
BANK ĊENTRALI TA' MALTA

EUROSISTEMA

CENTRAL BANK OF MALTA

# QUARTERLY REVIEW

# 2018

**Vol. 51 No. 1**

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*The cut-off date for statistical information published in the Economic Survey of this Review is 18 January 2018 unless otherwise indicated. Figures in tables may not add up due to rounding.*

ISSN 1811-1254 (online)

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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 |
| EU | European Union |
| EURIBOR | Euro Interbank Offered Rate |
| 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 |
| NACE | statistical classification of economic activities in the European Community |
| NEIG | non-energy industrial goods |
| NFC | non-financial corporation |
| NPISH | non-profit institutions serving households |
| NSO | National Statistics Office |
| PPI | Producer Price Index |
| RPI | Retail Price Index |
| SME | small and medium-sized enterprises |
| ULC | unit labour cost |

# FOREWORD

The Maltese economy continued to grow at a solid pace in the third quarter of 2017, with real gross domestic product (GDP) rising by 7.2% on an annual basis, following a 7.9% increase in the previous quarter. Economic growth was driven by both domestic demand and net exports.

Labour market conditions remained favourable, as employment grew further and the unemployment rate reached an all-time low of 4.0%. This partly reflected increased labour market participation and improved job matching in the context of a buoyant economy.

Price pressures were moderate, with the annual growth rate of the Harmonised Index of Consumer Prices standing at 1.2% in September, slightly higher than the rate of 1.0% registered in June. Services inflation picked up, as did energy inflation. On the other hand, food inflation and non-energy industrial goods inflation weakened.

Domestic cost inflation continued to build up, with the Producer Price Index growing at a faster pace on an annual basis, mostly as a result of developments in the intermediate goods sub-sector. As regards measures of competitiveness, the annual rate of change in Malta's unit labour costs turned negative, when measured on a four-quarter moving sum basis, signalling an improvement in labour cost competitiveness. In contrast, the Harmonised Competitiveness Indicators rose and continued to indicate a deterioration in competitiveness, owing mainly to unfavourable exchange rate movements.

Monetary aggregates in Malta grew at a steady pace during the third quarter of 2017. Residents' deposits with monetary financial institutions operating in Malta continued to increase at a solid pace, in annual terms, driven by growth in overnight deposits. Meanwhile, credit to residents of Malta accelerated, supported by faster growth in credit to general government and loans to households and a weaker drop in loans to non-financial corporations.

In the context of limited price pressures in the euro area, the Governing Council of the European Central Bank maintained an accommodative monetary policy stance. The interest rates on main refinancing operations, marginal lending facility and 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). However, in October, the Governing Council decided to reduce, as of January 2018, monthly purchases to €30 billion until the end of September 2018, or beyond, if necessary. The Governing Council also confirmed that it continues to expect rates to remain at present levels for an extended period of time, and well past the horizon of the net asset purchases.

As a result of these accommodative monetary conditions, interest rates on deposits held by Maltese residents declined further during the third quarter. Interest rates on loans to Maltese residents dropped slightly. Similarly, yields on Treasury bills and longer-term government bonds fell.

As regards public finances, during the third quarter of 2017, the general government surplus increased significantly on the corresponding period a year earlier, as the rise in government

revenue was more pronounced than that in government expenditure. When measured as a four-quarter moving sum, the general government surplus reached 3.3% of GDP, from 2.1% in the second quarter of 2017. Meanwhile, general government debt as a share of GDP, decreased to 54.9% at the end of September, from the 56.5% at the end of June.

# ECONOMIC SURVEY

## 1. THE EXTERNAL ENVIRONMENT AND THE EURO AREA

*In the third quarter of 2017, economic growth as measured by real gross domestic product (GDP) remained unchanged in the euro area and the United States, but edged up slightly in the United Kingdom. The three-month average unemployment rate edged down in the euro area and the United Kingdom, but was unchanged in the United States.*

*Inflationary pressures generally increased. In the euro area, annual consumer price inflation rose to 1.5% in September from 1.3% in June. The increases were even more pronounced in the United States and the United Kingdom, with inflation reaching 2.2% and 3.0%, respectively. In all three countries, the central bank maintained an accommodative monetary policy stance, with key policy rates remaining on hold at very low levels and with the continued implementation of asset purchase programmes to stimulate the economy.*

*Brent oil prices generally rose during the third quarter as demand remained strong, geopolitical tensions rose and expectations of a possible extension of the agreement between OPEC and non-OPEC members increased. Non-energy commodity prices also rose during the third quarter of 2017.*

### Key advanced economies

#### *US economy grows at the same pace*

Quarter-on-quarter GDP growth in the United States remained unchanged at 0.8%, in the third quarter of 2017, compared with the preceding three-month period (see Table 1.1).

The increase in real GDP was driven primarily by personal consumption expenditure, changes in inventory and private non-residential investment. Net exports and government spending also supported the expansion, although their contribution was more limited. On the other hand, residential fixed investment contributed negatively to GDP growth.

In the labour market, the participation rate rose by 0.2 percentage point between June and September, to 63.0%, while the annual rate of employment growth rose to 1.7%, from 1.4%. Payroll data show that the pick-up in employment growth between June and September reflected faster growth in the number of employees working in the manufacturing sector and in the mining and logging sector.

**Table 1.1**
**REAL GDP GROWTH IN SELECTED ADVANCED ECONOMIES**
*Quarter-on-quarter percentage changes; seasonally and working day adjusted*

| | 2016 | | | | 2017 | | |
|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| United States | 0.1 | 0.6 | 0.7 | 0.4 | 0.3 | 0.8 | 0.8 |
| Euro area | 0.5 | 0.4 | 0.4 | 0.7 | 0.6 | 0.7 | 0.7 |
| United Kingdom | 0.2 | 0.5 | 0.5 | 0.7 | 0.3 | 0.3 | 0.4 |

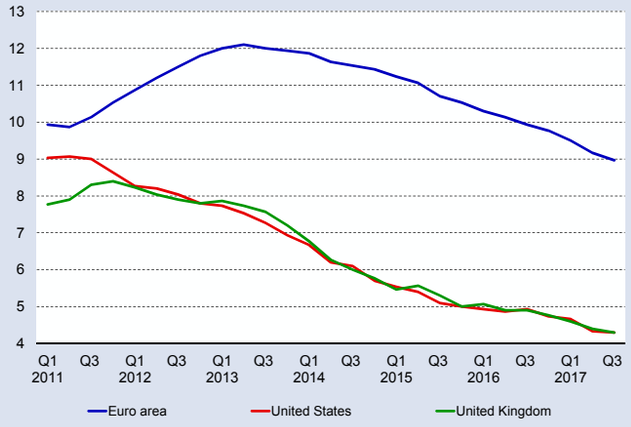
Sources: Bureau of Economic Analysis, US; Eurostat; Office for National Statistics, UK.

The unemployment rate fell to 4.2% in September from 4.3% in June. On a three-month average basis, the jobless rate remained unchanged at 4.3% (see Chart 1.1).

The annual rate of change of the US consumer price index (CPI) stood below the 2% target of the Federal Reserve, in July and August, before edging up to 2.2% in September (see Chart 1.2). The increase in the inflation rate was mainly attributable to a substantial rise in energy prices. Food price inflation also edged up. In contrast, inflation excluding food and energy, remained unchanged at 1.7%

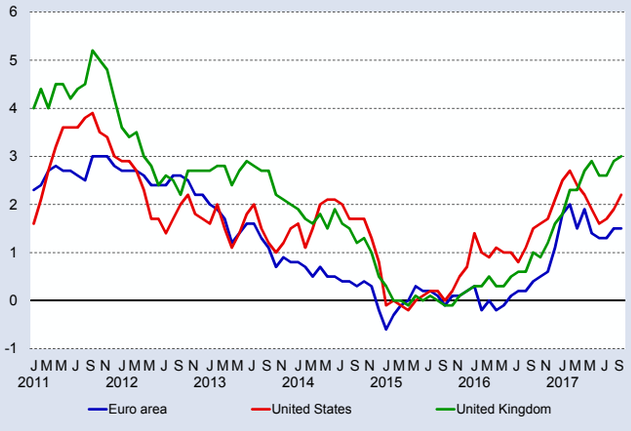
In its meeting held towards the end of July and in mid-September, the Federal Open Market Committee (FOMC) kept the target rate for the federal funds rate unchanged in a range between 1.00% and 1.25% (see Chart 1.3). The Committee reiterated that the stance of monetary policy remains accommodative, thereby supporting some further strengthening in the labour market and a sustained return to 2% inflation. 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. It also announced that it would begin implementing its balance sheet normalisation program, in October. The Committee also said

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



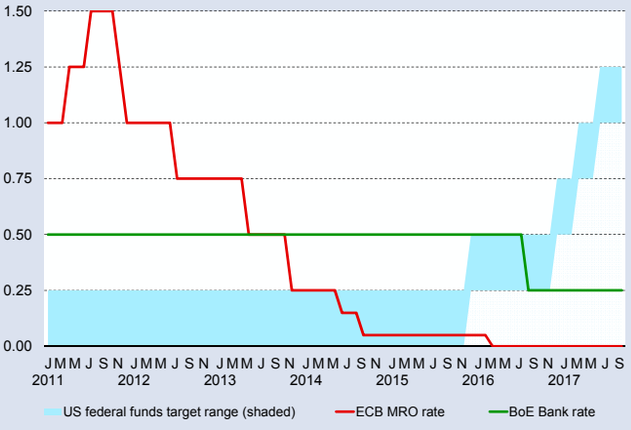

Sources: Eurostat; US Bureau of Labor Statistics; Office for National Statistics, UK.

**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.

that economic conditions are expected to evolve in a manner that they would warrant gradual increases in the federal funds rate. At the same time, the federal funds rate is likely to remain, for some time, below levels that are expected to prevail in the longer run.[1]

### *UK economic growth increases marginally*

In the United Kingdom, quarter-on-quarter GDP grew at 0.4% in the third quarter of 2017, up from 0.3% in the previous quarter (see Table 1.1). Private consumption increased at a slightly faster pace, offsetting slower growth in investment and net exports, along with lower government spending.

In the labour market, employment rose at an unchanged annual rate of 1.2% in the September quarter, compared with the previous quarter. Unemployment averaged 4.3% in the three months to September, 0.1 percentage point lower than the average for the second quarter (see Chart 1.1).

Consumer price inflation remained unchanged in July, before increasing in the following two months (see Chart 1.2). In September, the annual rate of inflation reached 3.0%, up from 2.6% in June. Energy prices accelerated as did those of food and non-energy industrial goods. The rate of increase in the prices of services remained unchanged. Inflation excluding energy, food, alcohol and tobacco rose to 2.7% in September, from 2.4% in June.

In August and September, the Bank of England's Monetary Policy Committee maintained the Bank Rate unchanged at 0.25% (see Chart 1.3). All Committee members agreed that any prospective increases in Bank Rate would be at a gradual pace and to a limited extent. There remain considerable risks to the outlook, which include the response of households, businesses and financial markets to developments related to the process of EU withdrawal. The Committee added that it will continue to monitor closely the incoming evidence on these and other developments, and was ready to respond to changes in the economic outlook as they unfold to ensure a sustainable return of inflation to the 2% target. The Committee voted unanimously to maintain the stock of sterling non-financial investment-grade corporate bond purchases totalling up to GBP 10 billion, financed by the issuance of central bank reserves. It also maintained the stock of UK government bond purchases, financed by the issuance of central bank reserves, at GBP 435 billion.[2]

## The euro area

### *Euro area economy continued to grow moderately*

The euro area economy maintained moderate growth during the September quarter, with real GDP rising by 0.7% on a quarterly basis, the same rate as that registered in the previous quarter (see Table 1.2).

Net exports were the primary driver behind the expansion during the third quarter. Domestic demand also supported the expansion. Private consumption remained the largest contributor to growth in domestic demand, followed by government consumption. Together, these two components pushed up real GDP growth by 0.3 percentage point. Changes in inventories had a negligible impact on growth while gross fixed capital shed 0.1 percentage point.

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[1] This assessment was broadly confirmed at the FOMC's meetings held between October and November. In December, given the realised and expected conditions in the labour market and inflation, the FOMC increased the target range of the federal funds rate to between 1.25% and 1.50%.

[2] The Bank of England's Monetary Policy Committee increased the Bank Rate to 0.50% in November but kept the rate on hold in December.

**Table 1.2**
**CONTRIBUTIONS TO QUARTERLY REAL GDP GROWTH IN THE EURO AREA[(1)]**
*Seasonally and working day adjusted*

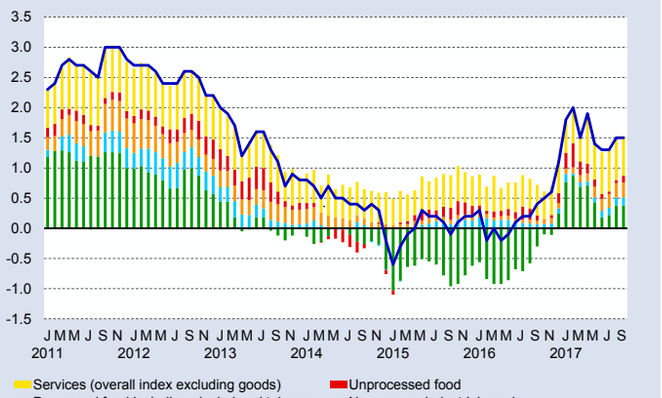
| | 2016 | | 2017 | | |
|---|---|---|---|---|---|
| | Q3 | Q4 | Q1 | Q2 | Q3 |
| | *Percentage point contributions* | | | | |
| Private consumption | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 |
| Government consumption | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 |
| Gross fixed capital formation | 0.1 | 0.2 | 0.0 | 0.4 | -0.1 |
| Change in inventories | 0.1 | 0.2 | -0.2 | 0.2 | 0.0 |
| Exports | 0.2 | 0.8 | 0.6 | 0.5 | 0.7 |
| Imports | -0.3 | -0.8 | -0.1 | -0.7 | -0.2 |
| **GDP** | **0.4** | **0.7** | **0.6** | **0.7** | **0.7** |

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

## *Euro area inflation rises*

During the third quarter, the annual rate of inflation in the euro area, measured on the basis of the Harmonised Index of Consumer Prices (HICP), accelerated when compared with June. The rate stood at 1.5% in September, up from 1.3% in June (see Chart 1.4).

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




Source: Eurostat.

The increase in the rate reflects faster growth in the prices of energy and food. The annual rate of change of prices of non-energy industrial goods also edged up slightly. In contrast, services inflation eased.

HICP excluding energy and food was unchanged at 1.1%.

## *Labour market conditions improve further*

Labour market conditions continued to improve during the third quarter of 2017. The number of employed increased again, with the annual rate of change standing at 1.7% in the quarter under review, higher than the 1.6% recorded in the previous quarter.[3] The unemployment rate continued to fall, with the seasonally adjusted rate standing at 8.9% in September from 9.1% in June. It was also lower than the rate of 9.9% recorded a year earlier. The three-month average eased from 9.2% in the second quarter to 9.0% in the third (see Chart 1.1).

## *Euro area to expand further*

The latest Eurosystem staff macroeconomic projections, published in December 2017, foresee a further expansion of the euro area economy in line with higher business and consumer sentiment.

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

Economic activity in the euro area is expected to be mainly supported by domestic demand, particularly fixed investment. The economy is set to benefit from improving labour conditions, favourable financing conditions as well as lower deleveraging. The accommodative monetary policy stance by the European Central Bank (ECB) is also expected to continue sustaining the recovery over the forecast horizon, while the expected global economic recovery should support euro area exports. Following the strong growth in the first three quarters of 2017, real GDP growth is set to stand at 2.4% in 2017 as a whole and then moderate slightly to 2.3%, 1.9% and 1.7% in the next three years (see Table 1.3).

Private consumption growth is expected to remain robust, sustained by higher consumer confidence, improved labour market conditions and rising real wages and other personal income. Personal consumption growth should also be reinforced by improving bank lending conditions, the low interest rate environment and progress in deleveraging.

Residential investment is projected to recover further. Nevertheless, after the recent pick up, it is expected to lose some momentum over the forecast horizon reflecting the mature phase of the housing cycle, adverse demographic trends and the fading out of fiscal incentives in some countries.

Business investment is also expected to grow further, as it benefits from high business confidence, increasing capacity utilisation, supportive financing conditions and higher profit mark-ups. However, a gradual loss of momentum is expected over the projection horizon due to weaker potential output growth, bank limitations on intermediation capacity in some countries as well as a deceleration in both domestic and foreign demand. Government consumption growth is expected to remain constant over the forecasted period.

On the external side, exports are projected to remain robust despite the recent appreciation of the euro. Nevertheless, they are expected to decelerate over the rest of the forecast horizon, reflecting slower growth in euro area foreign demand. Extra-euro area imports are set to benefit from improved domestic demand and stronger euro, although to a lesser extent than exports. This will result in a slightly positive contribution of net exports to real GDP growth.

Compared with the ECB staff projections published in September 2017, euro area real GDP growth was revised upwards by 0.2 percentage point in 2017 and 2019 and by half a percentage

**Table 1.3**
**MACROECONOMIC PROJECTIONS FOR THE EURO AREA[(1)]**
*Average annual percentage changes*

| | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|
| **GDP** | **2.4** | **2.3** | **1.9** | **1.7** |
| Private consumption | 1.9 | 1.7 | 1.6 | 1.5 |
| Government consumption | 1.2 | 1.2 | 1.2 | 1.2 |
| Gross fixed capital formation | 4.4 | 4.3 | 3.4 | 2.9 |
| Exports | 5.0 | 5.1 | 4.1 | 3.7 |
| Imports | 5.1 | 5.2 | 4.4 | 3.9 |
| **HICP** | **1.5** | **1.4** | **1.5** | **1.7** |

(1) Eurosystem staff macroeconomic projections (December 2017).
Source: ECB.

in 2018. The upward revisions for 2017 partly reflect higher-than-expected GDP data releases as well as stronger business and consumer sentiment. Higher foreign demand and slightly lower long-term interest rates resulted in the upward revisions in 2018 and 2019.

The recovery 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 1.4% in Italy to a high of 5.0% in Malta.

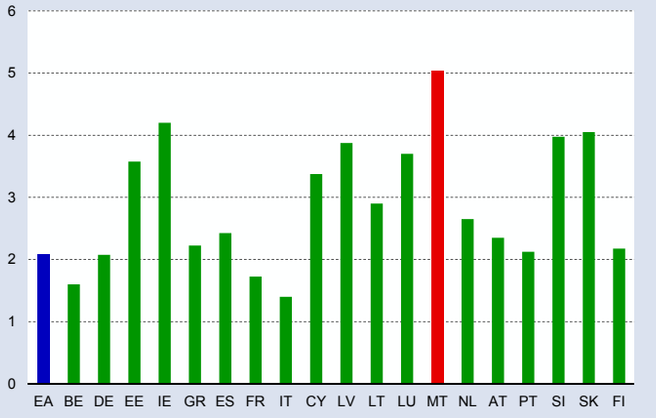
The December 2017 projections point to a small moderation in the HICP inflation, from 1.5% in 2017 to 1.4% in 2018. Inflation is then expected to accelerate again to 1.5% and 1.7% in the following two years. The expected moderation in the short term reflects downward base effects in energy at the start of 2018, which more than offset the recent rise in oil prices. Energy inflation is then set to rise very modestly. On the other hand, food inflation is forecasted to pick up moderately reflecting projected increases in international food commodity prices and tobacco taxes.

As economic growth is expected to exceed potential, underlying price pressures are also predicted to increase. Thus, HICP excluding food and energy is expected to pick up over the forecast horizon, rising from 1.0% this year, to 1.1%, 1.5% and 1.8% in 2018, 2019 and 2020, respectively. The projected pickup reflects some indirect effects from the latest increase in oil prices, the expected rise in non-energy commodity prices together with the strengthening of global inflationary pressures.

Overall inflation was revised up by 0.2 percentage point in 2018.

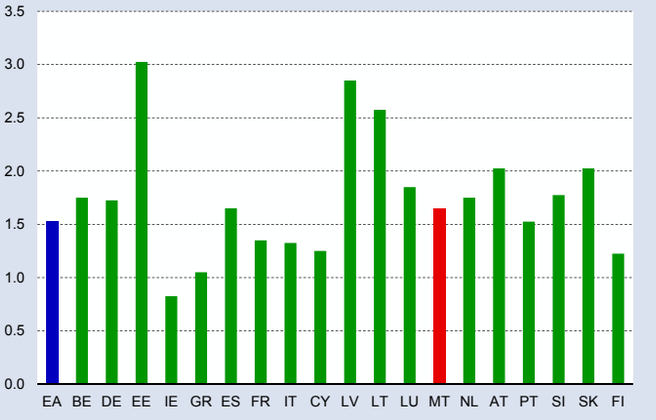
From a cross-country perspective, inflation is expected to accelerate in the majority of euro area countries over the projection horizon. The lowest average inflation rate between 2017 and 2020 is expected to be recorded in Ireland, at 0.8%, while the highest average rate is projected in Estonia, at 3.0% (see Chart 1.6). Inflation in

**Chart 1.5**
**AVERAGE REAL GDP GROWTH 2017-2020**
*(annual percentage changes)*




Source: Eurosystem.

**Chart 1.6**
**AVERAGE HICP INFLATION 2017-2020**
*(annual percentage changes)*




Source: Eurosystem.

Malta is set to average 1.7% over the forecast horizon, slightly above the average of 1.5% for the euro area as a whole.

### *ECB maintained its accommodative monetary policy stance*

The ECB's Governing Council maintained its accommodative monetary policy stance during the third quarter of 2017. The interest rates on main refinancing operations (MRO), marginal lending facility and deposit facility were kept at 0.00%, 0.25% and -0.40%, respectively (see Chart 1.3). In September, the Council confirmed that it continues to expect these rates to remain at present levels for an extended period of time, and well past the horizon of the net asset purchases.[4]

The Council also kept the comprehensive package of non-standard measures. This includes purchases under the asset purchase programme (APP) which during the review period continued to be conducted at a monthly pace of €60 billion. The Council also stated that asset purchases are intended to run until the end of December 2017 or beyond, if necessary. It also confirmed that net purchases will be made alongside reinvestments of principal payments from maturing securities purchased under the APP.

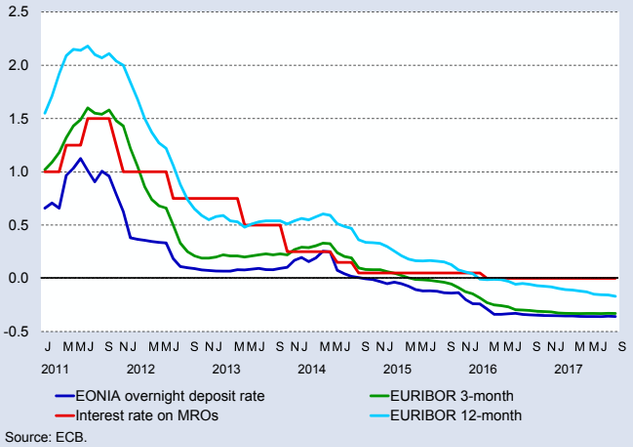
### *Money market rates persist at historical lows*

Amidst the accommodative monetary policy stance by the ECB, the money market rates in the euro area remained at historical lows during the September quarter. The 12-month EURIBOR rate reached a new low, as it fell by 2 basis points to -0.17% over the quarter (see Chart 1.7). On the other hand, the three-month rate as well as the EONIA deposit rate remained constant over the three-month period, standing at -0.33% and -0.36% respectively.[5]

### *Spreads narrow as bond yields rise*

Ten-year benchmark government bond yields in the euro area generally rose during the third quarter of 2017, with the monthly average in Germany standing at 0.35% in September from 0.25% in June. European bond yields increased amidst expectations that the ECB would taper some of its current monetary policy stimulus by the end of the year. Bond yields in France, Italy and Spain edged up by 4, 6 and 9 basis points respectively.

