% of GDP in the euro area.

The cyclically-adjusted current account balance is estimated at 14.3%. The small difference between the unadjusted and adjusted balance indicates that Malta's current account surplus largely reflects structural factors.

The current account

The current account surplus widens further

In the first three months of 2018, the current account registered a surplus of €390.5 million, a rise of €143.3 million on the same period of 2017. This improvement was largely on the back of a lower merchandise trade deficit.

When measured on a four-quarter moving sum basis, the surplus on the current account reached €1,659.8 million, almost double the €854.7 million registered in the four quarters to March 2017. This increase was driven by both a narrowing merchandise trade deficit and higher surplus on trade in services (see Table 4.1). As a result, the current account surplus rose to 14.7% of GDP, from 8.2% in the 12 months to March 2017.

Malta's cyclically-adjusted current account balance stood at 14.3% of GDP, up from 10.0% in the year to March 2017.¹ The cyclically-adjusted and the unadjusted current account balances for the

Table 4.1
BALANCE OF PAYMENTS

EUR millions

	Four-quarter moving sums						
	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1	2017 Q1	2018 Q1
Current account	854.7	1,251.0	1,412.8	1,516.5	1,659.8	247.2	390.5
Goods	-1,875.3	-1,630.8	-1,556.0	-1,525.2	-1,369.9	-383.0	-227.8
Services	3,220.0	3,400.8	3,508.9	3,623.3	3,614.8	731.3	722.8
Primary income	-709.4	-731.6	-744.2	-782.0	-797.5	-147.2	-162.6
Secondary income	219.4	212.6	204.1	200.4	212.5	46.0	58.1
Capital account	56.8	61.7	53.3	65.0	69.1	17.6	21.7
Financial account⁽¹⁾	1,587.4	1,746.3	1,345.7	1,305.6	743.2	395.4	-166.9
Errors and omissions	675.9	433.6	-120.4	-275.9	-985.7	130.7	-579.1

⁽¹⁾ Net lending (+) / net borrowing (-).

Source: NSO.

¹ For more information on Malta's cyclically-adjusted current account see Grech, A. G., & Rapa, N., "An evaluation of recent shifts in Malta's current account position", in Grech, A.G., & Zerafa, S. (eds.), *Challenges and Opportunities of Sustainable Economic Growth: the case of Malta*, Central Bank of Malta, 2017.

Maltese economy tracked each other closely in recent quarters (see Chart 4.1). This suggests that the improvement in Malta's current account position is being driven largely by structural, rather than cyclical factors. The widening in the cyclically-adjusted balance was less pronounced than that in the unadjusted measure, partly reflecting favourable cyclical developments abroad, which supported the headline measure.

The merchandise trade deficit continues to narrow

In the March quarter of 2018, the merchandise trade deficit stood at €227.8 million, down €155.3 million on the corresponding period of 2017. This reflected a rise in exports and a contraction in imports.

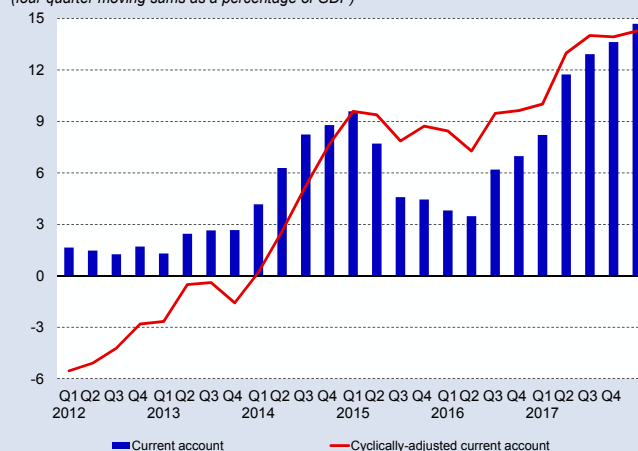
When measured on a four-quarter cumulative basis, the visible trade gap narrowed by €505.4 million to €1,369.9 million in the quarter under review. This improvement was on account of a €259.8 million rise in goods exports and a decline of €245.6 million in goods imports. The latter was partly attributable to a decrease in capital imports from the exceptionally high level recorded in 2017. As a result, the merchandise deficit's share in GDP in the year to March 2018 dropped to 12.1%, from 18.0% a year earlier (see Chart 4.2).

The surplus on services narrows

In the quarter under review, the surplus from services stood at €722.8 million, €8.5 million less than the surplus recorded in the first quarter of 2017. This decline was spurred by a rise in payments, which outpaced a smaller expansion in receipts. The lower net surplus was driven by the "other services" category, where net receipts declined to €528.6 million, from €579.3 million in the first quarter of 2017. This deterioration was mainly on account of a rise in payments related to business services and professional consulting services, as well as, a decline in net insurance receipts.

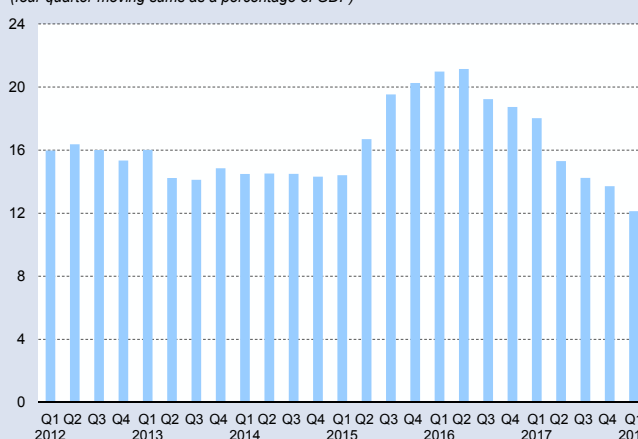
At the same time, net travel receipts rose to €114.2 million, €13.4 million more than in the first quarter of 2017, as a rise of €20.1 million in inbound tourists' spending offset an increase of

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



Source: NSO.

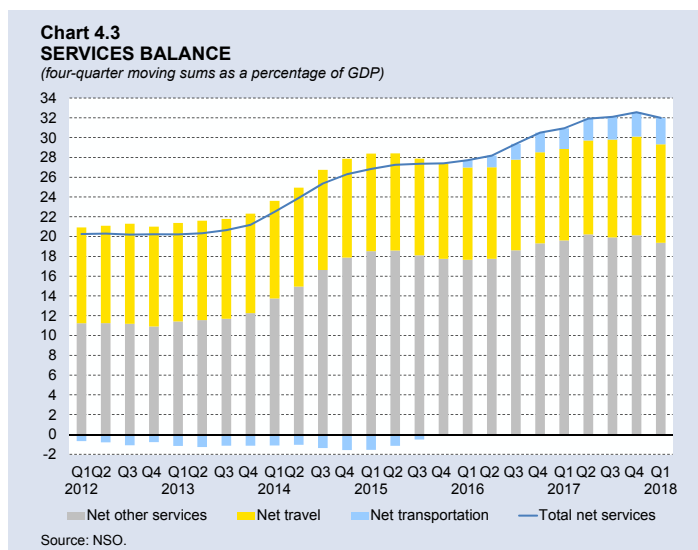
**Chart 4.2
GOODS DEFICIT**
(four-quarter moving sums as a percentage of GDP)



Source: NSO.

€6.7 million in expenditure by Maltese residents abroad. The latter was mainly due to higher spending in EU destinations, albeit marked increases in non-EU countries also contributed. Partly mirroring the continued buoyancy in tourism and the expansion of the aviation services industry, the net surplus from transport services reached €80.0 million, up by €28.8 million on the first three months of 2017.