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




Source: ECB.

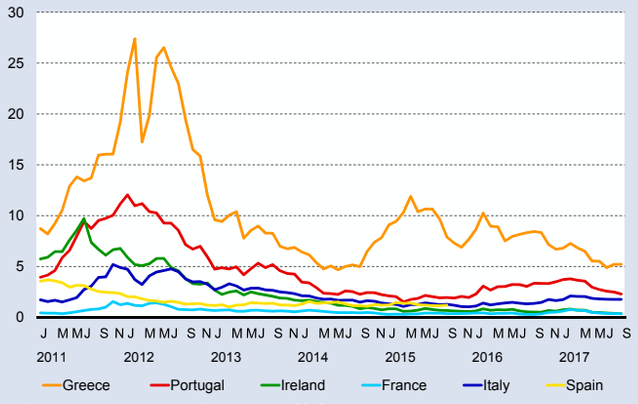
[4] The Governing Council kept the key interest rates unchanged during its October and December monetary policy meetings. However, in October, the Governing Council decided to reduce the rate at which to conduct the monthly net asset purchases to €30 billion from January 2018. Such purchases will continue until the end of September 2018, or beyond, if necessary. The Council added that it is ready to increase the APP in terms of size and/or duration if the outlook becomes less favourable, or if financial conditions become inconsistent with further progress towards a sustained adjustment in the path of inflation.

[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.

On the other hand, Greek and Portuguese bond yields declined over the period under review, as both countries were upgraded by rating agencies. Bond yields in these countries fell by 20 and 34 basis points, respectively.

Spreads between yields in the euro area and the ten-year German bond yields declined over the third quarter, with the biggest declines recorded for Greece and Portugal (see Chart 1.8).

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

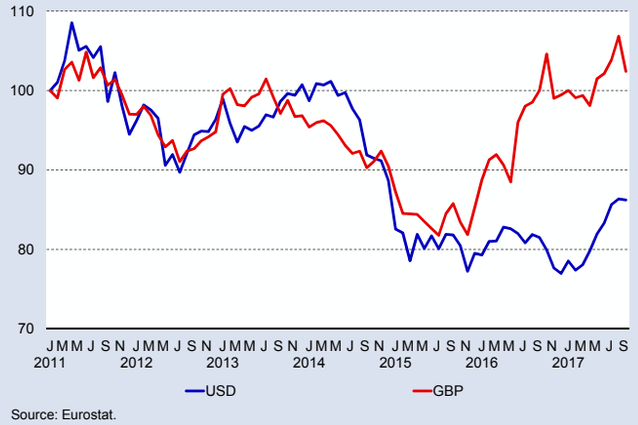



[1] Since there were no data for Greece for July 2015 due to market closure, the spread was left equal to that of the previous month.
Source: ECB.

### *The euro appreciates further*

Over the third quarter, the euro exchange rate continued to appreciate against major currencies amid signs of improving economic conditions and higher investor confidence. The nominal effective exchange rate against the EER-19 group of countries rose by 1.8% between June and September.[6] The euro gained 1.6% against the US dollar, partly amid perceptions of declining political risk in the euro area. The euro rose by 0.6% against the pound sterling reflecting weakness in the UK economy (see Chart 1.9).

**Chart 1.9**
**EXCHANGE RATE MOVEMENTS OF THE EURO AGAINST OTHER MAJOR CURRENCIES**
*(index of end of month rates; Jan. 2011=100; an increase in the index implies euro appreciation)*



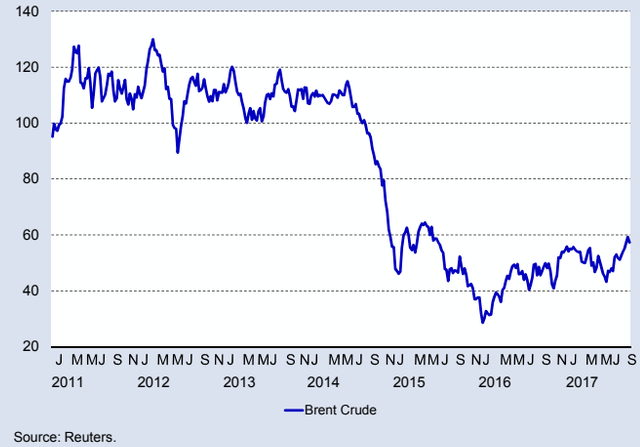

Source: Eurostat.

## Commodities

### *Commodity prices increase*

The price of Brent crude oil followed an upward path during the third quarter of 2017 (see Chart 1.10). Higher prices were a result of sustained demand, geopolitical tensions and expectations of an extension of

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




Source: Reuters.

[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.

the agreement between OPEC and non-OPEC members to restrict oil production. At the end of the quarter, the price of Brent stood at USD 57.27 per barrel, marking an increase of 21.5% compared with end-June.

As regards non-energy commodity prices, World Bank data show that these generally increased during the third quarter. Between June and September, non-energy commodity prices rose by 4.4%.

## 2. OUTPUT AND EMPLOYMENT

*During the third quarter of 2017, the Maltese economy continued to grow at a solid pace, with annual real gross domestic product (GDP) growth standing at 7.2% when compared with the previous quarter. The expansion was driven by both domestic demand as well as net exports. Nominal sectoral data show that services remained the main driver of growth, although the manufacturing and construction sectors also contributed positively. Moreover, the sectors incorporating utilities and agriculture and fishing had a negligible impact on growth.*

*Labour market conditions remained favourable in the third quarter of 2017, as employment grew further and the unemployment rate reached an all-time low of 4.0%. This partly reflects increased labour market participation and improved job matching in the context of a buoyant economy.*

### GDP and industrial production

#### *Economic growth remains robust*

The Maltese economy continued to grow strongly during the third quarter of 2017. Real GDP rose by 7.2% on a year earlier, following a 7.9% increase in the second quarter.[1]

Growth was driven by domestic demand, which added 3.9 percentage points to real GDP growth. This was primarily supported by government consumption and private consumption although changes in inventories also contributed. On the other hand, investment contracted on an annual basis. As the fall in imports outpaced that in exports, net exports contributed 3.3 percentage points to annual real GDP growth (see Table 2.1).

**Table 2.1**
**GROSS DOMESTIC PRODUCT(1)**

| | 2016 | | 2017 | | |
|---|---|---|---|---|---|
| | Q3 | Q4 | Q1 | Q2 | Q3 |
| | *Annual percentage changes* | | | | |
| Private final consumption expenditure | -0.2 | 2.9 | 4.5 | 4.7 | 3.9 |
| Government final consumption expenditure | -6.1 | -11.4 | -4.4 | -6.9 | 15.8 |
| Gross fixed capital formation | -18.3 | 1.7 | 4.0 | -27.0 | -2.4 |
| **Domestic demand** | **-7.4** | **-1.3** | **4.4** | **-8.3** | **4.8** |
| Exports of goods and services | 3.6 | 9.6 | 0.9 | 4.7 | -1.3 |
| Imports of goods and services | -4.8 | 4.8 | -0.6 | -6.9 | -4.4 |
| **Gross domestic product** | **4.9** | **5.7** | **6.5** | **7.9** | **7.2** |
| | *Percentage point contributions* | | | | |
| Private final consumption expenditure | -0.1 | 1.4 | 2.3 | 2.3 | 1.8 |
| Government final consumption expenditure | -0.9 | -2.2 | -0.8 | -1.3 | 2.2 |
| Gross fixed capital formation | -4.8 | 0.4 | 1.0 | -7.5 | -0.5 |
| Changes in inventories | -0.9 | -0.9 | 1.8 | -1.4 | 0.4 |
| **Domestic demand** | **-6.7** | **-1.2** | **4.2** | **-8.0** | **3.9** |
| Exports of goods and services | 5.2 | 13.3 | 1.2 | 6.6 | -1.8 |
| Imports of goods and services | 6.4 | -6.3 | 1.0 | 9.2 | 5.1 |
| **Net exports** | **11.6** | **7.0** | **2.3** | **15.8** | **3.3** |
| **Gross domestic product** | **4.9** | **5.7** | **6.5** | **7.9** | **7.2** |

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

[1] The analysis of GDP in this Chapter of the *Quarterly Review* is based on data published in NSO *News Release* 193/2017 and released on 6 December 2017.

In the third quarter, real private consumption growth increased by 3.9% in annual terms, adding 1.8 percentage points to economic activity. Nominal data point to higher private consumption expenditure across all categories when compared with the same quarter in the previous year.

After contracting on an annual basis, government consumption increased by 15.8% in the September quarter, and contributed 2.2 percentage points to real GDP growth. Although compensation of employees and intermediate consumption rose in annual terms, sales, which are netted against government expenditure rose even more significantly, partly supported by higher inflows under the Individual Investor Programme.

Changes in inventories also contributed positively to economic activity, adding 0.4 percentage point to real GDP growth.

In the third quarter, exports contracted by 1.3% on an annual basis, while imports fell by 4.4%. As the latter fall was stronger net exports increased on a year earlier, contributing 3.3 percentage points to real economic growth. This positive contribution mirrored trade in goods and in services.

Gross fixed capital formation contracted for the second consecutive quarter. It declined by 2.4% on an annual basis and shed half a percentage point off real GDP growth. The overall decline largely reflected lower outlays on transport equipment, which contracted strongly compared with the same period a year earlier, reflecting the timing of expenditure in the aviation sector. Capital outlays on residential and non-residential construction and intellectual property products increased compared with a year earlier.

### *Nominal GDP growth moderates slightly; services remain the main driver of growth*

Nominal GDP increased by 9.7% in annual terms in the third quarter of 2017, following a rise of 10.0% in the previous quarter (see Table 2.2). This moderation reflected developments in gross value added (GVA) growth which slowed down to 8.2% from 9.5% in the previous quarter. Nevertheless, it still added 7.2 percentage points to GDP growth.[2] The remaining 2.5 percentage points was attributable to net taxes on products, which increased significantly on an annual basis.

Services remained the main driver of GVA growth, contributing 6.4 percentage points to nominal GDP growth. The largest additions within the services stemmed from the sectors incorporating professional, scientific and administrative activities as well as wholesale and retail. Together these sectors pushed up nominal GDP growth by 3.8 percentage points, equivalent to almost three-fifths of the increase in GVA in services. The sectors comprising public administration and arts and entertainment explain most of the remaining increase. The manufacturing and construction sectors also contributed positively to nominal GDP growth, together adding a further 0.8 percentage point. On the other hand, the sectors incorporating utilities as well as agriculture and fishing, increased at a much lower rate and in fact had a negligible impact on growth.

GDP data by income distribution show that the moderation in nominal GDP reflected weaker increases in the growth of gross operating surplus and mixed income as well as compensation of employees (see Chart 2.1).

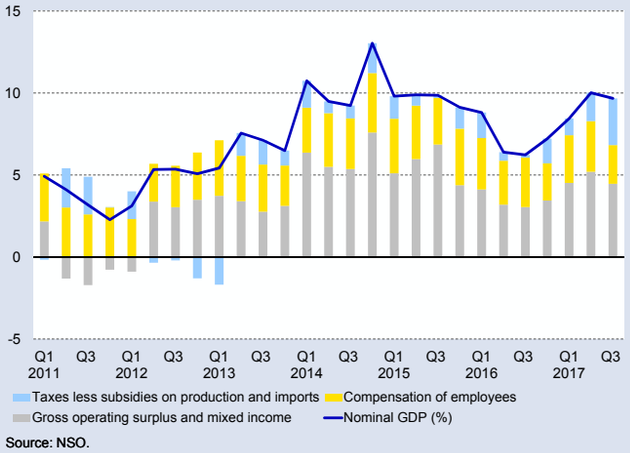
[2] The difference between nominal GDP and GVA is made up of taxes on products, net of subsidies.

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

| | 2016 | | 2017 | | |
|---|---|---|---|---|---|
| | Q3 | Q4 | Q1 | Q2 | Q3 |
| Agriculture, forestry and fishing | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Mining and quarrying; utilities | 0.3 | -0.1 | -0.2 | -0.3 | 0.0 |
| Manufacturing | 0.5 | 0.2 | 0.6 | 0.9 | 0.5 |
| Construction | 0.0 | 0.1 | 0.2 | 0.6 | 0.3 |
| Services | 4.9 | 6.2 | 6.5 | 7.3 | 6.4 |
| *of which:* | | | | | |
| Wholesale and retail trade; repair of motor vehicles; transportation; accommodation and related activities | 0.2 | 0.8 | 0.4 | 1.3 | 1.9 |
| Information and communication | 0.6 | 0.5 | 0.6 | 0.5 | 0.3 |
| Financial and insurance activities | 0.5 | 0.6 | 0.4 | 0.2 | 0.1 |
| Real estate activities | 0.4 | 0.4 | 0.1 | 0.0 | 0.0 |
| Professional, scientific, administrative and related activities | 1.3 | 1.7 | 2.8 | 3.1 | 1.9 |
| Public administration and defence; education; health and related activities | 1.1 | 0.8 | 1.0 | 1.1 | 1.2 |
| Arts, entertainment; household repair and related services | 0.9 | 1.3 | 1.2 | 1.2 | 1.1 |
| **Gross value added** | **5.6** | **6.3** | **7.2** | **8.5** | **7.2** |
| **Taxes less subsidies on products** | **0.6** | **1.0** | **1.3** | **1.5** | **2.5** |
| **Annual nominal GDP growth (%)** | **6.2** | **7.2** | **8.4** | **10.0** | **9.7** |

Source: NSO.

**Chart 2.1**
**NOMINAL GDP AND ITS MAIN COMPONENTS**
*(percentage point contribution)*




Source: NSO.

Gross operating surplus and mixed income was up by 9.3% in annual terms, following an 11.1% increase in the second quarter. In the third quarter, it added 4.5 percentage points to nominal GDP growth. In absolute terms, the majority of sectors recorded an increase in their gross operating surplus compared with a year earlier. The largest gains were recorded in the sectors incorporating administration and support services, transportation and storage, accommodation and food services as well as arts and entertainment. On the other hand, the sectors specialising in financial and insurance activities, information and communication and real estate registered declines in their gross operating surplus.

Following a 7.2% increase in the second quarter, compensation of employees increased by 5.8% on an annual basis and contributed 2.4 percentage points to economic activity. In absolute terms,

the largest increases in compensation were registered in the sectors comprising public administration and in those encompassing arts and entertainment as well as professional and scientific activities.

Net taxes on production and imports accounted for 2.8% of the overall growth in nominal GDP growth in the third quarter.

### *Industrial production growth picks up in the third quarter*

During the third quarter of 2017, industrial production rose by 4.5% when compared with the same quarter a year earlier.[3] This followed a 4.0% year-on-year increase in the preceding quarter (see Table 2.3).

Growth was driven by the energy sector, where output rose by 8.9%. The manufacturing sector, which accounts for over 80% of the index, also registered a rise in output. Companies producing rubber and plastics, food and beverages also registered growth in production. Output also rose strongly in the "other manufacturing" sub-sector, which includes medical and dental instruments, toys and related products. Meanwhile firms producing computer, electronic and optical products and those involved in the printing and reproduction of recorded media sector registered a decline in output when compared with the same quarter of 2016. Production also declined among manufacturers of pharmaceuticals.

Output within the mining and quarrying sector declined sharply. However, the latter holds a small share in the overall industrial production index.

**Table 2.3**
**INDUSTRIAL PRODUCTION(1)**
*Percentages; annual percentage changes*

| | | 2016 | | 2017 | | |
|---|---|---|---|---|---|---|
| | Shares | Q3 | Q4 | Q1 | Q2 | Q3 |
| **Industrial production** | **100.0** | **-3.1** | **-1.8** | **6.9** | **4.0** | **4.5** |
| **Manufacturing** | **83.3** | **-4.0** | **-3.6** | **9.4** | **3.3** | **2.8** |
| *of which:* | | | | | | |
| Computer, electronic and optical products | 18.4 | -5.3 | 5.8 | 15.9 | 30.8 | -12.4 |
| Basic pharmaceutical products and pharmaceutical preparations | 10.4 | -28.3 | -23.6 | -2.9 | -29.6 | -8.3 |
| Food products | 8.1 | -18.0 | -4.5 | 0.4 | -9.4 | 5.9 |
| Printing and reproduction of recorded media | 5.9 | 17.8 | -29.3 | 0.1 | -1.0 | -11.3 |
| Rubber and plastic products | 4.4 | 15.7 | 9.8 | 22.4 | 14.3 | 12.0 |
| Beverages | 3.9 | -2.9 | -3.4 | 8.8 | 2.7 | 3.2 |
| **Energy** | **16.3** | **-3.1** | **3.7** | **5.8** | **0.6** | **8.9** |
| **Mining and quarrying** | **0.4** | **10.6** | **-9.7** | **-11.9** | **-15.5** | **-21.3** |

(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.

[3] 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 sectorial 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.

## BOX 1: DEVELOPMENTS IN THE MANUFACTURING SECTOR[1]

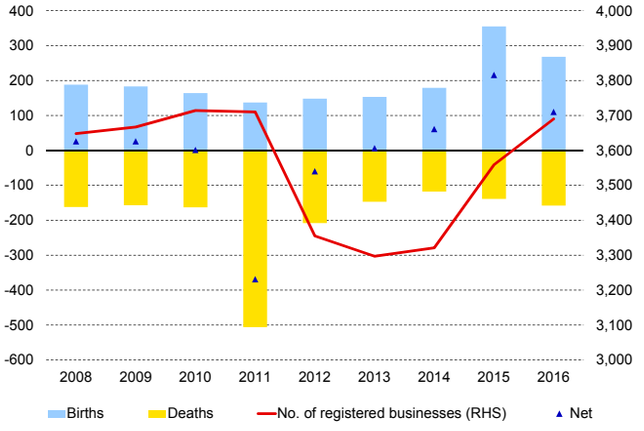
The manufacturing sector has been instrumental for Malta's economic progress since Independence. The sector has been gradually transformed from a low cost sector into one producing higher value added products. The objective of this Box is to better understand the key trends and developments in the manufacturing sector since the mid-1990s by looking at different sources of data, including business demographics, activity, input-output analysis and survey information.[2]

### Activity indicators

Business demographic data published by the National Statistics Office (NSO) shows that the number of registered legal entities specialising in manufacturing stood at 3,690 in 2016, accounting for slightly less than 4% of the total business units registered for the whole economy.[3] Around 92% (3,395 units) of manufacturing firms were micro-enterprises, accounting for 22% of total employment in the sector.[4] More than 7% of the firms were considered as small and medium enterprises (SME) which together offered slightly more than half of the jobs in the sector. The rest were large enterprises, generating 27% of total manufacturing employment. Compared with the rest of the economy, the distribution of firms in the manufacturing sector is skewed slightly more towards SMEs, while the share of micro enterprises is slightly smaller.

Data on the number of births and deaths of manufacturing units show that since 2013 the number of new registered businesses was higher than that of deregistered units (see Chart 1). In 2016, the number of births stood at 268 units, while only 158 units were deregistered, giving a net increase of 110 units. Notwithstanding growth in the sector recently, the number of registered businesses

**Chart 1**
**BIRTHS AND DEATHS OF MANUFACTURING BUSINESSES**
*(number of business units)*




Source: NSO.

[1] Prepared by Joanna Borg Caruana. The author is a senior economist in the Economic Analysis Office of the Central Bank of Malta. The views expressed are those of the author and do not necessarily reflect those of the Central Bank of Malta.

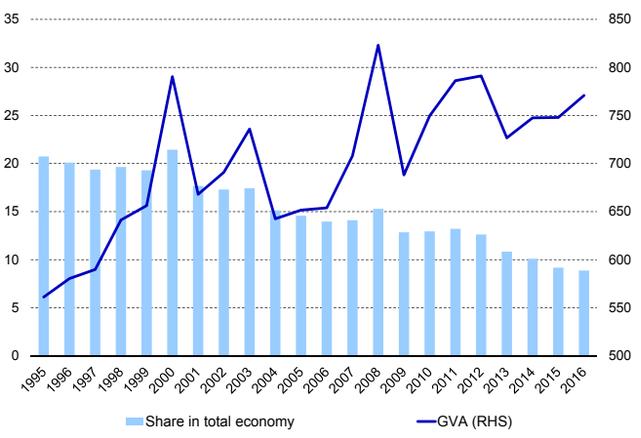
[2] National accounts data in this Box are sourced from NSO *News Release* 041/2017. The definition of manufacturing and its sub-sectors is based on Eurostat's NACE Rev 2 classification.

[3] Business demographic data from 2011 exclude units with a turnover of less than €7,000, in line with a new VAT Regulation that came into force on 1 January 2011, as notified in Legal Notice 524 of 2010. Therefore data from 2011 onwards may not be strictly comparable with previous years. Additionally, data from 2015 might include new or re-activation of registrations according to another new VAT Regulation that came into force on 1 January 2015, as notified in Legal Notice 67 of 2015.

[4] According to the NSO *News Release* 075/2017 on business demographics, micro-enterprises are considered to employ nine or less employees. Small enterprises hire between 10 and 49 employees, while medium enterprises engage between 50 and 249 employees. Units employing 250 or more employees are considered as large businesses.

remains slightly below that registered in 2010.[5]

**Chart 2**
**GROSS VALUE ADDED OF THE MANUFACTURING SECTOR**
*(per cent; EUR millions)*




Source: NSO.

Statistics on GVA show that activity in the manufacturing sector has been quite volatile in recent years with relatively strong dips in 2001, 2004, 2009 and 2013 (see Chart 2). The decline in 2001 coincided with the mild recession in Malta, which followed the burst of the information technology bubble that reduced foreign demand for electronic components. Weak export growth largely also explains the 2004 dip as domestic firms became exposed to higher competition in the run-up to EU membership. Those manufacturing firms oriented towards the local market were also adversely affected during this period due to increased competition. Subsequently, the manufacturing industry was negatively affected by the 2009 global financial crisis. The recovery in the following years was interrupted in 2013, largely reflecting industry-specific factors that affected the semiconductor industry in Malta. Since then, GVA in manufacturing began to edge up again, albeit very slowly, such that in 2016 it was still below the most recent peak recorded in 2012. As other sectors of the economy – particularly services – recorded much faster growth, the share of manufacturing in total economy GVA has been trending downwards, standing at around 9% in 2016, from almost 21% in 1995.

Notwithstanding this relative decline, manufacturing remains an important sector for the Maltese economy. Although it is smaller than fast-evolving services sectors, such as those incorporating professional and business activities along with arts and entertainment (mainly influenced by i-gaming), in 2016 it registered a higher level of GVA than the financial and insurance business sector as well as that incorporating information and communication.

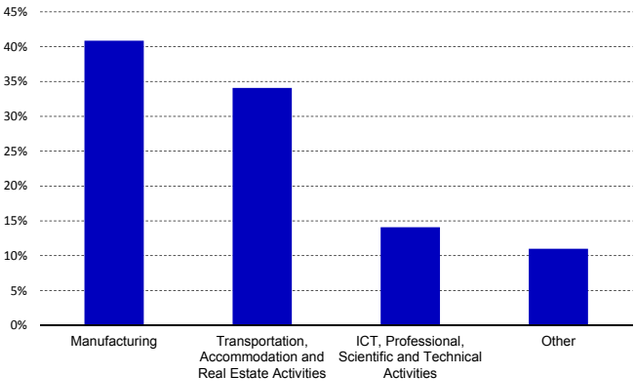
Moreover, the manufacturing sector remains one of the largest recipients of foreign direct investment (FDI) flows (after excluding flows associated with the financial sector). For instance, since 2014, around 41% of FDI inflows were directed to the manufacturing sector (see Chart 3).