On a four-quarter cumulative basis, the overall surplus from services stood at €3,614.8 million, an increase of €394.7 million on the balance recorded over the four quarters ending in March 2017. As a percent of GDP, net services receipts rose to 32.0% of GDP, from 31.0% a year earlier (see Chart 4.3).



Primary income account records higher net outflows²

Between January and March 2018, net outflows on the primary income account stood at €162.6 million, compared with net outflows of €147.2 million in the same months of 2017. Higher net outflows on this account were largely driven by lower net portfolio inflows, which were only partly offset by a rise in net other investment income. Higher net outflows related to direct investment and to compensation of foreign employees in Malta also contributed.

In part reflecting developments in the quarter under review, net outflows on this account reached €797.5 million in the year to March 2018, €88.1 million more than in the four quarters ending in March 2017. Developments on this account continued to be strongly influenced by internationally-oriented firms which transact predominantly with non-residents.

Inflows on the secondary income account increase³

In the first quarter of 2018, net inflows on the secondary income account rose by €12.0 million on a year earlier, to €58.1 million. On the contrary, when measured on a four-quarter moving sum basis, inward secondary income flows declined to €212.5 million, €6.9 million less than the amount recorded a year earlier.

Tourism activity

Activity in the tourism sector remains strong

In the first quarter of 2018, activity in the tourism sector remained strong, in line with developments observed in previous quarters. Inbound tourists, nights stayed in Malta and expenditure all increased at double-digit rates in annual terms.

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

³ The secondary income account shows current transfers between residents and non-residents.

The number of inbound tourists rose by 18.8% compared with the same period a year earlier, reaching 414,400 (see Chart 4.4). Tourists visiting Malta for leisure purposes continued to be the drivers behind this increase, as those travelling for business purposes and other motives declined on a year earlier.

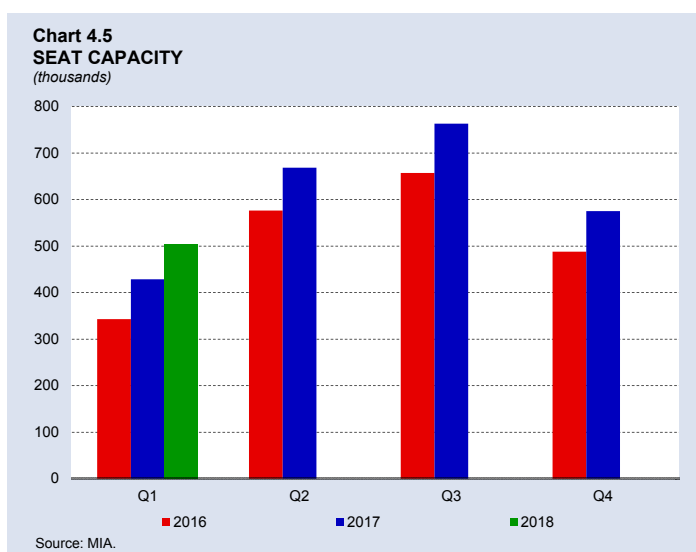
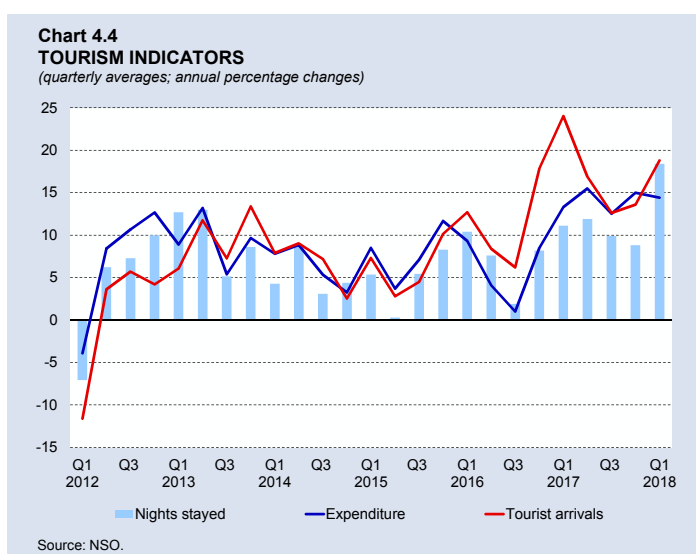
In the three months to March, the number of nights that tourists spent in Malta totalled 2.7 million, representing an increase of 18.4% on the corresponding period of 2017. In annual terms, nights spent in private accommodation registered a rise of 27.6% while those in collective accommodation were up by 13.5%.

Meanwhile, tourist expenditure in Malta increased by 14.4% on a year earlier, reaching €271.5 million. In absolute terms, spending on package and non-package holidays increased by broadly the same amount. Both categories recorded strong increases of 24.7% and 20.2%, respectively, in annual terms. The “other” component of tourism expenditure increased, by a more modest 3.2%.

As tourist expenditure increased at a slower pace compared with arrivals, expenditure per capita decreased to €655, from €680 in the first quarter of 2017. Meanwhile, the average length of stay remained unchanged at 6.5 nights, whereas expenditure per night fell from €104.64 to €101.13.

The strong pace of activity in the tourism sector continues to benefit from continued efforts to promote Malta as a year-round destination, the introduction of new routes and increased flight frequencies on established routes in the winter season. According to Malta International Airport (MIA) data, seat capacity increased by 17.7% in the first quarter of 2018 compared with a year earlier (see Chart 4.5).

In the first quarter of 2018, the total occupancy rate in collective



accommodation establishments rose to 52.6% from 49.6% in the same quarter of the preceding year (see Chart 4.6). Higher occupancy rates were registered in all categories, with the largest increases being recorded in the two-star hotels and in “other establishments”.

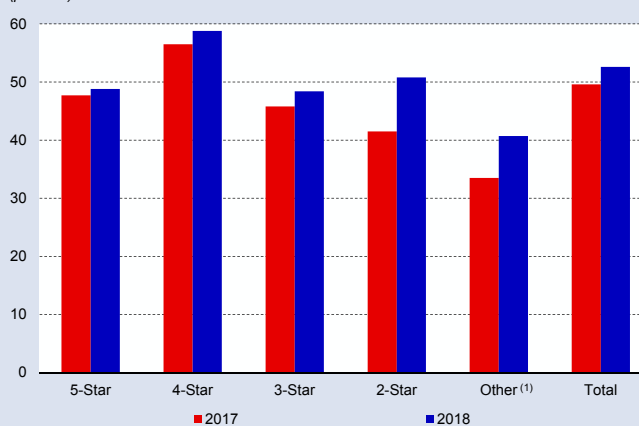
During the quarter under review, the number of cruise liners visiting Malta amounted to 17, 17 less than a year earlier. The number of foreign cruise liner passengers decreased to 69,725 from 85,133 a year earlier (see Chart 4.7). Thus, in the quarter under review, cruise liner passengers decreased by 18.1% in annual terms. This decrease notwithstanding, the number of cruise liner passengers remained high from a historical perspective.

The capital account

Net inflows on the capital account edged up to €21.7 million during the first three months of the year; €4.1 million higher than in the corresponding period of 2017 (see Table 4.1). This was mostly attributable to higher

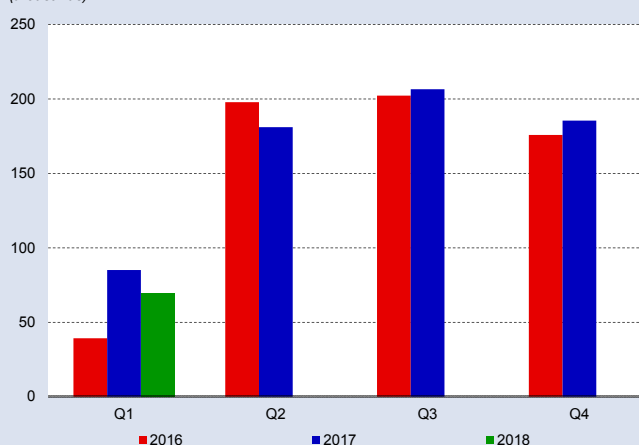
transfers to government, which in turn were propelled by the timing of funds received under EU financing programmes. When measured on a four-quarter moving sum basis, in the four quarters to March 2018, capital inflows totalled €69.1 million, up by €12.3 million on a year earlier.

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



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

Chart 4.7
CRUISE LINER PASSENGERS
(thousands)



Source: NSO.

5. GOVERNMENT FINANCE

During the first quarter of 2018, the general government registered a deficit for the first time in two years. The swing from a surplus in the first quarter of 2017 to a deficit in the quarter under review mainly reflected a one-time increase in capital expenditure. Furthermore, when measured as a four-quarter moving sum, the general government balance-to-GDP ratio remained in surplus. The headline surplus stood at 3.3% of gross domestic product (GDP), down from 3.9% in the fourth quarter of 2017 but still above the 2.0% recorded a year earlier. The cyclically-adjusted surplus-to-GDP ratio improved in the four quarters up to March 2018, compared with the period ending in March 2017. General government debt as a share of GDP decreased slightly to 50.4% at the end of March, from 50.7% at the end of 2017 and from 56.6% in March 2017.

Quarterly developments

General government balance deteriorates

In level terms, the general government registered a deficit of €26.0 million in the first quarter of 2018, compared with a surplus of €38.4 million in the corresponding period of 2017. This was the result of a rise in government expenditure net of interest that outpaced the increase in revenue. As a result, the primary surplus declined by €67.5 million, to €21.1 million.

Revenue increases, driven by higher tax inflows

In the first three months of the year, Government revenue grew by €36.3 million, or 3.8% in annual terms, reaching €1,001.9 million. Growth in revenue was mainly driven by higher tax revenue (see Table 5.1).

Current taxes on income and wealth registered the highest overall increase. They rose by €20.7 million over the corresponding quarter of 2017, as favourable economic conditions led to higher income tax inflows, mainly from households. This rise was augmented by higher intakes from value added taxes, reflecting growth in consumption recorded for the period. Revenue generated from social contributions rose by €15.0 million reflecting the positive labour market environment.

Meanwhile, the “other” component of government revenue decreased by €13.2 million, mainly on the back of lower sales from the Individual Investor Programme (IIP). Moreover, capital and current transfers receivable declined by €5.6 million, partly due to lower EU grants.

Expenditure rises due to higher recurrent and capital expenditure

During the period under review, total government expenditure increased by €100.8 million or 10.9% as both recurrent and capital expenditure were on the rise.

The largest increase in recurrent expenditure was recorded in compensation of employees, which grew by €32.6 million. This was driven by higher wage increases in the public administration and educational sectors. Social benefits increased by €16.9 million, mainly due to higher spending on pensions. Meanwhile, other current transfers payable and intermediate consumption increased by €7.3 million and €5.9 million, respectively. On the other hand, outlays on subsidies and interest payments declined.

Table 5.1
REVENUE, EXPENDITURE AND DEBT

EUR millions

	2017				2018	Change 2018Q1-2017Q1	
	Q1	Q2	Q3	Q4	Q1	Amount	%
Revenue	965.6	1,087.9	1,173.7	1,266.8	1,001.9	36.3	3.8
Taxes on production and imports	331.2	320.6	387.2	369.0	350.6	19.4	5.9
Current taxes on income and wealth	300.3	404.2	416.0	449.3	320.9	20.7	6.9
Social contributions	165.3	168.8	172.8	195.9	180.3	15.0	9.1
Capital and current transfers receivable	27.1	16.6	30.6	49.1	21.5	-5.6	-20.6
Other ⁽¹⁾	141.7	177.7	167.1	203.3	128.6	-13.2	-9.3
Expenditure	927.2	1,063.5	1,004.2	1,062.5	1,028.0	100.8	10.9
Compensation of employees	309.0	318.6	323.6	319.9	341.7	32.6	10.6
Intermediate consumption	158.7	196.7	199.0	188.7	164.6	5.9	3.7
Social benefits	277.5	284.6	279.1	297.2	294.4	16.9	6.1
Subsidies	34.4	30.5	36.1	42.2	25.8	-8.6	-25.1
Interest	50.2	52.3	52.7	51.5	47.2	-3.0	-6.1
Other current transfers payable	44.3	63.2	48.4	46.9	51.7	7.3	16.5
Gross fixed capital formation	46.5	62.4	54.0	86.1	41.3	-5.2	-11.2
Capital transfers payable	7.0	57.2	13.5	25.8	63.3	56.3	-
Other ⁽²⁾	-0.5	-1.9	-2.1	4.4	-1.8	-1.4	-
Primary balance	88.7	76.7	222.2	255.8	21.1	-67.5	-
General government balance	38.4	24.4	169.5	204.3	-26.0	-64.5	-
General government debt	5,891.1	5,855.7	5,832.0	5,642.6	5,691.5		

⁽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.

Overall, capital expenditure increased by €49.7 million in the first quarter of 2018, driven by higher outlays on capital transfers payable. The latter increased by €56.3 million due to the Government's acquisition of landing rights from Airmalta, offsetting a decrease in investment.

Government debt increases on a quarterly basis

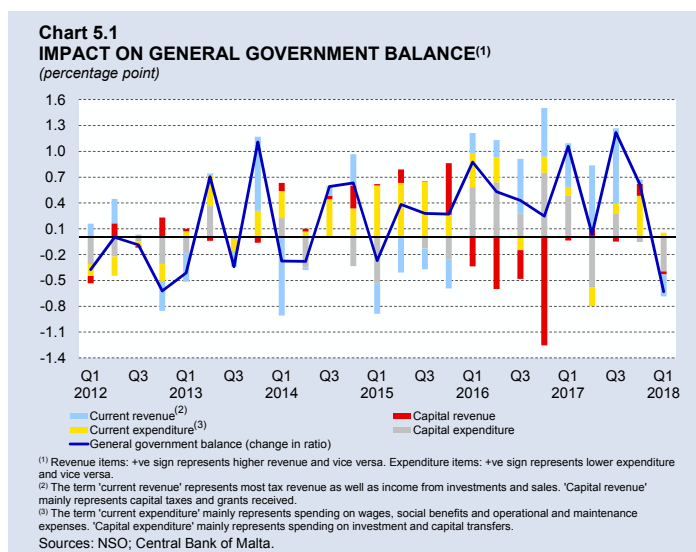
In March, the stock of general government debt amounted to €5,691.5 million, an increase of €48.8 million when compared with December 2017. This was mainly due to issues of Treasury Bills as outstanding long-term debt decreased. Indeed, during the first three months of 2018, the share of short-term securities (composed of Treasury Bills) increased by 1.6 percentage points to reach 4.7%. On the other hand, the stock of long-term securities (composed of Malta Government Stocks) declined by €43.3 million. As a result, their share in total government debt declined by 1.5 percentage points, to 86.7%. Meanwhile, the share of currency and deposits and loans remained unchanged at 3.1% and 5.5% respectively.