The manufacturing industry also has important linkages with other sectors of the economy. The latest input-output tables for the manufacturing sector, relating to 2010, show that in generating output worth €2.5 billion, the manufacturing sector utilised around €1.7 billion in

[5] It should be noted that as a result of Legal Notice 524 of 2010, which exempted relatively small suppliers from registering for VAT purposes, in the subsequent year there was a spike in deregistrations of firms across all sectors.

domestically produced inputs and imports (see Table 1).[6] This implies a very high import content, of almost 70% of total intermediate consumption. Only circa a third of the total intermediate consumption generated by manufacturing was sourced domestically.

**Chart 3**
**AVERAGE SHARE OF FDI INFLOWS BY ECONOMIC SECTOR(1) (2014-2016)**
*(per cent)*




(1) Excluding financial and insurance activities.
Sources: NSO; Author's calculations.

Over half of the domestically-sourced inputs in 2010 were sourced from the services sector, particularly the distributive trades, financial and insurance sectors. The manufacturing sector itself supplied €94 million (19%) with a further €76 million of locally-sourced inputs (15%) from the energy provider and other utilities. Links with the construction sector were less significant, with the latter accounting for only around €21 million, representing 5% of the domestic inputs going into manufacturing processes.

Estimates of forward linkages by the Central Bank of Malta across various sectors show that the manufacturing sector is an important source of supply to other sectors within the Maltese economy.[7]

**Table 1**
**DISTRIBUTION OF INTERMEDIATE CONSUMPTION FOR THE MANUFACTURING SECTOR, 2010**
*EUR millions*

| | 2010 |
|---|---|
| **Output at basic prices** | **2,481** |
| **Total Intermediate Consumption** | **1,731** |
| *of which:* | |
| Domestic Production | 0 |
| Agricultulture, forestry and fishing | 35 |
| Mining and quarrying; utilities | 76 |
| Manufacturing | 94 |
| Construction | 21 |
| Services | 277 |
| Imported Products | 1,220 |
| Taxes less subsidies on products | 8 |
| **Gross value added at basic prices** | **750** |

Source: NSO.

[6] The latest *Supply, Use and Input-Output Tables* (SUIO) are available at https://nso.gov.mt/en/nso/Media/Salient-Points-of-Publications/Pages/Supply-Use-and-Input-Output-Tables.aspx (published in May 2016). Note that the aggregate values for the manufacturing sector quoted from the SUIO tables are consistent with the news release published in 2014 (195/2014). Therefore these figures should not be compared to the rest of the data being used in this article.

[7] Refer to Claus, I. (2002), *Inter industry linkages in New Zealand*, New Zealand Treasury for the methodology of forward linkages.

**Table 2**
**DISTRIBUTION OF THE MANUFACTURING OUTPUT IN THE ECONOMY, 2010**

*EUR millions*

| | 2010 |
|---|---|
| **Intermediate demand** | **463** |
| **Final demand** | **2,018** |
| *of which:* | |
| Final consumption | 239 |
| Gross capital formation | 88 |
| Exports | 1,691 |
| **Output at basic prices** | **2,481** |

Source: NSO.

Table 2 shows that slightly more than four fifths of the manufacturing output generated during 2010 was final demand, primarily as exports (68%). Final consumption and gross capital formation represented 9.6% and 3.5% respectively of the final demand recorded. Almost 20% of the manufacturing output in 2010 was utilised as intermediate demand in the economy, partly within the same sector.

A recent study by the Central Bank of Malta calculated industry-specific multipliers on the basis of the demand driven input-output framework using 2010 data.[8] The study puts forward a new set of Type I and Type II multipliers for the Maltese economy, including disaggregated sectors in the manufacturing industry.[9] In addition, the study presents the accounting multipliers, which go a step further as they account also for the size of the sector generating the final demand (see Table 3).[10]

The manufacturing sector as a whole has the highest income, value added and employment multipliers and the second highest output multipliers. Disaggregated data shows that the firms within the electronics sector (C26-C32) registered the highest ranking in the output, value added, income and employment multipliers. This implies that changes in the final demand recorded in the electronics sector, create strong direct and indirect effects. In 2010, the electronics sector generated almost 45% of the value added in manufacturing and slightly more than 5% of the total economy.

Another recent study, also based on input-output analysis, estimated the impact on the Maltese economy in the hypothetical scenario of an extraction of a particular sector, given its backward and forward linkages with the other sectors of the economy.[11] In 2010, due to its linkages with other sectors of the economy, the manufacturing sector still generates

[8] This study was published in Rapa, N. (2017), "Estimates of industry specific multipliers", *Quarterly Review* 2017(2), pp. 19-23, Central Bank of Malta.

[9] Type I multipliers capture the direct and indirect effects (on output, income, value added and employment) of an increase in final demand of a particular industry on all the sectors of the economy. The direct effect refers to the increase in output of the particular product following a rise in its final demand. For the producers to increase their output, they will demand more from their suppliers, and this goes on throughout the supply chain. The latter is referred to as the indirect effect. Type II multipliers also include induced effects, which capture the impact of the household sector's savings and consumption patterns.

[10] Refer to Appendix 1 for the statistical classification of economic activities within the manufacturing sector.

[11] Cassar, I. (2017), "Assessing structural change in the Maltese economy via the application of hypothetical extraction analysis", Working Paper 01/2017, Central Bank of Malta. Hypothetical extraction is a method whereby a particular sector is extracted (or removed) from the economy in order to analyse the impact of this extraction on the other sectors of the economy.

**Table 3**
**ACCOUNTING MULTIPLIERS FOR SPECIFIC SECTORS OF THE ECONOMY**

*Per cent of total*

| | Accounting Multipliers | | | |
|---|---|---|---|---|
| | Output | Income | Value Added | Employment |
| **Selected sub-sectors of the manufacturing sector:** | | | | |
| Manufacture of food products, beverages and tobacco products (C10-C12) | 2.0 | 2.0 | 1.9 | 2.3 |
| Manufacture of paper and paper products, printing and reproduction of recorded media, manufacture of coke and refined petroleum products, chemical products, basic pharmaceutical products and pharmaceutical preparations and rubber and plastic products (C17-C22) | 2.7 | 3.2 | 3.4 | 2.9 |
| Manufacture of computer, electronic and optical products, electrical equipment, machinery and equipment n.e.c., motor vehicles, trailers and semi-trailers, other transport equipment and of furniture; other manufacturing (C26-C32) | 8.4 | 6.0 | 6.8 | 6.1 |
| **Selected industries:** | | | | |
| Mining and quarrying and construction | 5.3 | 5.2 | 5.5 | 6.2 |
| Manufacturing | 14.9 | 13.7 | 14.1 | 14.2 |
| Wholesale and retail trade; repair of motor vehicles and motorcycles | 6.0 | 8.8 | 9.3 | 10.6 |
| Other professional, scientific and technical activities; veterinary activities; advertising and research | 0.4 | 0.3 | 0.3 | 0.3 |
| Education | 2.4 | 10.0 | 5.7 | 9.3 |
| Accommodation and food service activities | 6.2 | 7.7 | 7.0 | 10.8 |
| Arts, entertainment and recreation | 10.4 | 4.5 | 9.6 | 3.7 |

Source: Rapa, N. (2017).

the largest hypothetical extraction effects in terms of GVA, labour income and employment among all the other sectors. That said, these extraction effects have been declining over time reflecting the sectoral diversification of the economy and the shift towards services.

## Employment, wages and productivity in the manufacturing industry

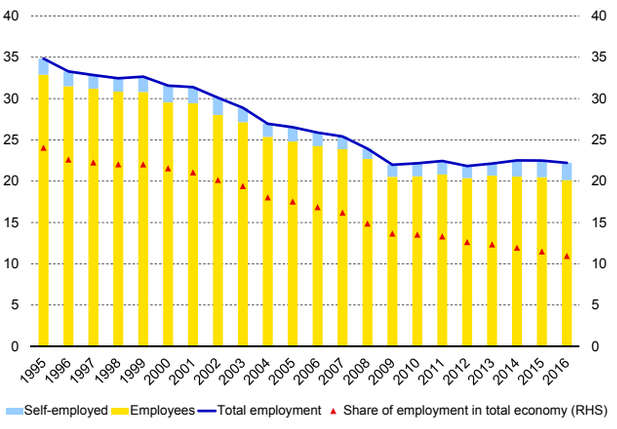
After a trend decline from the mid-1990s, employment in the manufacturing sector remained relatively stable after 2009 (see Chart 4). This contrasts with the situation in the euro area, where this sector continued to record steady declines up to 2013. In 2016, employment in Malta's manufacturing industry stood at 22,214 persons, accounting for 11% (compared with 24% in 1995) of the whole economy's employment. This sector remains the second most important employer in Malta. The decline in the sector's share in GVA was thus unsurprisingly also reflected in employment data.

The majority of persons employed in the sector are employees. For 2016 this figure stood at 20,123, equivalent to around 91% of all job holders in the industry. There were also 2,091 self-employed persons, equivalent to around 9% of total employment in industry.

This share is comparable to that in the other sectors of the economy combined.

Similar to the situation in other sectors of the economy, labour shortages led to an increased reliance on foreign workers. Jobsplus data shows that at the end of 2016, the manufacturing sector employed more than 2,300 foreigners, with around two-thirds of them being EU nationals.[12] The share of foreigners in manufacturing, however, remains lower than for the total economy. The share of foreign workers in manufacturing increased from around 4% of the workforce in 2012 to 10% in 2016. Most of the increase registered took place after 2012.

**Chart 4**
**EMPLOYMENT DISTRIBUTION IN THE MANUFACTURING INDUSTRY**
*(thousands; per cent)*

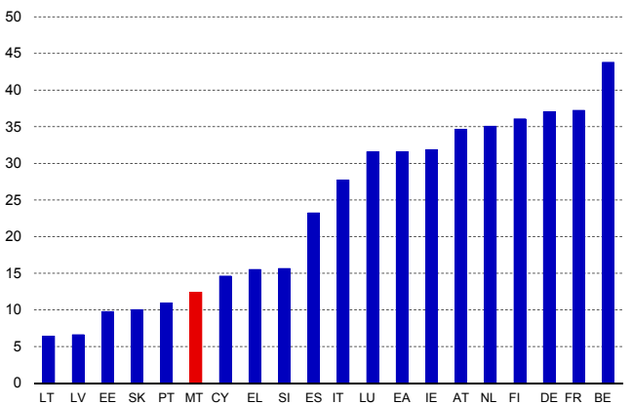



Source: NSO.

The Labour Cost Survey shows that the salaries and wages in the manufacturing sector stood at around €13 per hour in 2016. Chart 5 shows that labour costs in the domestic manufacturing sector still remain lower than in most euro area countries, even when compared with those that were severely affected by the crisis (such as Spain and Italy).

Average wage growth has been relatively stable since 2011, averaging around 2.6% per annum. In 2016, compensation per employee in the manufacturing sector stood at €20,966 compared with €23,317 for the whole economy. Average compensation in manufacturing was lower than that in fast growing services-oriented sectors, such as financial services, ICT and i-gaming. On the other hand, the manufacturing sector offers a higher compensation than the construction and the wholesale and retail sector.

**Chart 5**
**AVERAGE LABOUR COST PER HOUR IN THE MANUFACTURING SECTOR BETWEEN 2012 AND 2016**
*(EUR)*




Source: Eurostat.

The manufacturing sector is highly heterogeneous, both in terms of productivity and wages. The pharmaceutical industry registered the highest levels of

[12] In addition to the manufacturing sector, this figure includes foreigners employed in quarrying and utilities.

productivity, measured as GVA per worker, which was comparable to those registered in high value added services sectors. Similarly, compensation per worker in the pharmaceutical industry was significantly higher than the sector's average. Other sectors that are characterised by higher productivity include those producing electrical equipment, beverages, motor vehicles, repair and installation and printing. Meanwhile, productivity and compensation per employee were the lowest in firms producing wearing apparel, textiles and leather products.

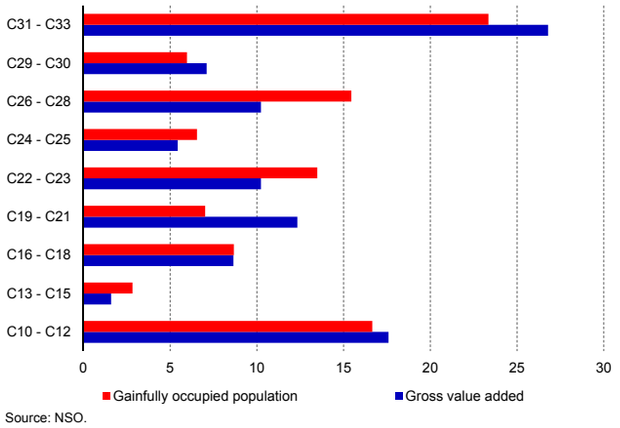
## Changes in the composition of the manufacturing sector

Disaggregated national accounts data[13] shows that the biggest sub-sector in terms of GVA within the manufacturing industry in 2016 was related to activities of furniture manufacturing, other manufacturing and the repair and installation of machinery and equipment. These sectors are classified under Divisions 31 to 33.[14] These firms accounted for almost 27% of the manufacturing GVA in 2016. Employment data published by Jobsplus show that in 2016 these firms employed 4,827 individuals on a full-time basis, equivalent to 23% of the industry's gainfully occupied population (see Chart 6).

Firms producing food, beverages and tobacco products (C10-C12) generated 18% of the sector's share of GVA in 2016. These firms generated 2,443 full-time jobs and accounted for 17% of its gainfully occupied population. Firms producing chemical and pharmaceutical products (subsectors C19-C21) also played a significant role, as they generated around 12% of manufacturing GVA and offered around 1,452 full time jobs (7% of the sector's full-time jobs).

From a longer term perspective, the share of GVA generated by each sub-sector has changed significantly. In 1995, industries producing furniture, other products and repair and installation of machinery and equipment (C31-C33), generated around 21% of the sector's output. They were followed by firms specialising in electronics, electrical equipment and machinery and equipment (C26-C28), which generated slightly less than one fifth of the sector's output. The former sector saw its share increase strongly over time, rising by 6 percentage points between 1995 and 2016, while the latter decreased its share by 9 percentage points (see Chart 7).

**Chart 6**
**GROSS VALUE ADDED AND GAINFULLY OCCUPIED POPULATION BY SUB-SECTOR IN 2016**
*(as a share of total in the manufacturing sector)*

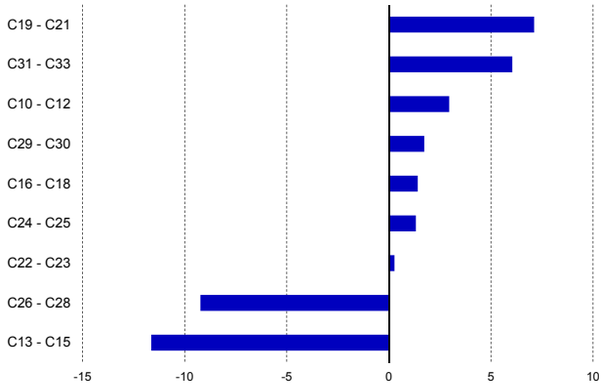



Source: NSO.

[13] Refer to Appendix 1 for an explanation of the classification used in this section.
[14] The other manufacturing sector includes firms specialising in jewellery, bijouterie and related articles, musical instruments, sports goods, games and toys as well as those manufacturing medical and dental instruments and supplies.

The largest increases since 1995 were recorded by firms in the chemicals and pharmaceutical industries (C19-C21). This sector expanded at the fastest rate and grew into the most important segment by 2016. By contrast, sectors focusing on textiles, wearing apparel and leather products (C13-C15) saw a decline of approximately 12 percentage points over the years, and in 2016 generated only 2% of manufacturing output. On balance, this sub-sector along with sub-sectors (26-28) lost importance over time, while activities classified under subsectors (C31-C33), which were already important in 1995 continued to account for a significant share of manufacturing activity.

**Chart 7**
**CHANGES IN THE SHARE OF GROSS VALUE ADDED IN THE MANUFACTURING SECTOR FROM 1995 TO 2016**
*(percentage points)*

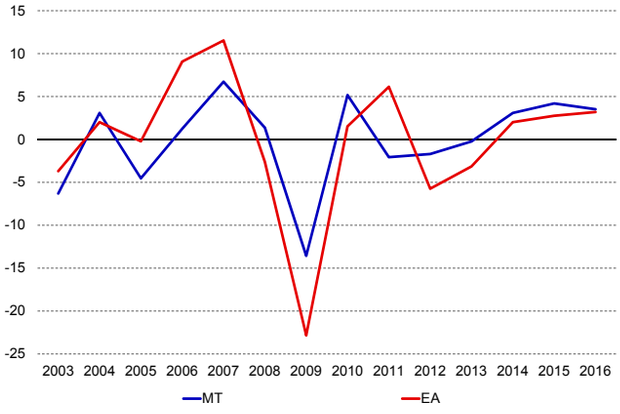



Source: NSO.

## Industrial sentiment and factors limiting production

The industrial confidence indicator, published by the European Commission (scaled to have a mean of zero over the period 2003-2016) has experienced a recovery since 2013 (see Chart 8).[15] However, the indicator dropped slightly in the last year and remained below the peak registered before the financial crisis of 2009. In 2016, sentiment in Malta's manufacturing sector was slightly higher compared with that registered in the euro area.

**Chart 8**
**INDUSTRIAL CONFIDENCE INDICATOR**
*(seasonally adjusted; percentage points; normalised)*



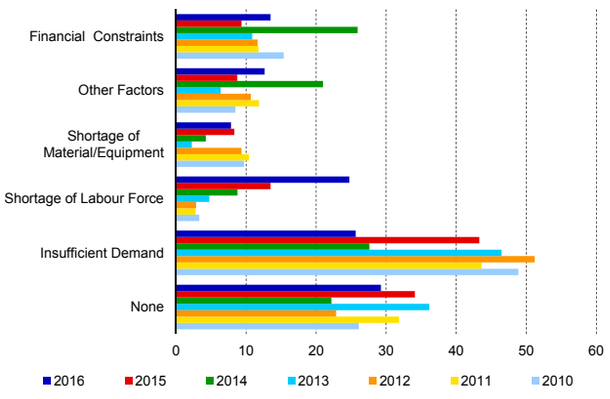

Sources: European Commission; Author's calculations.

The components that make up the overall industrial confidence indicator point towards a less pessimistic sentiment in the industry in the latest years in the Maltese economy. The fact that the industrial sector reported an assessment of improved, but still negative order books,

[15] The industrial confidence indicator is the arithmetic average of the balances (in percentage points) of the answers to the questions on production expectations, order books and stocks of finished products (the last with inverted sign).

higher productive expectations and an improvement in the stock levels have been a key factor behind the amelioration in industry's sentiment in recent years.[16]

**Chart 9**
**FACTORS LIMITING PRODUCTION IN THE MANUFACTURING SECTOR IN MALTA**
*(per cent of respondents)*




Source: European Commission.

The Commission also puts forward questions regarding the factors that might hinder production (see Chart 9). The share of respondents who reported no obstacles in the manufacturing industry was almost 30% in 2016, slightly less than in the previous year and in line with the average observed in recent years.

The biggest limiting factor to the Maltese manufacturing industry seems to be insufficient demand, although the percentage of respondents mentioning this factor in 2016 was one of the lowest on record since the survey started. The manufacturing industry is also reporting an increase in shortage of labour force, which seems to have gained significantly in importance in recent years. In fact, this is also reflected in the increased number of foreigners employed in the manufacturing sector. On the other hand, financial constraints and shortages of material or equipment seem to be less problematic for manufacturing firms based in Malta.

## Conclusion

In recent years the manufacturing sector has started to see a positive, though cautious, turnaround from the 2009 recession. The improvement in activity is also reflected in employment, which has started to recover from the steep decline recorded in previous years. Notwithstanding the increased availability of foreign workers, sentiment indicators suggest that the industry is not immune to labour shortages. In addition to labour shortages, insufficient demand is also frequently mentioned as a limiting factor, possibly indicating that competitive pressures may have persisted in some pockets of manufacturing. Cross-country hourly cost indicators suggest that labour cost differences would at best explain a very small part of competitive challenges.

More broadly, the sector remains highly heterogeneous and while some industries have registered substantial growth in their value added, others have seen decreases. Productivity

[16] The index reported above normal stock levels numerous times over the review period. This indicates lower turnover for firms and affects the overall indicator in a negative way.

indicators also diverge significantly across subsectors. An in-depth assessment of key trends in the manufacturing sector should therefore take these differences into account.

The manufacturing sector has benefited from a series of incentives launched by public entities, aimed at reducing financial constraints, supporting innovation and enhancing labour skills. These aim to encourage new start-ups and to assist current firms to expand by investing more. Measures have also been taken to encourage economic diversification, thus increasing job opportunities. The analysis presented in this Box suggests that these initiatives should be maintained as the manufacturing sector remains an important source of activity, with strong links to services. Incentives may also need to be better linked with performance, in order to sustain and enhance the recent recovery in this sector.

**Appendix 1**

**STATISTICAL CLASSIFICATION OF ECONOMIC ACTIVITIES IN THE MANUFACTURING SECTOR**

| | |
|---|---|
| C10 | Manufacture of food products |
| C11 | Manufacture of beverages |
| C12 | Manufacture of tobacco products |
| C13 | Manufacture of textiles |
| C14 | Manufacture of wearing apparel |
| C15 | Manufacture of leather and related products |
| C16 | Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials |
| C17 | Manufacture of paper and paper products |
| C18 | Printing and reproduction of recorded media |
| C19 | Manufacture of coke and refined petroleum products |
| C20 | Manufacture of chemicals and chemical products |
| C21 | Manufacture of basic pharmaceutical products and pharmaceutical preparations |
| C22 | Manufacture of rubber and plastic products |
| C23 | Manufacture of other non-metallic mineral products |
| C24 | Manufacture of basic metals |
| C25 | Manufacture of fabricated metal products, except machienry and equipment |
| C26 | Manufacture of computer, electronic and optical products |
| C27 | Manufacture of electrical equipment |
| C28 | Manufacture of machinery and equipment n.e.c. |
| C29 | Manufacture of motor vehicles, trailers and semi-trailers |
| C30 | Manufacture of other transport equipment |
| C31 | Manufacture of furniture |
| C32 | Other manufacturing |
| C33 | Repair and installation of machinery and equipment |

Source: Eurostat.

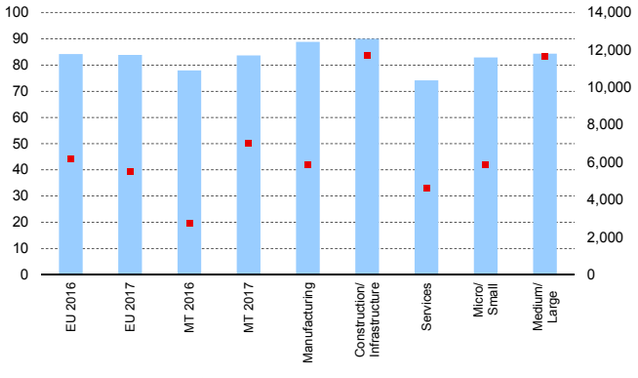
## BOX 2: BUSINESS INVESTMENT AND INVESTMENT FINANCE IN MALTA – EVIDENCE FROM THE EIBIS 2017 SURVEY[1]

The European Investment Bank (EIB) Group Survey on Investment and Investment Finance (EIBIS) is an EU-wide, annual survey of 12,500 firms, 178 of which are operating in Malta. It collects data on individual firm characteristics and performance, past and future investment activities, sources of finance, financing and other challenges that businesses face using a stratified sampling methodology. For EIBIS 2017, telephone interviews in Malta were carried out between April and June 2017.[2]

EIBIS 2017 shows a rather positive picture of business investment dynamics in Malta, with 84% of firms having invested in 2016 and more expecting to increase investment in 2017 than expecting to reduce it. 84% of firms reported that they have engaged in investment activities in the previous financial year, in line with the EU average and 6 percentage points higher than in the EIBIS 2016 (see Chart 1).[3] The share is particularly high in the infrastructure sector and in manufacturing, at 94% and 89% respectively. Furthermore, the intensity of investment, defined as the median investment per employee, has increased since the previous survey and it is now higher than the EU average.