Compared with the first quarter of 2017, government debt decreased by €199.6 million, mainly due to lower outstanding issues of long-term debt securities.

Developments in headline balance and debt ratios to GDP

Headline balance remains in surplus, debt ratio falls further

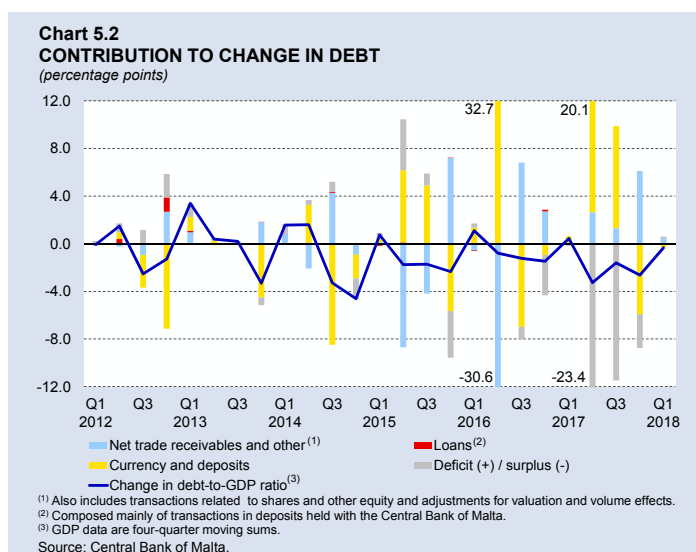
On a four-quarter moving sum basis, the general government balance remained in surplus over the period ending March 2018. Nevertheless, the surplus-to-GDP ratio declined from 3.9% of GDP at the end of 2017 to 3.3% in the first quarter of 2018. This was mainly due to an increase in the share of capital expenditure in GDP (see Chart 5.1), which rose by 0.4 percentage point. This was augmented by a 0.3 percentage point decrease in current revenue, reflecting lower IIP revenue as outlined above.



Developments in current expenditure and capital revenue had a marginal impact on the balance; the former had a positive impact on the general government balance as its share to GDP decreased by 0.1 percentage point. Meanwhile, the share of capital revenue in GDP remained unchanged.

At the same time, the government debt-to-GDP ratio declined by 0.3 percentage point to reach 50.4%. This was due to the denominator effect – debt increased in level terms but this was offset by a greater increase in GDP. Indeed, the rise in general government debt was higher than the general government deficit registered during the first quarter of 2018. The difference was due to a positive deficit-debt adjustment that largely reflected an increase in net trade receivables (see Chart 5.2).

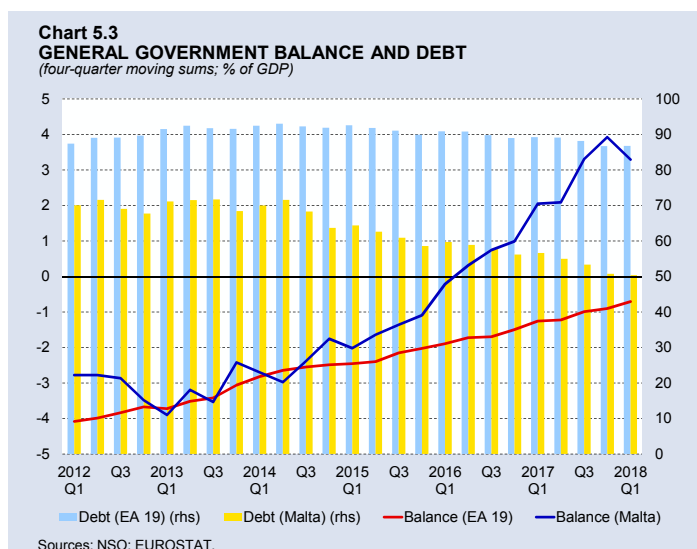
When compared with the four-quarter period to March 2017, the general government balance ratio improved by 1.2 percentage points, mainly due to a 1.4 percentage points increase in the share of current revenue in GDP, and a 0.4 percentage point decline in the current spending-to-GDP ratio. These developments offset a 0.8 percentage point increase in the share of capital expenditure in GDP. Further details are available below.



In this period, the debt stock declined as Government had less need to resort to additional financing. Consequently, between the first quarter of 2017 and March 2018, the general government debt-to-GDP ratio declined by 6.2 percentage points.

Malta's fiscal position compares favourably with that in the euro area

Developments in Maltese public finances compare favourably with the euro area average (see Chart 5.3). On balance, the euro area general government deficit narrowed markedly since 2012, reaching 0.7% of GDP in the four-quarter moving period up to March 2018. Meanwhile, the debt-to-GDP ratio is on a downward trend, reaching 86.8% in the first quarter of 2018. However, the Maltese government balance improved at a much faster pace from 2016 onwards, while the debt ratio has declined to well below the 60% threshold referenced in the Stability and Growth Pact.

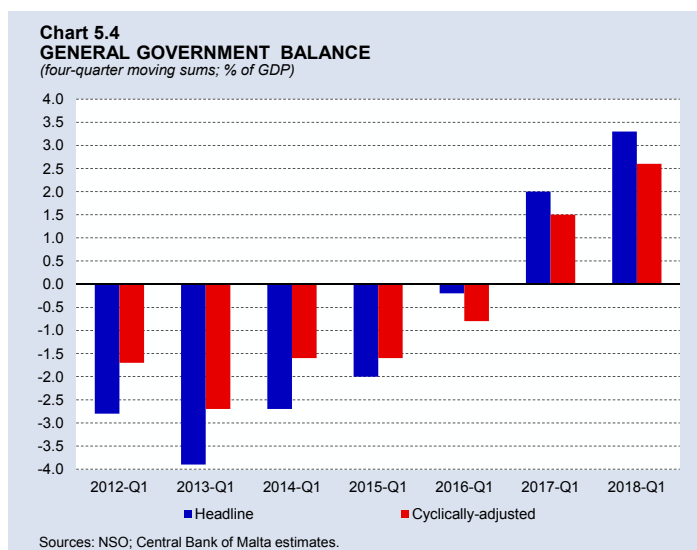


Cyclically-adjusted balance¹

Cyclically-adjusted balance improves

Overall, in the four quarters up to March 2018, the cyclically-adjusted surplus was lower than the headline surplus recorded for this period (see Chart 5.4). This mainly reflects the adjustment for growth in tax revenue, for which developments in the underlying macroeconomic items are estimated to be growing above trend.

Compared with the four-quarter period ending 2017Q1, the cyclically-adjusted surplus improved markedly, reaching



¹ The cyclically-adjusted balance is corrected for the impact of the economic cycle on government tax revenue and unemployment assistance. To compute this adjustment, the Bank applies a different methodology from the one used by the European Commission. For an overview of the methodologies currently in use, see Farrugia, J. (2014). *Estimating the Cyclically Adjusted Budget Balance*. *Quarterly Review* 2014(2), pp. 59-66, Central Bank of Malta.

Table 5.2
CHANGES IN CYCLICALLY-ADJUSTED FISCAL COMPONENTS

Percentage points of GDP

	2012 Q1	2013 Q1	2014 Q1	2015 Q1	2016 Q1	2017 Q1	2018 Q1
Revenue	0.3	0.1	-0.4	-0.2	-1.2	-0.2	1.4
Taxes on production and imports	0.2	-0.8	0.3	-0.4	-0.6	0.1	0.1
Current taxes on income and wealth	-0.3	1.1	-0.6	0.2	-0.9	0.6	0.5
Social contributions	0.0	-0.1	-0.2	-0.4	-0.3	0.0	0.1
Other ⁽¹⁾	0.4	-0.1	0.1	0.4	0.6	-0.8	0.8
Expenditure	0.2	1.1	-1.5	-0.2	-2.0	-2.5	0.3
Compensation of employees	0.0	0.0	-0.2	-0.4	-0.6	-0.1	0.0
Intermediate consumption	0.4	0.0	-0.6	0.0	0.4	-0.1	0.4
Social benefits	-0.5	0.3	-0.5	-0.8	-0.8	-0.2	-0.3
Interest payments	-0.1	-0.2	-0.2	-0.1	-0.3	-0.3	-0.3
Gross fixed capital formation	0.5	0.5	-0.2	0.6	0.3	-1.7	-0.1
Other ⁽²⁾	0.0	0.5	0.2	0.6	-1.1	-0.1	0.6
Primary balance	0.1	-1.2	0.9	-0.2	0.5	2.1	0.9
General government balance	0.1	-1.0	1.1	0.0	0.8	2.3	1.1

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

⁽²⁾ Mainly includes subsidies, current and capital transfers.

Sources: NSO; Central Bank of Malta estimates.

2.6% of GDP from 1.5% in the previous period. This shows that the improvement in the government balance was largely supported by factors other than the economic cycle.

The improvement in the cyclically-adjusted balance ratio is largely due to higher revenues as a share of GDP, which rose by 1.4 percentage points (see Table 5.2). In turn, this was mainly driven by a 0.8 percentage point increase in the share of 'other' revenue in GDP, buoyed by higher inflows from the IIP scheme over the four quarter period under review, which captures the sharp increase in revenue from this scheme in 2017. At the same time, the share of revenue from current income and wealth increased by 0.5 percentage point, reflecting higher receipts from income taxes. The latter is partly due to the implementation of new administrative procedures affecting corporate income tax revenue in 2017.² Other forms of revenue did not have a significant impact on the budget balance ratio.

Overall, the share of cyclically-adjusted expenditure in GDP increased, but failed to offset growth in revenue. The share of intermediate consumption and 'other' expenditure in GDP increased in the period under review, respectively due to higher outlays on the EU Presidency and health care as well as capital transfers. At the same time, however, outlays on social benefits, interest payments and gross fixed capital formation grew at a slower pace than GDP.

² For further details, see Chapter 3.1.1 of the Stability Programme Update 2018-2021.

6. MONETARY AND FINANCIAL DEVELOPMENTS

The Bank's Financial Conditions Index continued to signal broadly neutral financial conditions in the first quarter of 2018.

As regards monetary dynamics, Maltese residents' deposits with monetary and financial institutions (MFI) in Malta continued to expand during the first quarter of 2018, albeit at a slower pace.¹ The shift to overnight deposits persisted, in an environment of low interest rates and a continued preference for liquidity. At the same time, credit growth picked up compared with December, reflecting faster growth in credit to residents outside general government. Growth in mortgage loans to households remained strong, while growth in bank loans to non-financial corporations (NFC) showed the first signs of recovery after an extended period of decline. Nonetheless, financial accounts data shows that NFCs continue to seek alternative sources of finance. The spread between MFI interest rates on loans and deposits continued to widen during the period under review.

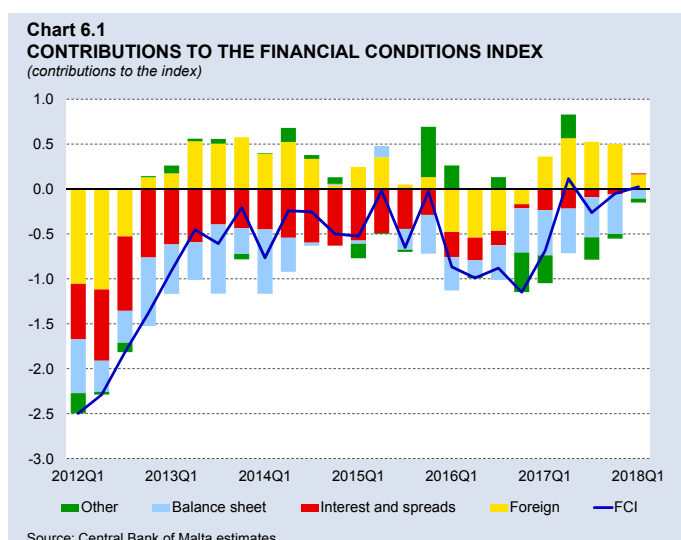
During the first quarter of 2018, the primary market yield on Treasury bills rose, while the secondary market yield on ten-year Malta Government Stocks (MGS) declined. In the equity market, domestic share prices fell during the quarter under review.

Monetary and financial conditions

Financial conditions remain broadly neutral

The Bank monitors domestic financial conditions through a summary measure that combines a number of local and international financial variables that influence economic activity.²

Financing conditions in the first quarter of 2018 were broadly neutral when compared with historical levels, as positive contributions from foreign influences were counterbalanced by negative contributions from balance sheet and other indicators (see Chart 6.1). In particular, systemic stress in the euro area remains low when compared with historical levels, which contributes to the positive contribution of foreign influences in the FCI. On the other hand, real credit during the first quarter of this year remained low as loans to non-financial corporations remained at historically low levels, thus contributing negatively to the FCI.



¹ Monetary data analysed in this Chapter are compiled on the basis of statistical standards found in the Statistics section on the Central Bank of Malta website.

² The analysis in this section is based on the Bank's Financial Conditions Index (FCI), as described in Micallef, B., & Borg, I., "A Financial Conditions Index for the Maltese Economy", in Grech, A.G., & Zerafa, S. (eds.), *Challenges and Opportunities of Sustainable Economic Growth: the case of Malta*, Central Bank of Malta, 2017, and later updated in the Central Bank of Malta, *Annual Report 2017*.

During the quarter under review, the FCI remained broadly at the same level estimated for the last quarter of 2017, as improvements in balance sheet indicators were broadly offset by some deterioration in foreign variables. In particular, the negative contribution of real credit has declined significantly as NFC loans started to recover after a long period of declines. On the other hand, the contribution of euro area equity prices turned negative in 2018Q1, after significant gains in the previous quarter.

Maltese residents' deposits expand at a slower pace

Total deposits held by Maltese residents with MFIs in Malta continued to expand during the first quarter of 2018, albeit at a slower pace. In March, the annual rate of change of residents' deposits stood at 4.3%, down from 5.0% three months earlier (see Table 6.1). Growth in residents' deposits had averaged 11.0% between 2014 and 2017, and recent data suggests normalisation following a period of historically strong growth, brought about by elevated liquidity in the context of robust economic activity, strong population growth and low interest rates.

Annual growth in overnight deposits stood at 8.6% in March, down from 10.2% in December. Despite this moderation, overnight deposits remained the preferred medium of residents' deposits during the first quarter of 2018, reflecting a continued preference for liquidity, particularly among households. The share of this category in total deposits stood at 75.3% in March, from 72.3% a year earlier (see Chart 6.2). This share has grown considerably in recent years; in the first quarter of 2014, the share of this category stood at 54.6%.