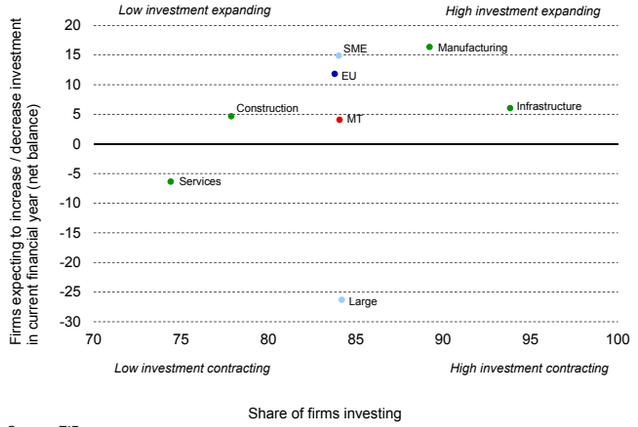
When asked about their forecasts for their investment activities for 2017, more firms expected an increase in their investments than expected a decrease (see Chart 2).

**Chart 1**
**SHARE OF FIRMS INVESTING IN THE LAST FINANCIAL YEAR(1) AND INVESTMENT INTENSITY**
*(per cent; EUR per employee)*




(1) A firm is conisdered to have invested if it spent more than €500 per employee on investment activities.
Source: EIB.

**Chart 2**
**INVESTMENT CYCLE**
*(per cent)*

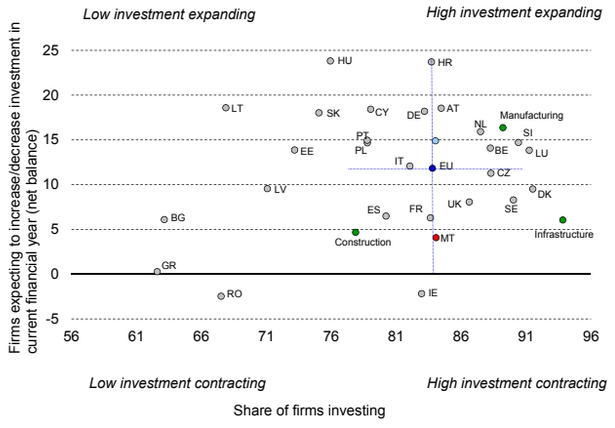



Source: EIB.

[1] Prepared by the EIB on the basis of findings for Malta collected through the EIB Group Survey on Investment and Investment Finance (EIBIS). The views expressed are those of the EIB and do not necessarily reflect those of the Central Bank of Malta. Any errors are the authors' own.
[2] EIB Investment Survey (2017), *Investment and Investment Finance Country Overview: Malta 2017*.
[3] EIB Investment Survey (2016), *Investment and Investment Finance Country Overview: Malta 2016*.

Such a positive outlook, however, is mostly shared by firms in manufacturing, infrastructure and construction, while the service sector's expectations are for a mild deceleration. Moreover, although investment expectations are overall positive, firms in Malta are more conservative than most of their EU counterparts (see Chart 3).

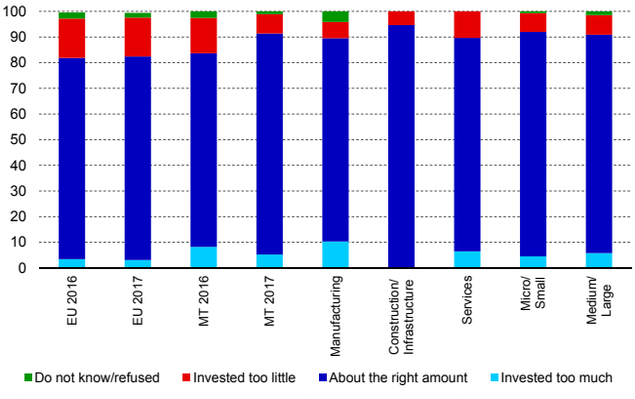
**Chart 3**
**INVESTMENT CYCLE FOR EUROPE**
*(per cent)*




Source: EIB.

The "investment gap" perceived by Maltese firms is lower than the EU average. However, relatively high capacity utilisation rates indicate that future investment needs remain high. The share of firms that report having invested too little over the last three years has declined from 14% to less than 8% (see Chart 4).

**Chart 4**
**PERCEIVED INVESTMENT GAP(1)**
*(per cent)*




* Question: Looking back at your investment over the last three years, was it too much, too little, or about the right amount?
Source: EIB.

EIBIS 2017 provides evidence that the particular "perceived investment gap" is below the EU average of 15% and makes Malta the EU country with the lowest share of firms reporting under-investment. Furthermore, the share of firms reporting too much investment declined (from 8% to 5%) and high levels of capacity utilisation also point towards further investment needs. As a matter of fact, 79% of firms report operating at or above maximum capacity, which places Malta substantially above the EU average of 53% and Malta's rate for 2016 at 69% (see Chart 5).[4] As a consequence, the share of firms expecting to focus their investment activities on expanding their capacity, increased from 20% to 30% between the 2016 and 2017 surveys (see Chart 6). When compared across sectors, the services sector contains the highest proportion of firms operating at or above full capacity

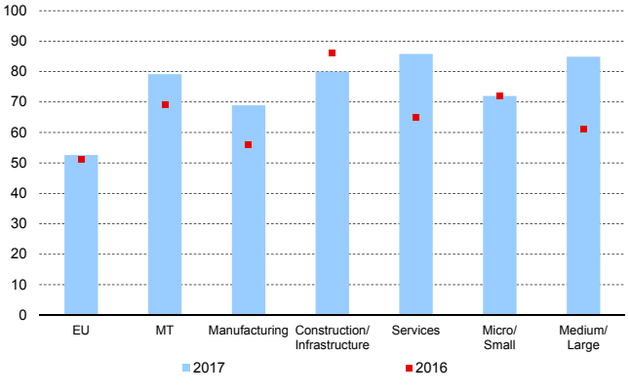
[4] Full capacity is the maximum capacity attainable under normal conditions, for example, a company's general practices regarding the utilization of machines and equipment, overtime, work shifts, holidays etc.

(86%). Likewise, larger firms are most likely to operate at or above full capacity (85%).

EIBIS allows the identification of perceived barriers to investment: lack of staff with the right skills is revealed as a key risk. The vast majority of firms in Malta (94%) consider the lack of skilled staff to be an obstacle to their investment activities, which is much higher than the EU average of 72% (see Chart 7) and is equally spread across sectors and size classes. Most importantly, 78% of firms consider the lack of skilled staff to be a major barrier for their investments – the highest in the European Union. Given the fact that investment in capacity expansion is generally supported by a strong demand for labour, this barrier will almost certainly become an even bigger issue going forward, which could undermine firms' ability to realise their investment plans.

Firms in Malta are also relatively concerned about the state of transport infrastructure in the country, energy costs and business regulations. Firms in Malta are significantly more likely to name these three areas

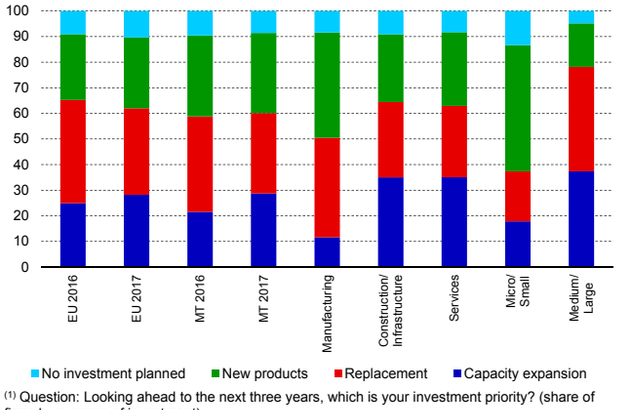
**Chart 5**
**CAPACITY UTILISATION[1]**
*(per cent)*




[1] Question: In the last financial year, was your company operating above or at maxiumum capacity attainable under normal circumstances?

Source: EIB.

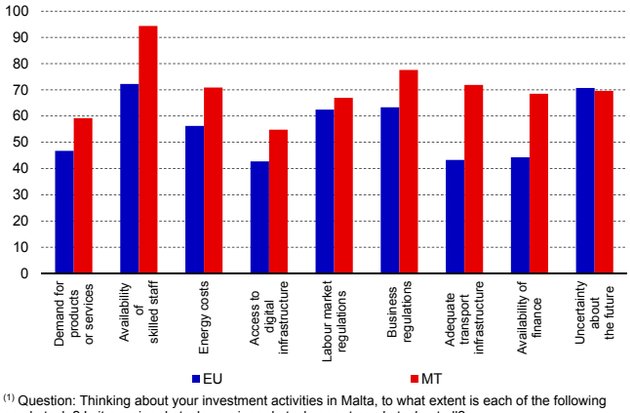
**Chart 6**
**FUTURE INVESTMENT PRIORITIES[1]**
*(per cent)*




[1] Question: Looking ahead to the next three years, which is your investment priority? (share of firms by purpose of investment).

Source: EIB.

**Chart 7**
**LONG TERM BARRIERS TO INVESTMENT[1]**
*(per cent)*



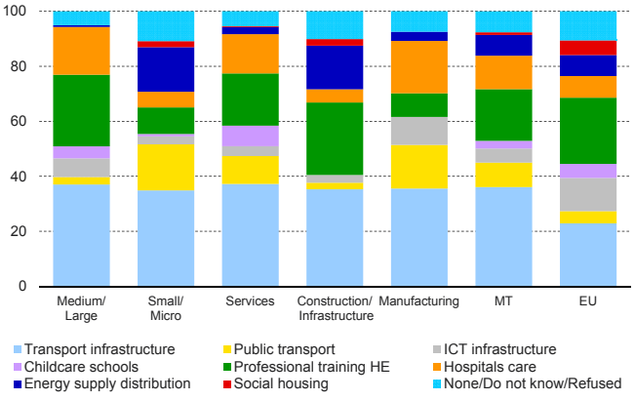

[1] Question: Thinking about your investment activities in Malta, to what extent is each of the following an obstacle? Is it a major obstacle, a minor obstacle or not an obstacle at all?

Source: EIB.

as obstacles to investment than firms elsewhere in the European Union (see Chart 7). Although this pattern is similar to the pattern observed in the EIBIS 2016, transport infrastructure is now more likely to be perceived as an obstacle (by 72% of the firms versus 53% in the last survey wave).

Firms consider transport infrastructure and training to be public investment priorities. Respondents were asked to choose between eight areas of public investment as a necessary priority over the next three years. More than one third of the firms (36%) cited transport infrastructure as the priority for investment over the next three years (see Chart 8). This was followed by professional training or higher education (19%) and hospitals and care (12%). It should also be highlighted that the reported figures on transport are consistent across firms and among all the sectors and size groups. It is also one of the highest results in the European Union. It should also be noted that in Malta, a higher share of firms consider public transport and hospitals to be policy priorities than in the European Union.

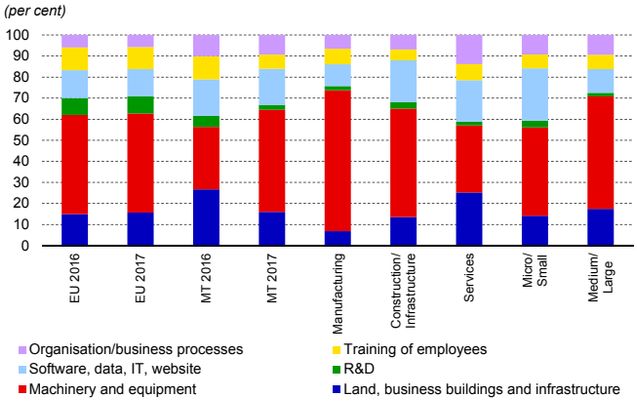
**CHART 8**
**PERCEIVED PUBLIC INVESTMENT PRIORITIES[1]**
*(per cent)*




Question: From your business' perspective, if you had to prioritise one area of public investment for the next three years, which one would it be?
Source: EIB.

Firms in Malta are conscious of the relevance of investment in intangibles, with a particular preference for software, data, IT and websites. Still, in terms of innovation, they appear more focused on adoption rather than pure innovation. EIBIS 2017 indicates that firms in Malta allocated around 36% of their investment outlays to investments in intangibles, 7 percentage points less than the EIBIS 2016 (see Chart 9). Moreover, firms in Malta showed a marginally higher propensity to adopt new products, processes or services than the EU overall, but

**Chart 9**
**AREAS OF INVESTMENT[1]**
*(per cent)*




[1] Question: In the last financial year, how much did your business invest in each of the following with the intention of maintaining or increasing your company's future earnings (average of responses for allocation by area in percentage)?
Source: EIB.

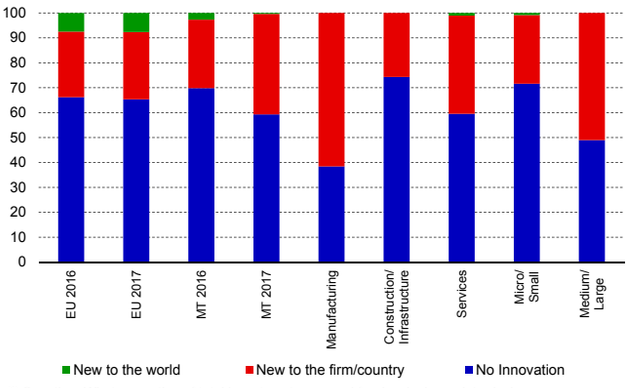
mostly in the adoption of technologies new to the country and the firm, rather than new to the world (see Chart 10).

Access to finance is not a big concern for firms in Malta, with the exception of innovative firms. A minority of firms (6%) are financially constrained (see Chart 11), broadly in line with the EU average (7%). This dropped from 10% in the EIBIS 2016 survey. However, the picture is different for innovative firms (both adopters and inventors). The share of innovative firms that are financially constrained is nearly 9%, which is well above the EU average for innovative firms (7.5%).

Although internal finance and intra-group funding play a strong role (see Chart 12), firms in Malta rely almost exclusively on bank finance to satisfy their external funding needs.

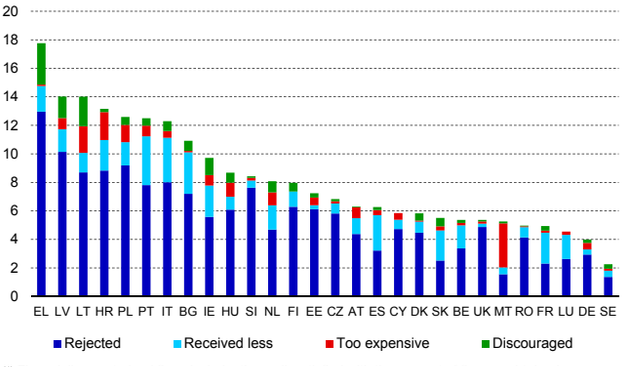
Bank loans account for about 83% of total external finance, followed by newly issued bonds (8%) and other bank finance (7%) (see Chart 13). External finance in the form of leasing and factoring, which in the rest of the European Union accounts for about one fourth of total external finance,

**Chart 10**
**INNOVATION ACTIVITIES[1]**
*(per cent)*



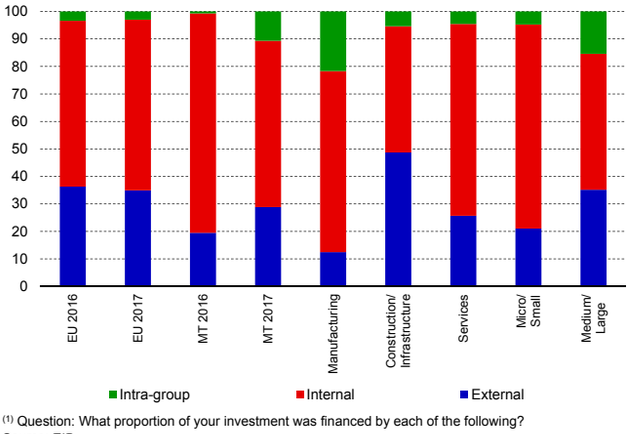

[1] Question: What proportion of total investment was used for developing or introducing new products, processes, services? Were the products, processes or services new to the company, new to the country, new to the global market?
Source: EIB.

**Chart 11**
**SHARE OF FINANCIALLY CONSTRAINED FIRMS[1]**
*(per cent)*




[1] Financially constrained firms include: those dissatisfied with the amount of finance obtained (received less), firms that sought external finance but did not receive it (rejected) and those who did not seek external finance because they thought borrowing costs would be too high (too expensive) or they would be turned down (discouraged).
Source: EIB.

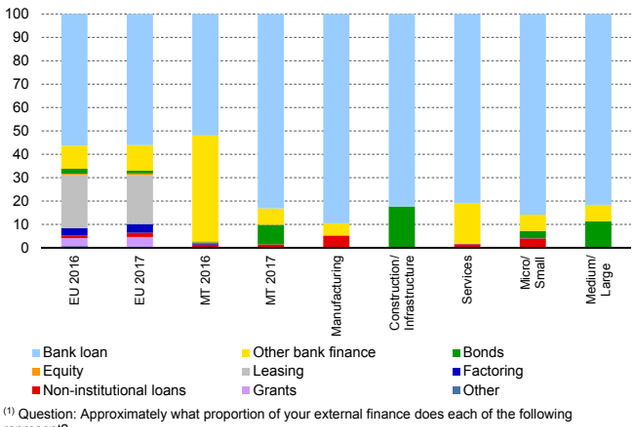
**Chart 12**
**SOURCE OF INVESTMENT FINANCE[1]**
*(per cent)*




[1] Question: What proportion of your investment was financed by each of the following?
Source: EIB.

plays practically no role in Malta, and neither does funding from business angels or venture capitalists in the form of external equity (see Chart 13). Addressing the need for external financing diversification is important. The EIB Investment Report 2017/2018 (see Chapter 7) provides evidence in favour of a more diversified mix of business finance, highlighting that a combination of different sources of finance improves the resilience of the corporate sector and encourages innovation.[5] In addition, there is evidence that more use of equity finance supports the growth of young innovative firms (see Chapter 9), which is a critical factor for supporting competition and productivity growth.

**Chart 13**
**TYPE OF EXTERNAL FINANCE USED FOR INVESTMENT ACTIVITIES(1)**
*(per cent)*



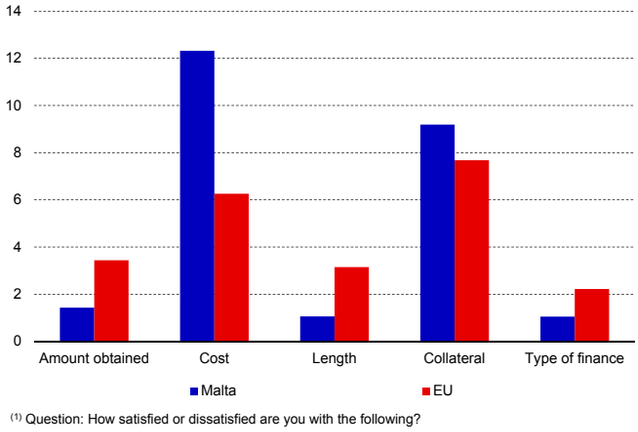

(1) Question: Approximately what proportion of your external finance does each of the following represent?
Source: EIB.

Maltese firms complain about collateral conditions and the cost of funding. In particular, firms are more likely to be dissatisfied with the cost of finance (12%) and collateral requirements (9%) than their EU counterparts (see Chart 14). Nevertheless, the share of firms that are dissatisfied with collateral requirements fell substantially from 22% in EIBIS 2016.

In conclusion, the EIBIS 2017 results reveal a positive picture of investment dynamics in Malta, but also highlight areas for policy attention. Business investment continues to grow and expectations remain positive.

The key risk for a sustained upswing in investment activities in Malta is represented by skill shortages. Nearly nine in ten firms already consider

**Chart 14**
**DISSATISFACTION WITH EXTERNAL FINANCE(1)**
*(per cent)*




(1) Question: How satisfied or dissatisfied are you with the following?
Source: EIB.

[5] EIB Investment Report 2017/2018, *From recovery to sustainable growth*.

this to be a bottleneck for their investment activities. Moreover, the situation with regard to transport infrastructure, energy dependency and business regulations affect firms in Malta worse than firms in the rest of the European Union.

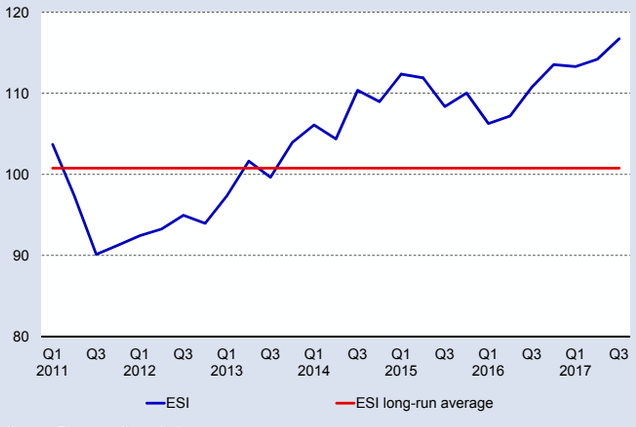
In order to safeguard the positive investment dynamics, it will be important to ensure that the investment carried out translates into productive outcomes. More diversification in available forms of finance to support intangible investment and innovation is also important.

From a policy perspective EIBIS 2017 suggests that dealing with the problem of skill shortages, together with improving the transport system, working towards lower energy costs and simplifying business regulations, will be key areas to focus on. Furthermore, considering alternative ways to diversify firms' financing mix will be additionally important, in order to ensure that investment activities translate into productivity enhancing outcomes.

## Business and consumer surveys

During the third quarter of 2017, the economic sentiment indicator (ESI) rose further to 117, from 114 in the preceding quarter,[4] thus remaining above its long-term average of 101 (see Chart 2.2).[5] Improved sentiment in retail, services and construction sectors as well as among consumers, more than offset weaker confidence in the industrial sector.

**Chart 2.2**
**ECONOMIC SENTIMENT INDICATOR**
*(seasonally adjusted; percentage points)*




Source: European Commission.

### *Confidence in the retail sector turns positive*[6]

Sentiment in the retail sector rose to 8, from -3 in the second quarter of 2017. Following this increase, sentiment among retailers stood above its long-term average of 1 (see Chart 2.3).

The rise in confidence was driven by both firms' assessment of past and expected business activity, with both indicators rising sharply during the quarter under review. At the same time, on balance respondents continued to assess stock levels to be above normal, with the share

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

[5] 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.

[6] 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.

of respondents expressing this view increasing only marginally from the preceding quarter.[7]

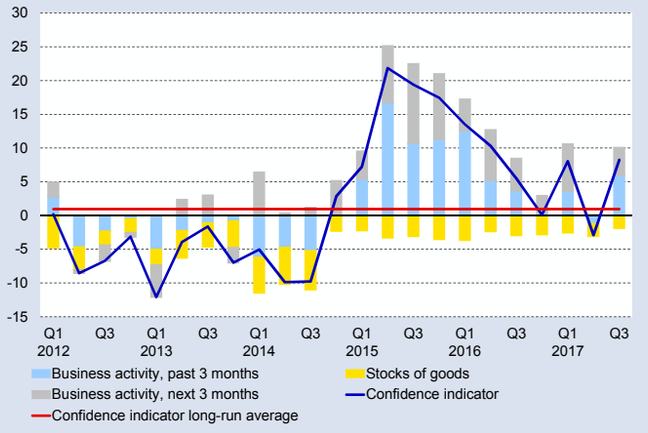
Additional survey data indicate that on balance, both selling prices and employment were expected to rise during the three months ahead.

### *Confidence in the services sector reaches a seven-year high[8]*

In the third quarter of 2017, the confidence indicator in services reached 33, up from 27 in the preceding quarter. Consequently, it rose further above its long-term average of 22 (see Chart 2.4).

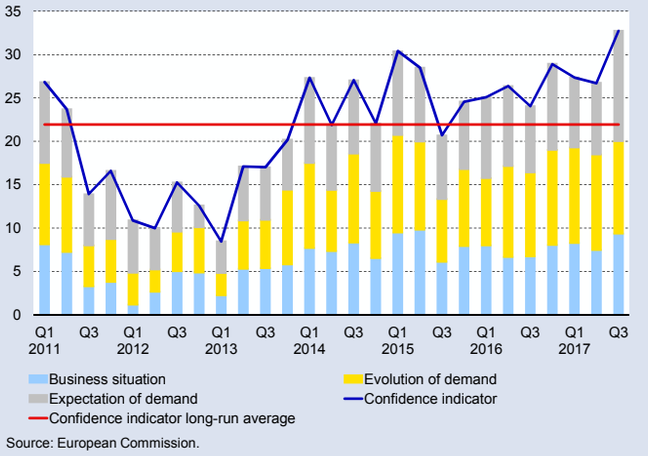
A slight weakening in firms' assessment of past demand was offset by a sharp increase in demand expectations for the following three months. Respondents' assessment of their business situation also rose strongly.

**Chart 2.3**
**RETAIL CONFIDENCE INDICATOR**
*(seasonally adjusted; percentage points)*




Source: European Commission.

**Chart 2.4**
**SERVICES CONFIDENCE INDICATOR**
*(seasonally adjusted; percentage points)*




Source: European Commission.

Additional survey data indicate that a larger net share of respondents reported higher employment in the preceding three months as well as higher employment expectations for the following three months. Also, a larger net share of respondents indicated that they expected prices to increase in the following three months.

### *Confidence in the construction sector rises further[9]*

Sentiment in the construction sector increased significantly during the third quarter of 2017. The indicator reached 17 after turning positive at 11 in the second quarter of 2017. It now stands only marginally below the peak recorded in the second quarter of 2015 (see Chart 2.5).

The rise in confidence during the third quarter of 2017 was entirely driven by firms' employment expectations for the subsequent three months. Indeed, these were more optimistic compared with

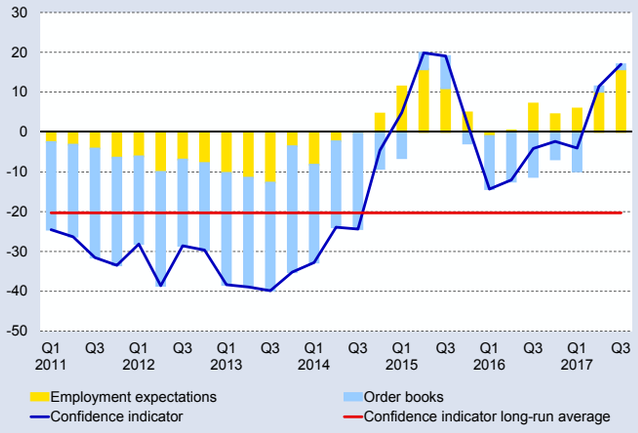
[7] A rise in the balance of above-normal stock levels affect the overall indicator in a negative way.

[8] 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.

[9] 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 second quarter of 2017. Firms' assessment of order books was broadly unchanged after rising above normal in the preceding quarter for the first time in seven quarters.

**Chart 2.5**
**CONSTRUCTION CONFIDENCE INDICATOR**
*(seasonally adjusted; percentage points)*




Source: European Commission.

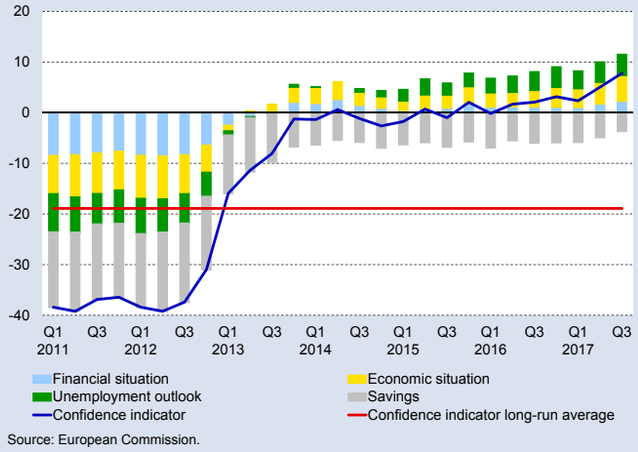
Additional survey data indicate that in the third quarter of this year, more respondents have on balance, reported positive building activity developments during the preceding three months. Overall the survey suggests that the construction sector has been increasingly meeting rising activity through higher utilisation of labour. Indeed, labour shortages are identified as the main factor limiting production in this sector. Meanwhile, a lower net percentage of firms expected selling prices to rise in the subsequent three months.

### *Consumer confidence edges up further*[10]

The consumer confidence indicator rose to 8 in the third quarter of 2017, from 5 in the preceding three-month period, posting the highest reading since the start of the Survey (see Chart 2.6).

Almost all components contributed to the increase in consumer sentiment during the third quarter, with savings expectations for the year ahead being the main driver. Compared with the second quarter of 2017, a larger share of respondents expected the general economic situation and their financial situation over the following 12 months to improve. Respondents on balance continued to expect falling unemployment, although the share of respondents holding this view was broadly unchanged compared with the second quarter of 2017.[11]

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




Source: European Commission.

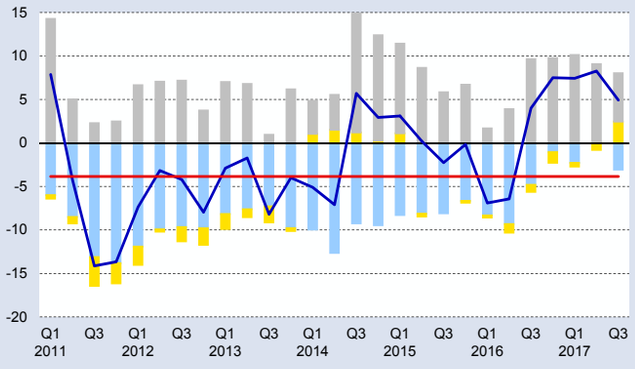
Additional survey data suggest that the share of consumers intending to reduce major purchases over the subsequent 12

[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 2.6.

months decreased further. At the same time, on balance, a marginally higher share of consumers expected inflation to rise.

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




Source: European Commission.

### *Industrial confidence declines*[12]

Confidence in the industrial sector fell to 5 in the third quarter of 2017, from 8 in the preceding quarter, but still remained above its long-term average of -4 (see Chart 2.7).

The decline in industrial sentiment during the quarter under review was driven by both firms' production expectations and their assessment of order books, with a net share of respondents assessing order books to be below normal for the season. In contrast to the second quarter, when stocks of finished goods were assessed to be above normal, respondents assessed stocks of finished goods to be below normal in the third quarter.[13]

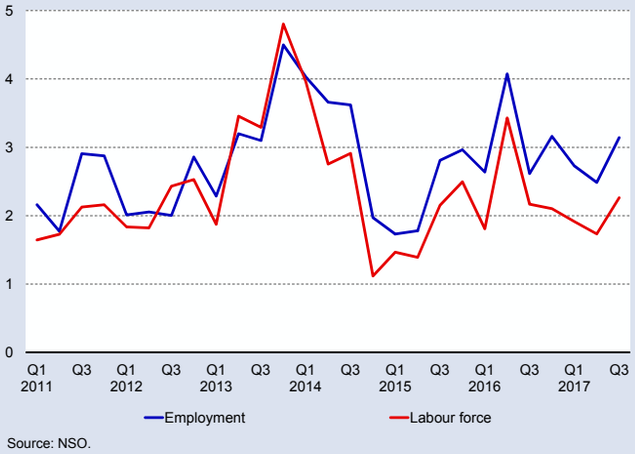
Meanwhile, additional survey data suggest that fewer respondents expected to increase their labour complement in the subsequent three months. At the same time, on balance, fewer respondents expected to decrease their selling prices.

## The labour market[14]

### *Labour force continues to grow strongly*

Labour Force Survey (LFS) data show that in the third quarter of 2017 the labour force grew by 2.3% over the same quarter of 2016, following 1.7% growth in the second quarter of 2017 (see Chart 2.8).[15] Employment accelerated, while the number of unemployed decreased further on a year earlier.

**Chart 2.8**
**LABOUR FORCE AND EMPLOYMENT BASED ON THE LFS**
*(annual percentage changes)*




Source: NSO.

[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] Below-normal stock levels indicate higher turnover and affect the overall indicator in a positive way. Such levels are thus represented by positive bars in Chart 2.7.

[14] 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.

[15] The LFS defines the labour force as all persons aged 15 and over 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.

**Table 2.4**
**LABOUR MARKET INDICATORS BASED ON THE LFS**
*Persons; annual percentage changes*

| | 2016 | | 2017 | | | Annual change |
|---|---|---|---|---|---|---|
| | Q3 | Q4 | Q1 | Q2 | Q3 | % |
| **Labour force** | **204,388** | **201,329** | **200,636** | **205,673** | **209,013** | **2.3** |
| Employed | 194,523 | 192,807 | 192,277 | 197,188 | 200,636 | **3.1** |
| *By type of employment:* | | | | | | |
| Full-time | 165,478 | 164,741 | 164,727 | 168,772 | 172,555 | 4.3 |
| Part-time | 29,045 | 28,066 | 27,550 | 28,416 | 28,081 | -3.3 |
| Unemployed | 9,865 | 8,522 | 8,359 | 8,485 | 8,377 | -15.1 |
| **Activity rate (%)** | **70.0** | **69.1** | **68.7** | **69.9** | **71.1** | |
| Male | 82.9 | 81.9 | 81.2 | 82.2 | 83.4 | |
| Female | 56.6 | 55.7 | 55.6 | 56.9 | 58.1 | |
| **Employment rate (%)** | **66.6** | **66.1** | **65.8** | **67.0** | **68.2** | |
| Male | 79.0 | 78.8 | 77.9 | 78.9 | 80.1 | |
| Female | 53.7 | 52.9 | 53.0 | 54.4 | 55.6 | |
| **Unemployment rate (%)** | **4.8** | **4.2** | **4.2** | **4.1** | **4.0** | |
| Male | 4.6 | 3.7 | 3.9 | 4.0 | 3.9 | |
| Female | 5.1 | 5.1 | 4.5 | 4.4 | 4.2 | |

Source: NSO.

The activity rate stood at 71.1% in the third quarter of 2017, up from 70.0% in the corresponding quarter of 2016.[16] This reflected increased activity among both females and males, with the former registering the largest increase. Indeed, the female participation rate edged up by 1.5 percentage points, to reach 58.1%, while that of males rose by 0.5 percentage point to 83.4% (see Table 2.4).

### *Employment growth remained strong*

The annual rate of change of employment rose to 3.1%, from 2.5% in the second quarter of 2017, and 2.6% in the third quarter of 2016. The increase in employment during the third quarter of 2017 reflected further growth in the number of full-time jobs, as employment on a part-time basis declined (see Table 2.4). Full-time employment increased by 7,077, or 4.3% on the same quarter of 2016, while the number of part-timers, which includes those employed on a full-time with reduced hours basis, fell by 964, or 3.3%, following a 2.1% decline in the preceding quarter.

During the third quarter of 2017 the overall employment rate rose by 1.6 percentage points on the corresponding period of 2016, reaching 68.2%.[17] This reflects developments in both the male and female employment rates, which increased by 1.1 and 1.9 percentage points respectively. The male employment rate reached 80.1%, from 79.0% a year earlier, while that of females rose to 55.6% from 53.7%. Gains were registered among workers aged between 25 and 64, offsetting declines in the employment rates of those aged between 15 and 24.

[16] 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.
[17] 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.

These outcomes suggest that the Government is on track to attain its target of increasing the employment rate to 70.0% by 2020.[18]

### *The unemployment rate edged down further*

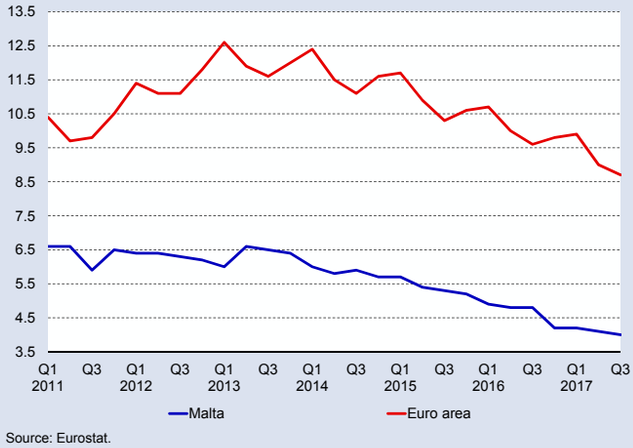
In the third quarter of 2017, the unemployment rate as measured in the LFS stood at 4.0%. This was marginally lower than the 4.1% registered in the preceding quarter, and 0.8 percentage point less than a year earlier.[19] The jobless rate for males declined by 0.7 percentage point to 3.9%, while that of females fell by 0.9 percentage point to 4.2% compared with the third quarter of 2016 (see Table 2.4).

The LFS unemployment rate in Malta remains well below the average rate for the euro area, though the latter also continued to decline (see Chart 2.9).

Jobsplus data also show favourable labour market developments. The average number of registered unemployed stood at 2,487 in the third quarter of 2017, 789 persons less than those registered in the same quarter of 2016 (see Chart 2.10).

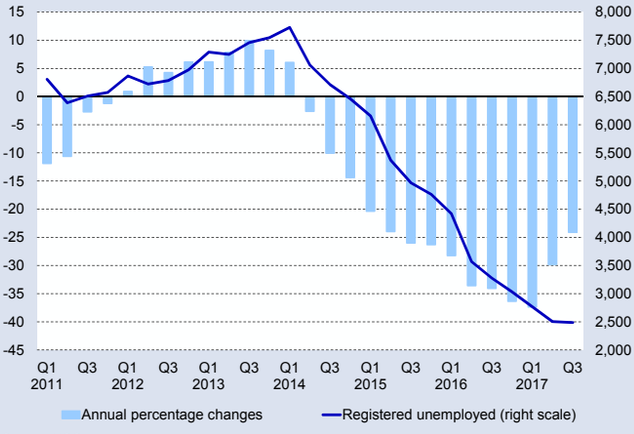
Apart from a growing demand for labour, the drop in the number of registered unemployed since the beginning of 2014 was also influenced by a range of measures aimed at reducing reliance on social benefits, as well as the extension of schemes which encourage employment, training and re-skilling.

**Chart 2.9**
**UNEMPLOYMENT RATE**
*(per cent)*




Source: Eurostat.

**Chart 2.10**
**REGISTERED UNEMPLOYED**
*(annual percentage changes; persons)*




Source: NSO.

[18] See *The National Employment Policy*, Ministry for Education and Employment, May 2014, p. 13 and *Malta: National Reform Programme 2017*, Ministry for Finance, April 2017, p. 33.

[19] 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.

## BOX 3: THE MACROECONOMIC IMPACT OF STRUCTURAL REFORMS IN THE ENERGY SECTOR[1]

The European Union's energy policy requires all Member States to reform existing power systems and decrease their reliance on single, vertically integrated power suppliers. Malta's small size and geographic isolation implies that it does not have to comply with all EC directives; most notably those regarding the unbundling of distribution system operators, third-party access and market opening. However, in line with the EU Energy Roadmap 2050, Malta is required to reduce the vulnerability of its electricity generation to fossil fuel prices and potential import disruptions. To this end, the Maltese authorities have enacted a number of reforms aimed at diversifying the island's energy mix and increase the efficiency of its electricity production. First, authorities opted to install a high voltage alternating current undersea cable that connects Malta's energy grid with Italy's. Second, in a bid to reduce the carbon footprint of domestic energy generation, authorities entered into an agreement with Shanghai Electric power Co. Ltd to convert Delimara 3 power station from one operating on heavy fuel oil to gas.[2]

This Box seeks to discuss the medium-to-long run macroeconomic impact of these energy reforms. Results are estimated using MEDSEA, a newly developed general equilibrium model for the Maltese economy.[3] This model is simulated using information derived from a recent international study that estimated the reduction in Enemalta's marginal costs of production as a result of these reforms.[4]

### Existing studies

A Central Bank of Malta study conducted in 2014 used the Bank's traditional econometric model to estimate the macroeconomic effect of a 25% reduction in utility tariffs enacted in 2014.[5] Results show that the overall impact of these reductions would reach a peak of 0.65% of GDP by 2020, with most of this improvement being driven by the reduction in commercial tariffs that is assumed to directly affect export prices. Due to the type of model used, this study is only able to capture part of the effects of the reforms in the Maltese energy sector. For instance, the study is unable to capture the positive effects of higher surpluses accruing to Enemalta, which boost economic activity from the income side. Moreover, this study does not take into consideration the major investments that are being undertaken to improve the efficiency of Maltese energy production.

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1 Prepared by Noel Rapa. The author is a Senior Research Economist within the Economics and Research Department at the Central Bank of Malta. The views expressed in this Box are the author's own and do not necessarily represent the views of the Bank. The Box builds on the results presented in Rapa, N. (2017). "The macroeconomic effects of efficiency gains in electricity production in Malta", Policy Note, Central Bank of Malta.

2 The energy reforms currently underway also envisage the installation of a new combined cycle gas-fired power plant, Delimara 4. To the author's knowledge, at the time of writing no information on the effect of this plant on Enemalta's marginal cost of energy production was available. Thus this part of the energy sector reform is not dealt with in this Box.

3 Rapa, N. (2016). "MEDSEA: A small open economy DSGE model for Malta", Working Paper 05/2016, Central Bank of Malta.

4 Ries, J., Gaudard, L., & F. Romerio. (2016). "Interconnecting an isolated electricity system to the European market: The case of Malta", *Utilities Policy*, 40, pp. 1-14.

5 Grech, A. G. (2014). "An estimate of the possible impact of lower electricity and water tariffs on the Maltese economy", Working Paper 01/2014, Central Bank of Malta.

Another study by the Ministry for Finance takes into consideration the higher government investment carried out to undertake these reforms.[6] However, similar to the earlier study by the Central Bank of Malta, this study does not take into consideration the extent to which these reforms will translate into lower marginal costs for Enemalta and consequently, into lower utility tariffs for its customers. Results show that by the sixth year, economic activity is expected to increase by 1.78% due to the reduction in utility tariffs and by a total of 2.93% when considering the government investment undertaken in the energy reforms.

## Quantifying efficiency gains in electricity production

In a recently published study, three authors from the London School of Economics estimated the extent to which these reforms in the energy market will impact Enemalta's marginal cost of electricity production. Enemalta's power plants contain a number of generators with different efficiency rates. As demand for electricity increases, Enemalta is required to use the least efficient generator so as to meet energy demand.[7] The marginal cost of producing an extra MWh of electricity is therefore given by the marginal cost of the last generation unit used to satisfy any level of electricity consumption. To get at an average clearing price, the authors propose an algorithm that runs through the hourly electricity consumption in Malta between 2007 and 2010 and optimally chooses which energy sources to be used. This experiment is then repeated over a number of energy setups.

This Box takes into consideration three energy setups: an isolated setup prior to the installation of the interconnector and in which both Delimara and Marsa power stations are operative (EPS 2010), a system in which the Marsa power plant has been decommissioned and where the interconnector gives access to Sicilian energy production (EPS 2015), and a system identical to EPS 2015 but in which Delimara 3 generators are converted to natural gas (EPS 2015NG). The interconnector grants Enemalta the possibility to either import or export electricity from or to the Italian grid. Since the Italian energy system is "mature", the Sicilian spot price is lower than the marginal cost of most of Enemalta's existent generators. Moreover, given the higher efficiency of the gas fired turbines, the cost per MWh of Delimara 3 is projected to be lower after the planned conversion.[8] To take into consideration that effects on marginal costs are non-linear in the prevailing oil price level, this Box will take into consideration three oil price levels, a baseline (BOPS), a low price (LOPS) and a high price (HOPS) scenario.[9,10]

Results in Table 1 show that the change in the marginal cost of electricity generation depends on both the generation setup and oil prices. While in both BOPS and HOPS scenarios the EPS 2015 setup is consistent with a reduction in marginal cost, under LOPS,

6 Ministry for Finance (2016). *Malta National Reform Programme*, pp. 13-14.

7 This implies that the marginal cost of electricity production depends on the level of electricity demand.

8 Note that under EPS 2015, electricity can be either generated by the Delimara plants or imported through the interconnector. Under EPS 2015NG, electricity can be either generated from the Delimara plants (in which Delimara 3 plant has been converted to natural gas) or imported from the interconnector. Under both scenarios, it is assumed that the energy mix (how much electricity is produced by the local plants, and how much is imported through the interconnector) is optimally determined depending on electricity demand, on the relative efficiency levels of the different energy sources, as well as on prices for gas oil, heavy fuel oil and in the case of EPS 2015NG, on natural gas prices.

9 Price levels in Euro per kg under BOPS: Heavy fuel oil: 0.42, Gas oil: 0.74, Natural gas: 0.42; LOPS: Heavy fuel oil: 0.24, Gas oil: 0.41, Natural gas: 0.28; HOPS: Heavy fuel oil: 0.60, Gas oil: 1.02, Natural gas: 0.56. In the last 12 months, the Brent crude oil price averaged EUR 0.46/kg.

10 Note that these price scenarios are based on the historical relationship that exists between natural gas and crude oil prices and thus, might not take into consideration that this relationship has weakened significantly over the last three years.

**Table 1**
**RESULTS FOR MARGINAL COST OF ELECTRICITY PRODUCTION FOR DIFFERENT SCENARIOS**

| | Baseline Oil Prices (BOPS) | | | Low Oil Prices (LOPS) | | | High Oil Prices (HOPS) | | |
|---|---|---|---|---|---|---|---|---|---|
| | EPS 2010 | EPS 2015 | EPS 2015 NG | EPS 2010 | EPS 2015 | EPS 2015 NG | EPS 2010 | EPS 2015 | EPS 2015 NG |
| Marginal cost of electricity (€MWh$^{-1}$ ) | 140 | 105 | 95 | 80 | 85 | 70 | 205 | 125 | 110 |
| % change in marginal cost vs baseline | | -25.0 | -32.1 | | 6.3 | -12.5 | | -39.0 | -46.3 |

Source: Ries et al. (2016).

a reduction in marginal costs will only be achievable with the future gas-fired setup. In general, the future setup of natural gas-fired turbines helps reduce marginal costs across all oil price scenarios. Apart from reducing marginal costs, the setup of the interconnector and the conversion of the existent turbines to natural gas helps reduce Malta's sensitivity to international oil prices.[11] Indeed prior to these reforms, marginal costs under HOPS are 156% higher than under LOPS. Under EPS 2015 and EPS 2015NG, the difference in marginal costs between HOPS and LOPS falls to 47% and 57%, respectively.

## Quantifying the macroeconomic impact of these reforms

To estimate how changes in the marginal costs of electricity generation translate into changes in economy-wide average marginal costs, the 2010 input-output tables are used to estimate the share of the value of electricity inputs arising directly and indirectly in total intermediate domestic production.[12] In 2010, this share stood at around 5.8%. MEDSEA is then simulated using a technology shock that is calibrated so as to change economy-wide marginal costs by the estimated amount. For the purpose of this exercise it was assumed that the changes in marginal costs faced by Enemalta will be fully passed on to consumers in five years. Moreover, it is assumed that economic agents are aware of the future falls in marginal costs, assuming that there is no uncertainty with regards to the pass-through of these efficiency gains to the rest of the economy.