Meanwhile, demand for time deposits continued to decline. In particular, deposits with an agreed maturity of up to two years contracted by 3.7% in the year to March, while deposits with an agreed

Table 6.1
DEPOSITS OF MALTESE RESIDENTS

	EUR millions 2018 Mar.	Annual percentage changes				
		2017		2018		
		Mar.	June	Sep.	Dec.	Mar.
Overnight deposits	13,567	17.0	15.2	12.4	10.2	8.6
<i>of which</i>						
Households	7,984	20.7	18.8	18.1	15.8	16.2
Non-financial corporations	3,386	11.5	2.6	5.2	4.9	9.6
Deposits redeemable at notice of up to three months	45	-18.0	-49.5	-53.8	-56.2	-50.7
<i>of which</i>						
Households	37	-15.9	-46.4	-48.6	-51.5	-54.4
Non-financial corporations	6	-35.6	-83.7	-88.1	-69.5	-32.7
Deposits with an agreed maturity of up to two years	3,056	-9.7	-8.1	-2.1	-1.6	-3.7
<i>of which</i>						
Households	2,401	-6.2	-6.1	-2.9	-3.1	-4.8
Non-financial corporations	265	-37.0	-4.9	10.8	23.7	6.1
Deposits with an agreed maturity above two years	1,350	-7.0	-8.7	-15.8	-17.5	-11.0
<i>of which</i>						
Households	1,236	-9.1	-10.8	-16.9	-17.7	-11.6
Non-financial corporations	63	-0.7	15.2	-14.7	-29.7	3.7
Total residents' deposits⁽¹⁾	18,018	8.4	7.6	6.4	5.0	4.3

⁽¹⁾ Total residents' deposits exclude deposits belonging to central government.

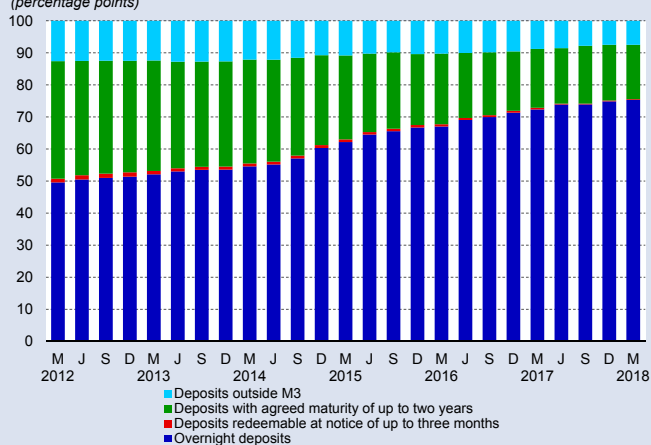
Source: Central Bank of Malta.

maturity of over two years shed 11.0% over the same period. As a result, the share of deposits with an agreed maturity of up to two years declined to 17.0%, from 18.4% a year earlier, while that of deposits with an agreed maturity of over two years edged down to 7.5%, from 8.8%. The share of deposits redeemable at notice of up to three months remained small.

Credit to residents expands at a faster pace

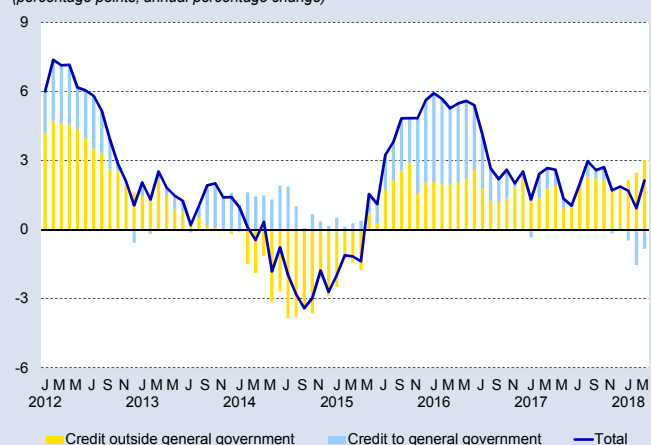
MFI credit to Maltese residents expanded by 2.1% during the first quarter of 2018, following 1.9% growth in the previous quarter (see Table 6.2 and Chart 6.3). The faster rate of growth was driven by movements in credit to residents outside general government, which rose at an annual rate of 4.0% in March, from 2.4% in December. In contrast, credit to general government, which is mainly determined by changes in MFI holdings of Malta Government Stocks, fell in annual terms.

Chart 6.2
DISTRIBUTION OF TOTAL RESIDENT DEPOSITS⁽¹⁾
(percentage points)



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

Chart 6.3
COMPOSITION OF CREDIT TO RESIDENTS OF MALTA
(percentage points; annual percentage change)



Source: Central Bank of Malta.

Table 6.2
MFI CREDIT TO MALTESE RESIDENTS

	EUR millions 2018 Mar.	Annual percentage changes				
		2017 Mar.	June	Sep.	Dec.	2018 Mar.
Credit to general government	3,074	3.6	0.3	1.5	0.2	-3.4
Credit to residents outside general government	10,179	2.4	1.3	2.9	2.4	4.0
Securities & Equity	411	-10.2	-7.3	-8.8	-4.9	-1.2
Loans	9,767	3.0	1.7	3.5	2.7	4.2
of which:						
Loans to Households	5,214	6.4	6.0	6.6	6.6	6.9
Mortgages	4,646	8.3	8.3	8.6	8.2	8.3
Consumer Credit and Other Lending	569	-5.6	-8.8	-6.6	-4.2	-3.3
Loans to NFCs ⁽¹⁾	3,703	-3.0	-4.4	-1.6	-1.8	0.1
Total credit to residents	13,245	2.7	1.0	2.6	1.9	2.1

⁽¹⁾ NFCs include sole proprietors and non-profit institutions serving households.

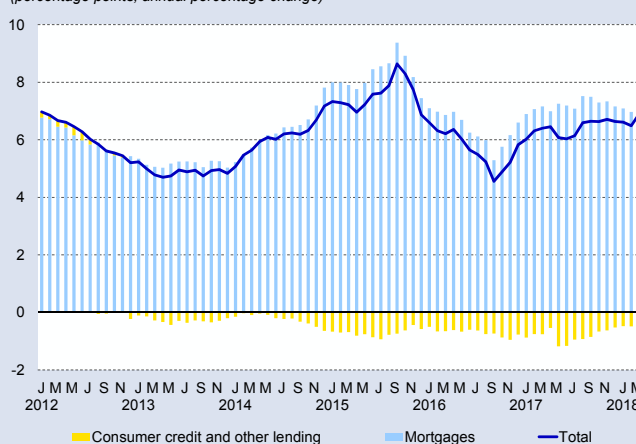
Source: Central Bank of Malta.

The acceleration in credit outside general government was driven by a continued expansion in loans, which rose by 4.0% in the year to March. Loan growth was supported by loans to households, which were up by 6.9% in March. In particular, annual growth in mortgage loans remained robust at 8.3%, offsetting a further annual contraction of 3.3% in consumer credit and other lending (see Table 6.2 and Chart 6.4).

At the same time, annual growth in bank lending to NFCs picked up to 0.1% in March, from -1.8% three months earlier (see Table 6.2). This was the first positive reading since the end of 2014. A sectoral breakdown suggests that recent developments were driven by an increase in the contribution of loans to the construction and real estate sectors, which form the largest component of bank lending to NFCs (see Chart 6.5).