Two sets of results are reported: the new long-run values as well as the transition of a number of variables of interest from the initial to the new steady state. Results in Table 2 show that in the baseline oil price scenario (BOPS) an energy setup with an interconnector and the decommissioning of Marsa power station (EPS 2015) raises long-run output by 1.61%.[13] An increase in long-run productivity brings about an increase in long-run real wages leading to a positive income effect that raises long-run consumption. Improvements in long-run productivity outstrip those in real wages implying a reduction in unit labour

[11] The sensitivity of Maltese economic activity to international oil prices is confirmed by simulation results using STREAM - (Grech, O., & Rapa, N. (2016), "STREAM: A Structural Macro-Econometric Model of the Maltese Economy", Working Paper 01/2016, Central Bank of Malta. Under baseline oil prices, a 20% increase in international oil prices results in a fall of 0.74% in economic activity.

[12] Since the simulation exercise features a shock to domestic technology that changes marginal costs faced by local intermediate firms excluding directly imported costs, the share of electricity on overall production costs needs to be computed vis-à-vis total intermediate production excluding direct imports (as opposed to total output).This share is computed on the basis of the 2010 input-output tables for Malta published by NSO in 2016.

[13] All results presented in this study are based on the assumption of a full pass-through of the efficiency gains to the rest of the economy under all electric power systems (EPS 2015 and EPS 2015NG) and under all oil price scenarios (BOPS, LOPS and HOPS).

**Table 2**
**LONG-RUN MACROECONOMIC EFFECTS OF ELECTRICITY GENERATION REFORMS**
*% deviation from baseline*

| | Baseline Oil Prices | | Low Oil Prices | | High Oil Prices | |
|---|---|---|---|---|---|---|
| | EPS 2015 | EPS 2015 NG | EPS 2015 | EPS 2015 NG | EPS 2015 | EPS 2015 NG |
| **Real activity** | | | | | | |
| GDP | 1.61 | 2.08 | -0.41 | 0.81 | 2.53 | 3.00 |
| Consumption | 1.25 | 1.59 | -0.31 | 0.63 | 1.94 | 2.30 |
| Investment | 0.60 | 0.75 | -0.16 | 0.30 | 0.90 | 1.11 |
| Exports | 1.60 | 2.06 | -0.40 | 0.80 | 2.50 | 2.97 |
| Imports | 1.33 | 1.72 | -0.34 | 0.67 | 2.09 | 2.47 |
| **Labour market** | | | | | | |
| Real Wages | 1.05 | 1.37 | -0.28 | 0.53 | 1.65 | 1.95 |
| Productivity | 1.80 | 2.32 | -0.45 | 0.90 | 2.81 | 3.34 |
| ULC | -0.70 | -0.88 | 0.19 | -0.33 | -1.12 | -1.30 |
| **Relative Prices** | | | | | | |
| REER[(1)] | -0.26 | -0.34 | 0.07 | -0.13 | -0.41 | -0.48 |

[(1)] Percentage deviation from baseline.

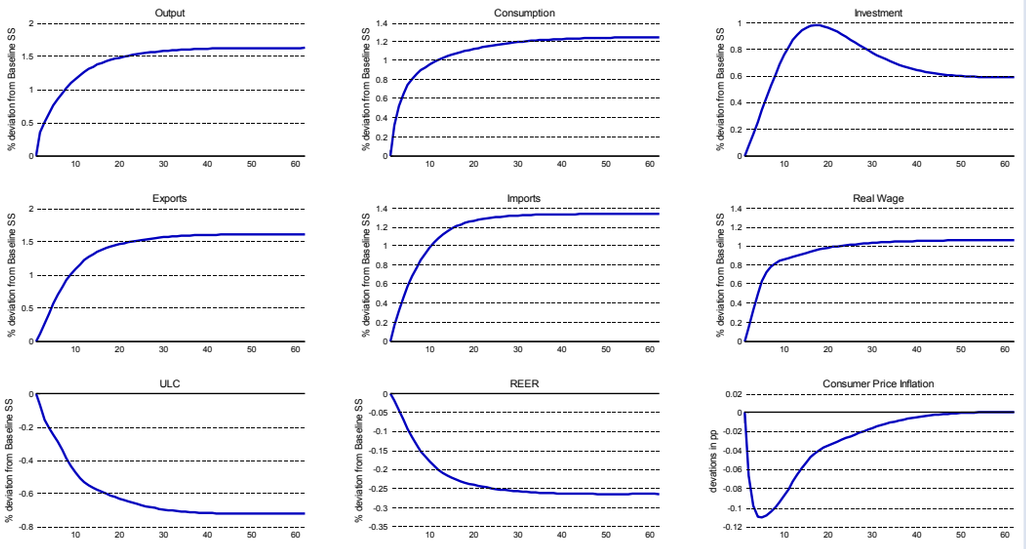
Source: Author's calculations.

costs. Moreover, efficiency gains in both domestic and foreign oriented sectors lead to lower price pressures and a depreciation of the real effective exchange rate, which translates in improvements in the country's price competitiveness. This explains a long-run increase in the exports level of 1.6%. Finally, higher capital productivity reduces the implicit price of capital leading to higher investment in the long-run.

Mirroring the results shown in Table 1, the long-run gains in output following the installation of the interconnector are very sensitive to the prevailing oil price level, ranging from an output loss of around 0.4% in the case of LOPS, to a gain of around 2.5% in the case of HOPS. On the other hand, plans to fire a number of generators through natural gas have positive macroeconomic effects in all three oil price scenarios considered. This proposed energy setup is expected to raise economic activity by 0.81% in the case of LOPS, 2.08% in the case of BOPS and by a maximum of 3.00% under HOPS.

Transition dynamics enable the tracking of the transmission mechanism of this shock throughout the economy. Chart 1 illustrates transition dynamics from the initial to the new steady state under baseline oil prices and under EPS 2015 assuming that Enemalta will pass on all the efficiency gains to its consumers over five years. The impulse responses show that the new steady state output is reached after almost ten years, five years after the overall marginal costs in the economy have stopped falling due to lower energy prices. Following the shock, the increased level of efficiency with which factors of production are used leads to lower overall price pressures, leading to an immediate improvement in Malta's cost competitiveness. Improved economic prospects lead consumers to quickly increase consumption. Lower local production costs lead to somewhat higher demand for domestically produced goods at the expense of imported production. Real wages increase quickly,

**Chart 1**
**TRANSITION DYNAMICS – BASELINE PRICES, EPS 2015**




Source: Author's calculations.

driven by higher labour productivity and lower inflation. Notwithstanding higher real rates, consumption and investment increase, driven by a positive income effect and by higher capital productivity.

As expected, the effects on economic activity under baseline oil prices and under EPS 2015 are stronger than those reported in a previous Central Bank of Malta study, which excluded the effects of the positive economic rents accruing to Enemalta after the energy reforms.[14] The results pertaining to overall GDP under the same scenario are however in line with those published by the Ministry for Finance, both in terms of their magnitude and transition dynamics.

The results discussed above do not take into consideration the positive demand side effects stemming from the public and private investment needed to undertake these reforms. To estimate these effects a version of MEDSEA, which has been extended to include a detailed fiscal block,[15] was simulated using data on the actual investment undertaken to carry out all energy reforms. When including these demand side effects, the rise in overall output is expected to be faster and more pronounced, especially in the short run. The effects on output stemming from the investment shocks are expected to be much lower in the medium-to-long run, especially as all capital projects related to the energy reforms are completed. Indeed by 2025, output is expected to rise between 2% and 2.5% when compared to steady state, or around 0.5% higher than the results reported in Table 2.

[14] Both Grech (2014) and the Ministry for Finance (2016) assume a fall in energy tariffs of 25%. Under a perfect pass-through assumption, this is consistent with the results under baseline oil prices with EPS 2015, which predicts a fall in marginal costs of around 25% (see Table 1).

[15] Rapa, N. (2017). "Estimates of Fiscal Multipliers using MEDSEA", Working Paper 04/2017, Central Bank of Malta.

# 3. PRICES, COSTS AND COMPETITIVENESS

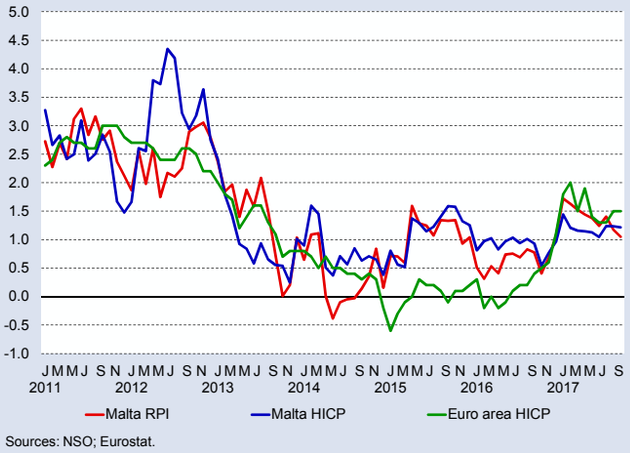
*Consumer price pressures remained contained during the third quarter of 2017. The annual growth rate of the Harmonised Index of Consumer Prices (HICP) stood at 1.2% in September, while annual inflation based on the Retail Price Index (RPI) registered 1.0%. On the other hand, domestic production costs accelerated further, with the annual rate of change of the Producer Price Index (PPI) reaching 3.7% in September. As regards competitiveness, annual growth in Malta's unit labour costs (ULC) contracted, while Harmonised Competitiveness Indicators (HCI) continued to indicate a deterioration in competitiveness, owing mainly to unfavourable exchange rate movements.*

## Inflation

### *HICP inflation remains contained*

Price pressures remained moderate during the third quarter of 2017, with the annual rate of HICP inflation standing at 1.2% in September (see Chart 3.1).[1] Though higher than the rate of 1.0% registered in June, price pressures remained below the level observed in the euro area, where HICP inflation stood at 1.5%.

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




Sources: NSO; Eurostat.

Among the main subcomponents, services inflation registered the largest pick up, rising to 1.5% in September from 0.9% in June (see Table 3.1 and Chart 3.2). This reflected developments across a number of

**Table 3.1**
**HICP INFLATION**
*Annual percentage change*

| | 2017 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sep. |
| Unprocessed food | 8.4 | 6.8 | 5.4 | 3.7 | 1.3 | 2.1 | 2.1 | 0.7 | 0.6 |
| Processed food including alcohol and tobacco | 2.4 | 2.3 | 2.4 | 2.3 | 2.3 | 2.2 | 2.3 | 2.5 | 2.7 |
| Energy | -1.0 | -1.0 | -1.0 | 1.3 | 1.5 | 1.5 | 1.5 | 1.7 | 1.7 |
| Non-energy industrial goods | 1.6 | 0.5 | 0.4 | 0.2 | 0.3 | 0.1 | 0.5 | 0.3 | -0.2 |
| Services (overall index excluding goods) | 0.4 | 0.7 | 0.9 | 0.9 | 1.1 | 0.9 | 1.1 | 1.3 | 1.5 |
| **All Items HICP** | **1.4** | **1.2** | **1.2** | **1.1** | **1.1** | **1.0** | **1.2** | **1.2** | **1.2** |

Source: Eurostat.

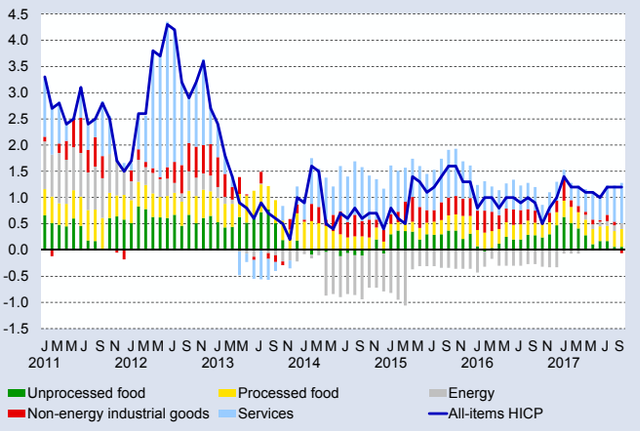
[1] The HICP weights are revised on an annual basis to reflect changes in household consumption patterns. In 2017 the weight allocated to energy stood at 6.6%, while that of non-energy industrial goods was 28.9%. Services accounted for 44.2% of the index, while the share allocated to food stood at 20.3%.

services components, including air transport, catering services, housing services and communication (see Chart 3.3). The contribution of services inflation to overall HICP thus rose by 0.3 percentage point, to 0.9 percentage point.

Energy inflation also picked up, going to 1.7% in September from 1.5% three months earlier. This reflected an increase in gas prices in August, following more than one year of stable prices. Nonetheless, the impact on overall inflation was minimal, with the contribution of energy inflation remaining unchanged at 0.1 percentage point throughout the third quarter.

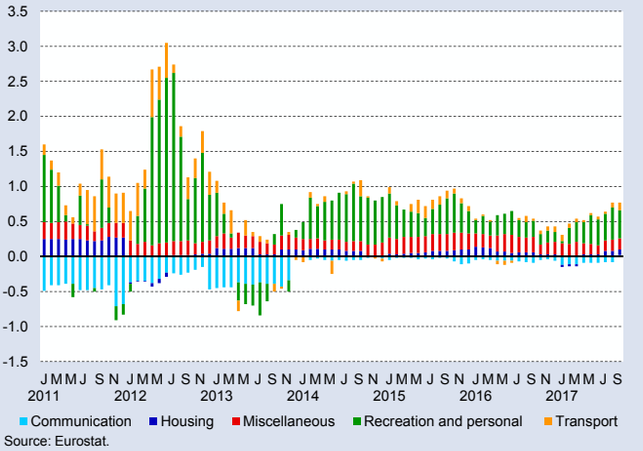
On the other hand, food inflation eased marginally during the period under review, going to 2.0% from 2.2% three months earlier. This mainly reflected developments in unprocessed food inflation, which eased from 2.1% to 0.6%. This deceleration, which was driven by movements in vegetable prices, offset an increase in processed food inflation. As a result, the contribution of food inflation to overall HICP dropped by 0.1 point, to 0.4 percentage point.

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




Source: Eurostat.

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



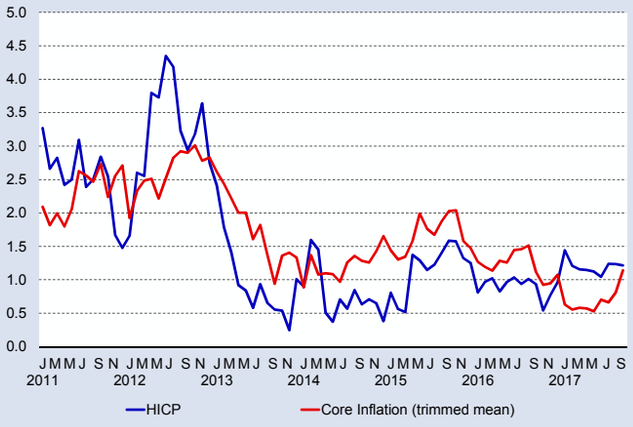

Source: Eurostat.

Similarly, NEIG inflation weakened further during the quarter under review, going from 0.1% in June to -0.2% in September. This largely reflected developments in the prices of clothing, motor vehicles and household appliances. As a result, the overall contribution of this component to headline inflation dropped to -0.1 point, from zero three months earlier. Inflation within this component has been weak for some time, mirroring developments in the corresponding index for the euro area. This ongoing weakness could also reflect the impact of the stronger euro/sterling exchange rate on goods imported from the United Kingdom, as well as competitive pressures in a number of industries.

### *Core HICP inflation rises*

The Bank's measure of core HICP inflation rose during the third quarter, going from 0.7% in June, to 1.1% in September (see Chart 3.4).[2] Nonetheless, core inflation remains slightly below the headline index.

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




Sources: Eurostat; Central Bank of Malta estimates.

### *RPI inflation decelerates*

Annual inflation based on the RPI index eased during the third quarter of 2017, going to 1.0% in September from 1.2% three months earlier.[3] This slowdown mainly reflected a lower contribution from food inflation (see Table 3.2). The different direction of movement in the HICP and the RPI indices during the third quarter reflects differences in the subcomponent weights in the respective baskets.

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

| | 2017 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sep. |
| Food | 1.2 | 1.2 | 1.1 | 1.0 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 |
| Beverages and tobacco | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Clothing and footwear | 0.0 | -0.1 | -0.1 | -0.1 | -0.2 | -0.3 | -0.1 | -0.1 | -0.3 |
| Housing | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 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 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |
| Transport and communications | -0.2 | -0.1 | -0.1 | -0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 |
| 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 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Other goods and services | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 |
| **RPI (annual percentage change)** | **1.7** | **1.6** | **1.5** | **1.4** | **1.4** | **1.2** | **1.4** | **1.2** | **1.0** |

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.

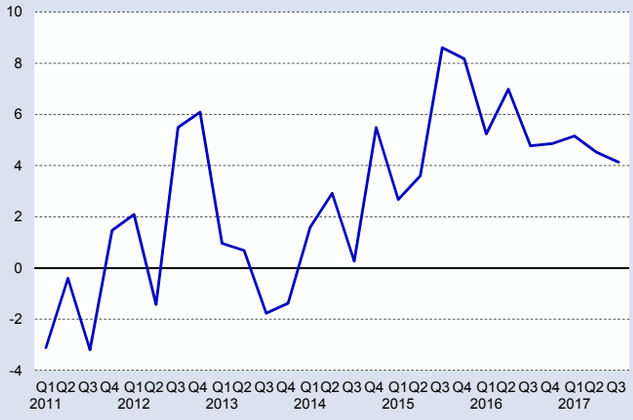
[3] The RPI index differs from the HICP index in that RPI weights are based on expenditure by Maltese households, while HICP weights also reflect expenditure patterns by tourists in Malta. The allocation of weights in both indices was changed at the start of 2017.

## Residential property prices

### *Residential property prices decelerate*

The National Statistics Office's (NSO) Property Price Index increased at a slightly more moderate pace during the third quarter of 2017 (see Chart 3.5). The index, which is based on actual transactions involving apartments, maisonettes and terraced houses, rose by 4.1% on an annual basis, following a 4.5% increase in the second quarter.[4] Similarly, the rate of increase registered in the euro area stood at 4.1% in the third quarter.

**Chart 3.5**
**MOVEMENTS IN RESIDENTIAL PROPERTY PRICES**
*(annual percentage changes)*




Source: Eurostat.

Residential property prices are being supported by a number of factors, including the Government's scheme for first-time buyers and a low interest rate environment which makes property a more attractive asset.[5] Buoyant labour market conditions and strong growth in disposable income, together with the rise in foreign workers and, to a lesser extent, the Individual Investor Programme, also continue to lift property prices. At the same time, the strong growth in residential permits recorded in recent quarters should take off some of the upward pressure on house prices, as new construction activity counters excess demand for property.

## Costs and competitiveness

### *Producer prices pick up further*

Cost inflation accelerated further during the quarter under review, with annual inflation based on the PPI going up to 3.7% in September, from 1.2% three months earlier.[6] The intermediate goods sub-sector, which is the largest component of the index, was the main driver behind this acceleration, reflecting developments in items such as electronics, semiconductors, and metal products. On the other hand, the contribution from consumer goods dropped slightly, while contributions from capital goods and energy remained small and largely unchanged.

### *HCIs point to deterioration in international competitiveness*

Annual growth in Malta's nominal HCI, a measure of international competitiveness based on trade-weighted exchange rates, accelerated to 2.9% in September, from 1.6% three months earlier

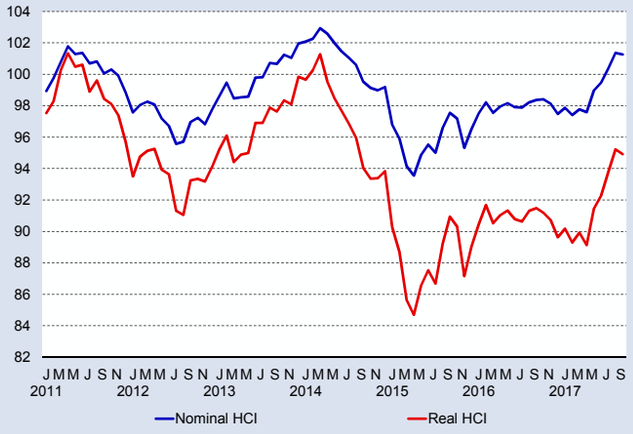
[4] 'Apartments' are defined as dwellings with self-contained rooms or a suite of rooms that have a separate entrance accessible from a common passage way, landing or stairway. 'Maisonettes' have a separate entrance that is accessible from the street and are either at ground-floor level with overlying 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] This scheme, which was introduced in 2013 and subsequently extended, provides relief from the duty on documents due on the first €150,000 of the total value paid for the purchase of eligible property.

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

(see Chart 3.6).[7] Similarly, annual growth in the real HCI, which also takes into account differences in relative consumer prices, rose from 1.6% in June to 3.8% in September. These figures indicate an overall deterioration in Malta's international competitiveness, caused by the strengthening of the euro against major currencies and, to a lesser extent, changes in relative prices.

**Chart 3.6**
**HARMONISED COMPETITIVENESS INDICATORS**
*(May 2004 = 100)*

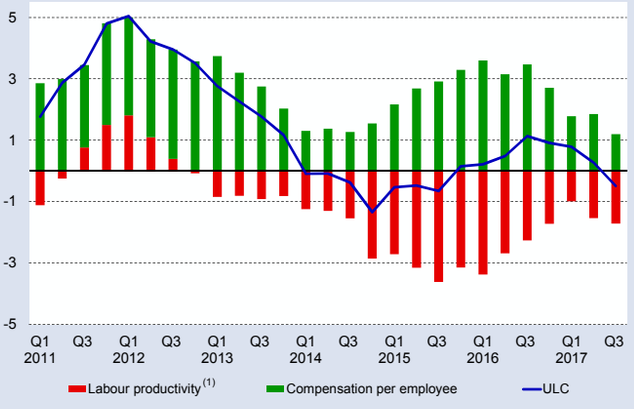



Source: ECB.

## *Unit labour costs contract*

The ULC index, which is measured as the ratio of compensation per employee to labour productivity, declined during the third quarter of 2017. Measured on a four-quarter moving average basis, the annual growth rate of Malta's ULC stood at -0.5%, down from 0.3% in the previous quarter. ULC growth has decelerated in recent quarters. This reflects slower annual growth in compensation per employee, which in the third quarter moderated to 1.2%, from 1.9% previously. At the same time, a pick-up in productivity growth also had a downward impact on ULC growth. Labour productivity grew by 1.7% in the third quarter, following a 1.5% increase in the previous period (see Chart 3.7).[8]

**Chart 3.7**
**DECOMPOSITION OF UNIT LABOUR COSTS IN MALTA**
*(annual percentage change; four-quarter moving average)*




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

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

[8] 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.

# 4. THE BALANCE OF PAYMENTS

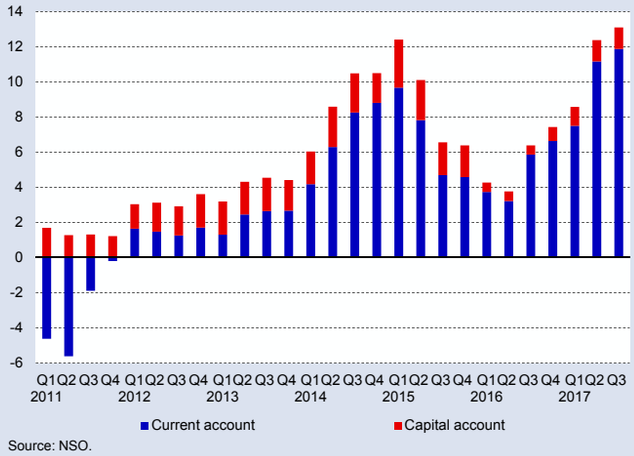
*During the third quarter of 2017 the surplus on the current account of the balance of payments increased when compared with the corresponding quarter of 2016. This rise was almost entirely attributable to higher net services receipts. Nonetheless, a narrowing in the merchandise trade gap and a small increase in net inflows from secondary income also contributed. These movements offset higher net outflows from primary income. Meanwhile, net inflows on the capital account rose on a year earlier, while lower net lending was recorded on the financial account.*

## The current account

### *The current account surplus widens further*

Between July and September 2017, the current account registered a surplus of €443.3 million, an increase of €103.2 million on the same months of 2016. This improvement was largely driven by a higher surplus from trade in services. When measured on a four-quarter moving sum basis, the surplus on the current account stood at €1,260.7 million, more than twice the €571.7 million recorded in the 12 months to September 2016. This increase was mostly attributable to higher net services receipts and a lower merchandise trade deficit (see Table 4.1). As a result, the current account surplus rose to 11.9% of gross domestic product (GDP), up from 5.9% over the four quarters ending in September 2016 (see Chart 4.1).

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




Source: NSO.

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

| | Four-quarter moving sums | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2016 Q3 | 2016 Q4 | 2017 Q1 | 2017 Q2 | 2017 Q3 | 2016 Q3 | 2017 Q3 |
| **Current account** | **571.7** | **658.2** | **759.2** | **1,157.4** | **1,260.7** | **340.1** | **443.3** |
| Goods | -1,931.6 | -1,909.3 | -1,925.1 | -1,700.9 | -1,693.0 | -508.4 | -500.5 |
| Services | 2,880.6 | 3,028.2 | 3,133.6 | 3,313.1 | 3,415.3 | 973.8 | 1,075.9 |
| Primary income | -605.3 | -685.6 | -675.5 | -684.7 | -693.5 | -183.8 | -192.5 |
| Secondary income | 227.9 | 224.9 | 226.2 | 229.9 | 231.8 | 58.5 | 60.4 |
| **Capital account** | **51.0** | **79.3** | **109.1** | **126.0** | **130.2** | **0.8** | **5.0** |
| **Financial account**[(1)] | **1,253.7** | **1,351.3** | **1,617.5** | **1,758.3** | **1,319.8** | **538.8** | **100.3** |
| **Errors and omissions** | **631.1** | **613.7** | **749.1** | **474.9** | **-71.1** | **198.0** | **-348.0** |

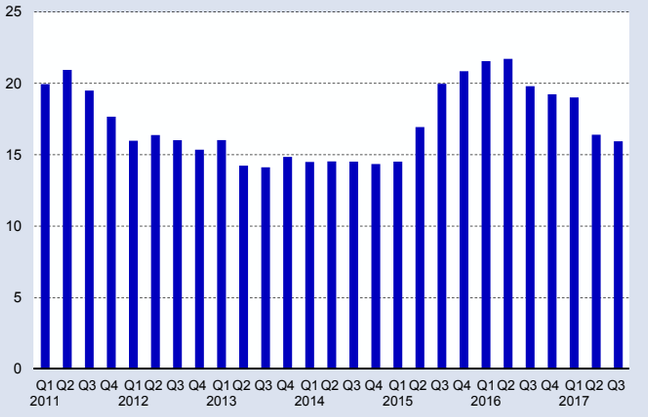
(1) Net lending (+) / net borrowing (-).

Source: NSO.

### *The merchandise trade deficit narrows marginally*

In the third quarter of 2017, the merchandise trade deficit stood at €500.5 million, €7.9 million less than the deficit recorded in the corresponding period of 2016. This was due to a contraction in imports that outpaced a drop in exports.

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




Source: NSO.

When measured on a four-quarter cumulative basis, the visible trade gap narrowed by €238.6 million to €1,693.0 million in the September quarter of 2017. This improvement stemmed from a €254.7 million decline in imports, which partly reflected the decrease in capital imports from their previous peak. Meanwhile, exports dropped by €16.1 million on a year earlier. As a result, the merchandise deficit's share in GDP decreased to 15.9%, from 19.8% a year earlier (see Chart 4.2).

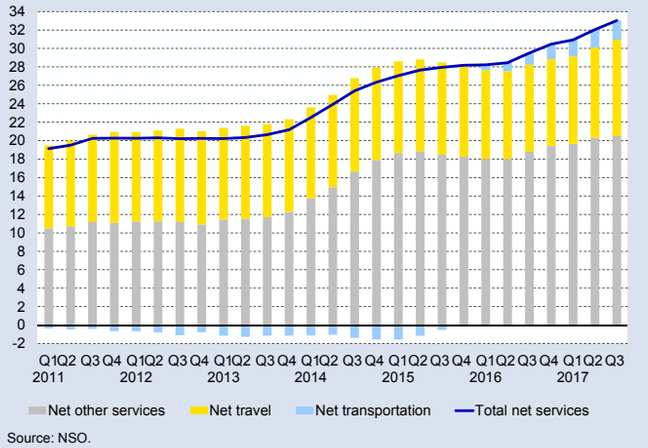
### *The surplus on services rises further*

In the quarter under review, the net surplus generated by the services industry reached €1,075.9 million, an increase of €102.2 million on the third quarter of 2016. Higher net receipts were stimulated by exports, which rose faster than imports. Although this improvement was broad-based across economic sectors, it was mainly driven by the travel sub-sector. Higher net travel exports rose by €70.7 million, as a significant rise in inbound tourists' spending offset higher expenditure by Maltese residents abroad. At the same time, net receipts from the "other services" category increased by €18.5 million, mainly spurred by a rise in exports related to remote gaming.

During the September quarter, net transport receipts edged up by €12.9 million on the same quarter of 2016, mainly reflecting a decline in payments but also the continued expansion of the aviation services industry.

When measured on a four-quarter cumulative basis, the overall surplus on the services balance rose to €3,415.3 million in the four quarters to September 2017, partly, reflecting developments in the period under review. As a per cent of GDP, net service receipts rose to 33.0% of GDP from 29.5% 12 months earlier (see Chart 4.3).

**Chart 4.3**
**SERVICES BALANCE**
*(four-quarter moving sums as a percentage of GDP)*




Source: NSO.

### *Primary income account records higher net outflows*[1]

During the third quarter of 2017, net outflows on the primary income account stood at €192.5 million, compared with net outflows of €183.8 million in the same period of 2016. Higher net outflows were partly driven by lower net portfolio income. When measured on a four-quarter moving sum basis, net outflows on this account reached €693.5 million in the year to September 2017, €88.2 million more than a year earlier. Developments on this component of the current account continued to be strongly influenced by internationally-oriented firms which transact predominantly with non-residents.

### *Inflows on the secondary income account increase*[2]

In the July to September period of 2017, net inflows on the secondary income account rose by €1.9 million on a year earlier, to stand at €60.4 million. In the 12 months to September 2017, net inflows on the secondary income reached €231.8 million, marginally higher than the amount recorded a year earlier.

## Tourism activity

### *Activity in the tourism sector remains strong*

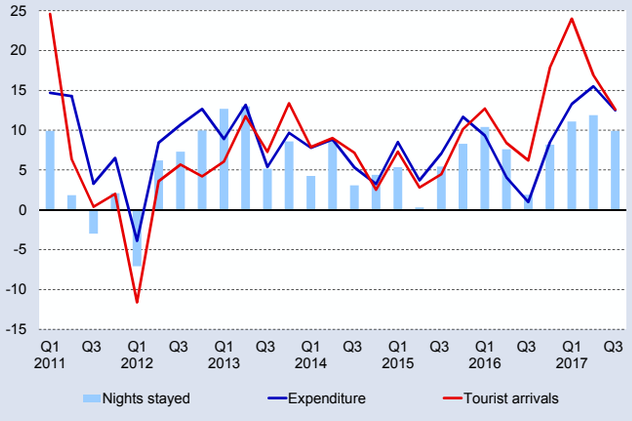
In the third quarter of 2017, the tourism sector continued to expand at a solid pace, with inbound tourists, nights stayed in Malta and expenditure each growing at strong rates in annual terms.

The number of inbound tourists reached 771,791 in the third quarter of 2017, an increase of 12.6% compared with the same period a year earlier (see Chart 4.4). Tourists visiting Malta for leisure purposes were once again the main drivers behind this increase, although the number of tourists visiting for business purposes and other motives also rose.

In the three months to September, the number of nights that tourists spent in Malta reached 6.5 million, a rise of 9.9% on the same period a year earlier. Growth was primarily driven by an increase in nights stayed in private accommodation, which were up by 17.7% on the same period of the preceding year. Meanwhile, nights spent in collective accommodation increased by a more modest 3.1%.[3]

In the third quarter of 2017, tourist expenditure in Malta was up by 12.5% on a year earlier, reaching €786.5 million.[4] In absolute terms, higher spending was once again reported on both

**Chart 4.4**
**TOURISM INDICATORS**
*(quarterly averages; annual percentage changes)*




Source: NSO.

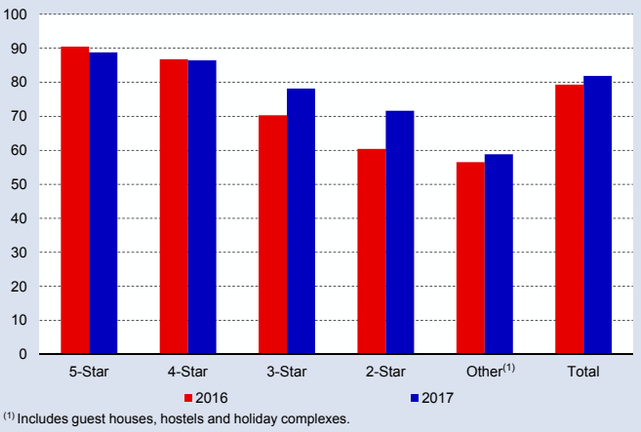
[1] The primary income account shows income flows related mainly to cross-border investment and compensation of employees.
[2] The secondary income account shows current transfers between residents and non-residents.
[3] Private accommodation includes self-catering apartments, farmhouses and private residences. As per Eurostat recommendation, time-share accommodation is classified as "private accommodation". Collective accommodation comprises hotels, aparthotels, guesthouses, hostels and tourist villages.
[4] Total expenditure is split into package, non-package and "other" with the latter component capturing any additional expenditure by tourists during their stay in Malta, such as expenditure on excursions and entertainment.

non-package holidays and on the "other" component of tourism expenditure. These rose by 20.4% and 16.2%, respectively, in annual terms. After registering a marginal gain in the preceding quarter, spending on package holidays declined by 1.1% in the quarter reviewed.[5]

Compared with the same quarter of 2016, expenditure per capita remained practically unchanged at €1,019, as a slight shortening of the average length of stay was counterbalanced by a small increase in expenditure per night. The average length of stay decreased from 8.7 nights in the third quarter of 2016 to 8.5 in the quarter under review, whereas expenditure per night rose from €117.68 to €120.50.

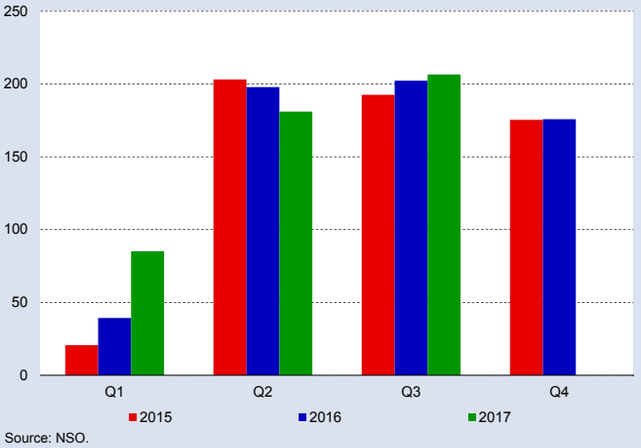
In the third quarter of 2017, the total occupancy rate in collective accommodation rose to 81.9% from 79.3% in the same quarter a year earlier (see Chart 4.5). Higher occupancy rates were recorded in the two-star, three-star and the "other establishments" categories. Occupancy rates in five-star hotels, and to a lesser extent, in four-star establishments declined on the same quarter a year earlier.

**Chart 4.5**
**AVERAGE OCCUPANCY RATES IN THE THIRD QUARTER**
*(per cent)*




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

**Chart 4.6**
**CRUISE LINER PASSENGERS**
*(thousands)*




Source: NSO.

In the third quarter of 2017, the number of cruise liners visiting Malta amounted to 99, seven less compared with a year earlier. The number of foreign cruise liner passengers however increased to 206,541 from 202,234 a year earlier (see Chart 4.6). Thus in the quarter under review, cruise liner passengers increased by 2.1% on a year earlier.

## The capital account

Net inflows on the capital account amounted to €5.0 million during the quarter under review, €4.2 million more than in the same quarter of 2016 (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. Movements in these funds were also a key factor behind the increase measured on a four-quarter moving sum basis. In the year to September 2017, capital inflows totalled €130.2 million, up from €51.0 million on a year earlier.

[5] Non-package holiday expenditure is subdivided into spending on accommodation and travel fares.

# 5. GOVERNMENT FINANCE

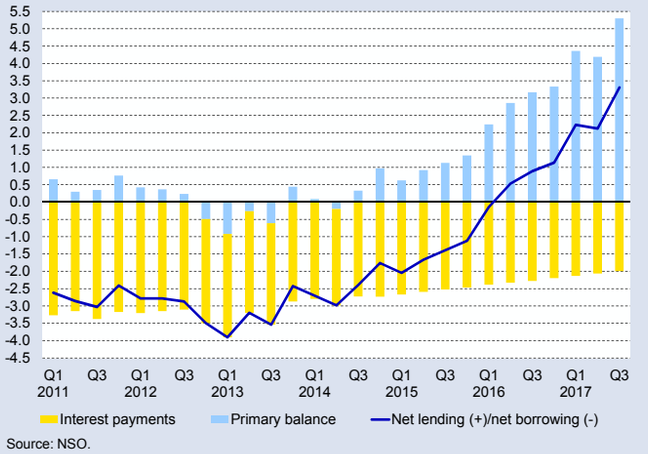
*During the third quarter of 2017, the general government surplus increased significantly when compared with the corresponding period a year earlier. This occurred as the rise in government revenue was more pronounced than that in government expenditure. When measured as a four-quarter moving sum, the general government surplus reached 3.3% of gross domestic product (GDP) in September 2017, an increase of 1.2 percentage points when compared with the second quarter of the year. General government debt as a share of GDP, decreased to 54.9% at the end of September, down from the 56.5% at the end of June.*

## General government

### *General government surplus widens*

During the third quarter of 2017, the general government surplus increased considerably. Its ratio to GDP, measured as a four-quarter moving sum reached 3.3% and led to a 1.2 percentage points increase over the surplus registered in the second quarter of the year. These developments were mainly the result of an improved primary balance, which excludes interest payments from government expenditure, although a slight reduction in interest payments also contributed. While the primary balance-to-GDP ratio, measured on the same basis increased by 1.1 percentage points over the previous quarter, the share of interest payments in GDP declined by 0.1 percentage point to 2.0% (see Chart 5.1).

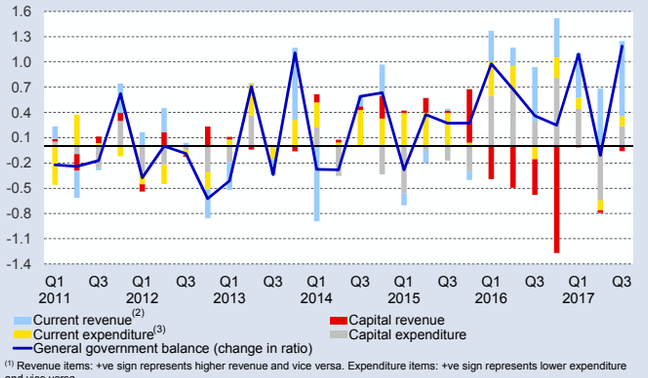
**Chart 5.1**
**GENERAL GOVERNMENT BALANCE**
*(four-quarter moving sums; % of GDP)*




Source: NSO.

When measured as a four-quarter moving sum, the improvement in the general government balance between the second and third quarter was driven by an increase in the share of current revenue in GDP. The latter maintained its upward trend registered in previous quarters, and rose by 0.9 percentage point to 40.6% (see Chart 5.2). Lower capital and current expenditure-to-GDP ratios also had a positive

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




[1] Revenue items: +ve sign represents higher revenue and vice versa. Expenditure items: +ve sign represents lower expenditure and vice versa.
[2] The term 'current revenue' represents most tax revenue as well as income from investments and sales. 'Capital revenue' mainly represents capital taxes and grants received.
[3] The term 'current expenditure' mainly represents spending on wages, social benefits and operational and maintenance expenses. 'Capital expenditure' mainly represents spending on investment and capital transfers.

Sources: NSO; Central Bank of Malta.

impact on the general government balance. Meanwhile, the share of capital revenue in GDP declined by 0.1 percentage point.

In level terms, the general government surplus reached €154.4 million in the third quarter, an increase of €131.4 million over the surplus registered in the same quarter of 2016. This was the result of government revenue outpacing expenditure, in particular primary expenditure. In fact, the primary surplus grew by €128.8 million to reach €207.8 million.

### *Revenue increases driven mainly by higher tax inflows*

Government revenue grew by €189.2 million, or 19.5%, when compared with the third quarter of 2016, reaching €1,159.2 million. Growth in revenue was mainly driven by increases in tax inflows (see Table 5.1). The share of current taxes on income and wealth, and taxes on production and imports in total revenue rose by 2.4 and 0.6 percentage points respectively (see Table 5.2). Although inflows from social contributions and "other" revenue increased in the period under review, they rose by less than the increase in total revenue. Consequently, their share in total revenue declined. Meanwhile, the share of capital and current transfers declined by 0.4 percentage point.

In level terms, current taxes on income and wealth registered the highest overall increase. They rose by €91.3 million over the same quarter of 2016, on the back of favourable economic conditions

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

| | 2016 | | 2017 | | | Change 2017Q3-2016Q3 | |
|---|---|---|---|---|---|---|---|
| | Q3 | Q4 | Q1 | Q2 | Q3 | Amount | % |
| **Revenue** | **970.0** | **1,162.6** | **974.2** | **1,081.0** | **1,159.2** | **189.2** | **19.5** |
| Taxes on production and imports | 318.2 | 376.7 | 332.3 | 317.7 | 387.0 | 68.7 | 21.6 |
| Current taxes on income and wealth | 324.7 | 409.9 | 300.3 | 404.2 | 416.0 | 91.3 | 28.1 |
| Social contributions | 152.5 | 178.8 | 165.3 | 168.8 | 172.8 | 20.3 | 13.3 |
| Capital and current transfers receivable | 19.2 | 33.1 | 23.7 | 16.1 | 18.3 | -0.9 | -4.7 |
| Other[1] | 155.3 | 164.1 | 152.6 | 174.2 | 165.1 | 9.8 | 6.3 |
| **Expenditure** | **947.0** | **1,033.9** | **927.7** | **1,059.3** | **1,004.8** | **57.8** | **6.1** |
| Compensation of employees | 299.5 | 292.7 | 309.2 | 318.7 | 321.5 | 22.1 | 7.4 |
| Intermediate consumption | 148.6 | 200.4 | 157.2 | 194.2 | 193.9 | 45.3 | 30.5 |
| Social benefits | 258.1 | 285.3 | 277.5 | 284.6 | 279.1 | 20.9 | 8.1 |
| Subsidies | 39.9 | 32.9 | 33.6 | 24.9 | 32.3 | -7.5 | -18.9 |
| Interest | 56.0 | 54.1 | 50.8 | 53.3 | 53.4 | -2.6 | -4.7 |
| Other current transfers payable | 58.2 | 67.9 | 41.2 | 62.1 | 54.0 | -4.1 | -7.1 |
| Gross fixed capital formation | 60.6 | 88.0 | 50.9 | 66.1 | 57.1 | -3.5 | -5.7 |
| Capital transfers payable | 27.1 | 13.4 | 7.0 | 57.2 | 13.5 | -13.5 | -50.0 |
| Other[2] | -0.8 | -0.8 | 0.3 | -1.7 | 0.0 | 0.8 | - |
| **Primary balance** | **79.0** | **182.9** | **97.3** | **75.0** | **207.8** | **128.8** | **-** |
| **General government balance** | **23.0** | **128.7** | **46.5** | **21.7** | **154.4** | **131.4** | **-** |

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

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

| | 2016 Q3 | 2017 Q3 | Change |
|---|---|---|---|
| **Share in total revenue** | | | |
| Taxes on production and imports | 32.8 | 33.4 | 0.6 |
| Current taxes on income and wealth | 33.5 | 35.9 | 2.4 |
| Social contributions | 15.7 | 14.9 | -0.8 |
| Capital and current transfers receivable | 2.0 | 1.6 | -0.4 |
| Other[1] | 16.0 | 14.2 | -1.8 |
| **Share in total expenditure** | | | |
| Compensation of employees | 31.6 | 32.0 | 0.4 |
| Intermediate consumption | 15.7 | 19.3 | 3.6 |
| Social benefits | 27.3 | 27.8 | 0.5 |
| Subsidies | 4.2 | 3.2 | -1.0 |
| Interest | 5.9 | 5.3 | -0.6 |
| Other current transfers payable | 6.1 | 5.4 | -0.8 |
| Gross fixed capital formation | 6.4 | 5.7 | -0.7 |
| Capital transfers payable | 2.9 | 1.3 | -1.5 |
| Other[2] | -0.1 | 0.0 | 0.1 |

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

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

Source: NSO.

leading to higher income tax inflows. An increase in income tax collected from companies was the main contributor towards this rise.

During the period under review, taxes on production and imports maintained their upward trend and grew by €68.7 million on the same quarter a year earlier. Higher intakes from value added taxes, in line with the buoyant consumption recorded for the period, as well as an increase in inflows from duties on petroleum, contributed to this increase. Revenue generated from social contributions rose by €20.3 million, reflecting the positive labour market environment. The “other” component of income registered an increase of €9.8 million as a result of higher inflows from sales. Meanwhile, capital and current transfers’ receivable was the only revenue component which declined, as a rise in current transfers received was offset by lower grants from the EU.

### *Expenditure rises due to higher recurrent expenditure*

In the third quarter, total government expenditure rose by €57.8 million, or 6.1%, compared with the same quarter a year earlier. The composition of government expenditure shifted more towards recurrent expenditure as the overall share of recurrent expenditure items in total spending increased. The main driver towards this change was intermediate consumption, as it increased by 3.6 percentage points, offsetting a decline in subsidies, interest payments and other current transfers. The share of social payments and compensation of employees in total expenditure also increased during this period. On the other hand, the share of capital expenditure in total

expenditure declined as the share of gross fixed capital formation and capital transfers payable declined by 1.5 and 0.7 percentage points respectively.

Between July and September, intermediate consumption showed the strongest increase among all expenditure categories. It grew by €45.3 million, partly due to higher outlays on health and public administration. Compensation of employees was also on the rise, growing by €22.1 million. This was mainly driven by higher staff costs in the health and education sectors. Meanwhile, social benefits increased by €20.9 million.

During the same period, subsidies declined by €7.5 million mainly reflecting lower assistance to the film industry. Current transfers paid also declined, by €4.1 million.

Overall, capital expenditure fell by €16.2 million in the third quarter. Capital transfers payable were €13.5 million lower when compared with the third quarter of 2016. Gross fixed capital formation declined by €3.5 million as a result of lower spending on domestically-funded infrastructure projects.