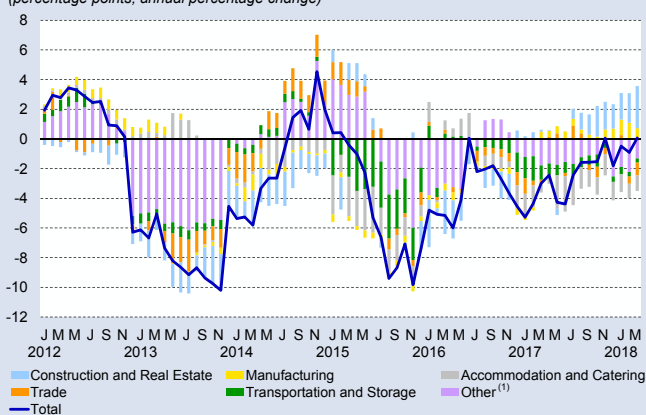
The recent weakness in bank lending to NFCs contrasts with the current pace of economic activity, and could reflect the increased use of internal funding by companies, a shift away from capital-intensive industries, and an overall shift in banks' loan portfolios towards households and away from NFCs.³ Indeed, data from the Financial Accounts shows that the share of bank loans in NFC debt has been in almost constant decline over the past years, standing at 22.8% in the first quarter of 2018 (see Chart 6.6). The largest source of NFC debt, with a share of 46.6%, remained intrasectoral lending, which could reflect intra-group finance. Loans from the rest of the world (ROW), which mainly comprise loans from foreign banks or companies, made up 17.9% of NFC debt, while the share of loans from other sources was 8.2%.⁴ Debt securities accounted for 4.5% of NFC debt in the first quarter of 2018, hence remaining the smallest source of debt.

Chart 6.4
COMPOSITION OF LOANS TO HOUSEHOLDS
(percentage points; annual percentage change)



Source: Central Bank of Malta.

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



(¹) Other NFCs include companies operating in sectors such as energy, entertainment, health, education, professional services, communication, and administration.
Source: Central Bank of Malta.

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

⁴ Loans from other sources include loans from non-bank financial institutions, households, and government.

Nonetheless, the share of debt securities in NFC debt has increased in recent years, which could reflect increased usage of capital markets by large companies. This upward trend is confirmed by data on outstanding corporate debt listed on the Malta Stock Exchange (MSE), which has increased considerably over the past years, standing at €1.1 billion in March 2018 (see Chart 6.7). This was 18.7% higher than the outstanding debt stock twelve months earlier.⁵ Issuance of publicly listed equities has also increased, reaching €1.7 billion units in March. This was 9.6% higher in annual terms.

Interest rate spread between deposit and lending rate widens

Interest rates on residents' deposits with MFIs in Malta declined in the year to March 2018, with the weighted average deposit rate offered to households and NFCs going down by 8 basis points to 0.37% (see Table 6.3).⁶ This was mainly driven by a drop in rates on household deposits, particularly on longer-term time deposits. Rates on NFC deposits rose marginally over the same period.

The weighted average lending rate paid to resident MFIs by households and NFCs stood unchanged at 3.64% when compared with March 2017. While rates paid by households dropped marginally, those paid by NFCs increased slightly. Indeed, lending rates to NFCs remained above those charged to households, possibly reflecting different assessments of credit risk.

As a result, the spread between the weighted average lending rate and the deposit rate stood at 328 basis points in March 2018. When compared with a year earlier, this signifies a widening of

Chart 6.6
NFC DEBT BY SOURCE
(end-of-year stocks in EUR billion)

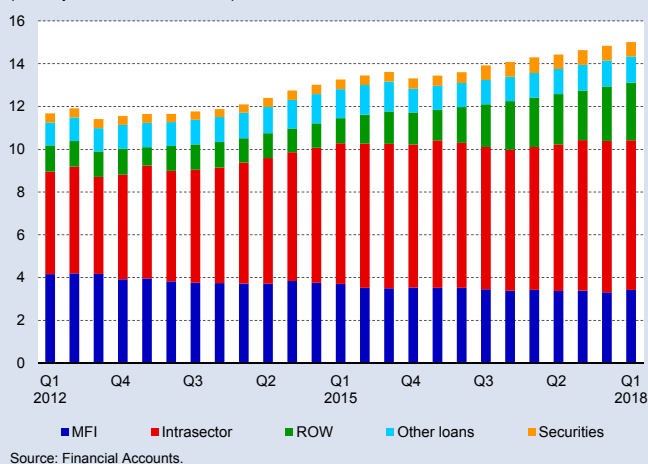
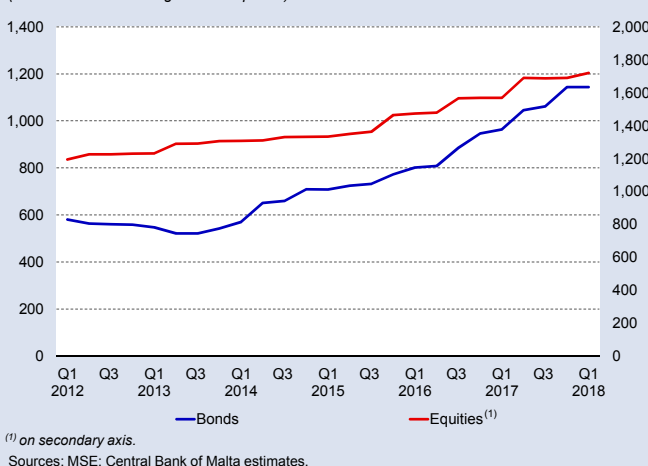


Chart 6.7
CAPITAL ISSUED ON MSE BY NFCs
(million units outstanding as at end-period)



⁵ A number of companies have also obtained capital from the recently launched MSE platform Prospects, which is mainly geared towards Small and Medium-Sized Enterprises (SME) issuing debt of not more than €5 million.

⁶ Basis points are rounded to the nearest whole number, and hence may not exactly match the figures given in the table.

Table 6.3
INTEREST RATES ON DEPOSITS AND LOANS

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

	2015 Mar.	2016 Mar.	2017 Mar.	2017 June	2017 Sep.	2017 Dec.	2018 Mar.
Total deposits⁽¹⁾	0.93	0.64	0.45	0.42	0.40	0.38	0.37
<i>of which</i>							
Overnight deposits							
Households	0.15	0.11	0.06	0.07	0.06	0.07	0.06
Non-financial corporations	0.17	0.09	0.03	0.02	0.03	0.04	0.06
Time deposits (less than 2 years)							
Households	1.53	0.98	0.79	0.79	0.78	0.78	0.75
Non-financial corporations	1.33	0.80	0.61	0.60	0.57	0.54	0.59
Time deposits (more than 2 years)							
Households	3.35	2.90	2.54	2.45	2.48	2.41	2.28
Non-financial corporations	2.70	2.13	1.89	1.89	1.99	1.98	2.04
Total Loans⁽¹⁾	3.98	3.78	3.64	3.66	3.63	3.64	3.64
<i>of which</i>							
Households and NPISH	3.68	3.58	3.49	3.52	3.50	3.48	3.46
Non-financial corporations	4.36	4.06	3.87	3.87	3.83	3.91	3.93
Spread⁽²⁾	3.05	3.14	3.19	3.24	3.22	3.26	3.28
ECB main refinancing operations rate	0.05	0.00	0.00	0.00	0.00	0.00	0.00

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

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

Source: Central Bank of Malta.

8 basis points, suggesting that the transmission of the European Central Bank's (ECB) monetary policy easing measures to retail lending rates remained weaker than that to deposit rates.

Bank Lending Survey indicates unchanged credit standards

The majority of banks that participated in the April 2018 Bank Lending Survey (BLS) reported unchanged credit standards, and credit terms and conditions on loans to NFCs in Malta during the first quarter of 2018. Only one bank reported some tightening in credit terms and conditions. In contrast, the assessment of NFCs' demand for credit was mixed, with half of the banks reporting an increase in demand, whilst the remaining banks reported a decline. Generally, respondent banks did not anticipate any changes in credit standards and in corporate demand for credit in the second quarter of the year.