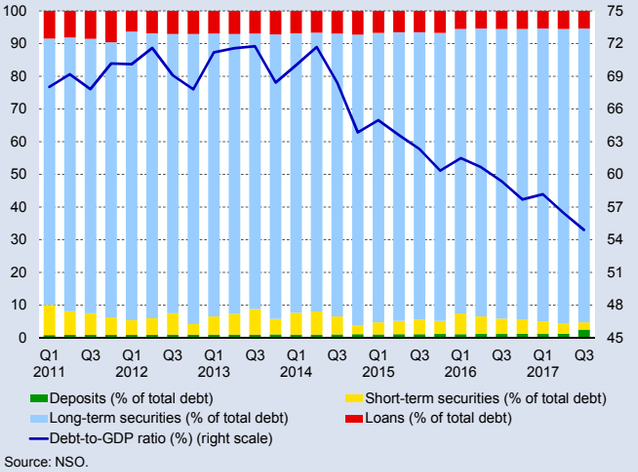
### *General government debt-to-GDP ratio falls further*

In September, the stock of general government debt amounted to €5,831.5 million, a decrease of €23.9 million when compared with June 2017. Consequently, the debt-to-GDP ratio shed 1.6 percentage points, to reach 54.9% (see Chart 5.3).

The fall in general government debt was lower than the general government surplus for the third quarter (see Chart 5.4). The difference was due to a positive deficit-debt adjustment that largely reflected an increase in deposits held by the government.

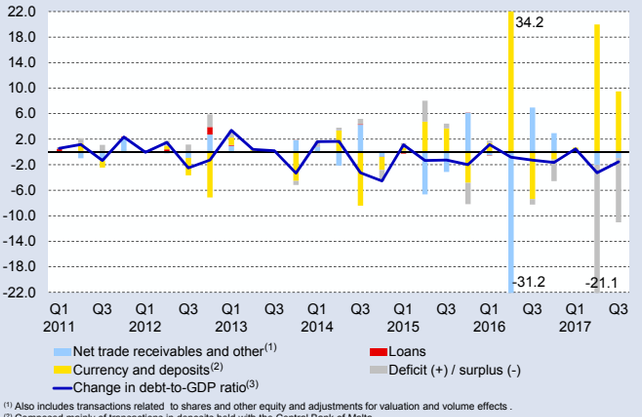
During the third quarter of 2017, the stock of long-term securities (composed of Malta Government Stocks) and short-term securities (composed of Treasury Bills) declined. Consequently, the share of long-term debt in total government debt declined by 0.1 percentage

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




Source: NSO.

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




(1) Also includes transactions related to shares and other equity and adjustments for valuation and volume effects .
(2) Composed mainly of transactions in deposits held with the Central Bank of Malta.
(3) GDP data are four-quarter moving sums.

Source: Central Bank of Malta.

point to 89.9%. The share of short-term securities fell by 1.0 percentage point to reach 2.2%. Moreover, the share of loans declined by 0.2 percentage point. On the other hand, the share of government liabilities in the form of currency and deposits increased by 1.2 percentage points. This reflects the introduction of the 62+ Government Savings bonds which were launched in September and are classified as deposits according to the ESA methodology.

# 6. MONETARY AND FINANCIAL DEVELOPMENTS

*Monetary aggregates in Malta continued to grow at a steady pace during the third quarter of 2017.[1] Residents' deposits with monetary financial institutions (MFI) operating in Malta added 7.6% in annual terms. The shift to overnight deposits persisted, in an environment of low interest rates and high liquidity. At the same time, growth in credit accelerated, supported by faster growth in credit to general government and loans to households, and a weaker drop in loans to non-financial corporations (NFC). The spread between MFI interest rates on loans and deposits widened slightly when compared to a year earlier.*

*The primary market yield on Treasury bills and the secondary market yield on long-term government bonds fell during the third quarter. Similarly, in the equity market, domestic share prices fell marginally, though they ended the quarter under review higher than a year earlier.*

## Monetary aggregates and their counterparts

The total assets pertaining to the Maltese banking system rose by €1.5 billion between June and September 2017, to €47.0 billion. This was the result of an increase in the assets of international banks, which offset a slight drop in the assets of core and non-core domestic banks.[2]

### *Maltese residents' overnight deposits continue to expand at a fast pace*

Total deposits held by Maltese residents with MFIs in Malta continued to expand during the third quarter of 2017, with the annual rate of change standing at 7.6% in September (see Table 6.1).

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

| | EUR millions | Annual percentage changes | | | | |
|---|---|---|---|---|---|---|
| | 2017 | 2016 | | 2017 | | |
| | Sep. | Sep. | Dec. | Mar. | June | Sep. |
| **Overnight deposits** | **13,091,598** | **13.3** | **13.4** | **19.3** | **18.1** | **14.2** |
| *of which* | | | | | | |
| Households | 7,360,837 | 15.4 | 17.0 | 21.6 | 20.6 | 18.3 |
| Non-financial corporations | 3,090,582 | 8.3 | 8.9 | 13.4 | 5.9 | 5.6 |
| **Deposits redeemable at notice of up to three months** | **46,429** | **-16.9** | **-15.2** | **-18.0** | **-49.5** | **-53.8** |
| *of which* | | | | | | |
| Households | 41,167 | -17.3 | -16.4 | -15.9 | -46.4 | -48.6 |
| Non-financial corporations | 1,271 | -40.9 | -49.2 | -35.6 | -83.7 | -88.1 |
| **Deposits with an agreed maturity of up to two years** | **3,195,757** | **-11.2** | **-9.3** | **-9.7** | **-8.1** | **-2.1** |
| *of which* | | | | | | |
| Households | 2,465,207 | -12.9 | -8.7 | -6.2 | -6.1 | -2.9 |
| Non-financial corporations | 275,852 | -17.8 | -20.6 | -37.0 | -4.9 | 10.8 |
| **Deposits with an agreed maturity above two years** | **1,379,800** | **8.0** | **-0.4** | **-7.0** | **-8.7** | **-15.8** |
| *of which* | | | | | | |
| Households | 1,261,311 | 7.3 | -2.4 | -9.1 | -10.8 | -16.9 |
| Non-financial corporations | 63,073 | 4.8 | 18.2 | -0.7 | 15.2 | -14.7 |
| **Total residents' deposits[(1)]** | **17,713,584** | **6.7** | **6.7** | **9.9** | **9.5** | **7.6** |

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

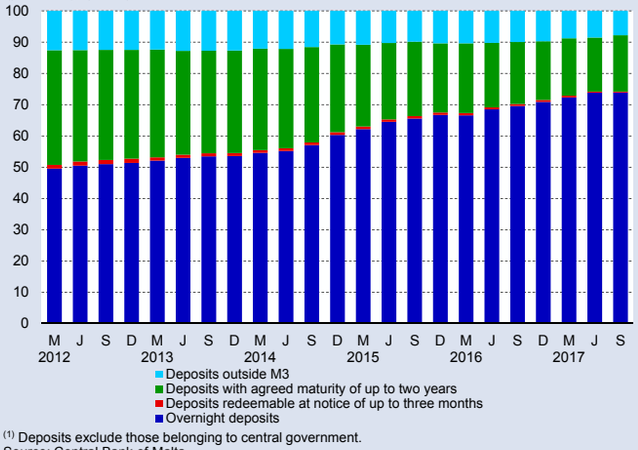
Source: Central Bank of Malta.

[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] Since March 2017, the domestically relevant banks or "core" domestic banks were APS Bank Ltd, BNF Bank plc, Bank of Valletta plc, HSBC Bank Malta plc, Lombard Bank Malta plc, and MeDirect Bank (Malta) plc.

Though slower than the rate of 9.5% registered three months earlier, growth remained strong from a historical perspective, indicating an abundance of liquidity in the context of robust economic growth as well as a continued preference for holding liquid assets in an environment of low interest rates.

**Chart 6.1**
**DISTRIBUTION OF TOTAL RESIDENT DEPOSITS[1]**
*(percentage points)*




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

Indeed, deposit growth during the third quarter remained driven by growth in overnight deposits, the most liquid component. Annual growth in this category of deposits stood at 14.2% in September, with the rate of expansion particularly strong among households. On the other hand, time deposits continued to contract. In particular, deposits with an agreed maturity of up to two years contracted by 2.1% in the year to September, while deposits with an agreed maturity of over two years shed 15.8% over the same period.

As a result, the shift away from time deposits towards overnight deposits persisted, with the share of overnight deposits in total residents' deposits standing at 73.9% in September, up from 69.6% a year earlier (see Chart 6.1). This extends the pattern of almost uninterrupted growth in this component's share in recent years. In contrast, the share of deposits with an agreed maturity of up to two years declined to 18.0%, from 19.8% a year earlier, while the share of deposits with an agreed maturity of over two years edged down to 7.8%, from 10.0% a year earlier. The share of deposits redeemable at notice of up to three months remained limited.

### *Interest rates on deposits continue to decline*

Interest rates on residents' deposits with MFIs in Malta declined further during the third quarter of 2017, with the composite rate offered to households and NFCs going down by 2 basis points to 0.40% when compared with three months earlier (see Table 6.2). This was mainly driven by a drop in rates on time deposits with maturities of up to two years. When compared with a year earlier, the composite deposit rate lost 12 basis points, reflecting the lagged pass-through of the ongoing accommodative monetary policy of the euro area.

### *Credit to residents continues to expand*

Credit to Maltese residents picked up during the third quarter of 2017, with the annual rate of change going to 2.6% in September, from 1.0% three months earlier (see Chart 6.2). This reflected developments in both components of total credit, namely credit to government and credit to other residents.

Annual growth in credit to general government rose from 0.3% in June to 1.5% in September, mainly on account of annual movements in banks' holdings of Malta Government Stocks (MGS).

**Table 6.2**
**INTEREST RATES ON DEPOSITS AND LOANS**

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

| | 2014 | 2015 | 2016 | 2016 | 2017 | | |
|---|---|---|---|---|---|---|---|
| | Sep. | Sep. | Sep. | Dec. | Mar. | June | Sep. |
| **Total deposits**[1] | **1.14** | **0.76** | **0.52** | **0.48** | **0.45** | **0.42** | **0.40** |
| *of which* | | | | | | | |
| **Overnight deposits** | | | | | | | |
| Households | 0.17 | 0.14 | 0.07 | 0.06 | 0.06 | 0.07 | 0.06 |
| Non-financial corporations | 0.18 | 0.11 | 0.08 | 0.03 | 0.03 | 0.02 | 0.03 |
| **Time deposits (less than 2 years)** | | | | | | | |
| Households | 1.85 | 1.26 | 0.79 | 0.79 | 0.79 | 0.79 | 0.78 |
| Non-financial corporations | 1.26 | 1.01 | 0.71 | 0.65 | 0.61 | 0.60 | 0.57 |
| **Time deposits (more than 2 years)** | | | | | | | |
| Households | 3.52 | 3.20 | 2.76 | 2.64 | 2.54 | 2.45 | 2.48 |
| Non-financial corporations | 2.93 | 2.55 | 2.06 | 2.03 | 1.89 | 1.89 | 1.99 |
| **Total Loans**[1] | **4.07** | **3.86** | **3.69** | **3.68** | **3.64** | **3.66** | **3.63** |
| *of which* | | | | | | | |
| Households and NPISH | 3.75 | 3.62 | 3.53 | 3.52 | 3.49 | 3.52 | 3.50 |
| Non-financial corporations | 4.46 | 4.19 | 3.92 | 3.93 | 3.87 | 3.87 | 3.83 |
| **Spread**[2] | **2.93** | **3.09** | **3.17** | **3.20** | **3.19** | **3.24** | **3.22** |
| ECB main refinancing operations rate | 0.05 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

[1] Annualised agreed rates on outstanding euro-denominated amounts belonging to households (incl. NPISH) and NFCs.

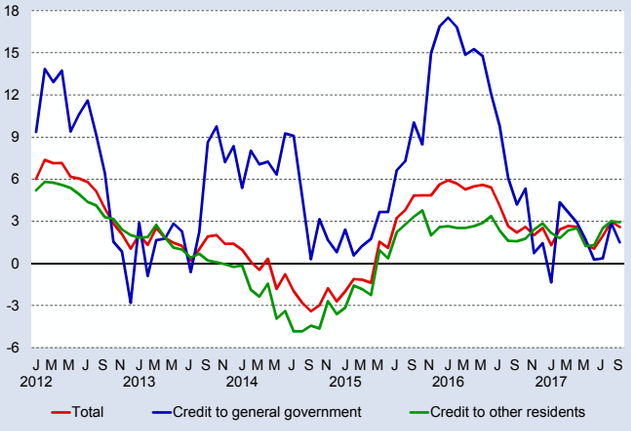
[2] Difference between composite lending rate and composite deposit rate.

Source: Central Bank of Malta.

In part, this would relate to the timing of MGS issuances and redemptions.

Similarly, growth in credit to residents other than general government accelerated compared with June, with the annual rate of change going from 1.3% to 2.9%. This was driven by loans, the largest component, whose annual growth rate rose from 1.7% to 3.5% over the period.

**Chart 6.2**
**CREDIT TO RESIDENTS OF MALTA**
*(annual percentage changes)*




Source: Central Bank of Malta.

The pick-up in loans was partly supported by continued robust growth in loans to households. Annual growth in this sector's deposits rose to 6.6% in September, from 6.0% in June (see Chart 6.3). Lending to households continued to be driven by growth in mortgage loans, which grew by 8.6% in the year to September. In contrast, consumer credit and other lending continued to contract.

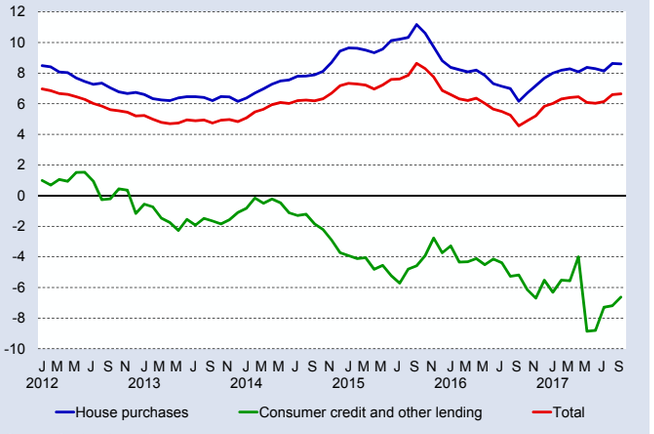
**Table 6.3**
**SECTORAL CONTRIBUTIONS TO YEAR-ON-YEAR GROWTH IN LOANS TO NFCs**
*Percentage points; annual percentage changes*

| | Total NFCs | | | | |
|---|---|---|---|---|---|
| | 2016 | | 2017 | | |
| | Sep. | Dec. | Mar. | June | Sep. |
| Accommodation and food services activities | -0.7 | -1.6 | -0.5 | -2.2 | -1.1 |
| Construction | -2.5 | -0.8 | -1.9 | -2.2 | 0.0 |
| Manufacturing | -0.3 | -0.4 | 0.5 | 0.6 | 0.3 |
| Real estate activities | 1.4 | 1.3 | 2.3 | 1.8 | 1.3 |
| Transportation and storage | -0.6 | -1.3 | -1.0 | -0.7 | -0.6 |
| Wholesale and retail trade | -0.4 | -0.9 | -0.2 | -0.1 | -0.4 |
| Other | 1.3 | -0.9 | -1.8 | -1.6 | -1.1 |
| **Total** | **-1.8** | **-4.5** | **-2.6** | **-4.4** | **-1.6** |

Source: Central Bank of Malta.

At the same time, loans to NFCs contracted at a slower pace, with the annual rate of growth going to -1.6% from -4.4% three months earlier. A sectoral breakdown suggests that this acceleration was largely driven by weaker contractions in loans to the accommodation and food services and to the construction sectors (see Table 6.3). The decrease in loans to NFCs contrasts with the current pace of economic activity, and could reflect the increased use of internal funding and capital markets by companies, a shift away from capital-intensive industries, and an overall shift in banks' loan portfolios towards households and away from NFCs.[3]

**Chart 6.3**
**LOANS TO HOUSEHOLDS**
*(annual percentage changes)*




Source: Central Bank of Malta.

## *Interest rates on loans edge down*

Interest rates on loans to Maltese residents dropped slightly during the quarter under review, with the composite rate paid to resident MFIs by households and NFCs going down by 3 basis points to 3.63% (see Table 6.2). When compared with a year earlier, loan rates were down by 6 basis points. Even though both lending rates charged to households and NFCs declined, lending rates to NFCs remained above those charged to households, possibly reflecting different assessments of credit risk.

The spread between the composite lending rate and the deposit rate stood at 322 basis points at the end of the third quarter. When compared with a year earlier, this signifies a widening of 5

[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.

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 (see Table 6.2).

### *Bank Lending Survey indicates unchanged credit standards*

According to the Bank Lending Survey (BLS), which was conducted in September 2017, respondent banks reported unchanged credit standards, terms and conditions for NFCs during the third quarter of the year. Likewise, no changes for the fourth quarter were expected. The assessment of demand was mixed. Credit demand in the fourth quarter of 2017 was expected to remain stable.

The majority of banks participating in the September BLS reported unchanged standards, terms and conditions for credit for house purchases, consumers and other lending. Only one bank reported some easing in credit standards for house purchases in the third quarter. With regards to the demand for credit for house purchases, half of the respondents reported unchanged demand, while the remaining half registered an increase. Similarly, the demand for consumer credit and other lending was unchanged during the third quarter, with the exception of one bank, which experienced an increase. Going forward, participating banks generally expected credit standards and the demand for credit across households to remain stable during the fourth quarter.

The majority of banks participating in the September 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 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 fourth quarter.

Banks were also asked to gauge the impact of the expanded asset purchase programme (APP), including the announcement of the corporate sector purchase programme on their assets and liquidity. Half of the participating banks reported an unchanged position in their total assets, capital and funding conditions. One bank reported an improvement in its overall liquidity position owing to an increase in deposits from enterprises and households, though its overall profitability deteriorated slightly. A similar decline in profitability was reported by another bank. For the six months ahead, the majority of banks expected unchanged assets, capital and funding conditions. One bank expected an improvement in its liquidity position and the financing conditions of equity issued, but a slight deterioration in its profitability. Similarly, another bank expected a decline in its overall profitability.

Respondent banks were also asked to state the purpose for which they used the additional liquidity arising from the ECB's expanded asset purchase programme. In this regard, the majority of banks said that increased liquidity had a negligible impact on their operations. Nevertheless, one bank reported that additional liquidity from an increase in customer deposits substituted for borrowing through the interbank market, while also being used to purchase marketable assets. These were expected to continue in the following six months. Moreover, the ECB's APP did not affect the reporting banks' credit standards. Half of the reporting banks felt that the ECB's negative deposit facility rate did not have an impact on their lending to households and for house purchases. The remaining banks however, reported some reductions in interest rates or higher lending volumes to selected group of customers.

## The money market

### *Domestic money market interest rates fell slightly*

During the third quarter of 2017 the ECB maintained its key interest rates unchanged. In euro area money markets, the three-month EURIBOR also stood unchanged from the rate prevailing at the end of June, at -0.33%. Meanwhile, in the domestic primary market, the yield on three-month Treasury bills fell slightly to -0.36% at the end of August 2017, from -0.34% at the end of June.[4]

**Chart 6.4**
**MONEY MARKET INTEREST RATES**
*(percentages per annum; end of month rates)*


Sources: Central Bank of Malta; ECB.

The secondary market yield on three-month German government securities, which acts as a benchmark for euro area yields, rose marginally by 2 basis points to -0.75% at the end of the third quarter 2017, from -0.77% at the end of June (see Chart 6.4). Consequently, the spread between the domestic rate and the euro area benchmark narrowed for the second consecutive quarter. At the end of September, it was 39 basis points, down from 43 basis points in June.

During the third quarter of 2017, the Government issued €100.0 million in Treasury bills, a reduction of €12.4 million on the amount of Treasury bills issued between April and June.

## The capital market

During the third quarter of 2017 the Government issued three new MGSs with a total value of €76.0 million. Over the same period four public limited companies issued €106.0 million in unsecured bonds: Mediterranean Investments Holding plc issued €40.0 million, Tumas Investments plc issued €25.0 million, Central Business Centres plc issued €6.0 million, Simonds Farsons Cisk plc issued €20.0 million, and Grand Harbour Marina plc issued €15.0 million in unsecured bonds.

In the secondary market, turnover in government bonds fell to €11.6 million during the third quarter of 2017, from €93.0 million in the previous quarter. Corporate bond turnover rose to €60.2 million from €21.6 million over the same period.

Secondary market yields on Maltese government bonds fell during the second quarter of 2017 (see Chart 6.5). The yield on five-year bonds declined by 11 basis points since the end of June, ending September at 0.19%. In contrast, the yield on ten-year bonds rose by 4 basis points to 1.32%. In the euro area, the comparable five-year yield also fell slightly, down by 5 basis points

[4] No transactions took place in the primary market during September.

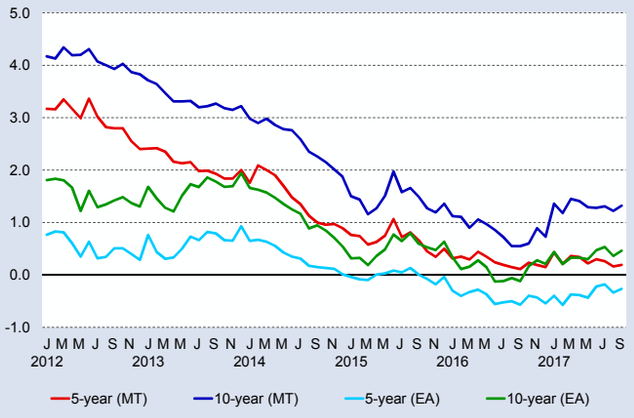
to -0.27% at end-September. The fall in the ten-year yield was marginal. The latter closed September at 0.46%, one basis point lower than three months earlier. Thus, the spread against the ten-year euro-area benchmark yield rose slightly to 86 basis points in the third quarter of 2017, from 81 basis points at the end of June.

### *MSE share index fell slightly during the third quarter of 2017*

The Malta Stock Exchange (MSE) Equity Price index, which is a measure of share prices in Malta, ended September 0.1% lower than three months earlier, but 5.1% higher on an annual basis (see Chart 6.6). Likewise, the MSE Equity Total Return Index, which accounts for changes in equity prices and dividends, fell by only 0.1% from its end-June level.

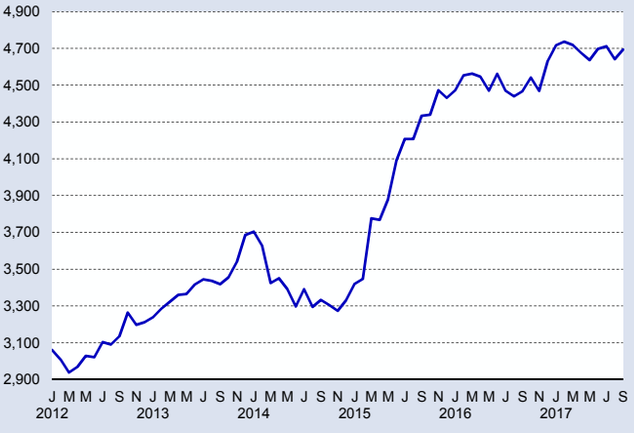
During the third quarter of 2017, equity turnover fell to €14.8 million from €18.0 million in the second quarter of 2017.

**Chart 6.5**
**GOVERNMENT BOND YIELDS**
*(percentages per annum; end of month)*




Sources: Central Bank of Malta; ECB.

**Chart 6.6**
**MALTA STOCK EXCHANGE EQUITY PRICE INDEX**
*(end of month)*




Source: MSE.