During the first quarter of 2018 the majority of banks reported unchanged credit standards for house purchases and consumer credit. Credit terms and conditions for consumer credit were also mostly unchanged. In contrast, mixed results were reported with regards to credit terms and conditions for house purchases. Half of the participating banks reported unchanged conditions, whilst the remaining reported some easing. As regards the demand for credit for house purchase and other consumer credit, half of the participating banks reported an increase, while the remaining half reported unchanged demand.

Going forward, banks anticipated no changes in credit standards, with the exception of one bank which anticipated some easing for consumer credit and other lending. The majority of

banks also predicted unchanged demand in the second quarter of 2018, though one bank anticipated an increase.

The majority of banks participating in the April BLS reported no changes in market access to wholesale and retail funding and their risk transfer capability as a result of the prevailing situation in financial markets. One bank however, reported some impact on selected segments of its retail funding operations and the unsecured segment of its inter-bank money market. All participating banks expected their market access to wholesale and retail funding to remain unchanged in the second quarter of 2018, though one bank anticipated a small deterioration in its retail funding for short-term deposits.

The banks were also asked to compare the current level of standards for loans to enterprises and households with those in the first quarter of 2003 and with those in the second quarter of 2010. In comparison with 2003, the banks generally reported tighter standards for loans to enterprises than the midpoint of the range. Developments in credit standards on loans to households are assessed to have been more mixed, with half of the banks reporting tighter conditions for both house purchases and consumer credit, one bank reporting some loosening for house purchases and another bank reporting very similar standards to those prevailing in 2003. Another bank assessed that such standards had remained very close to the midpoint of the range.

A comparison of the bank's credit standards with those applied in the second quarter of 2010 shows that most of the participating banks reported moderately tighter standards for loans to enterprises. One bank, however, reported somewhat looser standards for loans to large enterprises. Developments in loans to households were more mixed, with half of the banks reporting moderately tighter standards for both consumer loans and loans for house purchases, while the other banks reported similar or looser standards.

Reporting banks were also asked to gauge the impact of the expanded asset purchase programme (APP) on their financial situation and assets. The majority of banks claimed that the APP had no impact on their operations in the past six months and no changes were expected for the next six months, though one bank reported an improvement in its overall liquidity position and financing conditions both in the past and also going forward. There was no impact on the participating banks' credit standards, lending volumes and terms and conditions.

As regards the ECB's negative deposit facility rate, most of the banks reported a negative impact on their net interest income. As regards lending conditions for NFCs and households, in general no impact was reported. However, half of the banks reported some loosening in lending rates and margins on loans to enterprises. For the six months ahead, banks again anticipated a small decline in their net interest income and in rates and margins on loans to enterprises. Another bank also anticipated some loosening in margins and lending rates on loans to households and some increase in lending volumes.

The money market

Domestic money market interest rates rose

The ECB maintained its key interest rates unchanged during the first quarter of 2018. The three-month EURIBOR stood at -0.33%, unchanged from the rate prevailing at the end of December 2017. Meanwhile, secondary market yields on three-month German government securities,

which act as a benchmark for euro area yields, rose marginally to -0.81% at the end of the first quarter 2018, from -0.82% at the end of December (see Chart 6.8).

In the domestic primary market, the yield on three-month Treasury bills rose to -0.35% in March from -0.38% in November 2017.⁷ As the yield on the euro area benchmark also rose during this period, the spread between this rate and the yield on domestic three-month Treasury bills narrowed. At the end of March, it was 46 basis points, down from 55 basis points at end-November.

The Government issued €212.0 million in Treasury bills between January and March 2018, €22.0 million less than the amount of €234.0 million issued during the fourth quarter of 2017.

The capital market

The Government did not issue any new MGSs during the first quarter of 2018. Similarly, over the same period, no bonds were issued by public limited companies. Meanwhile, by the end of March 2018, six firms had listed bonds through Prospects, up from five in December, bringing the total amount of bond issues through this facility to €15.5 million.⁸

In the secondary market, government bonds turnover fell to €53.5 million during the first quarter of 2018, from €86.8 million during the fourth quarter of 2017. Meanwhile, turnover in corporate bonds fell marginally to €20.0 million from €20.5 million in the preceding quarter.

Secondary market yields on Maltese government bonds rose during the first quarter of 2018 (see Chart 6.9). The yield on five-year bonds ended March at 0.30%, higher than that of 0.19% at end-December. In contrast, the yield on ten-year bonds fell by 8 basis points, ending March at 1.12%. In the

Chart 6.8
MONEY MARKET INTEREST RATES
(percentages per annum; end of month rates)

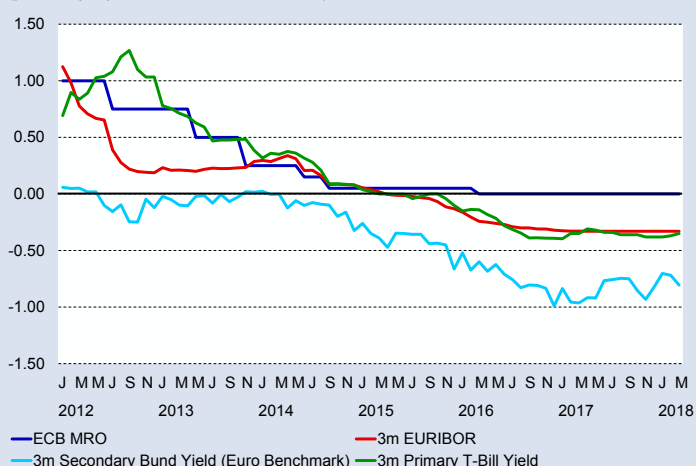
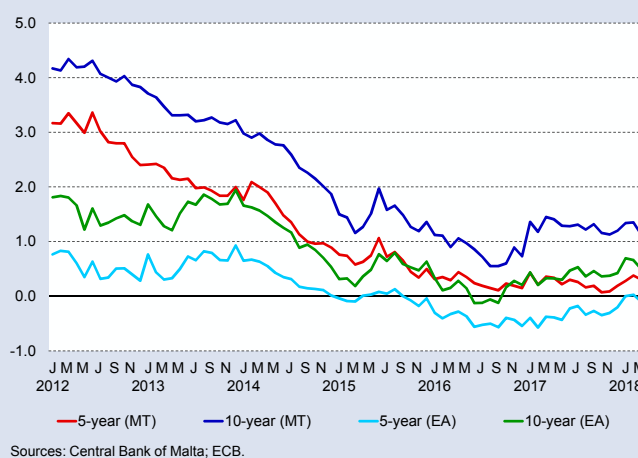


Chart 6.9
GOVERNMENT BOND YIELDS
(percentages per annum; end of month)



⁷ No transactions took place in the primary market in December.

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

euro area, the comparable five-year yield rose by 10 basis points to -0.10% at end-March, while the ten-year yield gained 7 basis points to reach 0.49%. Thus, the spread against the ten-year euro-area benchmark yield narrowed to 63 basis points in the first quarter of 2018, from 78 basis points at the end of 2017.

MSE share index ended March at lower levels

Share prices in Malta, as measured by the MSE Equity Price Index, ended March 0.8% lower than three months earlier, and 5.2% below the level in March 2017 (see Chart 6.10). The MSE Equity Total Return Index, which accounts for changes in equity prices and dividends, declined by 0.1% from the level recorded at the end of December.

Equity turnover stood at €23.3 million during the first quarter of 2018, largely unchanged from the amount registered during the last quarter of 2017.

